

CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI
NOTIFICATION

No. 13/2/7/2015-PM/CERC

Dated: 8th March, 2019

In accordance with the provisions of Section 178 of the Electricity Act 2003 (36 of 2003) read with Section 66 thereof and the Guidelines on import and export of Electricity issued by Ministry of Power, Government of India, the Central Electricity Regulatory Commission hereby makes the following regulations:

CHAPTER-1

PRELIMINARY

1. Short Title and Commencement

- (1) These regulations may be called the Central Electricity Regulatory Commission (Cross Border Trade of Electricity) Regulations, 2019.
- (2) These regulations shall come into force from the date of publication in the Official Gazette.

2. Definitions and Interpretation

- (1) In these regulations, unless the context, otherwise requires:
 - (a) **'Act'** means the Electricity Act, 2003 (36 of 2003);
 - (b) **'Actual Drawal'** in a time-block means electricity drawn by a buying entity measured by the interface meters;
 - (c) **'Actual Injection'** in a time-block means electricity injected by a selling entity, measured by the interface meters;

- (d) **‘Access Bank Guarantee or ABG’** means the bank guarantee which an applicant shall be required to furnish while seeking long-term access to Indian grid for cross border trade of electricity and shall also include the bank guarantee required to be furnished by the applicant in case the grant of long-term access requires augmentation of transmission system in India;
- (e) **‘Applicant’** means an entity located in neighbouring country who has been recognized as a Participating Entity as defined in these regulations;
- (f) **‘Available Transmission Capability’ or ‘ATC’** means the transfer capability, in MW, of the inter-control area transmission system available for scheduling cross-border transactions (through long-term access, medium-term open access and short-term open access) in a specific direction, taking into account the network security;
- (g) **‘Buying Entity’** means the entity which has been granted long-term access or medium-term open access or short-term open access and is purchasing electricity in accordance with these regulations;
- (h) **‘Central Electricity Authority’ or ‘CEA’** means Authority referred to in sub-section (1) of Section 70 of the Act;
- (i) **‘Central Transmission Utility’ or ‘CTU’** means Central Transmission Utility as defined in sub-section (10) of Section 2 of the Act;
- (j) **‘Commission’ or ‘CERC’** means Central Electricity Regulatory Commission referred to in sub-section (1) of Section 76 of the Act;
- (k) **‘Competent Authority’** means the authority of the neighbouring country vested with the power to accord approval(s) on matters related to cross border trade of electricity with India;

- (l) **'Connection Agreement'** means an Agreement defining technical conditions of connecting to Indian grid in the course of cross border trade of electricity;
- (m) **'Connectivity'** means the state of getting connected to the Indian grid for the purpose of cross border trade of electricity;
- (n) **'Connectivity Regulations'** means Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009, as amended from time to time or re-enactment thereof;
- (o) **'Contract Performance Guarantee'** means the irrevocable, unconditional and revolving bank guarantee submitted by the Transmission Service Provider to the Long Term Transmission Customers in terms of the Transmission Service Agreement;
- (p) **'Control Area'** means an electrical system bounded by interconnections (tielines), metering and telemetry which controls the generation and/or load within the area to maintain its interchange schedule with other control areas whenever required to do so and contributes to frequency regulation of the synchronously operating system. Each neighbouring country inter-connected with Indian Grid shall be treated as a separate control area;
- (q) **'Cross Border Trade of Electricity'** means transactions involving import or export of electricity between India and any of the neighbouring countries and shall also include transactions across India involving neighbouring countries;
- (r) **'Cross Border Customer'** means a person who has been granted long-term

access or medium-term open access or short-term open access, as the case may be, for carrying out cross border trade of electricity in accordance with these regulations;

- (s) **‘Cross Border Transmission Link’ or ‘CBTL’** means the transmission link from the pooling station within India till the pooling station of a neighbouring country, as may be specified by the Designated Authority in consultation with the Transmission Planning Agency of any of the neighbouring countries and shall include the dedicated transmission line from the generating station located within the territory of a neighbouring country getting connected with the Indian grid;
- (t) **‘Data Acquisition System’ or ‘DAS’** means a device designed to record the sequence of operation in time, of the relays, equipments, system parameters at a particular location;
- (u) **‘Dedicated Transmission System’** means the transmission system developed by a Participating Entity for transmitting electricity from a generating station located in a neighbouring country to a specified point in the Indian grid;
- (v) **‘Designated Authority’ or ‘DA’** means the authority designated by Ministry of Power, Government of India in accordance with the Guidelines;
- (w) **‘Deviation’** in a time-block for a seller means its total actual injection minus its total scheduled injection and for a buyer means its total actual drawal minus its total scheduled drawal and shall be calculated at the Interconnection point;
- (x) **‘DSM Regulations’** means Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014, as amended from time to time or any subsequent re-enactment thereof;

