# **Punjab State Power Corporation Ltd.**



# **Detailed Procedure**

# For

# **Grant of Connectivity to Open Access Applicants**

In Distribution System

## PROCEDURE FOR GRANT OF CONNECTIVITY TO OPEN ACCESS APPLICANTS IN DISTRIBUTON SYSTEM

#### **1.** OUTLINE

- 1.1. This Procedure is in accordance with the various provisions of the Punjab State Electricity Regulatory Commission (Terms and Conditions for Intra-State Open Access Regulations), 2011, as amended from time to time (hereinafter referred to as "Open Access Regulations" or "the Regulations"). In case of any contradiction of this procedure with provisions of the Regulations, provisions of the Regulations shall prevail.
- 1.2. This Procedure shall apply to the Applications made by the Applicants (for sale to 3<sup>rd</sup> party/wheeling for Captive use under Open Access) who are seeking grant of Connectivity to the distribution system (distribution lines and associated facilities with such lines), received by the Distribution Licensee (Discom) i.e. Punjab State Power Corporation Ltd (hereinafter referred to as "PSPCL"). This procedure shall come into effect from the date of publication of this Procedure by PSPCL.
- 1.3. Application for grant of connectivity to distribution system (at 66 kV or below voltage level) can be made by an Applicant (as defined in the regulations, except trading licensee) e.g.
  - 1.3.1. A generating station (including RE (Renewable Energy)/ NRSE (New & Renewable Sources of Energy) generators), who wants to inject power in the Distribution System for Sale to 3<sup>rd</sup> party/ wheeling for captive use under open access.
  - 1.3.2. A Full Open Access Customer/ Consumer/ Captive User (not having any contract demand with the distribution licensee), who intends to avail supply from the Distribution System under open access.
  - 1.3.3. The applicant/ generating station mentioned at Sr.No. 1.3.1 above shall be eligible for connectivity at the voltage level, as specified hereunder:-

Sr. No	Capacity of project	Voltage Level of Connectivity		
i.	Up to 100 KW	400 Volts (3-Phase)		
ii.	More than 100 KW & upto 4 MW	11 kV		
iii.	More than 4 MW & upto 25 MW	33 kV/ 66 KV		
iv.	More than 25 MW& upto 50 MW	66 kV/ 132KV		
v.	More than 50 MW	132 kV or above		

1.3.4. The applicant/ Open Access consumer mentioned at Sr.No. 1.3.2 above shall be eligible for connectivity at the voltage level specified in the PSERC (Electricity

Supply Code and Related Matters) Regulations, 2014, as amended from time to time (hereinafter referred at as "Supply Code").

- Note: Generators selling power to the distribution licensee, In-Situ Captive generators (using captive power within same premises) and consumers of distribution licensee shall approach distribution licensee (PSPCL) for obtaining connectivity in line with the existing/ prevailing procedure as per the provisions of PSERC (Electricity Supply Code and related matters) Regulations, 2014, as amended from time to time.
- 1.4. The open access customers (generators and users), already connected to the Distribution System before approval of this procedure, shall not be required to make fresh application for connectivity for the same capacity and they shall be deemed to have already been granted connectivity(ies).
- 1.5 Separate applications for grant of connectivity shall be made for injection and drawl locations. In case of multiple injection/ drawl locations, separate applications for grant of connectivity shall be made by applicant for each location.
- 1.6. The nodal agency for grant of Long-Term Access and Medium-Term Open Access shall be the State Transmission Utility (STU) i.e. Punjab State Transmission Corporation Limited (hereinafter referred to as "PSTCL").
- 1.7. Applicant shall have to approach PSPCL at least 6 months prior to scheduled commissioning/ physical interconnection for obtaining connectivity. Further, applicant will have to sign "Connection Agreement" with PSPCL prior to the scheduled commissioning/ physical inter-connection.
- 1.8 The Scheduling Jurisdiction of all State Utilities and State entities will remain with the State Load Dispatch Centre (SLDC). SLDC shall be responsible real time monitoring, issuance of switching instructions, energy accounting and deviation settlement etc. for such State utilities/State entities.
- 1.9 The applicant shall have to comply with the provisions of Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013, PSERC (Punjab State Grid Code) Regulations, 2013, (hereinafter referred to as "State Grid Code" or "SGC") and PSERC (Terms and Conditions for Intra-State Open Access Regulations), 2011, as amended from time to time (hereinafter referred to as "Open Access Regulations" or "the Regulations").
- 1.10 Applicant shall not have dual connectivity of Distribution System and Intra-State Transmission System (hereinafter referred to as "InSTS").
- 1.11 The procedures along with requisite formats as described herein, shall be available on PSPCL i.e. "<u>www.pspcl.in</u>".

#### 2 SUBMISSION OF APPLICATION

2.1. An Application for Grant of Connectivity to distribution system should be submitted by the Open Access applicant in a sealed envelope with "Application for Grant of Connectivity" clearly marked on the envelope. The application shall be addressed to

> Chief Engineer/ PP&R, Punjab State Power Corporation Limited, Shed No. D-3, Shakti Vihar, Patiala – 147001. (E-Mail: <u>ce-ppr@pspcl.in</u>)

#### 2.2. Application Format: -

An Application for Grant of Connectivity to distribution system shall be made by the Open Access applicant as per the application format for connectivity (**FORMAT-1**), keeping in view the provisions of PSERC (terms & conditions for Intra-State Open Access) Regulations, 2011, as amended from time to time and the procedures issued under these regulations. The application shall contain details such as geographical location of the generation project, unit-wise commissioning schedule, quantum of power to be interchanged (that is the quantum of power to be injected in the case of a generating station including a captive generating plant and quantum of power to be drawn in the case of consumers,) with the Distribution System [: "Application for Grant of Connectivity"].

#### 2.3. Application Fee: -

- 2.3.1 Application shall be accompanied by a non-refundable fee as specified in the Regulations i.e. Rs. 2.00 Lakhs (+ GST @ 18% i.e. Total application fee including GST will be Rs. 2.36 Lakhs).
- 2.3.2 Application fees is to be directly credited to PSPCL Account electronically through RTGS/ NEFT or through Demand Draft as per details given below:

a)	Payee	:	Accounts Officer, Cash, PSPCL
b)	Name of Bank	:	State Bank of India
c)	Branch	:	The Mall, Patiala
d)	IFSC	:	SBIN0050012
e)	A/c No.	:	40856234200
f)	Swift Code	:	SBININBBP04

Provided that proof of payment directly credited to above PSPCL account must be attached with the application.

