

Government of India
Central Electricity Authority,
SP&PA Division
Sewa Bhawan,
R.K. Puram, New Delhi-110066

No.66/5/99-SP&PA/

Dated : 5-12-2007

1. Member (Transmission),
Bihar State Electricity Board
Vidyut Bhavan, Baily Road,
Patna-800021.
2. Director (System),
Damodar Valley Corporation
DVC Towers, VIP Road,
Kolkata-700054.
3. Member Secretary,
Eastern Regional Power Committee,
14, Golf Club Road, Tollygange,
Kolkata-700033.
4. Director (Transmission),
Orissa Power Transmission Corporation Ltd,
Jan path, Bhubaneshwar-751022.
5. Director (System Operation),
West Bengal State Electricity
Transmission Company Ltd,
Vidyut Bhavan, 5th Floor, Block-D,
Bidhannagar, Sector-II
Kolkata-700091.
6. Principal Chief Engineer cum Secretary,
Power Department
Government of Sikkim
Sikkim.
7. Director (Projects),
Power Grid Corporation of India
"Saudamini" Plot No. 2, Sector-29
Gurgaon-122001
8. Director (Technical),
NTPC Limited,
Engineering Office Complex,
A-8, Sector 24, Noida.
9. Member (Transmission),
Jharkhand State Electricity Board,
In front of Main Secretariat,
Doranda, Ranchi-834002.
10. Executive Director (T&RE),
NHPC Ltd, NHPC Office complex,
Sector 33, Faridabad-121003.
11. Sr. Vice President,
Power Trading Corporation
NBCC Towers, 2nd floor,
13, Bhikaji Cama Place, New Delhi.

**Sub: Minutes of the meeting of the Standing Committee on Power System
Planning in Eastern Region held on 5th November 2007 at Ranchi.**

Sir,

Minutes of the Standing Committee meeting on Power System Planning in
Eastern Region held at Ranchi, Jharkhand on 5th November 2007 is enclosed.

Encl: as above

Yours faithfully,

PK Pahwa
5/12/07
(P. K. Pahwa)
Director(SP&PA)

Minutes of the meeting of the Standing Committee on Power System Planning of Eastern Region held on Monday the 5th November 2007 at Ranchi, Jharkhand.

A meeting of the Standing Committee on Power System Planning of Eastern Region was held at Ranchi on Monday the 5th November 2007. List of participants is at Annex-I

Shri V. Ramakrishna, Member (Power System), CEA welcomed all the participants to the meeting and thanked POWERGRID for organizing the meeting and for the excellent arrangements. He stated that large no of hydro projects of various capacities were under implementation/proposed to be implemented in Sikkim. The main beneficiaries of these projects would be constituents of Northern and Western region. Evacuation system from these projects had been evolved in an integrated manner to conserve and optimize the right of way. He stated that similarly a number of IPP generation projects were also anticipated to come up in Orissa and Jharkhand and similar exercise would need to be done for these projects. He requested the representatives from utilities of these states to interact with the developers and impress upon the various project developers to apply for open access indicating the time frame and beneficiaries so that similar integrated evacuation system could be evolved from the proposed projects of Orissa and Jharkhand

The agenda items were thereafter taken up.

1.0 Confirmation of the minutes of the meeting held at Puri, Orissa on 05.05.2007.

1.1 Chief Engineer(SP&PA), CEA stated that minutes of the Standing Committee meeting held on 05.05.2007 at Puri, Orissa were circulated vide CEA letter No. 66/5/99/SP&PA/206-216 dated 28.05.2007. No Comments have been received on the minutes.

The minutes of the Standing Committee meeting on Power System Planning of ER held on 5-5-2007 were thereafter confirmed.

2.0 Review of Progress on Earlier Agreed Transmission Schemes

2.1 The status of various schemes under implementation indicated by PGCIL during the meeting is enclosed at Annex-2.

2.2 Regarding commissioning schedule of January 2008 indicated by PGCIL for Teesta-V – Siliguri 400 kV D/C line, General Manager, NHPC stated that 1st unit of Teesta-V would be test synchronized by end of November 2007 and the transmission line was required early for test synchronization. Executive Director, PGCIL stated that if NHPC desired early commissioning then they should intimate PGCIL and agree to pay transmission charges for the period prior to commissioning of generating units. Member (PS), CEA observed that normally commissioning of line was planned a few days ahead of commissioning of generating units but if NHPC desired the commissioning of the transmission line to be advanced by two months, they should, apart from paying transmission charges, also have specific reason for such a request. GM, NHPC stated that they would revert back on the issue separately.

