



विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
प्रणाली योजना एवं परियोजना मूल्यांकन प्रभाग
System Planning & Project Appraisal Division
सेवा भवन, आर. के. पुरम, नई दिल्ली-110066
Sewa Bhawan, R. K. Puram, New Delhi-110066
Website: www.cea.nic.in



[ISO: 9001:2008]

No. 1/9/SP&PA-2013 /93-111

Dated: 13.02.2015

-As per list enclosed-

Sub: Corrigendum for Minutes of the 35th Standing Committee Meeting on Power System Planning in Northern region held on 3rd November 2014 at Dehradun, Uttarakhand.

Ref: No. 1/9/SP&PA-2013 / 648-666

Dated: 17.12.2014

Sir,

Minutes of the 35th Standing Committee Meeting on Power System Planning in Northern region held on 3rd November 2014 at Dehradun, Uttarakhand has been issued vide letter referred above. Corrigendum for the minutes as annexed-I below may please be noted:-

Yours faithfully,

Sd/

(Goutam Roy)

Director

-List of Addressee-

1 - Member Secretary NRPC, 18-A Shajeed Jeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi - 110016 (Fax-01 1-26865206)	2. Director (W&P) UPPTCL, Shakti Bhawan Extn,3rd floor, 14, Ashok Marg, Lucknow - 226 001 (Fax-0522-2287822)	3. CEO, POSOCO B-9, Qutab Institutional Area Katwaria Sarai New Delhi - 110016. (Fax : 26852747)
4. Director (Projects) NTPC, NTPC Bhawan, Core 7,Scope complex- 6,Institutional Area, Lodhi Road, New Delhi- (Fax-01 1-24361018)	5. Director (Projects) PTCUL, Urja Bhawan, Campus, Kanwali Road Dehradun- 248001. Uttarakhand (Fax-0135-2763431)	6. Member (Power) BBMB, Sectot-19 B Madya Marg, Chandigarh-1 60019 (Fax-01 72-2549857)
7. Director (T&RE) NHPC Office Complex, Sector - 33, NHPC, Faridabad - 121 003 (Fax-0129-2277523)	8. Director (Operations) Delhi Transco Ltd. Shakti Sadan, Kotla Marg, New Delhi - 11 0 002 (Fax-01 1-23234640)	9. Chief Engineer(Transmission) NPCIL,9- S-30, Vikram Sarabhai Bhawan, Anushakti Nagar, Mumbai - 400 094 (Fax-022-25993570, 25563350)
10. Director (Projects) POWERGRID, Saudamini, Plot no. 2, Sector - 29, Gurgaon-122 001 Fax-0124-2571932'	11. Director(Technical), Punjab State Transmission corporation Ltd. (PSTCL), Head Office The Mall, Patiala - 147 001 (Fax-0 1 75-230401 7)	12. Chief Engineer(Operation) Ministry of Power, UT Secretariat, Sector-9 D Chandigarh - 161 009 (Fax-01 72-2637880)
13. Director (Technical) RRVPL, Vidyut Bhawan, Jaipur- 302 005. Fax 0141-2740794	14. Director (Technical) HVPNL, Shakti Bhawan, Sector -6, Panchkula - 134 109 (Fax-01 72-2560640)	15. Managing Director, HP PowerTransmission Corporation Ltd., Barowalias, Khalini, SHIMLA-171002 (Fax-01 77-2623415)
16. Director(Technical) HPSEB Ltd. Vidyut Bhawan, SHIMLA-171004 (Fax-01 77-2813554)	17. Director(Technical) THDC Ltd. Pragatipuram, Bypass Road, Rishikesh- 249201 Uttarakhand, (Fax-0135-2431519)	18. Development Commissioner (Power), Power Development Department, Grid Substation Complex, Janipur, Jammu. Fax No. 191-2530265
19. COO(CTU), POWERGRID, Saudamini, Plot no. 2, Sector - 29, Gurgaon-122 001 (Fax-0124-2571809)		

Annexure-I

1. Confirmation of the minutes of 34th Meeting of the Standing Committee on Power System Planning in Northern Region held on 8/8/2014

During the confirmation of the Minutes of 34th SCM of NR, CTU, POWERGRID informed the revised reactive compensation for Inter-regional System Strengthening Scheme for WR and NR, which has been incorporated. However, it was proposed that spare unit at Jhatikra is not required. Accordingly, following is submitted:

As per MoM:

“Existing non-switchable Line reactor at Jhatikara end of Kanpur-Jhatikara line which is to be LILoed at Orai shall be converted into switchable line reactor along with a spare unit.”