#### 2.4. Information required with the application: -

- 2.4.1 In line with Section 4.3 (i) of State Grid Code, any applicant seeking to establish newor modified arrangements for connection to and/or use of the distribution system shall submit the following report, data and undertaking along with the application and processing fee to the Discom (PSPCL): -
  - (a) report stating purpose of proposed connection and/or modification, connection site, description of apparatus to be connected or modification to apparatus already connected and beneficiaries of the proposed connection;
  - (b) construction schedule and target completion date (not earlier than 6 months from the date of application);
  - (c) Copy of Registrar of Companies (ROC) letter/ Memorandum & Articles of Association certifying name & address of the applicant as the case may be.
  - (d) Copy of Board Resolution/ Power of Attorney of the applicant certifying Name & Signatures of the Authorized Signatory, duly certified by Company Secretary/ CA.
  - (e) The above evidences (at Sr.No. 2.4) shall be supported by a sworn in affidavit by the applicant as per the format given at **FORMAT-2:** "Undertaking".
  - (f) For special loads like arc furnaces, rolling mills etc., Real and Reactive Power values of the load with time and harmonic level.
- 2.4.2 The generating stations, applying for connectivity to Distribution System, shall also submit thefollowing information in addition to information under Sr. No. 2.4.1 above:-
  - (a) In order to assess preparedness of applicant making application for the connectivity to the Distribution System, the generator shall be required to submit along with its application (FORMAT-1 & FORMAT-2), documents in support of having initiated specific actions for project preparatoryactivities in respect of matters mentioned in (i) to (vi) below.
    - i) Site identification and land acquisition: The applicant shall inform land required for the generation project along with extent to which the same have been acquired and taken possession of. The "Requirement" of land would be considered as indicated in the proposal filed with the competent authority for seeking environmental clearances. 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. In all other cases, the applicant shall furnish documentary evidence in the form of certificate by concerned and competent revenue / registration authority for the acquisition / ownership / vesting of the land.
    - ii) **Environmental clearance for the power station:** The applicant shall have to inform status on submission of requisite proposal, for the environmental clearance, to the concerned administrative authority (first level submission).

However, Clearance must be obtained before signing of ConnectionAgreement.

- iii) **Forest Clearance (if applicable) of the land for the power station:** The applicant shall have to inform status on submission of requisite proposal, for the forest clearance, to the concerned administrative authority (first level submission). However Clearance must be obtained before signing of Connection Agreement.
- iv) **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.
- v) **Water linkage:** The applicant shall inform the status of approval from the concerned irrigation department or any other relevant authority for the quantity of water required for the power station. However, approval must be obtained before signing of Connection Agreement
- vi) The status of order placed for plant and machinery or EPS contract awarded.
- vii) Details of dedicated distribution line associated with the generating station.
- viii) Useful life of generating station:
- ix) Commissioning schedule:
  - (a) Original date of commercial operation;
  - (b) Revised date of commercial operation, if any.
- x) Commercial arrangement(s) made by the applicant:

Details of agreement(s) for purchase of electricity for startup power or backup power from any other source including distribution licensee.

- xi) Information specific to captive generating plant:
  - (1) Scheme of captive generating plant
    - (a) Entity which owns, operates and maintains the plant;
    - (b) Generating unit(s) identified for captive use;
    - (c) Generating unit(s) not identified for captive use.
  - (2) Scheme of captive use/details of captive user(s)
    - (a) Details of captive user(s) of the plant;
    - (b) Shareholding of each captive user(s) in equity, if any;
    - (c) Percentage share of consumption assigned to each captive user(s) in the aggregated electricity generated;
    - (d) Quantum of power to be transferred to each captive user(s) and the point(s) of drawl;
    - (e) Details of existing or proposed connectivity of each captive user(s) to distribution system (i.e. capacity (MW), voltage level (kV), name of 66/33/11 kV substation and name of licensee where such captive user(s) is embedded) or the point of state periphery at which power shall be delivered if captive user(s) is located outside the State.

- xii) Information specific to plant generating Non-Firm Power:
  - (a) Details of pooling station;
  - (b) Entity which owns, operates and maintains the pooling station;
  - (c) Geographical location of pooling station (nearest village/town, district, State, latitude and longitude);
- xiii) Other clearances:

The Applicant shall also provide the necessary any other approval(s)/ permission(s)/ no objection certificate(s) required from any competent authorities (concerned Dept. /local authorities, as applicable) under the law e.g.

- Forest clearance form Forest Deptt.
- TEC clearances from Energy Directorate
- CEA clearance
- NOC from local authorities /Panchayat/IPH/B&R Dept.
- Govt. Clearance for muck disposal
- Aviation clearance
- Others, if any as applicable or as decided by PSPCL
- (b) Registration Certificate from Central Electricity Authority (CEA) (mandatory for plants above 0.5 MW) as per CEA OM Dated 23.11.2020.
- (c) If required, the RE/ NRSE generators, before submitting the application for connectivity shall get itself registered with Punjab Energy Development Agency (PEDA) and furnish proof of the same.
- (d) The Wind or Solar or Wind-Solar Power Park Developers while submitting the application for connectivity shall also submit the copy of authorization certificate issued by the Central or State Government to Wind or Solar or Wind-Solar Power Park Developers, as may be applicable.
- (e) An RE/ NRSE generating station which is authorized as Lead Generator/ESS by one or more generating station(s) or ESS(s) for applying for Connectivity to the distribution system at a single connection point, will be required to submit an agreement duly signed between the Applicant and the other Generating Station(s) or ESS(s), as applicable.
- (f) An Applicant applying for grant of Connectivity at (i) a terminal bay of a sub-station already allocated to another Connectivity grantee or (ii) switchyard of a generating station having Connectivity, will be required to submit an agreement duly signed between the Applicant and the said Connectivity grantee or the generating station having Connectivity, as the case may be, for sharing the terminal bay or the switchyard and the dedicated transmission lines, if any. Similarly, Two or more Applicants applying individually for grant of Connectivity at a common terminal bay will be required to submit an agreement duly signed by such Applicants for sharing the dedicated transmission lines and the terminal bay(s).

- (g) Captive Power Plants (CPPs) while submitting the application for connectivity shall also submit the Certificate from Chartered Accountant or Company Secretary, as applicable, regarding fulfilment of Rule 3 (1) (a) (i) of Electricity Rules, 2005 i.e. not less than 26 % of ownership held by Captive user(s).
- (h) Any other relevant information required by PSPCL or to be provided by the applicant.
- 2.4.3 A Full Open Access Consumer/ Captive User applying for connectivity to distribution system, shall also submit the following information in addition to information under Sr.No. 2.4.1 above:-

In order to assess preparedness of applicant making application for the connectivity to the distribution system, the applicant shall be 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 (i) to (iii) below.

- i) Site identification and land acquisition: The applicant shall inform land required for the generation project along with extent to which the same have been acquired and taken possession of. The "Requirement" of land would be considered as indicated in the proposal filed with the competent authority for seeking environmental clearances. 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. In all other cases, the applicant shall furnish documentary evidence in the form of certificate by concerned and competent revenue / registration authority for the acquisition / ownership / vesting of the land.
- ii) **Environmental clearance (If applicable):** The applicant shall have to inform status on submission of requisite proposal, for the environmental clearance, to the concerned administrative authority (first level submission).

However, Clearance must be obtained before signing of Connection Agreement.

- iii) **Forest Clearance (if applicable):** The applicant shall have to inform status on submission of requisite proposal, for the forest clearance, to the concerned administrative authority (first level submission) However Clearance must be obtained before signing of Connection Agreement.
- iv) The status of order placed for plant and machinery or EPS contract awarded.
- V) Useful life of Premises (i.e. Commercial or Industrial Establishment) Full Open Access Consumer/ Captive User:
- vi) Commissioning schedule:
  - i) Original date of commercial operation;
  - ii) Revised date of commercial operation, if any.

#### (a) The application shall be accompanied with the following specific information along

#### with relevant documents:

#### (A) Full Open Access Consumer (Non-Captive)

- (i) Details of industrial or commercial establishment.
- (ii) Extent of use of distribution system:
  - (a) Existing demand;
  - (b) Additional demand;
  - (c) Total demand to be met through distribution system;
  - (d) Expected growth in demand in subsequent five years.

#### (iii) Details of standby supply from distribution licensee:

- (a) Contracted load;
- (b) Date of contract.
- (iv) Commercial arrangement(s):
  - (a) Details of agreement(s) for purchase of electricity from any source other than distribution licensee;
  - (b) Details of such source of power connected with distribution system and the point of drawl at which power shall be delivered if the source is located within InSTS or outside the State.
- (v) Any other relevant information required by PSPCL or to be provided by the applicant.