- (y) **‘Entity’** means a company or authority or Board or autonomous body corporate or juridical person of India or any of the neighbouring countries which proposes to participate in cross border trade of electricity;
- (z) **‘Grid Code’** means the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010, as amended from time to time or re-enactment thereof;
- (aa) **‘Guidelines’** means the Guidelines on Cross Border Trade or Import/Export (Cross Border) of Electricity issued by Ministry of Power, Government of India from time to time;
- (bb) **‘Indian Grid’** means the Inter-State Transmission System (ISTS) or Intra-State Transmission System (In-STS) or both as the case may be;
- (cc) **‘Interface Meters’** means special energy meters in accordance with the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, as amended from time to time;
- (dd) **‘Inter-State transmission system’** and **‘intra-State Transmission System’** shall have the same meaning as assigned to them under sub-sections (36) and (37) of Section 2 of the Act respectively;
- (ee) **‘Interconnection Point’** means the point of interconnection located within the territory of India for the purpose of scheduling, metering, accounting and billing of electricity in the course of cross border trade of electricity between India and any of the neighbouring countries;
- (ff) **‘Long-term Access’** means the right to use the inter-State transmission system of India for a period of 7 years or more;

- (gg) **‘Long-term Power Purchase Agreement’** means a Power Purchase Agreement for a period of 7 years or more;
- (hh) **‘Medium-term Open Access’** means the right to use the inter-State transmission system of India for a period exceeding 3 months but not exceeding 5 years;
- (ii) **‘Medium-term Power Purchase Agreement’** means a Power Purchase Agreement for a period exceeding 1 year but not exceeding 5 years;
- (jj) **‘National Load Despatch Centre’** or **‘NLDC’** means the Centre established under sub-section (45) of Section 2 of the Act;
- (kk) **‘Open Access’** within the territory of India shall have the same meaning as defined under sub-section (47) of Section 2 of the Act;
- (ll) **‘Participating Entity’** means an entity approved by the Designated Authority for the purpose of cross border trade of electricity between India and any of the neighbouring countries or any entity as designated by Government of India for import or export of power through bilateral agreement between Government of India and Government of any of the neighbouring countries;
- (mm) **‘Point of Connection charges’** or **‘PoC charges’** means the nodal or zonal charges determined using Point of Connection charging method as specified under Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges) Regulations, 2010, as amended from time to time;
- (nn) **‘Pooling Station’** means the sub-station interfacing two or more transmission lines of the same or different voltage;
- (oo) **‘Power Market Regulations’** means the Central Electricity Regulatory

Commission (Power Market) Regulations, 2010, as amended from time to time or any re-enactment thereof;

- (pp) **‘Regional Power Committee’ or ‘RPC’** means the Committee as defined in sub-section (55) of Section 2 of the Act;
- (qq) **‘Scheduled Drawal’** at any time or for time block(s) means schedule of drawal in MW or MWh ex-bus given by the concerned System Operator;
- (rr) **‘Scheduled Generation’** at any time or for any time block(s) means schedule of generation in MW or MWh ex-bus given by the concerned System Operator;
- (ss) **‘Selling Entity’** means the entity which has been granted long-term access or medium-term open access or short-term open access and is selling electricity in accordance with these regulations;
- (tt) **‘Settlement Nodal Agency’ or ‘SNA’** means the nodal agency as notified by Ministry of Power, Government of India for each neighbouring country for settlement of grid operation related charges;
- (uu) **‘Sharing Regulations’** means the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010, as amended from time to time or re-enactment thereof;
- (vv) **‘Short-term Open Access’** means open access for a period up to one (1) month at a time;
- (ww) **‘Short Term Open Access Regulations’ or ‘STOA Regulations’** means Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008 as amended from time to time or re-enactment thereof;

- (xx) **‘Short-term Power Purchase Agreement’** means a Power Purchase Agreement for duration of less than one year;
- (yy) **‘System Operator’** means the entity which shall discharge the following main functions:
- (i) Scheduling and dispatch of electricity over the Cross Border Transmission Links in accordance with grid standards specified as per the provisions of the Act;
 - (ii) Monitoring of operations and grid security of the Cross Border Transmission Links with respective neighbouring country;
 - (iii) Supervision and control over the inter-regional and or Cross Border Transmission Links as may be required for ensuring stability of the power system in coordination with the agency responsible for system operation in the concerned neighbouring country;
 - (iv) Any other functions as may be assigned by the Commission in the interest of grid security;
- (zz) **‘Time-block’** means a block of 15 minutes or any such other duration as may be specified by the Commission, for recording specified electrical parameters and quantities by special energy meters, with the first time block starting at 0000 hrs of the day;
- (aaa) **‘Total Transfer Capability’** or **‘TTC’** means the electric power that can be transferred reliably over the inter-control area transmission systems under a given set of operating conditions considering the effect of occurrence of the worst credible contingency;
- (bbb) **‘Transmission Planning Agency’** or **‘TPA’** means the Planning Agency for India or neighbouring country as specified under Regulation 4(2) of these regulations;

(ccc) **‘Transmission Reliability Margin’** or **‘TRM’** means the margin factored in the total transfer capability for ensuring secure operation of the Cross Border Transmission Link under a reasonable range of uncertainties in system conditions.

(2) Words and expressions used in these regulations and not defined herein but defined in the Act or the Connectivity Regulations or STOA Regulations or Grid Code or any other regulations specified by the Commission shall, unless the context otherwise requires, have the meanings assigned to them under the Act or the Connectivity Regulations or STOA Regulations or the Grid Code or any other regulations specified by the Commission from time to time.

