

No. L-1/(93)/2009-CERC

Dated: 12<sup>th</sup> August, 2014

To,

Shri S.K. Sonee  
Chief Executive Officer  
Power System Operation Corporation Limited,  
B-9, First Floor, Qutab Institutional Area,  
Katwaria Sarai,  
New Delhi-110 016

**Sub:** Approval of the procedure for drawal of startup power

Dear Sir,

I am directed to refer to your letter nos. POSCO/CERC dated 14.11.2013 and 13.3.2014 and to say that the Commission has approved the Procedure for drawal of startup power for new generating stations, 2014 as per the Annexure attached to this letter. It is requested that wide publicity to the Procedure be given by POSOCO for the information of all concerned.

Thanking you,

Yours faithfully

**sd/-**  
**(Shubha Sarma)**

**Secretary**

## **Procedure for availing Start up power from the Grid by the Generating Stations under commissioning phase through Deviation Settlement Mechanism**

This procedure is called Procedure for drawal of Start-up Power for new Generating Stations, 2014.

This procedure describes the methodology to be followed by the upcoming Generating Stations seeking to avail start-up power during commissioning period.

**This procedure is applicable to Generating stations without an existing Unit under Commercial operation. Where one unit has been commissioned and if the startup power is required by subsequent unit(s), the same may be availed from the existing units of the same plant under Commercial operation. In such case, the existing units shall factor the requirement of startup power by the new upcoming units before contracting/scheduling the entire sent out capability under STOA so that there will not be any under injection by the existing unit(s).**

**However, in case power from the unit(s) of the generating station already commissioned is fully allocated or committed under Medium Term Open Access (MTOA)/Long Term Access (LTA), subsequent unit(s) shall be allowed to draw Start-up power under this procedure.**

### **1. Scope :**

This Procedure shall be followed by all Regional Load Despatch Centres (RLDCs), Regional Power Committees (RPCs) and Generating stations including Inter-state Generating Stations (ISGS) under Seller category.

### **2. Definitions:**

(a) **Construction Power:** Power required for carrying out construction/erection works of plant and equipment of a new Generating Station **including services such as desalination of sea water, etc.**

(b) **Start-Up Power:** Power required for running the Auxiliary equipment for commissioning activities of a new Generating Station.

(c) **Auxiliary power:** Power required to keep the auxiliaries like Motor Driven Boiler Feed Pump (MDBFP), Induced Draft (ID) Fan, Forced Draft (FD) Fan, Cooling Water (CW) pumps, etc., running after tripping of a generating unit during its trial operation.

3. **General :**

The Generating station may avail Start-up power under Deviation Settlement Mechanism from Inter-State Transmission System.

4. **Pre-conditions for availing Start-up power under Deviation Settlement Mechanism:**

The Generating Station intending to avail Start-up power shall fulfil the following conditions:

- (1) It has a valid Connectivity granted by CTU as per CERC (Grant of Connectivity, Long-term Access and Medium-term Open Access and related matters) Regulations, 2009 (hereinafter referred to as Connectivity Regulations)
- (2) It has signed Connection Agreement as per Con-6 of the Connectivity Regulations
- (3) It has established Connectivity with the ISTS
- (4) It has commissioned all the switchyard equipments including Bus / Line reactor if any as per the grant of Connectivity (Con-3).
- (5) It has established Data and Voice communication with the concerned RLDC as per clause 4.6.2 of IEGC
- (6) It has put in place necessary system protection in place as specified by concerned Regional Power Committee (RPC).
- (7) It shall coordinate Generation Transformer (GT) / Station Transformer (ST) tap positions as per the direction of concerned Regional Load Despatch Centre (RLDC).

