

Pre-requisites to be complied before seeking clearance for energizing new element:

- Voice Communication to be established to SRLDC from a new station of CTU/ ISGS/ Seller/ ISTS Licensee or to SLDC in case of STU/Genco stations.
- As per cl.4.6.2 of IEGC, dual channel is to be established for a reliable data transmission.
- SCADA data to be extended in IEC 101 format
- All Analogue data like MW/MVAr/ Voltage/ Frequency etc. shall be extended from all bays / HV/LV side of ICTs/ GTs.
- All digital status points are to be extended from CBs/ Isolators/ OLTC taps/ RGMO On/Off status positions.
- Proper SOE time stamping with GPS is to be ensured.
- Modelling of elements to be done properly for true representation of the downstream network or open end elements. This is important for part line / open element energisation.
- GT/ICT tap position is to be coordinated with that of the existing parallel transformers so that the HV side voltage would correspond the nominal voltage of the Grid ie 400kV.

List of enclosures: (to be mailed to SRLDCMO@SRLDC.ORG,srlcdcnewelements@posoco.in)

- Formats A1-A2 and format B are to be submitted for any element connecting to ISTS, all 400kV elements irrespective of ownership.
- In case of a new ISTS Licensee or Seller Regional Entity under seller category shall submit Appendix-IV and Register as per RLDC Fee and Charge Regulation.
- Relevant extracts of the Submission of Standing Committee meeting Minutes with regard to approval of the new element to be charged are to be submitted.
- In case of any Generator, Grant of Connectivity (Con-3) , LTA/MTOA. and Connection agreement in Con-6 are to be submitted.
- For Tr. Licensee other than CTU connecting to STU, tripartite Connection agreement is to be submitted.
- If more than one new element is going to be energized, or any temporary re-arrangements are involved, Sequence of operations shall be explained in a writeup with diagrams/ sketches.
- Approved Metering scheme and each feeder-wise details of SEM sl.no. and CT/PT etc. shall be mentioned.
- Sample SEM data to be sent for checking data format compatibility with the data processing Software at SRLDC.
- Time Drift statement to be sent after correcting any time drift more than 1 minute.
- Correct polarity of CT connection to be ensured for proper sign convention.
- In the email body,the likely date of Charging is to be mentioned.
- In case of RE pooling stations data to be furnished:
 - developer-wise installed capacity,
 - commissioning schedule,
 - LVRT/HVRT compliance

- In case of Transmission line, Power Telecommunication Coordination Committee (PTCC) Route Approval shall be enclosed.

Annexure A1

Intimation by Transmission Licensee / Generating Company regarding anticipated charging of new elements

Owners Name :

Name of Transmission Licensee / Generting Station:

Owner of the Generation / Transmission Asset :

Name of substation :

Sl. No	Name of the Generation / Transmission element	Likely Date & time of Charging	Remarks (Ideal /Partial charging or from which end)
1			
2			
3			

Signature :

Name of the authorized person
Designation of the authorized person
official seal

Place:

Date:

Encl: Please provide full details.

Annexure A2 : Format IA: List of elements to be charged and Element Rating details	Yes/No
Annexure A3 : Single line diagram of the concerned sub stations, along with status of completion of each dia/bus/breakers	Yes/No
Annexure A4: List of SCADA points to be made available	Yes/No
Annexure A5: Metering Scheme approved by SRPC	Yes/No
Annexure A6: Connection Agreement, if applicable along with all annexures	Yes/No
Annexure A7: Power Telecommunication Coordination Committee (PTCC) Route Approval	Enclosed
Annexure A8: Sequence of operations shall be explained in a write up with diagrams/ sketches.	Enclosed

c. ICT / GT / ST / TT

S.No.	Parameters	ICT1 / GT1/	ICT2 / GT2/	ICT3 / GT3/	Remarks
1	Voltage (HV kV / LV kV)				
2	Capacity (MVA)				
3	Configuration (1 pH or 3 pH)				
4	Transformer Vector group				
5	Tertiary Winding Rating and Ratio				
6	% Impedance				
	OLTC DETAILS				
7	Total no of taps				
8	Nominal Tap Position				
9	Present Tap Position				
10	Typical Day TAP				
11	Step %				
11a	StepkV				
	PROTECTION DETAILS				
12	Differentail				
13	REF				
14	Over Flux				
15	LBB				
	Two / Three Winding Transformer Data				
1	Positive sequence resistance (R1HL1%) between HV / LV 1				
2	Positive sequence reactance (X1HL1%) between HV / LV 1				
3	Zero sequence resistance (ROHL1%) between HV/LV1				
4	Zero sequence reactance (X0HL1%) between HV / LV 1				
5	Positive sequence resistance (R1HL2%) between HV / LV 2				
6	Positive sequence reactance (X1HL2%) between HV / LV 2				