3.0 Transmission System for Export of power from different generation projects in Sikkim to NR/WR.

3.1 Chief Engineer (SP&PA), CEA stated that it was reported that a number of hydro projects having total generation capacity of the order of 4200 MW in Sikkim were under implementation/proposed to be implemented during 2007-11/12. Out of these 10 nos of projects having total generation capacity of the order of 2900 MW were planned in the Northern part of Sikkim and 11 nos of projects having total generation capacity of the order of 1400 MW were in Southern part of Sikkim. The beneficiaries of these projects were mainly the constituents of NR and WR. PGCIL intimated that open access applications for 14 no projects had been received of which beneficiaries had been indicated only for Teesta-III (1200 MW), Teesta-VI (500 MW), Rangit-IV (120 MW), Rongnichu (96 MW) and Chuzachen (118 MW). For the rest of the projects only the region(s) had been indicated.

3.2 CE, SP&PA, CEA stated that comprehensive transmission system had been evolved for power evacuation from projects in Sikkim. The proposed evacuation system had pooling stations at different locations. For onward transmission beyond pooling stations, high capacity transmission corridor had been planned keeping in view the right of way problem in the hilly area. The high capacity transmission corridor comprises of 2 nos. of 400kV D/C line

(quad conductor) from the major pooling substations at Mangan and New Melli to a new pooling station near Siliguri from where power would be further transmitted to Agra utilizing the ± 800 kV, 6000 MW HVDC bipole line planned under "NER-NR interconnector-I". This line would be looped in and looped out at the new pooling station, where a 3000 MW HVDC terminal (rectifier) would be connected for injecting additional power from Sikkim in the HVDC bipole line. The 3000 MW inverter end of the HVDC terminal would be connected at Agra from where power can be transferred to NR/WR. He requested PGCIL to inform the location of the HVDC terminal station. Executive Director (PGCIL) intimated that HVDC terminal station was proposed near Kishanganj. Chief Engineer (SP&PA) stated that location of the HVDC terminal station should be such to reduce the no of lines in Chicken neck area.

3.3 The proposed transmission system as per PGCIL's Agenda for Long Term open Access is as per Exhibit-I. The scheme was discussed and the following points emerged/agreed:

- (1) The various pooling stations in Sikkim would need to be planned as per following
 - (i) 220/132 kV at Rangpo
 - (ii) 400/220 kV at New Melli
 - (iii) 400/132 kV at Mangan
 - (iv) 400/132 kV at or near Teesta-II

- (2) The commissioning schedule Chuzachen HEP (118 MW) was stated to be Dec 2008 and the project authorities stated that the project commissioning was expected latest by June 2009. All the other projects were proposed for commissioning during 2010-12 time frames. As, Rangpo and New Melli Pooling substations would not be available by December 2008 or June 2009, step up voltage at Chuzachen(118 MW) could be at 132 kV level and a 132 kV D/C line from Chuzachen to proposed substation at Rangpo could be constructed and for immediate evacuation of power from this project, the 132 kV line could be LILLOed in to the existing Gangtok-Melli 132 kV circuit and power evacuated

using the capacity margins in the 132 kV network. As the capacity margin in 132 kV network was limited, there would be constraints in this arrangement and full power of Chuzachen may not be evacuated under system contingencies. However, there was no other solution as it was not feasible to construct Rangpo and New Melli substations and the 220 kV and 400 kV transmission link in the stated time frame for commissioning of Chuzachen HEP. Later when New Melli and Rangpo Pooling stations were constructed, the 132 kV line from Chuzachen could terminate at Rangpo and both the circuits of the 132 kV line from Rangit-III/Melli to Gangtok would also be LILoed at Rangpo with bus sectionalisation at Rangpo 132 kV so that Rangit-III/Melli-Rangpo ckts could be sectionalized at Rangpo and if the power flows on the 132 kV circuits downstream of Rangpo exceeded limits in actual operation, the CB connecting the two bus sections could be opened to divert the power from 132 kV side to 220 kV side.