5. **Procedure for applying for Start-up power:**

5.1 **The Generating Station shall submit a request for availing Start-up power to the concerned RLDC at least one month prior to the expected date of availing Start-up power i.e 16 months before the expected date of first synchronisation of the unit.**

5.2 While requesting for start-up power, the Generating Station shall furnish the following details to the concerned RLDC:

- (1) A copy of Connectivity approval granted by CTU along with the details of arrangement for drawing start up power ,
- (2) Connection Agreement signed with CTU and other ISTS licensees as the case may be
- (3) Single line diagram of the Generating Station
- (4) Inspection report of the Electrical Inspectorate of Central Electricity Authority (CEA).
- (5) Details of electrical scheme for drawal of construction power clearly establishing the isolation between the schemes for construction power and start up power.
- (6) Details of electrical scheme for drawal of start-up power by various phases of the Generating station.
- (7) Unit details like Unit size, MCR, Auxiliaries & their rating etc.
- (8) Schedule of activities and their requirement of power in terms of quantity and period etc.

5.3 The Generating Station shall submit an undertaking that :

- (1) Drawal of power is only for the purpose of start-up power and not for the construction activity. **The onus of proving that the drawal of power is for startup of Auxiliaries, testing and commissioning activities and not for Construction power shall lie with the generating station alone.**
- (2) There is no violation of any of the agreements made with the Distribution Licensee or any other agency.
- (3) The Generating Station shall indemnify, defend and save the SLDCs/RLDCs harmless from any and all damages, losses, claims and actions including those relating to injury 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 this drawal.
- (4) The Generating Station shall abide by IEGC and all prevailing Regulations and the directions of RLDC from time to time.
- (5) The Generating Station shall reschedule the start up activities as directed by RLDC due to reasons such as staggering the simultaneous drawal of Start-up power by other Generating Stations.
- (6) The Generating Station shall pay the charges for Deviation within due date and comply with Deviation Settlement Regulations, 2014

as amended from time to time or subsequent re-enactment thereof.

- (7) The Generating Station shall send the Special Energy Meter (SEM) data to RLDC as per the provisions of IEGC for energy accounting.
- (8) The Generating Station shall pay all incidental charges such as Transmission charges, RLDC Fee & Charges, etc., as applicable, within the due date.
- (9) The Generator shall open a Revolving and Irrevocable Letter of Credit issued by a Scheduled Bank equivalent to 2 months transmission charges prior to drawal of Start-up power.

5.4 The Generator shall update the following information during the period of availing the Start-up Power and likely date of first synchronisation of the unit **and subsequent program for injection of infirm power :**

- (1) The quantum of power to be availed on a weekly basis.
- (2) The schedule is to be updated on a weekly basis, considering the deviations in the tentative schedule.**
- (3) Monthly Energy data of Construction power availed from the local licensee for the past 6 months period and monthly readings for the period subsequent to availing start-up power.
- (4) Monthly details of start-up activities carried out during the month. The Generating Station shall also indicate whether all activities are as per commissioning schedule or not.

**6. Procedure to be followed by RLDC during the period of availing Startup power :**

- 6.1 The concerned RLDC shall convey the period, quantum and duration of the Start-up power with a copy to RPC and SLDC, if required.
- 6.2 RLDC may permit drawal of Start-up power for one or more units at a time within a generating station keeping grid security in view.
- 6.3 RLDC will issue suitable directions to the Generating Station on Real time basis for limiting / stopping the drawal of start-up power in case of Network constraint on grounds of threat to system security or frequency or Voltage falling below the limits specified in IEGC. Such direction shall be complied by the Generating Station promptly.

- 6.4 The generator is entitled to draw the start-up power under Deviation Settlement Mechanism, up to the maximum period of 21 months (Fifteen months prior to expected date of synchronization and six months after synchronization) from the date of commencement of drawal of start-up power from the grid. In case startup power is required beyond the specified period, the generator shall approach C.E.R.C at least two months in advance of the date up to which permission has been granted.
- 6.5 RLDC may direct the Generating Station to install under-frequency/under voltage relays to operate below a threshold value with suitable dead bands.
- 6.6 If simultaneous drawal of start-up power by more than one generating station is likely to cause system constraints, RLDC may stagger such drawal among various generators to relieve the constraint.