#### (B) Full Open Access Consumer (Captive User),

i. Details of industrial establishment.

- ii. Extent of use of distribution system by the applicant:
  - (a) Existing demand;
  - (b) Additional demand;
  - (c) Total demand to be met through distribution system;
  - (d) Expected growth in demand in subsequent five years.
- (iii) Details of back up supply from distribution licensee:
  - (a) Contracted load;
  - (b) Date of contract.
- (iv) Commercial arrangement(s) made by the applicant:

Details of agreement(s) for purchase of electricity from any source other than distribution licensee.

- (v) Scheme of captive generation and supply to captive user(s):
  - (1) Scheme of captive generating plant and inclusion of its requirement in distribution planning-
    - (a) Name of captive generating plant;

- (b) Entity which owns, operates and maintains the plant;
- (c) Geographical location of captive generating plant (i.e. nearest village/town, district, state, latitude and longitude);
- (d) Details of captive generating plant including type of prime mover (fuel base), generation voltage (kV) and step-up voltage (kV);
- (e) Generating unit(s) identified for captive use;
- (f) Generating unit(s) not identified for captive use;
- (g) Details of dedicated distribution line;
- (h) Details of existing or proposed connectivity of captive generating plant to distribution system (i.e. capacity (MW), voltage level (kV), name of 66/33/11 KV sub-station and name of licensee where such captive plant is embedded) or the point of drawl at which power shall be delivered if the plant is located in InSTS or outside the State.

(2) Scheme of captive use and information in respect to captive user(s) -

- (a) Details of captive user(s);
- (b) Shareholding of each captive user(s) (including the applicant) in equity;
- (c) Percentage share in consumption assigned to each captive user(s) (including the applicant) in the aggregated electricity generated in the plant;
- (d) Maximum quantum (MW) of power to be transferred to each captive user(s) (including the applicant) and the details of point(s) of drawl and injection;
- (e) Details of existing or proposed connectivity of each captive user(s) to distribution system (i.e. capacity (MW), voltage level (kV), name of 66/33/11 kV sub-station and name of licensee where such captive user(s) is embedded) or the point of injection at which power shall be delivered if captive user(s) is located in InSTS or outside the State.
- (vi) Captive users while submitting the application for connectivity shall also submit the Certificate from Chartered Accountant or Company Secretary, as applicable, regarding fulfilment of Rule 3 (1) (a) (i) of Electricity Rules, 2005 i.e. not less than 26 % of ownership held by Captive users in the Captive Power Plant (CPP).
- (vii) Any other relevant information required by PSPCL or to be provided by the applicant.
- 2.5 All applications received during the month shall be treated to have been made concurrently.

#### 3. CHANGES TO THE APPLICATION ALREADY MADE

- 3.1. Any material change in the location of the applicant (generation project/drawl point) or change by more than 10% quantum of power to be interchanged with the distribution system shall require filing of fresh application by the applicant and the already filed application shall be considered disposed off.
- 3.2. If the material change as per para 3.1 is done by the applicant before the grant of feasibility (except in case of bottleneck in evacuation of power pointed out by PSPCL before feasibility), 50% of the application fee shall be forfeited. Balance 50% of the application fee shall be refunded by PSPCL to the Applicant within 15 days of withdrawal of the application:
- 3.3. If the material change as per para 3.1 is done by the applicant after the grant of feasibility/ connectivity, such application shall be closed by PSPCL within a period of 15 days from the date of withdrawal and 100% of the application fee shall be forfeited. The already granted feasibility/ connectivity in such case shall stand cancelled.
- 3.4. The Applicants who have been granted Connectivity for the Generation projects based on particular renewable energy source(s) may change the generation project to be based on another renewable energy source(s) in part or full, under intimation to PSPCL (subject to the conditions mentioned at para 3.1 to 3.3 above). In such cases, PSPCL shall incorporate the necessary change in connection agreement.

## 4. GRANT OF CONNECTIVITY

- 4.1. The application shall be forwarded by the office of CE/ PP&R, PSPCL to CE/ Planning, PSPCL, for technical feasibility keeping in view the requirement of distribution system for evacuation/ drawl of the power into/ from the system.
- 4.2. On receipt of application, O/o CE/ Planning, PSPCL shall scrutinize the application keeping in view the requirement of space for bays & switchgear at PSPCL sub-station and loading conditions at sub-station. The deficiencies in the application and bottleneck in evacuation of power, if any, shall be conveyed to the applicant by the O/o CE/ Planning within 10 working days of receipt of application. The applicant shall rectify the deficiency within 10 working days thereafter, failing which the application shall be closed and returned by the office of CE/ Planning to the O/o CE/ PP&R, PSPCL. In such case, 20% of the application fees shall be forfeited and balance shall be refunded by PSPCL to the applicant within 15 days of closure of the application.
- 4.3. The application shall be considered incomplete until the deficiencies are rectified by the applicant. An incomplete Application, and/or an Application not found to be in conformity with these Procedures and Regulations, shall be liable to be rejected unless the deficiencies are rectified by the applicant within stipulated period. The date of receipt of rectified application, complete in all aspects, shall be considered as the date of receipt of application for all intents and purposes.

If any application is withdrawn before the grant of feasibility, 50% of the application fee shall be forfeited. Balance 50% of the application fee shall be refunded by PSPCL to the

Applicant within 15 days of withdrawal of the application:

- 4.4. The application shall be checked/ scrutinized by the office of CE/ Planning, PSPCL keeping in view the requirement of space for bays & switchgear at PSPCL sub-station and loading conditions at sub-station. The bottleneck, if any, in evacuation of power shall be conveyed to the applicant by the O/o CE/ Planning. The applicant shall be at liberty to change the location of its project in order to avoid such bottlenecks or may undertake to resolve the bottlenecks in evacuation of power pointed out by PSPCL at its own. The responsibility of Right of Way (RoW) shall lie with the applicant and an undertaking for the same shall be submitted by the applicant to the O/o CE/ Planning, PSPCL. The applicant shall also submit other details/ documents, if any, sought by the O/o CE/ Planning before feasibility study.
- 4.5. O/o CE/ Planning, PSPCL shall present the case before the Feasibility Clearance Committee (FCC) comprising of the following members for feasibility clearance:-
  - CE/Planning, PSPCL
  - CE/Commercial, PSPCL
  - CE/NRSE & Th (D), PSPCL
  - CE/DS (Concerned Zone), PSPCL
  - CE/TS, PSPCL
  - CE/TS, PSTCL
  - SE/Planning-2, PSPCL (Convener)
- 4.6. The FCC shall process the connectivity application after carrying out the necessary interconnection/ feasibility study as specified in the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013 and State Grid Code, and considering comments received from SLDC/ PSTCL, if any. FCC shall also check & recommend the requirement for augmentation of existing distribution system or extension in Sub-Station like control room, bays space, bus-bar system etc., if required and seek consent of applicant for such augmentation. FCC shall:

#### Either

(a) Accept the application with such modification or such conditions as may be specified by it.

Or

- (b) Reject the application for reasons to be recorded in writing in following cases:
  - If such application is not in accordance with the provisions of the Regulations/ Procedures.
  - If such proposed connection is likely to cause breach of any provision of PSPCL's License or any provision of the State Grid Code or any provision of IEGC or any criteria or covenants or deeds or regulations by which PSPCL isbound.
  - If the applicant does not undertake to be bound, in so far as applicable, by the terms of the Regulations/ State Grid Code.
  - If the applicant fails to give confirmation and undertakings according to this

procedure.