- (3) Rolep HEP (36 MW) near Chuzachen was also proposed during 2011 time frame. It was suggested that Rolep could be connected to Rangpo through a 132 kV D/C line LILoed into one of the Chuzachen-Rangpo circuits. The 132 kV D/C line from Chuzachen as well as the LILo line to Rolep could have higher conductor specification taking in to account Chuzachen as well as Rolep hydro projects.
- (4) As Gangtok substation would be getting feed from Rangpo as well as Dikchu, 132kV would be adequate and 220 kV level at Gangtok may not be required. Also there was space limitation at the Gangtok substation. Further, Dikchu (96 MW) power could be evacuated at 132 kV and provision of 220 kV at Dikchu was also not necessary. With the above changes, the proposal for Rangpo-Gangtok 220 kV line would get deleted and Mangan- Dikchu line would get changed to 132 kV D/C line instead of 220 kV line. Further, 220 kV level at Mangan would also get deleted.
- (5) Rangyong-Panan 132 kV would require creation of 132 kV level at Panan. Instead of at Panan generation switchyard, 132 kV voltage level

should be created at Mangan pooling station and 132 kV line from Rangyong taken to Mangan.

- (6) Evacuation from BOP Chungtang (99 MW), Bhimyong (90 MW) and Lachun (40 MW) could be planned at 132 kV directly up to pooling station at or near Teesta-II which could be 400/132 kV pooling station.
- (7) Instead of separate 220 kV D/C lines from Rangit IV and Jorehang to New Melli, only one 220 kV D/C line viz, Rangit-IV - New Melli could be provided and one circuit of this line could be LILoed at Jorehang. In case Jorehang got commissioned first, the line could be from Jorehang to New Melli and LILo at Rangit-IV to match the commissioning of generation project.
- (8) Teesta VI-New Melli line had been proposed at 400 kV. This line could be at 220 kV level with adequate capacity instead of 400 kV.
- (9) At the new pooling station on NER-NR/WR interconnector, instead of LILo of both the circuits of Purnea-Siliguri 400 kV D/C lines (One Quad D/C and on high tem. conductor D/C), only one line (Quad D/C) may be LILoed.

3.4 With the above changes, the single line network diagram of evacuation lines for Sikkim project would get modified as per enclosed Exhibit-II and the transmission system for the various hydro projects in Sikkim would be as follows

A. Transmission System for development of pooling stations in Sikkim and transfer of power to a new pooling station on NER-NR/WR HVDC interconnector.

Pooling Station

- (i) 220/132 kV at Rangpo
- (ii) 400/220 kV at New Melli
- (iii) 400/132 kV at Mangan
- (iv) 400/132 kV at or near Teesta-II

Transmission Line

- i) Teesta-II Pooling Point – Mangan 400 kV D/C (Twin Lapwing).

- ii) Mangan – New Pooling Station (for HVDC terminal) 400 kV D/C line with quad conductor.
- iii) Mangan – New Melli (new) 400 kV D/C (Quad Moose).
- iv) New Melli – New Pooling Station (for HVDC terminal) 400 kV D/C (Quad Moose).
- v) Rangpo – New Melli 220 kV D/C line (single Moose).
- vi) LILO of both circuits of Gangtok- Melli 132 kV D/C at Rangpo

B. Transmission System for development of pooling stations on NER-NR/WR HVDC interconnector.

- i) LILO of Siliguri(Existing) – Purnea 400 kV D/C Quad line at the new pooling station.
- ii) LILO of Siliguri(Existing) – Dalkhola 220 kV D/C line at new pooling station.
- iii) LILO of Biswanath Chariali – Agra +/- 800 kV, HVDC line at new pooling station for parallel operation of HVDC station.
- iv) Establishment of New 2x315 MVA, 400/200 kV and +/- 800 kV, 3000 MW HVDC sub-station at new pooling station
- iv) Earth Electrode line for the new pooling station.
- v) Addition of +/- 800 kV, 3000 MW HVDC Module at Agra.
- vi) Earth Electrode line at Agra HVDC terminal.

