

Eastern Regional Power Committee, Kolkata

Minutes of Special Meeting on “High voltage issues in Eastern Region” held on 22nd December, 2016 at ERPC, Kolkata

List of participants is at **Annexure-A**. Member Secretary, ERPC welcomed all the participants to the special meeting and informed that this meeting was called on short notice to address the high voltage issues in Eastern Region particularly in West Bengal and Odisha. He expressed concern on the high voltage conditions being experienced at some pockets of E. Region, during off-peak hours, since onset of winter season.

It was informed that Subhasgram 400kV, Jeerat 400kV, Arambag 400kV, Kharagpur 400kV and Meramundali 400kV sub-stations are facing acute high voltage problem. The voltage profile of these and some other S/S recorded by ERLDC SCADA system for the month of November 2016, were presented before the house. It was felt in general that drastic reduction of off-peak demand in W. Bengal and Odisha had aggravated the high voltage problem.

Representative of OPTCL informed that voltage of Meramundali 400kV S/Stn mostly remains well above 412kV during off-peak period. Flow of huge reactive power from Meramundali S/Stn to Angul(PG) 400kV S/S over Meramundali-Angul D/C line is making GRIDCO liable for payment of huge charges in ER Reactive Pool account, every week. ERLDC observed that during most of the day, reactive power flows from 400kV N. Duburi to Meramundali S/Stn of OPTCL. Further, efforts should be made to export VAR from 400kV to 220kV system of Odisha by changing the tap of Meramundali 400/220kV ICT. However, OPTCL informed that high voltage condition is existing in their 220kV system also.

After further deliberations, it was decided that OPTCL would ensure absorption of maximum possible reactive power (as per capability curve) by the units of JSPL, Vedanta and GMR(Odisha). In addition, one circuit of 400kV Meramundali-N. Duburi line is to be switched off (from both ends) in night lean hours on trial basis, and the effect on Meramundali voltage is to be monitored by ERLDC. 50MVAR line reactor at Meramundali end of Vedanta-Meramundali-I 400kV circuit is presently under outage. OPTCL should therefore endeavor to restore this reactor at the earliest.

CESC and HEL representatives informed that one unit of 2X600MW HEL TPS was scheduled to be taken under shutdown from 24-12-16, for planned maintenance. The voltage of Subhasgram 400kV exceeded 430kV on regular basis even after absorption of around 80 MVAR by each of

the units. On 15-12-16, around 112-113 MVAR was absorbed by one unit on experimental basis, keeping the other unit at unity p.f. Since it is not possible to absorb further reactive power, they had proposed raising the setting of Stg-I over-voltage protection of HEL-Subhasgram D/C line at Subhasgram end as follows, to prevent tripping of the line on high voltage:

400kV HEL-Subhasgram-I	112% with 7 sec delay
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400kV HEL-Subhasgram-II	111% with 3 sec delay
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ERLDC suggested that to control Subhasgram and Jeerat 400kV voltages, apart from HEL units, reactive power should also be absorbed by Sagardighi, Kolaghat and Bakreswar units, as per their respective capabilities. Possibility of opening one or two lightly loaded 220kV lines connected to Subhasgram(PG) may also be explored.

WBSETCL informed that one circuit each of 220kV Jeerat-N. Town and Jeerat-Kasba lines are being switched off during night off-peak hours on regular basis. As such, it is not advisable to open any 220kV line from Subhasgram(PG). CESC apprised that 220kV Subhasgram(PG)-EMSS D/C line feeds essential and critical loads of Kolkata. On reliability considerations it is not advisable to open one circuit of this line. One no. 125MVAR shunt reactor is already planned to be installed at Subhasgram, but as the same would take around 18 months to be ready, the present problem would not be addressed. WBSETCL requested to switch off one circuit each of Chaibasa-Kharagpur and Sagardighi-Durgapur(PG) 400kV D/C lines, during off-peak hours, in order to control high voltages at Kharagpur and Arambag.

ERLDC pointed out that it has already been observed in real time that opening 400kV Chaibasa-Kharagpur line has very little effect in reducing Arambag voltage. However, it would help in reducing voltage of Kharagpur. After further discussions it was decided that one circuit each of 400kV Kharagpur-Chaibasa and Sagardighi-Durgapur(PG) would be opened during night hours on experimental basis. However, at the same time, units at Kolaghat, Bakreswar, Sagardighi and Farakka should absorb reactive power upto their respective capability limits.

The meeting concluded with a vote of thanks to the chair.

Participants in Special Meeting on High Voltage issues in Eastern Region

Venue: ERPC Conference Room, Kolkata

Time: 14:30 hrs

Date: 22.12.2016 (Thursday)

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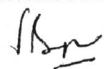

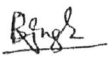
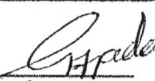


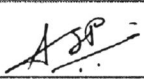
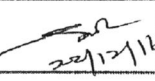
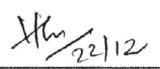
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