CHAPTER-2

GENERAL PROVISIONS

3. Scope

(1) These regulations shall be applicable to the Participating Entities in India and the neighbouring countries which are engaged in cross border trade of electricity with India.

Provided that the entities located in India who are seeking connectivity or long-term access or medium-term open access or short-term open access to the Indian grid in the course of cross border trade of electricity between India and any of the neighbouring countries shall continue to be governed by Connectivity Regulations and the STOA Regulations.

(2) Cross border trade of electricity between India and the neighbouring country(ies) shall be allowed through mutual agreements between Indian entity(ies) and entity(ies) of the neighbouring country(ies) under the overall framework of

agreements signed between India and the neighbouring country(ies) consistent with the provisions of the prevailing laws in the respective country(ies), including:

- (i) through bilateral agreement between two countries;
- (ii) through bidding route; or
- (iii) through mutual agreements between entities; or

Provided that in case of tripartite agreements, the cross border trade of electricity across India shall be allowed under the overall framework of bilateral agreements signed between Government of India and the Governments of the respective neighbouring countries of the Participating Entities.

- (3) Notwithstanding the provisions of these regulations, anything done or any action taken or purported to have been done or taken for cross border trade of electricity with neighbouring country(ies) under any Agreement in force prior to the date of coming into force of these Regulations, shall be deemed to have been done or taken under the provisions of these Regulations and shall continue to be in place till the expiry of the said Agreements.

4. Institutional Framework

- (1) Designated Authority appointed by the Ministry of Power, Government of India shall be responsible for facilitating the process of approval and laying down the procedure for import and export of electricity. The Designated Authority shall coordinate with any authority designated by the concerned neighbouring country for all purposes stated in the Guidelines.
- (2) Transmission Planning Agency shall be responsible for planning of transmission system for the purpose of facilitating cross border trade of electricity and may coordinate with the Transmission Planning Agency of the concerned neighbouring country, wherever necessary. For India, this function shall be

discharged by the Designated Authority.

- (3) Settlement Nodal Agency shall be responsible for settling all charges pertaining to grid operations including operating charges, charges for deviation and other charges related to transactions with a particular neighbouring country in the course of cross border trade of electricity. The Settlement Nodal Agency shall be a member of the deviation pool, reactive energy pool and other regulatory pools for payment and settlement of the corresponding charges in the pool accounts of the region having connectivity with any neighbouring country.
- (4) National Load Dispatch Centre shall act as the System Operator for cross border trade of electricity between India and the neighbouring countries and shall be responsible for granting short-term open access and for billing, collection and disbursement of the transmission charges for short-term open access transactions in accordance with the Sharing Regulations.
- (5) Central Transmission Utility shall be responsible for granting long-term access and medium-term open access with respect to cross border trade of electricity between India and the neighbouring countries and for billing, collection and disbursement of the transmission charges in accordance with the Sharing Regulations.

5. Tariff Determination

- (1) Tariff for import of electricity by the Indian Entity(ies) shall be determined through a process of competitive bidding as per the Tariff Policy notified from time to time under Section 3 of the Act or through mutual agreement between the buying Indian entity and the selling entity of the respective neighbouring country under the overall framework of agreements signed between India and the neighbouring country(ies) subject to payment of the applicable charges for transmission or wheeling of electricity through the Indian grid.

Provided that in case of import of electricity from the hydro generation projects located in any of the neighbouring countries, the tariff thereof shall be determined by the Commission as per the parameters specified in the Tariff Regulations notified from time to time, only if the hydro generator approaches the Commission through the Government of the neighbouring country and is agreed to by the buying Indian entity(ies).

- (2) Tariff for export of electricity to entities of a neighbouring country by the Indian entities through long-term or medium-term or short-term agreements may be either mutually agreed under the overall framework of agreements signed between India and the neighbouring country(ies) or discovered through competitive bidding, subject to payment of the applicable charges for transmission or wheeling of electricity through the Indian grid.
- (3) Where the tariff for import or export of electricity is mutually agreed between the Government of India and the Government of any neighbouring country involving the participating entities of the two countries, the same shall be final.

Provided that the tariff for import or export of electricity already determined through Government to Government negotiations including under Inter Government Agreements (IGA) shall continue to be determined through Government to Government negotiations till the expiry of the Agreement or as may be decided by the two countries including determination of tariff through competitive bidding.

Provided further that on expiry of the Agreement, if not extended further, the tariff may be determined through the process of competitive bidding or mutual agreements or Government to Government negotiations.

- (4) The tariff for the Cross Border Transmission Link from the pooling station within India till the Indian border may be determined through a process of competitive bidding or through Government to Government negotiations or by the

Commission.

6. Trade Through Indian Power Exchanges

Any electricity trading licensee of India may, after obtaining approval from the Designated Authority, trade in the Indian Power Exchanges on behalf of any Participating Entity of neighbouring country, for the specified quantum as provided in the Approval subject to compliance with the applicable Regulations of the Commission.