3.5 The time schedule of implementation of various transmission elements of the comprehensive transmission scheme was also discussed during the meeting and it was agreed that PGCIL would prepare a phased time schedule of transmission system matching with the various generation projects which are proposed in Sikkim. All the Project developers would furnish the latest schedule of commissioning of their generation projects to PGCIL and CEA so as to finalize the phasing of completion of the transmission lines. The developer also needs to agree to sign BPTA with PGCIL corresponding to their commissioning schedule.

NOTE : Detailed minutes for Open Access Session of discussion/decisions to be issued by PGCIL.

4. Transmission system from the new generation capacity planned by DVC viz. Koderma TPS (2x500 MW), Bokaro-Ext. (1x500 MW), Mejia-B (2x500 MW), and Maithon RB (1000MW)

4.1 Chief Engineer (SP&PA), CEA stated that transmission system for the new generation capacity planned by DVC viz. Koderma TPS (2x500 MW), Bokaro-Ext. (1x500 MW), Mejia-B (2x500 MW), and Maithon RB (1000MW) was finalized in the last SCM held at Puri on 5th May 2007 and was identified for implementation by private sector through the Empowered Committee and accordingly this scheme was entrusted to PFC as Shell Company for development under the competitive bidding route. As per the original schedule Request for Qualification (RfQ) document for the transmission project was to be issued by March 2007. However, PFC had indicated that they would be in a position to issue the project specific RfQ only after finalization of certain necessary changes in the standard bid document and guidelines by MoP and issuance of Regulations on Grant of License for intra-state transmission by CERC. The various generation projects are scheduled for commissioning between December 2009 and November 2010. As the transmission system was getting critical, DVC had suggested that this scheme be taken up by PGCIL. The implementation of the scheme was therefore reviewed by MoP and based on CEAs recommendation MoP had directed PGCIL to take up the scheme and match the same with the generation projects.

Members noted the above

5. Associated transmission system for Nabinagar TPP (4x250 MW) of JV of NTPC and Railways.

5.1 NTPC stated that CCEA had approved implementation of Nabinagar TPS(1000 MW) with 74% equity from NTPC and 26% equity from Railways and also approved establishment of Joint Venture Company Ltd for establishing the project. NTPC further stated that 90% power generated from

this project was for Railways and out of remaining 10% power Bihar and Jharkhand were allocated 58 MW and 42 MW respectively. NTPC further stated that

- 5.2 Chief Engineer (SP&PA), CEA stated that for evacuation of power from Nabinagar TPP (1000 MW), Nabinagar TPP-Sasaram 400 kV D/C line had been identified as a dedicated transmission system of Nabinagar TPP. To tie up the connectivity and also the transmission system beyond Sasaram, NTPC/Nabinagar JV Company would need to apply for open accesses to CTU. Necessary system strengthening, as may be required for this, would be identified based on the processing of their open access application. The requirement could be met through early commissioning of already planned lines and additional transmission system being planned with Tilaiyya UMPP etc. Inter-state transmission system beyond Sasaram would be developed by Power Grid. Bihar and Jharkhand would get their share from this project through ER grid and for supply to Railways, all connecting network would be used. Regarding the dedicated transmission line from Nabinagar TPP to Sasara, the conductor specifications could be decided by the project developer based on the margin for future expansion at their Nabinagar TPP. The responsibility of implementing the dedicated line was of the project developer viz JV company. If they wanted this to be done by PGCIL, they should tie up with PGCIL either on cost basis or full transmission charge basis.
- 5.3 The issue whether NTPC/Nabinagar JV need to apply for open access was also discussed. Member (PS) CEA stated that EA 2003 had provided for non-discriminatory open access and as per the regulations formulated by CERC, application for long-term open access for inter-state transmission was to be made to CTU. Accordingly, all project developers (or their beneficiaries) were required to apply for long term open access. and as per the regulations formulated by CERC, long term open access for inter-state transmission was to be made to CTU.
- 5.4 The issue of sharing of transmission charges for Nabinagar-Sasaram line was also discussed. NTPC were of the view that charges for this line should be pooled within the ER regional charges. CE (SP&PA), CEA stated that in

other cases being dealt through open access application, the transmission charges for the dedicated transmission lines connecting the generating station to the grid prints were not being pooled in the regional charges. Member (PS), CEA stated that if all the constituents agreed then transmission charges for this line could be pooled in to the regional charges. He requested the constituents to give their views. The representatives from WBSETCL and BSEB stated that Nabinagar-Sasaram 400 kV D/C line was a dedicated system for Nabinagar TPS and as such they were not agreeable to pooling of the transmission charges for this line in the regional charges and the beneficiaries of the project would need to bear the transmission charges.