- If grant of connectivity is not technically feasible.
- 4.5 The outcome of processing of application for grant of feasibility shall be communicated by the office of CE/ Planning, PSPCL to the applicant through the office of CE/ PP&R, PSPCL, within 60 days from the receipt of application from the applicant.
- 4.6. In case of rejection of feasibility by PSPCL due to any reason mentioned at Sr.No. 4.4(b) above, the application shall be considered disposed off. In such case, the applicant shall be required to file fresh application for connectivity.

Provided that if any application is withdrawn by the applicant after the grant of feasibility, such application shall be closed by PSPCL within a period of 15 days from the date of withdrawal and 100% of the application fee shall be forfeited.

- 4.7. In case of approval of feasibility, the feasibility letter shall be issued by PSPCL (as per **FORMAT-3**) shall be valid for a period of 60 days, wherein PSPCL shall specify the name of the sub-station 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, PSPCL shall specify the point of connection and name of the line at which connectivity is to be granted.
- 4.8. In case of conflict regarding feasibility clearance between two or more developers including the cases where two or more developers apply for feasibility clearance at same substation, priority shall be given on first come first serve basis with preference to the developer who has applied first for connectivity to PSPCL.
- 4.9. The applicant shall be required to construct a dedicated line/ feeder to the point of connection to enable connectivity to the grid. Though, the applicant may request PSPCL to construct the dedicated line/ feeder on its behalf. The cost of such line and bay shall be borne by the applicant.
- 4.6. In case of augmentation of distribution system/ sub-station, the applicant shall also bear the cost of bay, breaker in the distribution licensee's sub-station and equipment for interconnection of real time data to SLDC. In case augmentation of the transmission/ distribution line feeding the substation is also required, the cost of same shall also be borne by the applicant.
- 4.7. In case the connectivity is to be granted at 33 kV or 66 kV voltage level, the applicant within 15 days of grant of feasibility, shall approach the office of CE/ TS, PSPCL seeking estimate for deposit work pertaining to connectivity infrastructure (which shall include complete line bay and related switchgear (including civil works) and its inter-connections with existing electrical system i.e. bus bar at PSPCL Sub-Station).
- 4.8. In case the connectivity is to be granted at 11 kV voltage level, the applicant within 15 days of grant of feasibility, shall approach the office of concerned CE/ DS, PSPCL seeking estimate for deposit work pertaining to connectivity infrastructure.

- 4.9. In case dedicated line/ feeder is also to be erected & commissioned by PSPCL on request of the applicant, the estimated cost for the same shall also be intimated to the applicant by the concerned PSPCL office (CE/ TS or concerned CE/ DS, as the case may be). Further, the estimate shall also include the cost of associated distribution/ transmission system (required in case of augmentation/ expansion of the existing system/ sub-station).
- 4.10. Office of CE/TS/ PSPCL or Concerned CE/ DS, PSPCL, as the case may be (depending on voltage level) shall intimate to the applicant:
  - The estimated advance amount for deposit work (including the grid connectivity charges for each bay, switchgear & interconnection facility at PSPCL substation), along with following charges:
    - estimated cost towards erection and commissioning of dedicated line/ feeder, if erected by PSPCL on request of applicant, and
    - estimated cost towards augmentation of transmission/ distribution system, if required.
  - Tentative date of grant of connectivity

Beside above, concerned PSPCL office shall indicate the broad design features such as switchyard and interconnection facility upto the point of injection into the substation of the distribution licensee and the timeframe for completion of the same. The cost of creation of these facilities shall be borne by the applicant. The applicant shall accordingly deposit the estimated advance amount to concerned PSPCL office.

- 4.11. The tentative time period for construction of connectivity infrastructure (bays, switchgear & interconnection facility) shall be 6 months from the deposit of advance amount, not including the time required for erection and commissioning of dedicated line/ feeder (if done by PSPCL on request of the applicant) or the time for augmentation or expansion of associated distribution/ transmission system, if required.
- 4.12. After successful commissioning of the infrastructure, all equipment of complete line bay and related switchgear shall become asset of PSPCL. Notwithstanding anything contained in this document, the O&M of the complete line bay and related switchgear at the receiving substation shall be done by PSPCL. However, the responsibility for O&M of dedicated line/ feeder shall lie with the applicant.
- 4.13. Applicant granted "Connectivity" with the grid at the point specified by PSPCL shall have to furnish acceptance of the terms & conditions imposed by PSPCL in feasibility letter and additional details/ data to PSPCL, including:
  - Detailed planning/ technical data, as per State Grid Code & CEA technical standards, containing
    - Survey of India topo sheet clearly marking the location of the proposed site (with Latitude, Longitude etc.)
    - Site plan in appropriate scale with the proposed location of the connection point, Generators, Transformers, Site building etc.

- Electrical Single Line Diagram (SLD) of the proposed facility detailing all significant items of plant.
- Technical connection data (including protection data) of all equipment including Generators, Transformers, Dedicated Line, Pooling Station etc.
- Information about TG/DG Set/NRSE Project already installed in the applicant's premises, if any.

Such details/ data shall be submitted before the expiry of feasibility letter issued by PSPCL, failing which the connectivity shall be considered cancelled and application fee shall be forfeited.

In case the applicant is not in possession of the final technical connection data, it may initially furnish tentative data and furnish the final data prior to signing of Connection Agreement or at least 1 (one) year prior to the physical connection.

4.14. The technical details/ data submitted by the applicant shall be sent by CE/ PP&R to the CE/ P&M, PSPCL, Ludhiana. In case of any discrepancy in the data, the same shall be intimated by PSPCL to applicant for rectification of the same. Within 30 days of submission of data, the applicant shall have to sign "Connection Agreement" with PSPCL (CE/ P&M, PSPCL, Ludhiana), prior to the physical inter-connection, as per format given at **FORMAT-4**.

The applicant shall submit following documents to the office of Chief Engineer/ P&M, PSPCL prior to signing of Connection Agreement:-

Proof of ownership or Long Term lease rights or land use rights for 100% of the land required for the capacity applied.

A sworn affidavit from the authorized person listing the details of the land and certifying total land required for the project under clear possession of the developer shall also be submitted.

• Achievement of financial closure (with copy of sanction letter and CA certification).

Sanction letter from Financial institution / Lead Lender or Proof of commitment of funds by the Company from its internal resources to be submitted as proof of financial closure.

PSPCL may extend the time for signing the Connection Agreement for a maximum period of 30 days. If the applicant fails to sign the 'connection agreement' or provide the aforementioned documents within the stipulated time period, without seeking extension, the connectivity shall be considered cancelled and application fee shall be forfeited.

Copy of the connection agreement shall be supplied by the applicant to the office of CE/ PP&R, PSPCL and CE/ SLDC, PSTCL along with copy of relevant technical data and other documents submitted by the applicant to PSPCL prior to signing of connection agreement. Brief flowchart for Grant of Connectivity to Open Access Applicants with Distribution System is given at FORMAT-5.

4.6. After connectivity of the generating station with the grid, the applicant shall submit the Copy of Single Line Diagram duly approved by PSPCL and Copy of Certificate from Chief Electrical Inspector pertaining to synchronization & commissioning of generating station to the office of CE/ PP&R, PSPCL.