Above may be modified as:

“Existing non-switchable Line reactor at Jhatikara end of Kanpur-Jhatikara line which is to be LILoed at Aligarh shall be converted into switchable line reactor.”

2. 220kV lines for connectivity of new 400/220kV ISTS substations under ISTS strengthening

In regard to the minutes under the agenda item 2, following may be included at the last.

“POWERGRID suggested that states may suggest two nos. of 220 kV outlets which could be included under ISTS, so that the 220kV STU network is also available matching with the commissioning of the ISTS substation for drawl of power. However, constituents were of the opinion that 220kV system be constructed by STU's and proper coordination may be done.”

3. LILo of Koteshwar Pooling Station- Meerut 765 KV D/c line at proposed 765/400 KV Substation Rishikesh:

The following has been recorded in the minutes on para 2 in page 5:

“Director(Operation)PTCUL stated that:-

- a) Construction of 400 KV Srinagar-Koteshwar line has been sanctioned in past.
- b) Also power from proposed projects in Bhagirathi Valley was to be evacuated by construction of 400 KV lines up to Koteshwar. As such the Proposal would also be useful in evacuation of future Hydro power Projects in the above be also considered.”

In continuation to above, following may be included:

“POWERGRID informed that already 2400MW has to be evacuated over Koteshwar Pooling Station- Meerut lines. Accordingly transformation capacity and series capacitor were designed. Additional injection at Koteshwar Pooling Station may not be not feasible. POWERGRID further stated that with injection of power at Rishikesh, 400kV Rishikesh–Roorkee & Rishikesh-Kashipur line loadings may increase during contingency. POWERGRID suggested to replace the conductors of the above two

lines to HTLS. PTCUL stated that they do not have any expertise as well as lines are critically loaded at present. After deliberations, it was agreed that the matter for replacement of conductor in Rishikesh - Roorkee & Rishikesh - Kashipur may be reviewed later.”

In regard to para 3 in page 5, following is submitted:

As per MoM:

“He further intimated that there is space constraint at Rishikesh 400kV S/s and only two nos. 400kV line bays could only be accommodated at Rishikesh for Koteshwar Pooling Station- Rishikesh 400kV D/c line.”

Above may be modified as

“AGM, PGCIL intimated that there is space constraint at Koteshwar Pooling station and only two nos. 400kV line bays could only be accommodated at Koteshwar Pooling Station.”

In the last line of the item 3, following may be considered:

As per MoM:

“AGM PGCIL agreed with the proposal.”

The above line may be modified as:

“AGM PGCIL prima facie agreed with the proposal; however matter would be taken up with concerned group in POWERGRID. Regarding the new 220kV bay POWERGRID stated that incase all constituents agree, then additional 220kV bay could be constructed. All the constituents agreed for the same.

Accordingly, the following strengthening was agreed:

- Koteshwar Pooling Station - Rishikesh 400kV D/c (Quad) line
- One no. of 220kV bay at Roorkee 400/220kV Substation of POWERGRID

Members agreed with the above proposal.”

4. LILO of 220kV Dhauliganga- Pithoragarh(PG) for construction of Proposed 220kV GIS S/s at Jauljibi, Pithoragarh& Proposed 2x100 MVA, 220/132kV GIS s/s at Almora in Kumaon region

Under the 1st para last line of page 6, the following is submitted:

As per MOM:

“under Phase II 400/220 KV GIS Substation at Jauljibi(under central Sector) would be created and the 220kV Dhauliganga -Bareilly would be upgraded to 400kV level, PTCUL would connect the substation at 220kV S/s of Pithoragarh (PG)”

The same may be modified as:

“under Phase II 400/220 KV GIS Substation at Baram(Jauljivi)(under central Sector) would be created and the 220kV line from Pooling Station to Bareilly would be upgraded to 400kV level, PTCUL would connect the 220kV Jauljivi substation at Baram(Jauljivi) 400/220kV ISTS substation.”