CHAPTER-3

TRANSMISSION PLANNING, CONNECTIVITY AND ACCESS

7. Planning and Implementation of Cross Border Transmission Link

- (1) The Cross Border Transmission Link between India and any neighbouring country shall be planned jointly by Transmission Planning Agencies of the two countries with the approval of the respective Governments keeping in view the future need for electricity trade between India and the neighbouring country.
- (2) The manner of implementation of Cross Border Transmission Link between the pooling station within India till the Indian border and the implementing agency shall be decided by Government of India.

Provided that a participating entity having a generating station located in a neighbouring country may develop, operate and maintain the dedicated transmission system from the generating station to the pooling station within India at its own cost after obtaining all the necessary approvals from respective countries.

- (3) The Transmission Planning Agency of India in consultation with the

Transmission Planning Agency of neighbouring country shall grant access to the Participating Entities to use Cross Border Transmission Link for cross border trade of electricity.

- (4) The Cross Border Transmission Link shall not form part of the basic ISTS network for the determination of PoC charges under the Sharing Regulations.
- (5) The tariff for the Cross Border Transmission Link(s) from the pooling station within India to the Indian border as determined in terms of Clause (4) of Regulation 5 shall be payable by the Applicant(s).

8. General provisions for Connectivity, Long Term Access, Medium Term Open Access and Short Term Open Access

- (1) A Participating Entity located in a neighbouring country shall be required to seek connectivity or long-term access or medium-term open access or short-term open access, as the case may be, through separate applications.
- (2) Applications for grant of connectivity or long-term access or medium-term open access shall be made to CTU and Applications for grant of short-term open access shall be made to NLDC under these Regulations.
- (3) Except where specifically provided in these Regulations, the provisions contained in the STOA Regulations and Connectivity Regulations shall apply mutatis mutandis to the participating entities for cross border trade of electricity.

9. Application fee

- (1) The applications for connectivity, long-term access and medium-term open access shall be accompanied by a non-refundable application fee in Indian Rupees as provided below, payable in the name and in the manner to be laid down by the CTU:

S. No.	Quantum of Power to be injected/off taken into/from ISTS	Application fee(Rs. in Lakh)	
		For Connectivity /Long term Access	Medium-term open access
1.	Up to 100MW	4	2
2.	More than 100 MW and up to 500 MW	6	4
3.	More than 500 MW and up to 1000 MW	12	6
4.	More than 1000 MW	18	8

(2) Access Bank Guarantee as specified under Clause (1) of Regulation 15 of these Regulations shall be deposited by the Participating Entities along with the application for long-term access.

(3) The fee for short-term open access applications shall be governed as per the Procedure issued under STOA Regulations.

10. Application for Grant of Connectivity

(1) A Participating Entity located in neighbouring country and getting connected to the Indian grid through dedicated transmission systems for cross border trade of electricity within or across India shall be required to apply for Connectivity to the Indian grid.

(2) The Participating Entity as specified under Clause (1) above shall make an application to CTU for the grant of Connectivity to the Indian grid. In addition to the requirements specified under Connectivity Regulations, the Applicant shall furnish the following:

(a) Approval from Designated Authority with regard to eligibility of the Participating Entity for cross border trade of electricity or copy of the Inter

Government Agreement (IGA) wherever available; and

(b) Necessary Approvals for implementing the dedicated transmission system.

- (3) On receipt of the application, the CTU shall process the application and grant Connectivity as per the Detailed Procedure made under Connectivity Regulations. CTU may consult and coordinate with Transmission Planning Agency(ies)of neighbouring countries while processing the application and carry out the necessary inter-connection study as specified in the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007.
- (4) Upon grant of Connectivity, the Applicant shall sign a Connection Agreement with the CTU.

Provided that in case Connectivity is granted to the inter-State transmission system of an inter-State transmission licensee other than the CTU, an agreement as provided in the Central Electricity Authority (Technical Standards for Connectivity to the Grid), Regulations, 2007 shall be signed between the Applicant, CTU and such inter-State transmission licensee.

- (5) Grant of Connectivity shall not entitle an applicant to interchange any power with the Indian grid unless it obtains long-term access or medium-term open access or short-term open access for cross border trade of electricity.
- (6) A Participating Entity located in the neighbouring country and getting connected to the Indian grid through Cross Border Transmission Link shall not be required to apply for Connectivity to the Indian grid.

11. Application for Short-Term Open Access

- (1) The Application for short-term open access to the Indian grid and across the Indian grid for cross border trade of electricity shall be made to NLDC under these Regulations.

- (2) In addition to the requirements specified under STOA Regulations for grant short-term open access to the Indian grid, the Applicant shall furnish the following:
 - (a) Approval from Designated Authority with regard to eligibility of the Participating Entity for cross border trade of electricity or copy of the Inter Government Agreement (IGA) wherever available; and
 - (b) Approval from Designated Authority in India and Competent Authority in neighbouring country(ies) to use Cross Border Transmission Link(s) in case connectivity is not through dedicated transmission lines.
- (3) NLDC shall process the Application and grant short-term open access in accordance with the Procedure made under STOA Regulations.