## 5. INTERCHANGE OF POWER WITH THE DISTRIBUTION SYSTEM

- 5.1. The grant of connectivity shall not entitle an applicant to interchange any power with the grid unless it obtains Long Term Access (LTA), Medium Term Open Access (MTOA) or Short-Term Open Access (STOA).
- 5.2. The Applicant shall ensure that its unscheduled interchange/ deviation with the grid is only limited to inadvertent changes only and does not cause any constraint. In case of repeated instances of unscheduled interchange/ deviation with grid leading to system constraints or grid violations and continued violation of instruction of SLDC to reduce such interchange, the SLDC may report such matter to the commission (PSERC).
- 5.3. However, 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 SLDC, which shall keep grid security in view while granting such permission. Such infirm power injected into the grid by a generating station or a unit thereof, other than those based on non-conventional energy sources, the tariff of which is determined by the Commission, shall be charged at the rates for imbalance/ deviation determined by the Commission.
- 5.4. The Generating Station including Captive Generating Station will submit likely date of synchronization, likely quantum and period of injection of infirm power to the SLDC at least one month in advance.

## 6. GENERAL

- 6.1. The Grid connectivity is not transferable and it is applicable only to the applicant. Further, the grant of connectivity shall not create any right in favour of the applicant on transmission/distribution system/infrastructure.
- 6.2. The applicant shall keep PSPCL indemnified at all times and shall undertake to indemnify, defend and keep the nodal agency, 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.

- 6.3. All costs/expenses/charges associated with the application, including bank draft, bank guarantee etc. shall be borne by the applicant.
- 6.4. The applicant shall abide by the provisions of the Electricity Act, 2003, Indian Electricity Grid Code, CERC Connectivity & GNA Regulations, State Grid Code and PSERC Regulations, as amended from time to time.
- 6.5. This procedure aims at easy and pragmatic disposal of applications made for Connectivity to Distribution System. However, some teething problems may still be experienced. In order to resolve the same, this procedure may be reviewed or revised by PSPCL.
- 6.6. All complaints regarding unfair practices, delays, discrimination, lack of information, supply of wrong information or any other matter related to grant of connectivity to distribution system shall be directed to PSERC for redressal.

## FORMAT- 1

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

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

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

## A. Details of the applicant

1	Name of the applicant	< name of	< name of generating company >		
2	Address of registered office (if any)				
3	Address for correspondence				
4	GST No.				
5	PAN No.				
6	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				
7	Registration number issued by the				
	CEA Registry, as applicable				
8	Nature of the Applicant/	<thermal (nrse)="" etc.="" hydro="" re=""></thermal>			
	Type of Generating Station	<solar (with="" <="" ess)="" hybrid="" or="" td="" wind="" without=""></solar>			
		Standalone ESS etc.>			
		<whether ess="" generator="" lead="" through=""></whether>			
9	Status of the applicant	< generator (other	< generator (other than captive)/captivegenerator >		

## **B.** Details of connectivity requirement

1	Connectivity sought	
	Capacity (MW) for which connectivity is	
	required	

	Voltage Level (IV) at which
	Voltage Level (kV) at which
	connectivity is required
	Date from which connectivity is required
	(Which shall be at least six months from
	the date of application)
2	Nearest 66/33/11 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 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	1
	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 distribution line/ feeder (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					
	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 2.4 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 distribution 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 PSPCL or to be provided by the applicant

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

## F. Details of application fees

1	Non-refundable application fees				
	Name of     Details of instrument (DD/RTGS/NEFT)				
	Bank & branch	Type of	Instrument no.	Date	Amount (Rs.)
	instrument				

## G. Undertaking(s)

< refer clause 2.4 of procedure >

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

I further undertake that the technical standards for connectivity specified by CEA in Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013 and Punjab State Grid Code, as amended from time to time, have been complied with.

I further undertake to comply with the provisions of PSERC (Terms & Conditions for Intra-State Open Access) Regulations, 2011, as amended from time to time and corresponding Procedures issued under the regulation.

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/NEFT)

- 2. Documents in support of information (including project related preparatory activities) submitted under clause 2.4 of this procedure read with this format (mention details)
- 3. Documents in support of existing connectivity (including detailed description of 'electricity systems') along with single line diagrams (if existing user)
- 4. Any other document, if required.

## FORMAT-1(A)

## (APPLICABLE IN CASE OF GRANT OF CONNECTIVITY TO A FULL OPEN ACCESS CUSTOMER (CAPTIVE USER/ NON-CAPTIVE)

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

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	5 Status of the applicant/ Full Open Access Customer		user/ Non-Captive	e >

## **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 (Which shall be at least six months from the date of application)		
2	Nearest 66/33/11 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 sub-station	
	Voltage level (kV)	
	Name of licensee (Owner)	
	Distance (Km)	

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

## D. Status of project related activities (enclose duly signed supporting documents as per clause 2.4 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 PSPCL or to be provided by the applicant

In addition to above, the applicant shall also submit concise description of each completed activity 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).

## **E. Details of application fees**

1	Non-refundable application fees				
	Name of	Name of     Details of instrument (DD/RTGS/NEF)			
	Bank & branch	Type of	Instrument no.	Date	Amount (Rs.)
		instrument			

## F. Undertaking(s)

< refer clause 2.4 of procedure >

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

I further undertake that the technical standards for connectivity specified by CEA in Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013 and Punjab State Grid Code, as amended from time to time, have been complied with.

I further undertake to comply with the provisions of PSERC (Terms & Conditions for Intra-State Open Access) Regulations, 2011, as amended from time to time and corresponding Procedures issued under the regulation

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/NEFT)
- 2. Documents in support of information (including project related preparatory activities) submitted under clause 2.4 of this procedure read with this format (mention details)

- 3. Documents in support of existing connectivity (including detailed description of 'electricity systems') along with single line diagrams (if existing user)
- 4. Any other document, if required.

#### FORMAT-2

#### **On Non Judicial Stamp paper Rs.100**

#### AFFIDAVIT

In the matter of filing application to Punjab State Power Corporation Limited, for grant of Connectivity under PSERC (Terms & Conditions for Intra-State Open Access) Regulations, 2011.

I.....(Name).....S/o Shri ......(Father's name)... working as ...... (Post)...... in ......(name of the Company)......,having its registered office at ....... (address of the company)......, do solemnly affirm and say as follows:

- 1. I am the ..... (Post)...... of .....(Name of the Company)......, the representative in the above matter and am duly authorized by the Board Resolution dated ...... of the above referred Company attached herewith to file the above application and to make this affidavit.
- 2. I submit that M/s......(name of the company)..... is a registered company......(Public Ltd/Pvt. Ltd.)..... registered under Companies Act/...... Under the Article of Association of the Company and in accordance with the provisions of Electricity Act, 2003/ relevant Regulation(s) of PSERC and Procedures notified thereunder, the company can file the enclosed application.
- 3. I submit that all the details given in the enclosed application for grant of Connectivity alongwith necessary documents are true and correct and nothing material has been concealed thereof.
- 4. I shall accept and abide by the provisions of PSERC (Terms & Conditions for Intra-State Open Access) Regulations, 2011, Punjab State Grid Code, Indian Electricity Grid Code, Indian Electricity Rules and various standards including Grid Connectivity Standards made by the Central Electricity Authority pursuant to the Act for installation and operation of the apparatus.
- 5. I shall accept and abide by the conditions of co-generation/NRSE/ CPP policy of PSPCL. (if applicable)
- 6. I also submit that the documents enclosed are original or true copies of their respective originals.