In Page 7 after para 1, following may be included:

“AGM(POWERGRID) stated that both Phase-I & II works must be taken up for implementation simultaneously for reliable evacuation of power from Dhauliganga HEP. Further, the line from 400kV Baram (Jauljivi) - Bareilly would be charged at 400kV simultaneously alongwith construction of Baram (Jauljivi) 400/220kV S/s. Regarding feeding arrangement to Sitarganj, it was decided that the issue would be discussed in next meeting. It was also stated that presently Dhauliganga-Bareilly line is terminated at CB Ganj Substation of UPPTCL and this needs to be diverted to Bareilly (PGCIL) S/s.”

For the scope under Phase-II for the scheme, following is given in MoM:

“Phase II

ii) Creation of 400/220kV, 2X315MVA GIS Substation in Jauljibi area under ISTS by LILO of both ckt. of 400 kV Dhauliganga-Bareilly (PGCIL) line charged at 220 kV at Jauljibi(ISTS). The 400 kV Jauljibi S/S should have the following provisions:

400 kV side

- i) 4 nos. of 400 kV line bays
- ii) 2 nos. of 400 kV ICT bays
- iii) Space provision for 2 future bays

220 kV side

- i) 6 nos. of 220 kV line bays
- iii) 220 kV Jauljibi (PTCUL) under Phase I would be connected to Jauljibi (ISTS) 400/220kV substation through 220 kV D/C line. (line and the S/S under PTCUL scope)
- iv) The existing link of Dhauliganga-Pithoragarh (PGCIL) line at 220KV Jauljibi S/s would be disconnected.
- v) 220KV GIS substation at Almora and its associated 220KV D/C Almora-Jauljibi 400/220kV GIS Substation.”

The Standing Committee agreed with the above proposal.

The same may be considered as:

“Phase II

- i) Creation of 400/220kV, 2X315MVA GIS Substation in Jauljivi area under ISTS by LILO of both ckt. of 400 kV Dhauliganga-Bareilly (PGCIL) line (presently charged at 220 kV at 400kV Jauljivi (ISTS). The 400 kV Jauljivi S/S to have the following provisions:

400 kV side

- i) 2 nos. of 400 kV line bays for 400kV D/c to Bareilly
- ii) 2 nos. of 400 kV ICT bays
- iii) Space provision for 2 future bays

220 kV side

- i) 8 nos. of 220 kV line bays (Pithorgarh-2, Almora-2, Baram(Jauljivi)-2, Dhauliganga-2)
- ii) 2 nos. of ICT bays
- iii) 1 No. of 220kV Bus reactor bay(25 MVAR Reactor already available at Dhauliganga shall be shifted to Baram(Jauljivi) S/s)

- ii) Charging of Baram(Jauljivi)–Bareilly D/c line at 400kV level.
- iii) 220 kV Jauljibi (PTCUL) under Phase I would be connected to Baram(Jauljivi) (ISTS)400/220kV substation through 220 kV D/C line. (line and the S/S under PTCUL scope)
- iv) The existing LILO of Dhauliganga-Pithoragarh (PGCIL) line at 220KV Jauljibi S/s would be disconnected and connected to Baram(Jauljivi)400/220kV ISTS substation under ISTS.
- v) 220KV GIS substation at Almora and its associated 220KV D/C line from Almora-Baram(Jauljivi) 400/220kV GIS Substation(line and the S/S under PTCUL scope).
- vi) Diversion of Dhauliganga-Bareilly 400kV D/c line(operated at 220kV) at Bareilly end from CB Ganj to Bareilly(PGCIL)-To be finalised”

The Standing Committee agreed with the above proposal.

