

## Agenda for the first (1<sup>st</sup>) Meeting of the Grid Coordination Committee (GCC) of Uttarakhand

**Date & Time:** 22.5.2018 11.30 Hrs.

**Venue:** - Conference Room, PTCUL, Vidyut Bhawan, Majra, Dehradun

The Committee may kindly discuss the following agenda:-

### 1. Small presentation by SLDC on Uttarakhand Grid and Grid Coordination Committee (GCC).

#### 2. Agenda by SLDC

- a. Preparation of document for Operating Procedure for Uttarakhand grid and black start procedure.  
Draft document for Operating Procedure for Uttarakhand Grid and black start procedure have been prepared by SLDC in compliance to regulation 6.1.1(4) of UERC (State Grid Code) Regulation 2016.  
The same shall be provided to members for comments and suggestions.  
Members may like to discuss and submit their comments to SLDC for finalization of the same and further submission to Hon'ble UERC for approval.
- b. Mock Black start exercise for year 2017-18  
As per State Grid Code (SGC) clause 6.9(2)"Mock trial runs of the procedure for different sub-systems shall be carried out by the Constituents at least once in every six months under intimation to the SLDC"  
Diesel Generator sets for black start would be tested on weekly basis and test report shall be sent to SLDC on quarterly basis.  
However, no mock black start exercise has been carried out in Uttarakhand for compliance of above provision of Grid Code. Also weekly test report of DG sets for black start are not being provided to SLDC.  
*Action plan may be prepared by M/s UJVN Ltd in consultation with SLDC and UPCL for mock black start exercise.*
- c. **Amendment in SGC 2016 proposed by SLDC**  
Submission of the station-wise ex-power plant MW and MWh capabilities foreseen for the next day by IaSGS to SLDC  
Clause 7.5(3) of **SGC**, 2016 states that "By 10 AM every day, the IaSGS shall advise the SLDC, the station-wise ex-power plant MW and MWh capabilities foreseen for the next day, i.e. from 00:00 Hrs. to 24:00 Hrs. of the following days."  
However, clause 6.5(3) of **IEGC**, 2010 as amended form time to time states that "By 6 AM every day, the ISGS shall advise the concerned NRLDC, the station-wise ex-power plant MW and MWh capabilities foreseen for the next day, i.e. for 00:00 Hrs. to 24:00 Hrs. of the following days."  
*Hence clause 7.5(3) of SGC may be amended in lines with the relevant clause of IEGC, 2010 for providing sufficient time to SLDC for proper generation assessment and load forecasting on day-ahead basis.*  
Members may like to discuss and if approved may be forwarded to Hon'ble Commission for approval.
- d. **Yearly Maintenance program of IaSGS and Intra-state transmission lines in compliance to regulation 6.8.4(2) of SGC, 2016:**
  - i. The proposed Yearly maintenance programme for Intra-state Generating units and Intra-state transmission lines may be provided for discussion and approval.  
PTCUL, UJVN Ltd and other constituents may provide the same to SLDC upto 31<sup>st</sup> October for next financial year. The same is pending at PTCUL end for the current financial year too.
- e. **Reactive Power Management.**
  - i. Defective capacitor bank report. (Enclosed as **Annexure-2** for discussion)  
PTCUL may take corrective action for repair of defective capacitor banks and for better operation of grid the state.

ii. Healthiness of 50 MVAR Reactor.

Healthiness of 50 MVAR reactor installed at 400/220 kV s/s Rishikesh may please be updated and shall be maintained in healthy condition in view of frequent load crash & high system voltages.

PTCUL may update the status.

f. Solar plants & Sub-stations likely to be commissioned in next 6 months.

Solar plants & Sub-stations likely to be commissioned in next 6 months may be informed for better planning of grid operations and proper load forecasting.

PTCUL, UPCL and member solar/wind generator may provide the information.

g. Frequent force outages of Transmission elements.

May be discussed if any.

a. SPS planned for Intra-State transmission system.

May be discussed if planned any.

h. Current status of Telemetry data for solar plants and Bulk of Open Access consumers.

PTCUL to provide the information to SLDC and expedite the process for better monitoring of State grid.

i. Constraints in Intra-state Grid.

Constraints in Intra-State grid are enclosed as **Annexure-3**. Action may be taken at PTCUL end for strengthening of the grid and further for better operation.

j. Tap Optimization.

Tap positions of ICTs installed at PTCUL sub-stations may be optimized using the excel sheet (to be provided).

### 3. OCC pending issues.

i. **Installation of 125 MVAR reactor at 400 kV Kashipur S/s and 80 MVAR reactor at 400 kV Srinagar S/s.**

The issue is pending from many OCC meetings but no information about time frame is provided by PTCUL to NRPC.

PTCUL to update the status of installation of reactors for further submission to NRPC.

ii. **Planning, procurement and deployment of Emergency Restoration System.**

The issue is pending from many OCC meetings but no information about planning, procurement and deployment of Emergency Restoration System is provided by PTCUL.

PTCUL to update the status of same for further submission to NRPC.

iii. **Healthiness of defense mechanism: Self certification.**

Report of Mock exercise for healthiness of UFRs carried out by PTCUL on quarterly basis is to be submitted to NRPC Secretariat and NRLDC. PTCUL was advised to certify specifically, in the report that "All the UFRs are checked and found functional". The above report has been submitted by T&C Division Roorkee, PTCUL in the prescribed format.