7	Transformer zero sequence resistance (R0HL2%) between HV/LV2				
8	Zero sequence reactance (X0HL2%) between HV / LV 2				
9	Positive sequence resistance (R1HL1L2%) between LV1/ LV 2				
10	Positive sequence reactance (X1L1L2%) between LV1 / LV 2				
11	Zero sequence resistance (R0L1L2%) between LV1/LV2				
12	Zero sequence reactance (X0L1L2%) between LV1 / LV 2				
13	Positive sequence resistance (R1HL1/L2%) between HV / (LV 1, LV 2)				
14	Positive sequence reactance (X1HL1/L2%) between HV / (LV 1, LV 2)				
15	Zero sequence resistance (R1HL1/L2%) between HV / (LV 1, LV 2)				
16	Zero sequence reactance (X1HL1/L2%) between HV / (LV 1, LV 2)				

Place:

Date:

Signature :

(Name of the authorized
personnel)

Annexure – B

Request by Transmission Licensee for first time charging and start of Trial Operation

Undertaking by Transmission Licensee / Generating Company

The following element is proposed to be charged as per the details given below:

Sl. No	Name of the element & voltage level	Likely Date & time of Charging	Make of meter	Meter Sl .no	CT Ratio	VT Ratio
1						
2						
3						
4						
5						
6						

1.0 It is certified that all the systems as stipulated in Part-III of the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 (as amended from time to time) have been tested and commissioned and would be in position when the element(s) is / are taken into service.

2.0 The protective relay settings have been done as per the guidelines of the Regional Power Committee (RPC) as per section 5.2 I of the Indian Electricity Grid Code (IEGC). The necessary changes have also been made/would be made appropriately for the following lines at the substation(s):

2.1 It is confirmed that all protection system are in service . Successful testing of communication signal from sending end to receiving end has been done .

3.0 It is also certified that the data through **Main channel** and **Standby channel** is established for data transfer to RLDC/SLDC to ensure reliable and redundant data as per IEGC (as amended from time to time). Also, **Voice communication** is established as per IEGC. The arrangements are of **permanent nature**. In case of any interruption in data in real time, the undersigned undertakes to get the same restored at

the earliest. **All field wiring for the respective analog / status / SoE points have been completed at both ends before conducting the 'point-to-point' testing.**

4.0 Special Energy Meters (SEMs) conforming to CEA (Installation and Operation of Meters) Regulations, 2006 have been installed and commissioned. The SEMs are calibrated in compliance of regulation 9 of Part-I of CEA (Technical Standard for Grid Connectivity) Regulations 2007 as per the above details. It is certified that:
1) Sample data was transmitted to SRLDC for checking **format compatibility**. 2) Time drift is checked and corrected to **less than 1 minute**. 3) **CT connection** is with correct polarity.

The data from the above meters would be forwarded on weekly basis to the RLDC as per section 6.4.21 of the Indian Electricity Grid Code (IEGC) (as amended from time to time) and also as and when requested by the RLDC*

5.0 It is hereby certified that all statutory clearances in accordance with relevant CERC Regulations and CEA standards/regulations for charging of the following elements have been obtained from the concerned authorities.

6.0 It is hereby certified that "All required consents and approvals including as those from Power Telecommunication Coordination Committee (**PTCC**) ; have been obtained".

7.0 It is certified that successful charging of the transmission system or an element thereof for 24 hours at continuous flow of power, and communication signal from the sending end to the receiving end and with requisite metering system, telemetry and protection system in service has been done.

Place:

Date:

Signature :

(Name of the authorized person)

Designation of the authorized person

*The data must **compulsorily be uploaded** every Monday @ SRLDC meterfile site.

*email ids where the data has to be forwarded : **sem@srldc.org** and **sresem@gmail.com**