(Signature) Name of the Applicant Company Stamp (mandatory)

(To be duly attested by Notary)

(Copy of Board Resolution/ Power of Attorney to be attached)

## FORMAT-3

#### Intimation for grant of technical feasibility

## **1** Intimation No. Date :

- 2 Ref. Application No. Date :
- **3** Name of the Applicant
- 4 Address for Correspondence

## **5** Nature of the Applicant

Generator (Captive or other than Captive and Type) Full Open Access Customer (Captive User) Full Open Access Customer (Non-Captive User)

## **6** Details for Connectivity

- 6a Capacity (MW) for which connectivity is granted
- 6b Voltage level (kV) of connectivity
- 6c Point at which Connectivity is granted
- 6d Sub-station at which connectivity is granted
- 6d Distribution System Required for Connectivity
- 6e Implementing Agency for distribution system required for connectivity

## 7 Location of the Generating Station / Consumer

Nearest Village / Town District State Latitude Longitude

#### The grant of connectivity to the distribution system shall be subject to following conditions:

- 1. Applicant given technical feasibility for Connectivity to the grid shall have to furnish additional details to PSPCL for signing of "Connection Agreement" as per FORMAT- 4 of Connectivity Procedure. These details are to be furnished to PSPCL before the expiry of validity of feasibility letter issued by PSPCL to the applicant, unless otherwise indicated by PSPCL. The Applicants are, however advised to furnish such details as early as possible for enabling them have lead time for any type of access.
- 2. The applicant shall approach the office of CE/ TS, PSPCL (if connectivity is to be granted at 33 kV or 66 kV) or concerned CE/ DS, PSPCL (if connectivity is to be granted at 11 kV) seeking estimate for deposit work pertaining to erection and commissioning of dedicated line/ feeder and associated distribution system required in case of augmentation of the existing system/ sub-station. Office of CE/ DS, PSPCL shall intimate the estimated advance amount to the applicant along with the tentative date of grant of connectivity. The applicant shall accordingly deposit the estimated advance amount to concerned PSPCL office.
- 3. PSPCL will process the above information and will intimate the Connection details as per format given at FORMAT- 5. Pursuant to such Connection details, the applicant shall have to sign "Connection Agreement" with PSPCL prior to the physical inter- connection as per format given at FORMAT- 6.
- 4. The grant of connectivity and grant of open access pursuant to connectivity shall be governed by the provisions of PSERC (Terms & Conditions for Intra-State Open Access) Regulations, 2011, as amended from time to time and corresponding Procedures issued under the regulation.
- 5. The applicant shall abide by all provisions and its amendments thereof or reenactment of
  - i) Electricity Act, 2003;
  - ii) PSERC (Terms & Conditions for Intra-State Open Access) Regulations, 2011 and corresponding Procedures for Connectivity and Open Access;
  - iii) PSERC (Punjab State Grid Code) Regulations, 2013;
  - iv) PSERC (Electricity Supply Code and Related Matters) Regulations, 2014;
  - v) PSERC (Power Quality) Regulations, 2023;
  - vi) Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023;
  - vii) Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022
  - viii) Central Electricity Regulatory Commission (Communication System for Inter –State transmission of Electricity) regulations, 2017;
  - ix) CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007;
  - x) CEA (Technical Standards for construction of Electrical Plants and Electric Lines) Regulations, 2022;
  - xi) CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013;

- xii) CEA (Grid Standard) Regulations, 2010;
- xiii) CEA (Safety requirements for construction, operation and maintenance of Electrical Plants and Electrical Lines) Regulations, 2011;
- xiv) CEA (Measures relating to Safety and Electricity Supply) Regulations, 2010;
- xv) CEA (Installation and Operation of Meters) Regulations, 2006;
- xvi) CEA (Technical Standards for Communication System in Power System Operations) Regulations, 2020;
- xvii) CEA (Cyber Security in Power Sector) Guidelines, 2021;
- xviii) CEA (Manual of communication planning in Power System operation), March 2022;
- xix) Technical requirement for Grid Connected Solar PV Power Stations under Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar Power Projects, issued by Ministry of Power, vide resolution no. 23/27/2017-R&R dated 03.08.2017 along with amendments thereto;
- MNRE's Approved Models and Manufacturers of Solar PV Modules (Requirements for Compulsory Registration) Order, 2019;
- xxi) Directions/Orders of the PSERC/ CERC/ APTEL etc. vis-a-vis connectivity, open access and liability emanating arising out of grant of connectivity/ open access;
- xxii) Other regulations/ guidelines issued by PSERC/ CERC in respect of procedure of grant of connectivity and other matters and any other applicable Act / Rules / Guidelines / Standards / Regulations / Procedures etc.

Non-compliance of above shall be dealt with as per the relevant provisions stipulated.

- 6. The applicant shall keep PSPCL indemnified at all times and shall undertake to indemnify, defend and keep PSPCL 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 the Connectivity.
- 7. The line & terminal line bay at the applicant end shall be developed by the applicant at their own cost.
- 8. Depending on the topology and transmission system requirement, PSPCL may plan the Connectivity of any generating station(s) at terminal bay of a substation already allocated to another Connectivity applicant (such as through Loop- in Loop-out (LILO)) or switchyard of a generating station having Connectivity for connection and injection of power. In such cases, an agreement shall be duly signed within one (1) month of the intimation regarding the sharing of dedicated line and/or terminal bay between the applicants/grantee for sharing the terminal bay / switchyard / dedicated line, failing which the intimations for grant of Connectivity of applicants / grantee shall be liable for revocation.

- 9. Operation and maintenance expenses as well as transmission losses from the generator pooling station up to the sub-station shall be shared in proportion to the capacity of the renewable energy generating stations sharing the transmission infrastructure.
- 10. The applicant (generating station) shall have to furnish technical data and requisite compliance (as applicable) in line with CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007 and CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013 & amendment(s) thereof, including the provisions of LVRT/HVRT, active power injection control, dynamically varying reactive power support, limits for Harmonic & DC current injection, Flicker limits, etc., to PSPCL before signing of "Connection Agreement".
- 11. The applicant (generating station) shall have to inform likely date of synchronization, likely quantum and period of injection of infirm power before being put into commercial operation to the SLDC concerned at least one month in advance and obtain their concurrence for the same.
- 12. The applicant (generating station) shall furnish certificate issued by Chief Electrical Inspector for all the electrical equipment along with technical data.
- 13. As per State Grid Code/ IEGC, the applicant will be required to provide data acquisition system facility for transfer of data and information to SLDC.
- 14. The applicant shall provide Fibre Optic based communication system comprising OPGW cable & hardware fittings with FOTE terminal equipment, FODP, approach cables etc. in order to facilitate telemetry data communication, voice communication and tele-protection. Further, the applicant (generating station) also needs to provide Phasor Measurement Units (PMU) at the generating station.
- 15. Applicant to provide Next Generation Firewall as per the prescribed specification/ features.
- 16. The applicant will establish, test, commission and demonstrate the voice and data communication facilities with SLDC before test charging.
- 17. The applicant will forward meter data in the format appropriate and at a periodicity as specified by the appropriate regulatory authority from time to time. This shall be established & demonstrated by the applicant prior to test charging of interconnecting line.
- 18. At the connection point to the distribution system, all works associated with bay extension shall be taken up by PSPCL on deposit of cost for the same.
- 19. The applicant shall submit the following documents to PSPCL (O/o Concerned CE/DS) prior to signing of connection agreement:-
  - Proof of ownership or Long Term lease rights or land use rights for 100% of the land required for the capacity applied.
    A sworn affidavit from the authorized person listing the details of the land

A sworn affidavit from the authorized person listing the details of the land and certifying total land required for the project under clear possession of the developer shall also be submitted. Achievement of financial closure (with copy of sanction letter and CA certification).
Sanction letter from Financial institution / Lead Lender or Proof of commitment of funds by the Company from its internal resources to be submitted as proof of financial closure.