5. Evacuation of Ghatampur TPS (3x660 MW), Uttar Pradesh

Following may be included under item 6 at the end:

“CEA & POWERGRID requested UPPTCL to provide the evacuation scheme of UPPTCL for Ghatampur and Bilhour TPS for UP share from the generations, along with the state load data so that studies can be reviewed. Also, NLC for

Ghatampur generation & NTPC for Bilhaur generation are to apply for LTA at the earliest.”

6. Transmission works at 765, 400 and 220kV undertaken by UPPTCL

Following may be included under item 8 at the end:

“CTU informed that there is no space at Meerut (PG) and Agra (UP)-Meerut 765kV is not feasible as proposed under 765kV Substations & lines at S. No. 1- ii. Further, transmission system for Ghatampur TPS would be revisited as discussed above.”

7. Creation of new 400kV substations in Gurgaon area and Palwal area as a part of ISTS- Agenda by HVPN

Following may be included under item 9 at the end:

“AGM POWERGRID stated that all the three new substations need to be GIS because of land constraints. He emphasized the need for bus reactor (1*125MVAR) at each of the proposed new Substations as load variation in Haryana is very high.”

Under **Additional Agenda** following item may also be included in the minutes:

1. Koldam – Ludhiana 400 kV D/C and Parbati – Koldam (excluding Parbati – II to Parbati – III section)

In item 1, 8th line, following para has been mentioned in the minutes:

“Considering adequacy of power evacuation requirement from the Koldam project and 400 kV Nallagarh /Parvati line bay already installed by NTPC in their generation switchyard the subject line bay rating of 2000A were accepted in NR SCM. Since the up-gradation requirement of subject 400KV bays (from 2000A to 3000A for Nallagarh/Parvati quad line) would be arising in future primarily due to addition of new generations/network elements in the nearby complex, any cost to be incurred on account of above bay up-gradation work should be under the head of such additional network element for which it would be required in future.”

As per the discussions held during the 33rd Standing Committee Meeting of NR held on 23/12/13, it was agreed that since the evacuation lines are of high capacity (triple/quad), the bay equipment’s rating should have been equivalent to the line capacity. Accordingly, connectivity to the grid was permitted subject to following conditions:

- Considering that the Koldam HEP generation is to be commissioned shortly and the switchyard is already commissioned, the line bay equipment rating of 2000 Amp provided at Koldam switchyard may be considered at present as the bay equipment’s had already been erected.

- In future depending upon the requirement, NTPC would carry out the upgradation of bay equipment's rating in line with the evacuation lines, as per the directions of SCM / NRPC. This up-gradation work would not be taken up as strengthening scheme and it will be done by NTPC at their cost.

It is proposed that the above quoted para given in the MoM of 35th SCM may be deleted. After deletion of the para, following may be added:

“Keeping in view the discussion held in 33rd SCM & in the present meeting, it was agreed that any cost incurred by NTPC on account of subject up gradation work (in future) would be capitalized to the project in line with CERC tariff guidelines.”

2. 400kV Panchkula–Patiala D/c without M/c towers for Panchkula-Chandigarh 220kV D/c &M/c towers for Panchkula-Chandigarh 220kV D/c in Haryana

“POWERGRID stated that following transmission strengthening was approved in 31st Standing Committee Meeting of Power System Planning of Northern Region held on 02/01/2013 under Northern Region System Strengthening(NRSS-XXXII):

- a. 400 kV Panchkula – Patiala D/c line (with 10 km on multi-circuits towers in forest area near Panchkula for accommodating 220 kV D/c line for power supply to Chandigarh)

From the site inputs, it is gathered that provision of multicircuit towers is not desired near Panchkula for accommodating 220 kV D/c line to Chandigarh as the route alignment of Panchkula-Patiala 400kV D/c line & Panchkula-Chandigarh 220kV D/c line do not share common alignment and multicircuit portion of 400kV transmission line to be used for 220kV D/c line is not feasible. Accordingly, it was proposed that the 400 kV Panchkula – Patiala D/c line is without multicircuit towers.

HVPNL stated that the provision of M/c towers may be kept in the Panchkula-Chandigarh 220kV D/c line traversing in Haryana portion.

The Standing Committee agreed for the same.”