12. Application for Long-Term Access and Medium-Term Open Access

- (1) The application for long-term access or medium-term open access to Indian grid and across Indian grid for cross border trade of electricity shall be made to CTU.
- (2) In addition to the requirements specified under Connectivity Regulations for grant of long-term access or medium-term open access to the Indian grid, the Applicant shall furnish the following:
 - (a) Approval from Designated Authority with regard to eligibility of the Participating Entity for cross border trade of electricity or copy of the Inter Government Agreement (IGA) wherever available; and
 - (b) Approval from Designated Authority in India and Competent Authority in neighbouring country(ies) to use Cross Border Transmission Link(s) in case connectivity is not through dedicated transmission lines; and
 - (c) Access Bank Guarantee as specified under Regulation 15 for long-term access.

- (3) CTU shall process the application and grant long-term access or medium-term open access to the Indian grid or across the Indian grid, as the case may be, in accordance with the detailed procedure notified under Connectivity Regulations except for the provisions specified herein.
- (4) Upon grant of long-term access or medium-term open access for cross border trade of electricity, the Applicant shall sign the Long Term Access Agreement or Medium Term Open Access Agreement, as the case may be, with CTU which shall contain the date of commencement of long-term access or medium-term open access, as the case may be, the point of injection of power into the Indian grid and point of drawal from the Indian grid.

Provided that in case long-term access or medium-term open access is granted to the inter-State transmission system of an inter-State transmission licensee other than the CTU, the agreement shall be signed between the Applicant, CTU and such inter-State transmission licensee.

- (5) Implementation of the transmission system augmentation, if any, for grant of long-term access shall be undertaken only after the applicant has submitted the Access Bank Guarantee specified under Clause (2) of Regulation 15.
- (6) Where tripartite agreement is signed for transaction across India involving two neighbouring countries, the transmission system augmentation in India for transmission of electricity across the territory of India shall be undertaken only after obtaining approval from Government of India and the Commission and the Access Bank Guarantee as specified under Clause (2) of Regulation 15 is submitted by the Applicant.

13. Timeframe for processing Long-Term Access and Medium-Term Open Access Application

- (1) CTU shall process the long-term access applications made under these

Regulations requiring augmentation of transmission system in the Indian Grid within one hundred twenty (120) days from the last date of the month in which application is made.

- (2) Long-term access applications where augmentation of transmission system is not required shall be processed within ninety (90) days from the last date of the month in which application is made.
- (3) CTU shall process the medium-term open access applications made under these Regulations within forty (40) days from the last date of the month in which application is made.

14. Treatment of delay in Transmission system and Generation projects

- (1) Designated Authority shall monitor the progress of generating station including units thereof in neighbouring country along with transmission system for evacuation of power for cross border trade of electricity in consultation and co-ordination with CTU of India, Transmission Planning Agency(ies) of neighbouring country(ies) and the developer of the generating station, at regular interval.
- (2) The generating company located in the neighbouring country, implementing agency(ies) and the transmission licensee(s) shall endeavour to commission the generating station, Cross Border Transmission Link(s) and the transmission system within India respectively in matching time-frame as far as practicable.
- (3) In case of delay in commissioning of generating station or unit(s) thereof in the neighbouring country beyond the scheduled date agreed in the Long Term Transmission Access Agreement, the generator shall be liable to pay full transmission charges from the date of operationalisation of long-term access.
- (4) In case of delay in commissioning of Cross Border Transmission Link,

compensation if any to the generating company or transmission licensee or both, as the case may be, shall be as decided by the respective Governments.

- (5) In the event of delay by the transmission licensee in commissioning of transmission system within India beyond its scheduled date and the generating company is ready with its generating station or unit(s), the transmission licensee shall pay transmission charges to generating company proportionate to commissioned generation capacity in case no alternative arrangement is made by the CTU.

Provided that in case of non-payment of transmission charges by the transmission licensee to the generating company, such charges shall be recovered by the CTU from the Contract Performance Guarantee furnished by the transmission licensee and paid to the generating company.

15. Access Bank Guarantee

- (1) An Applicant seeking long-term access for cross border trade of electricity shall be required to furnish to the CTU, along with the application, an Access Bank Guarantee valid for five (5) years from the date of operationalization of long term access, for an amount of INR Rs. Five (5) Lakhs/MW corresponding to the quantum of long-term access sought.
- (2) In case the grant of long-term access requires augmentation of transmission system in India, the CTU shall intimate the cost of augmentation within ninety (90) days from the date of the month in which the application is made and the Applicant shall furnish a fresh Access Bank Guarantee valid for five (5) years for an amount equivalent to the cost of such augmentation within one (1) month of intimation of the cost of augmentation by CTU.

Provided that on receipt of the Access Bank Guarantee in pursuance to above, CTU shall return the Access Bank Guarantee submitted in terms of Clause (1).

- (3) The Cross Border Customer who has been granted long-term access may approach CTU and seek permission to exit prior to the award of contract for execution of transmission system by the transmission licensee. All such requests shall be considered and decision communicated to the applicant not later than thirty (30) days from the date of the request.