This feasibility letter shall be valid for a period of 60 days from the date of issue.

CE/ Plannin g, PSPCL, Patiala.

Copy of the above is forwarded to:

CE/ Transmission System (TS), PSPCL, Patiala (if connectivity granted at voltage level of 33 kV or 66 kV) Or Concerned Chief Engineer/ DS, PSPCL (if connectivity granted at 11 kV)

for intimating the applicant:

- Estimated Amount (in Rupees) to be deposited by the applicant in advance
- Tentative Date from which connectivity shall be granted

#### FORMAT- 4

#### **DRAFT** Connection Agreement

THIS AGREEMENT is made the [] day of [] 20[] BETWEEN:

(1) [Name and registered address of the distribution licensee] (hereinafter called the "PSPCL") which expression shall unless repugnant to the context or meaning thereof be deemed to mean and include its successors or permitted assigns and for the purposes of this Connection Agreement the distribution licensee shall act through its \_\_\_\_\_\_\_ [address of the regional head quarter where connection shall be located] Unit

as the first party

; and

(2) [Name and registered address of the applicant Company] (herein after called "the Applicant" or "the Customer") which expression shall unless repugnant to the context or meaning thereof be deemed to mean and include its successors or permitted assigns and each of the parties hereto being a "Party" and the term "Parties" shall be construed accordingly.

As the second party

WHEREAS:

- (A) The Applicant has applied to the PSPCL for connection of the [mentiongenerating station including a captive generating plant or consumer as appropriate] facility to the PSPCL's Distribution System and use of the PSPCL's Distribution System to transmit electricity to and or from the Facility through the Intra-State Distribution System.
- (B) PSPCL has agreed to the connection of the [*mention generating station including a captive generating plant or consumer/ Distribution Licensee as appropriate*] Facility to the PSPCL's Distribution and Communication System (via the customer's Site-Related Connection Equipment) at the Connection Point (...... Mention details of the connection point, the name of sub-station, name of line which is to be made LILO, etc....) and to the applicant using the Owner's Distribution and Communication System to transmit electricity as well as real time data to and or from the Facility through the PSPCL's Distribution and Communication System.
- (D) The Parties shall enter into this connection agreement to record the terms and conditions upon which the Parties will carry out their respective Connection Works in accordance with the Connection Agreement and in compliance to Punjab State Electricity Regulatory Commission Terms & Conditions for Intra-State Open Access) Regulations, 2011, as amended from time to time (hereinafter referred to as "Open Access Regulations").

- (E) Further, the parties shall separately take up modalities for implementation of the 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 (PERT chart), 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) Further, a signed copy of the agreement and amendments when ever made, shall be submitted to SLDC.

IT IS HEREBY AGREED as follows:

## **1.** General Conditions for Connectivity

1.1 The Parties agree to the following General Conditions that are incorporated into his Agreement.

- (a) The parties undertakes to comply with the mandate, requirements and obligations under the Electricity Act, 2003, and all applicable CERC/CEA Regulations/Detailed Procedures and amendments thereof or re-enactment, including but not limited to the following:
  - i) Electricity Act, 2003;
  - ii) PSERC (Terms & Conditions for Intra-State Open Access) Regulations, 2011 and corresponding Procedures for Connectivity and Open Access;
  - iii) PSERC (Punjab State Grid Code) Regulations, 2013;
  - iv) PSERC (Electricity Supply Code and Related Matters) Regulations, 2014
  - v) PSERC (Power Quality) Regulations, 2023;
  - vi) Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023;
  - vii) Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022;
  - viii) Central Electricity Regulatory Commission (Communication System for Inter State transmission of Electricity) regulations, 2017;
  - ix) CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007;
  - CEA (Technical Standards for construction of Electrical Plants and Electric Lines) Regulations, 2022;
  - xi) CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013
  - xii) CEA (Grid Standard) Regulations, 2010;
  - xiii) CEA (Safety requirements for construction, operation and maintenance of Electrical Plants and Electrical Lines) Regulations, 2011;
  - xiv) CEA (Measures relating to Safety and Electricity Supply) Regulations, 2010;
  - xv) CEA (Installation and Operation of Meters) Regulations, 2006;
  - xvi) CEA (Technical Standards for Communication System in Power System Operations) Regulations, 2020;

- xvii) CEA (Cyber Security in Power Sector) Guidelines, 2021;
- xviii) CEA (Manual of communication planning in Power System operation), March 2022;
- xix) Technical requirement for Grid Connected Solar PV Power Stations under Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar Power Projects, issued by Ministry of Power, vide resolution no. 23/27/2017-R&R dated 03.08.2017 along with amendments thereto;
- MNRE's Approved Models and Manufacturers of Solar PV Modules (Requirements for Compulsory Registration) Order, 2019;
- xxi) Directions/Orders of the PSERC/ CERC/ APTEL etc. vis-a-vis connectivity, open access and liability emanating arising out of grant of connectivity/ open access;
- xxii) Other regulations/ guidelines issued by PSERC/ CERC in respect of procedure of grant of connectivity and other matters;
- xxiii) Any other applicable Act / Rules / Guidelines / Standards / Regulations / Procedures etc.

Non-compliance of above shall be dealt with as per the relevant provisions stipulated.

- (b) The grant of connectivity and grant of open access pursuant to connectivity shall be governed by the provisions of PSERC (Terms & Conditions for Intra-State Open Access) Regulations, 2011 and corresponding Procedures.
- (c) The applicant shall be responsible for planning, design, construction, and safe and reliable operation of its own equipment in accordance with the PSERC Open Access Regulations, State Grid Code, IEGC, Central Electricity Authority (Technical Standards for Construction of electrical plants and electric lines) Regulations, Central Electricity Authority (Grid Standards) Regulations and other statutory provisions.
- (d) The responsibility of data transfer shall be that of the applicant. The applicant shall provide necessary facilities for voice & data communication for transfer of real time operational data such as voltage, frequency, real and reactive power flow, energy, status of circuit breaker & isolators positions, transformer taps and other parameters from their station to SLDC as per State Grid Code. The Real Time data shall be transmitted upto SLDC through IEC: 101/104 protocol by providing a redundant (main & backup) communication link/ connectivity using any mode of communication e.g. Optical Fiber/PLCC/MPLS/RF/GPRS or any other latest technology available, which shall be provided and maintained by the applicant. Further, main and backup communication links shall preferably be either through different communication modes or from different service providers (if same communication mode is used). The applicant shall follow the provisions of CERC (Communication Systems for Inter-State Transmission of Electricity) Regulations, 2017, as amended from time to time and technical standards,

protocols for communication system etc. notified by CEA under aforesaid CERC Regulations for Communication Infrastructure to be used for data communication and tele- protection of power system and shall ensure the correctness of the realtime data.

PSPCL may provide access to Customer's data transfer through its communication network in case spare channels are available on mutually agreed terms, in which case the nearest connected sub-station of PSPCL where communication capacity (PLCC/ Optical Fiber) is available, may be considered as Data Collection Point (DCP) for onward telemetry of data to SLDC.