**Application form seeking Startup power**

Reference number :  
Date :  
Name of the Generating Station :  
Unit number :  
Unit size :  
Details of Connectivity granted :  
Details of Start up power requirement :

Sl. No.	From date	To date	Requirement of Power in MW	Details of Activities	Remarks

**Enclosures:**

- Details of Reactive Compensation Equipment
- Status of Commissioning works of Reactive Compensation Equipment
- A copy of grant of connectivity approval given by CTU,
- Connection Agreement signed with CTU and other ISTS licensees as the case may be
- Inspection report of the Electrical Inspectorate of CEA
- Single line diagram of the Generating station
- Details of electrical scheme for drawal of construction power clearly establishing the isolation between the schemes for construction power and start up power
- Details of electrical scheme for drawal of start-up power by various phases of the Generating station clearly establishing the isolation between the schemes for construction power and start-up power
- Unit details like Unit size, MCR, Auxiliaries & their rating, etc.

### Undertaking

I \_\_\_\_\_ son of \_\_\_\_\_ working as \_\_\_\_\_ in \_\_\_\_\_ (organisation name) am authorised to sign this undertaking. I hereby undertake that:

- Drawal of power by unit no. \_\_\_\_\_ of \_\_\_\_\_ (name of Generating station) is only for the purpose of start up power and not for the construction activity. **(The onus of proving that the drawal of power is for start-up of auxiliaries, testing and commissioning activities and not for Construction Power shall lie with the generating company)**
- There is no violation of any of the agreements made with the Distribution Licensee or any other agency.
- (Organization name) shall indemnify at all times, defend and save the SLDCs/RLDCs 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 this drawal.
- (Organization name) will abide by IEGC and all prevailing regulations and the directions of RLDC from time to time.
- (Organization name) will reschedule the start up activities as directed by RLDC due to reasons such as staggering the simultaneous drawal of startup power by other Generating Stations
- (Organization name) will pay the charges for Deviations from schedules within due date and comply with Deviation Settlement Mechanism Regulations, 2014 as amended from time to time or subsequent re-enactment thereof.
- (Organization name) shall open a Revolving and Irrevocable LC issued by a Scheduled Bank equivalent to 2 months transmission charges prior to drawal of Start-up power.
- (Organization name) shall send the Special Energy Meter (SEM) data to RLDC as per the provisions of IEGC for energy accounting
- (Organization name) shall pay all incidental charges such as PoC charges, RLDC Fee & Charges, etc., as applicable within the due date.
- (Organization name) Shall coordinate GT/ST tap positions as per the direction of concerned Regional Load Despatch Centre (RLDC).
- (Organization name) has ensured the following before availing startup power



- ❖ Establishment of connectivity with the ISTS
- ❖ Commissioning of all the switchyard equipments including Bus/Line reactor, if any, as per the grant of Connectivity (Con-3)
- ❖ Establishing of data and voice communication with the concerned RLDC(s) as per clause 4.6.2 of IEGC
- ❖ Putting necessary system protection in place as specified by concerned Regional Power Committee (RPC)
- ❖ Installation of SEMs as per CEA's Metering Regulations.

Signature  
(Name )  
Designation

Enclosures: as above

Copy to : 1) \_\_\_\_\_RPC  
2) \_\_\_\_\_S.L.D.C

**Grant of Startup Power by RLDC**

Approval number :

Date :

To :

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sub : Grant of Startup power through Deviation Settlement Mechanism

Sir,

With reference to your application number \_\_\_\_\_ dated \_\_\_\_\_, permission is hereby accorded to draw Startup power under Deviation Settlement Mechanism as per following details:

Name of the Generating Station :  
Unit number :  
Unit size :  
Details of Start-up power granted :

Sl. No.	From date	To date	Startup Power in MW granted	Remarks

You are requested to follow all the guidelines as per the Procedures.

Signature  
(Name)  
Designation

Copy to : 1) \_\_\_\_\_RPC  
2) \_\_\_\_\_S.L.D.C