Provided that where exit is permitted, the CTU may encash Rs. 20 lakhs from the Access Bank Guarantee submitted in terms of Clause (1) or Clause (2), as the case may be, and return the balance amount to the Cross Border Customer.

- (4) If a Cross Border Customer relinquishes Transmission Access granted under these Regulations after the award of the contract for execution of transmission system and before operationalization of long-term access, Access Bank Guarantee shall be encashed by the CTU.
- (5) In case there is delay in commissioning of the generating station and associated dedicated transmission system beyond the timelines agreed in the Long Term Transmission Access Agreement, and long-term access has been operationalized, the transmission charges if not paid by the generator as provided in Clause (3) of Regulation 14, shall be recovered by CTU by encashing the Access Bank Guarantee submitted in terms of Clause (1) or Clause (2), as the case may be.
- (6) If a Cross Border Customer relinquishes Transmission Access granted under these Regulations after operationalization of long term access, Access Bank Guarantee submitted in terms of Clause (1) or Clause (2), as the case may be, shall be encashed by the CTU subject to Clause (7) of this Regulation.
- (7) The quantum of Access Bank Guarantee submitted in terms of Clause (1) or Clause (2), as the case may be, shall be progressively reduced each year after the generating company begins to avail long term access corresponding to one fifth of its total value. On completion of each year, one fifth of the value of Access

Bank Guarantee shall be returned to the Applicant each year up to fourth year and one-fifth of the Access Bank Guarantee shall be retained upto twelfth year of the long term access as a security towards relinquishment charges. The Applicant shall submit revised Access Bank Guarantee accordingly.

16. Operationalisation of Long-Term Access

- (1) The operationalisation of long-term access for cross border trade of electricity shall start from the date indicated in the Long Term Transmission Access Agreement or from the availability of the transmission system for operationalisation of long-term access, whichever is later and the liability of payment of transmission charges shall begin from this date.
- (2) Where the operationalisation of long-term access is contingent upon commissioning of several transmission lines or systems and only some of the transmission lines or elements have been declared under commercial operations, long-term access to the extent which can be operationalized without affecting the security and reliability of the Indian Grid may be permitted for which the Long Term Transmission Access customer shall pay the transmission charges for the quantum of long-term access operationalized.
- (3) The Cross Border Customer shall submit certificate regarding Commercial Operation declaration of the generating station or transmission system as required under Grid Code.

17. Metering Arrangements

- (1) Interface Meters (Main Meter, Check Meter and Standby Meter) shall be installed at both the ends of the Cross Border Transmission Link in accordance with Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 and amendments thereof.

- (2) Before flow of electricity on the Cross Border Transmission Link, Transmission Planning Agencies of both the countries shall confirm the availability of Main Meter, Check Meter and Standby Meter to System Operator of respective country.
- (3) Interface Meters as specified in Clause (1) above, shall be open for inspection by any person authorized by the Transmission Planning Agencies or System Operators of the respective countries.

18. Data and Communication Facilities

- (1) Reliable and efficient voice and data communication systems shall be provided to facilitate necessary communication and data exchange, and supervision or control of the grid by the NLDC or RLDC, under normal and extraordinary conditions. Such communication system must be established from generating station or concerned grid substation(s) to control room of System Operator of a neighbouring country and from there to control room of System Operator of India.

Provided that the Cross Border Transmission Link shall necessarily have reliable and efficient voice and data communication systems with the System Operators on both the sides.

- (2) All Participating Entities shall ensure that the voice and data communication facilities to telemeter power system parameters such as flow, voltage and status of switches or transformer taps etc. is installed in line with interface requirements as per the applicable Regulations of CERC. The associated voice and data communication system to facilitate voice and data flow up to appropriate data collection point on CTUs system shall be established by the concerned Participating Entities as specified by CTU in the Connection Agreement.

19. System Recording Instruments

Recording instruments including Data Acquisition System/Disturbance Recorder/Event Logging Facilities/Fault Locator (including time synchronization equipment) shall be provided by all Participating Entities and shall always be kept in working condition in the Indian grid and transmission system of the neighbouring country for recording of dynamic performance of the system.

20. Reactive Power Compensation

- (1) Reactive Power compensation and/or other facilities shall be provided by Participating Entities connected to Indian grid as far as possible in the low voltage systems close to the load points thereby avoiding the need for exchange of Reactive Power to/from Indian grid and to maintain voltage within the specified range.
- (2) The Participating Entities already connected to the grid shall also provide additional reactive compensation as per the quantum and timeframe decided by respective Regional Power Committee(s) in consultation with NLDC. The Participating Entities shall provide information to Regional Power Committee(s) and NLDC regarding the installation and functioning of the reactive compensation equipment on regular basis. Regional Power Committee(s) shall regularly monitor the status in this regard.

21. Cyber Security

All Participating Entities shall have in place a cyber-security framework to identify the critical cyber assets and protect them so as to support reliable operation of the grid. NLDC shall monitor the progress in this regard.

CHAPTER-4

SYSTEM OPERATION

22. Cross border trade of electricity shall be undertaken in a manner that ensures reliable, secure and stable operation of the interconnected grid and does not jeopardize grid security at any point of time. For purposes of cross border trade of electricity, all grid operation related provisions shall be applicable as per the prevailing regulations of the Commission.