- (e) Where an open access customer falls under the category of "Designated Consumer" defined under Electricity Supply Code, 2014, as amended from time to time, the customer shall
  - Install power quality meter and share the recorded data thereof with the distribution licensee in line with the provisions of Electricity Supply Code and Regulations issued by Commission in this regard, if any.
  - Control the harmonics level at the Point of Common Coupling (PCC) in line with the provisions of Electricity Supply Code/ PSERC relevant Regulations. The limits of voltage harmonics and current harmonics, Point of measurement i.e. PCC and other related matters shall be as per the IEEE 519-2014 namely "IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems", as modified from time to time read along with Standards issued by Central Electricity Authority (CEA) from time to time.
  - Provide adequate harmonic suppression units/ harmonic filters to avoid dumping of harmonics into Distribution system, complying with the standards issued by CEA from time to time.
  - Comply with the provisions of PSERC (Power Quality) Regulations, 2023, as amended from time to time.

The measurements undertaken to determine compliance shall be carried out in accordance with the requirements as specified in IEC 61000-4-7 and IEC 61000-4-30. There shall be continuous measurement of harmonics with permanent Power Quality meters complying with the IEC 61000-4-30 Class-A meters for all new installations.

Where the open access customer fails to install power quality meter within stipulated time or the injection of harmonics exceeds the prescribed limits, such consumer shall be liable to pay a penalty to the PSPCL at the rate and in the manner as may be approved by the Commission from time to time. The penalty shall be without prejudice to the right of the PSPCL to take other punitive action as may be approved by the Commission.

- 1.2 The following documents and their schedules which have been initialed by the parties and annexed herewith shall be deemed to form part of this Agreement in the order of precedence listed below: -
  - (a) Application for seeking connection to the Distribution System along with undertaking and documents submitted with the application.
  - (b) Intimation for grant of connectivity by PSPCL
  - (c) Technical/ Planning data/ details submitted by the applicant.

## 1.3 Availability of Statutory/Regulatory Approval

Notwithstanding anything in the Agreement to the contrary, the applicant shall be responsible for obtaining the statutory clearances/approval (if required) for carrying out the works requiring connection to the distribution system. Accordingly, the provisions of the Agreement dealing with the carrying out of the Works by either the applicant or the distribution system (unless otherwise agreed mutually) in all respects would be conditional on and subject to PSPCL being satisfied that the necessary approvals/clearances are available with the applicant.

## **2** Agreement to Pay Charges and Costs

## **2.1** Agreement to Monthly Wheeling Charges

The Customer agrees to pay or make arrangements for payment of the Monthly Wheeling Charges including SLDC Charges, FERV, income tax or other taxes, cess, duties etc., for use of State Distribution System, as and when Long term access, Medium-term open access or short-term open access is availed by the applicant, in accordance with the relevant regulations of PSERC in this regard.

## **2.2** Agreement to additional costs

The Customer agrees to pay cost towards modification/alterations to Owner's infrastructure for accommodating the proposed connection as specified in the offer letter.

## **2.3** Agreement to pay for damages

The customer agrees to pay/ make good damages, if any, caused to the property of the Owner, which has been notified by the Owner within reasonable time of its occurrence, during the course of control, operation and maintenance of the equipment.

## **2.4** Agreement to pay Charges for construction of Bays:

The applicant will execute an agreement with PSPCL for the Erection of equipment of applicant in the substation premises of the PSPCL for construction of bays, if required. For this purpose, the applicant shall pay charges to the PSPCL on mutually agreed term.

# **3.** Conditions Precedent to the implementation of the Commissioning Instructions

The applicant shall have to get appropriate "Commissioning Instruction" prior to actually first charging of the equipment through the grid. The charging instruction shall be issued only when the PSPCL is satisfied (acting reasonably) that:

- (a) the Connection Works have been completed;
- (b) the applicant has complied with its all obligations as set out in the Offer Letter;
- (c) The applicant has demonstrated the voice & data communication facilities to SLDC;
- (d) The applicant has obtained necessary approvals like PTCC, ElectricalInspectorate of CEA etc. from competent authority;
- (e) The Customer has complied with its obligations under the PSERC Open Access Regulations, State Grid Code and Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013 along with obligations related to RE/ NRSE generators (if applicable) as per cogeneration/NRSE/ CPP policy of PSPCL.

#### 4. Metering

Before exchanging any power, the customer shall provide and maintain the Metering equipment, in accordance with the PSERC Open Access Regulations, State Grid Code and Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, as amended from time to time read along with the approved LTA/ MTOA and STOA Procedures. The metering infrastructure/ system shall also satisfy all the requirements laid in CEA "Functional Requirements for Advanced Metering Infrastructure" and provisions in SAMAST (Scheduling, Accounting, Metering & Settlement of Transaction in electricity) report issued by FOR technical committee (as & when implemented) and other Regulations/ guidelines issued by PSERC/ CERC from time to time.

#### **5.1** Site Access

Being restricted area PSPCL may give permission or allow access to Customer's employees and/or agents and/or subcontractors and/or invitees in the Owner's premises to carry out preliminary site investigation works, the Connection Works, modification works, inspections, etc, based on a written request by the applicant, as deemed fit. All such actions are to be carried out under the strict supervision of THE PSPCL's authorized representative to safeguard the safety and security requirements of PSPCL's installations and safety of the representatives of the applicant.

Similarly, the applicant may also allow, on prior permission, site access to the PSPCL's employees and/or agents and/or invitees to carry out preliminary site investigation works, inspections, etc. in the connection site of the applicant, as deemed fit.

#### **5.2** Conditions of access

Site access for the PSPCL/applicant shall include the right to bring such vehicles, plant, machinery and construction materials 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 applicant or PSPCL and its appropriately 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.

#### 6. Transfer Assignment and Pledge

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

#### 7. Notice

All 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 issue/receive notices etc. in connection with this agreement shall be informed in advance.

#### 8. Settlement of Disputes and Arbitration

All differences and/or disputes between the parties arising out of or in connection with these presents shall at first instance be settled through amicable settlement at the Director level.

In the event of unresolved disputes or differences as covered under the statutory arbitration provided under The Electricity Act, 2003, the same shall be resolved accordingly.

Notwithstanding the existence of any disputes and differences referred to arbitration, the parties herein shall continue to perform their respective obligations under this Agreement.

#### 9. Force Majeure

Force Majeure herein is defined as any clause which is beyond the control of the Owner or the Customer as the case may be, which they 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 such as:

- Natural phenomenon including but not limited to floods, droughts, earthquake and epidemics;
- Acts of any Government, domestic or foreign, including but not limited to war, declared or undeclared, priorities, guarantees, embargoes.

Provided either party shall within fifteen (15) days from the occurrence of such a cause notify the other in writing of such causes.

Neither of the parties shall not be liable for delays in performing obligations on account of any force majeure causes as referred to and/or defined above.

#### **10** Confidentiality

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

- In the public domain. a)
- Already in the possession of the receiving party. b)
- c) Required by the Govt. Ministries/Agencies/Court of Law.

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.

#### **11** Governing Laws and Jurisdiction

The agreement shall be governed by Indian Laws and Rules framed there under. The courts in Punjab shall have exclusive jurisdiction.

#### **12** Amendment to the Connection Agreement

In case of Modification to point of connection like re-allocation of bays, upgradation 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 PSPCL and the applicant have caused this Agreement to be executed by duly authorized representative on date above first herein written. Annexures

Witnesses

1.2.

Signed for and on behalf of PSPCL: -

CE/P&M. PSPCL. Ludhiana

Signed for and on behalf of Applicant: -

(Name & designation of Applicant)

#### FORMAT- 6

#### Flow Chart for Grant of Connectivity to Open Access Applicants with Distribution System