All other T&C Divisions of PTCUL are requested to submit reports in prescribed format of the quarter ending March-2018 on priority to SLDC for further submission to NRPC.

iv. **UFR replacement.**

In PTCUL the static type UFRs were still installed on Transformers/feeders emanating from 132kV Majra and Jwalapur Substations and 220kV Ramnagar, Roorkee and Rishikesh Substations.

PTCUL to update the status of same for further submission to NRPC.

v. **Status of FGMO/RGMO in thermal (Gas) plants.**

Status of FGMO/RGMO in thermal (Gas) plants was requested by NRPC through many OCC meetings but no information was provided by M/s GIPL and SEPL.

Member privately owned generating companies may update the status for further submission to NRPC.

vi. **Non-representation in OCC from UPCL, PTCUL and UJVN Ltd.**

OCC raised its concern in 146<sup>th</sup> OCC meeting regarding non-representation in monthly meetings from UPCL, PTCUL and UJVN Ltd.

PTCUL, UPCL and UJVN Ltd may take necessary action as directed by NRPC.

vii. **Automatic Demand management system.**

The issue is pending from many OCC meetings but no information is being provided by UPCL.

UPCL is requested to update regarding the action plan & status of implementation of the ADMS in their organization. Information may be provided to SLDC for further submission to NRPC.

viii. **Mapping of Feeders in SCADA.**

In the 141st OCC meeting members were informed about the “Compendium of SPS in NR” (Annexure-\_9 of the MOM\_) which was released in the 40th NRPC meeting. All the utilities were requested to go through the compendium and identify feeders concerning their state and map the same in SCADA.

Information of action taken and present status is pending at PTCUL end. PTCUL may update the progress.

**4. Agenda by ACME Solar Holdings Ltd.**

- a. Protection equipments not available in 33/11 KV GSS.
- b. SE /Executive Engineer will ensure Grid availability to all solar plants. Grid availability major concern. Generators incurring heavy financial losses.
- c. Sub-stations specifically UCL ( D) need to be modified
- d. Transmission infrastructure to be upgrade.
- e. ACME Solar power evacuation at Gadarpur Cheeni mill 33/211 GSS Grid outage regularly 2- 3 hours in best generation month Feb to June .
- f. Solar plants connected at 33/11kV UPCL substations needs to be connected to 132/33kV PTCUL s/s
- g. Problem of grid synchronization because of relay settings.
- h. For synchronizing the ABT meters with SLDC, coordination with WLDC required.  
Please include above point in agenda for discussion in meeting.

## CAPACITOR BANK STATUS

Name of State : UTTARAKHAND					MONTH- March - 2018				
S/N	Substation	Installed Capacity	Working	Defective					
1	220 KV Pantnagar	20	0	20					
2	220 KV Roorkee	30	20	10					
3	220 KV SIDCUL	20	10	10					
4	220 KV Rishikesh	10	10	0					
5	220 KV Jhajra	10	10	0					
6	220 KV Haldwani	10	10	0					
7	220 KV Chamba	0	0	0					
8	220 KV Mahuakheraganj	20	20	0					
9	132 KV Majra	25	15	10					
10	132 KV Bindal	10	10	0					
11	132 KV Purukul	10	10	0					
12	132 KV Jwalpur	25	20	5					
13	132 KV Bhupatwala	10	10	0					
14	132 KV Kotdwar	10	10	0					
15	132 KV Srinagar	5	5	0					
16	132 KV Kashipur	20	0	20					
17	132 KV Bajpur	10	10	0					
18	132 KV Kichha	20	10	10					
19	132 KV Sitarganj	10	10	0					
20	132 KV Jaspur	10	10	0					
21	132 KV Ramnagar	10	10	0					
22	132 KV Rudrapur	10	10	0					
23	132 KV Almora	10	10	0					
24	132 KV Pitoragarh	10	10	0					
25	132 KV Ranikhet	10	10	0					
26	132 KV Bhawali	5	5	0					
27	132 KV ELDICO	0	0	0					
28	132 KV Bhagwanpur	0	0	0					
29	132 KV Manglor	0	0	0					
30	132 KV Laksar	10	10	0					
<b>Total</b>		<b>350</b>	<b>265</b>	<b>85</b>					

## **Constraints/Bottlenecks in STU (PTCUL) System upto December-2017 observed by SLDC & Submitted to STU**

1	Loading on 400/220 kV Kashipur ICTs are not N-1 compliant in case of low gas generation.
2	Loading on 220 kV Puhana (Roorkee, PGCIL) – Roorkee line and lines at 220 kV Roorkee s/s are not N-1 compliant.
3	Overloading of 160MVA ICTs at 400 kV Kashipur Substation.
4	160MVA ICTs are not N-1 compliant at 220kV Roorkee Substation.
7	220kV radial feeder for 220kV Haldwani Substation.
8	132 kV radial feeder for 132 kV Laksar Substation.
9	132 kV radial feeder for 132 kV Maglore Substation.
10	132 kV radial feeder for 132 kV Ranikhet Substation.
11	132 kV radial feeder for 132 kV ELDICO Sitarganj.
12	Single 40 MVA T/F at Laltapper Substation.

**Note : 132/33 kV Transformers at following substations are not N-1 compliant in peak hours.**

1	132 kV Laksar Substation.
2	132 kV Manglore Substation.
3	132 kV Khatima Substation.
4	132 kV Eldeco Substation.
5	132 kV Kichha Substation.
6	132 kV Ruderpur Substation.
7	132 kV Jaspur Substation.
8	132 kV Ramnagar Substation.
9	220 kV Rishikesh Substation