23. System Security Aspects

(1) The interconnection between India and the neighbouring country shall be monitored and controlled by the respective System Operators of the two countries, with proper coordination.

(2) No part of the Cross Border Transmission Link shall be isolated from the rest of the system, except,

a) Under an emergency, and conditions in which such isolation would prevent a total grid collapse and/or would enable early restoration of electricity supply; or

b) For safety of human life; or

c) When serious damage to a costly equipment is imminent and such isolation would prevent it; or

d) When such isolation is specifically instructed by the System Operator(s) of either of the two Countries through specific messages exchanged to this effect.

(3) Restoration of the cross border interconnection shall be carried out as soon as the conditions permit it. The restoration process shall be supervised by respective country's System Operator.

(4) Provision of protection and relay settings shall be coordinated periodically by the

Transmission Service Providers of both countries. These settings would be periodically reviewed as and when network configuration changes at either of the ends. If necessary, the respective countries may also put into place System Protection Schemes (SPS) to take care of any contingencies.

- (5) The Control Centres of the System Operators and the Substation Control Rooms at either ends of the Cross Border Transmission Link shall be manned by adequate and trained manpower at all times to facilitate round the clock operation of the cross border interconnections.
- (6) Operational planning including outage plan shall be carried out by NLDC and its counterpart in the neighbouring country for secure and reliable operation of the Cross Border Transmission Link.
- (7) A system of exchanging 'operational codes' shall be evolved and used for exchanging any operating instructions between the System Operators of both the countries.

24. Declaration of Transfer Capability

Total Transfer Capability (TTC), Transmission Reliability Margins (TRM) and Available Transfer Capability (ATC) for the cross border trade of electricity shall be assessed in advance by System Operators in India and the concerned neighbouring country and lower of the two values of ATC assessed by the two countries shall be considered for allowing cross border trade of electricity.

Provided that NLDC may revise TTC and ATC due to change in anticipated network topology or change of anticipated generation or load at any of nodes giving reason for such changes.

25. Scheduling

- (1) The following procedure shall be followed for scheduling and despatch of cross border trade of electricity transactions between India and the respective neighbouring country:
 - (a) Scheduling of electricity shall be carried out between the buying entity and selling entity as per agreed quantum in the contracts.
 - (b) Scheduling shall be carried out for each 15-minute time block or such other duration as may be notified subsequently.
 - (c) Transmission System losses declared on weekly basis shall be borne in kind by the buying entity or the selling entity, as the case may be, as per the quantum declared by the concerned System Operator of India or the neighbouring country.
- (2) The selling entity or the buying entity, as the case may be, shall inform their requisitions to the Settlement Nodal Agency in accordance with the procedure specified as per Part - 6 on Scheduling and Despatch Code of Grid Code.
- (3) Settlement Nodal Agency shall co-ordinate with System Operators of respective neighbouring countries for scheduling of cross border transactions and revisions during the day of operation.
- (4) In case of multiple participants having cross border transactions the net schedule at delivery point shall be arithmetic sum of individual schedules for each transaction.

26. Metering, Energy Accounting & Settlement

- (1) The Energy Accounting for all the electricity imported from a neighbouring country to India or exported from India to a neighbouring country shall be carried

out on a net basis for each country by the concerned Regional Power Committee(s) (RPC(s)) in India.

- (2) The Settlement Nodal Agency shall be a member of the Regional Deviation Pool Account acting on behalf of the selling entity or buying entity of the neighbouring country. In case a neighbouring country is connected to more than one region of India, Settlement Nodal Agency shall be member of respective Regional Deviation pool.
- (3) The Settlement Nodal Agency shall pay or receive charges on account of deviation to or from Regional Deviation Pool maintained by NLDC as per Deviation Pool account issued by Regional Power Committee. The Settlement Nodal Agency shall settle the same with the selling entity or buying entity of the neighbouring country, as the case may be.
- (4) Reactive Energy Charges shall be paid by the Settlement Nodal Agency in accordance with Grid Code, and the said charges shall be collected from the selling entity or buying entity of the neighbouring countries, as the case may be.
- (5) Weekly meter readings (import or export in terms of MWh and MVARh) for actual injection or drawl by entities located in neighbouring country shall be provided to the concerned RLDC(s) or NLDC through Settlement Nodal Agency by Tuesday noon for the previous week so as to facilitate energy accounting.
- (6) The charges for deviation from schedule at the inter-connection point shall be as per the DSM Regulations in India. The segregation of charges within the neighbouring country shall be carried out by the agency designated by the concerned neighbouring country.
- (7) All payments shall be settled by the parties through the Settlement Nodal Agency as per timeline specified in the DSM Regulations.

27. Curtailment of Cross Border Electricity Trades in case of Contingency

- (1) When for the reasons of transmission constraints or in the interest of grid security, it becomes necessary to curtail power flow on a transmission corridor; the transactions already scheduled may be curtailed by the NLDC.
- (2) Subject to provisions of the Grid Code and any other regulations specified by the Commission, the short-term open access shall be curtailed first followed by the medium-term open access, which shall be followed by the long-term access.

Provided that amongst the grantees of access of a particular category, curtailment shall be carried out on pro-rata basis.

- (3) In case of curtailment of the approved schedule by NLDC, transmission charges shall be payable on a pro-rata basis in accordance with the curtailed schedule.

Provided that operating charges shall not be revised in case of curtailment.

28. Event Information

- (1) Events like tripping of elements impacting the electricity flow across the Cross Border Transmission Link, complete or partial blackout or any other such incidents affecting the grid operations would be reported by the concerned System Operator of India to the System Operator of the neighbouring country and vice versa.
- (2) A written communication shall be exchanged between the respective System Operators covering the date and time of the event, location, plant or equipment affected and any other relevant detail (for example, Flags, disturbance recorder and sequence event recorder output) as may be necessary.

29. Coordination Between System Operators

The System Operator of India (NLDC) and its counterpart in the neighbouring country shall hold six-monthly operational coordination meetings to discuss various aspects associated with the operation of the cross border interconnection(s) including any protection and commercial related issues.

CHAPTER-5

PAYMENT OF CHARGES AND PAYMENT SECURITY MECHANISM

30. Payment of Transmission charges and other charges

- (1) PoC injection charges or PoC withdrawal charges for delivery of electricity at the pooling station within India shall be governed as per provisions of Sharing Regulations.
- (2) Settlement Nodal Agency shall put in place a suitable payment security mechanism for charges to be collected by it.
- (3) Taxes, cess, statutory duties and levies shall be payable by the Cross Border Customers as per the applicable laws of India.

31. Transmission Losses

In line with the provisions of Regulation 6.5 of Scheduling and Despatch Procedure of Grid Code and Regulation 6 on Application of losses while scheduling of contracts of the Procedure for sharing of ISTS losses, the transmission losses shall be shared as per the following methodology:

- (a) Withdrawal PoC losses as applicable shall be applied at the interface.
- (b) Injection PoC losses of respective injection grid shall be applied at the interface.

- (c) Net schedule at Indian end of the Cross Border Transmission Link shall be arrived at after applying injection PoC loss of the concerned injection zone and withdrawal PoC loss.

32. System Operation Fees and Charges

- (1) On behalf of the entities in neighbouring countries, the Settlement Nodal Agency shall pay the Fees and Charges of the System Operator in India as per Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2009 or any subsequent enactment thereof.
- (2) Settlement Nodal Agency shall register itself as a user of concerned System Operator and shall pay the registration charges as per CERC Regulations.
- (3) Any selling entity or buying entity in India proposing to sell or buy electricity from or to the neighbouring country shall make payments to the Settlement Nodal Agency for fees & charges of System Operation in India.

33. Payment Security Mechanism for Transmission Charges

- (1) The Cross Border Customer shall be liable to establish payment security mechanism for payment of transmission charges and various grid related charges.
- (2) The Cross Border Customer shall establish payment security towards transmission charges and grid related charges at least ninety (90) days prior to the intimated date of commencement of Transmission Access which shall include the following for availing long-term access and medium-term open access:
- (a) An irrevocable, unconditional and revolving Letter of Credit in favour of the Central Transmission Utility through a bank as specified in Regulation 35 equivalent to two point one(2.1) times the average monthly bill amount

- towards transmission charges with a validity of 1 year.
- (b) An irrevocable, unconditional and revolving Letter of Credit in favour of the Settlement Nodal Agency of India through bank as specified in Regulation 35 equivalent to two point one (2.1) times the average monthly bill amount towards grid related charges with a validity of 1 year.
- (3) In case of default of payment of Transmission Charges and other Grid related charges, the Cross Border Customer shall be denied access to the Indian Grid till discharge of its dues.

CHAPTER-6

MISCELLANEOUS

34. Dispute Settlement and Resolution mechanism

- (1) The disputes in relation to the cross border trade of electricity within the Indian territory shall be settled as per the provisions of Electricity Act, 2003.
- (2) Disputes involving entities of separate countries may be resolved mutually by the participating entities within a period of 60 days from the date of raising of the dispute.
- (3) In case the dispute remains unresolved even after sixty (60) days from the date of raising of the dispute, the same shall be attempted to be mutually resolved at the Government level.
- (4) In case the dispute still remains unresolved, it shall be settled through the International Arbitration Centre as may be mutually acceptable to the parties to the dispute.

35. **Bank details**

Bank Guarantees, Letter of Credit or any other payment security or payment required to be provided under these regulations shall be furnished by the Applicant or the Cross Border Customer in Indian Rupees from a Nationalized Bank of India or from a bank in the concerned neighbouring country which shall be confirmed by a Nationalized Bank of India.

36. **Power to Relax**

The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected, relax any of the provisions of these regulations on its own motion or on an application made before it by an interested person.

37. **Power to issue directions**

If any difficulty arises in giving effect to these regulations, the Commission may on its own motion or on an application filed by any affected party, issue such directions as may be considered necessary in furtherance of the objective and purpose of these regulations.

Sd/-
(Sanoj Kumar Jha)
Secretary