- 5.5 It was decided that NTPC would take further necessary action regarding open access application as well as tying up of the execution of Nabinagr-Sasaram 400 kV D/C line.

6. Transmission System for Farakka-III (500MW MPP of NTPC)

- 6.1 Chief Engineer (SP&PA), CEA stated that with regard to open access application for Farakka-III TPS (500 MW) the Farakka-Kahalgaon 400 kV 2nd D/C line (3rd & 4th ckt) was agreed as a regional system. However, NTPC had earlier intimated that there were space constraints at Kahalgaon switchyard in accommodating the two no 400 kV line bays as space for only one bay was available and they were requested to explore the possibility of creation of space at Kahalgaon switchyard. NTPC had recently vide their letter dated 13-9-2007 confirmed availability of space at Kahalgaon switchyard for 2 no 400 kV line bays with the stipulation that the allocation of bays for the above line would be subject to rearrangement of 400 kV Biharshriff-Kahalgaon lines. In view of the clarification furnished by NTPC the evacuation system for Farakka-III would be Farakka-Kahalgaon 400 kV second D/C line(3rd & 4th ckts).
- 6.2 Chief Engineer (SP&PA) stated that with regard to pooling the transmission charges for the Farakka III – Kahalgaon line with in the regional charges together with NTPC sharing the transmission charges for the ER with 500 MW in numerator of NTPC and the same added to denominator of ER, it was

to be noted that earlier, in case of Parulia-Jamsedpur-Baripada-Mendhsal 400 kV D/C line, CEA had suggested pooling in to regional charges but the constituents of ER did not agree and the construction of the line could be taken-up only when WBSEDCL and DVC agreed to bear the transmission charges without pooling the same into regional charges. Farakka III – Kahalgaon 400kV D/C line for Farakka III (500MW MPP of NTPC) was on similar footing. In both the cases, the additional network would operate in an integrated manner with the existing network and all such system strengthening and also the system strengthening by providing new 400 kV substation for delivery of power in to states network such as the proposed Bolangir substation, that form part of regional grid, should be pooled with the existing regional system for the purpose of transmission charge sharing. Member (PS), CEA endorsed the same and sated that continuing with the pooling arrangement would be a win-win situation for all.

6.3 NTPC stated that that Farakka-III- Kahalgan line would help in evacuating power from Farakka and other generation projects in ER in integrated manner and only those systems should be considered as “dedicated system” where the power flow was solely on account of the dedicated generator or beneficiary and power flow ceases whenever the associated dedicated generation or the drawl becomes zero. As such, the Farkka III – Kahalgaon line and other such lines operating in integrated manner wheeling power from more than one sources should not be treated as dedicated lines and transmission charges for such lines should be pooled in to the regional charges and NTPC concurred with the view expressed by CEA in this regard. NTPC also agreed to bear ER transmission charges corresponding to the full 500 MW capacity of Farakka III and requested PGCIL to take-up the implementation of the works at the earliest.

6.4 After discussions it was decided to place before ERPC for consideration with recommendation for concurrence for the proposal of pooling the transmission charges for the following schemes:

(a) Farakka III – Kahalgaon 400kV D/C line with 500 MW of Farkka;

- (b) Parulia-Jamshedpur-Baripada-Mendhsal 400kV D/C line with 40% of 2920 MW (1920 MW of WBSEDLC and 1000 MW of DVC) ; and
- (c) Bolongir 400kV s/s with ER share in North Karanpura;

Also similar treatment for other future schemes.

7. Transmission proposal of WBSETCL for evolving intra/inter state transmission system during XI Plan Period.

7.1 WBSETCL, vide their letter dated 16-10-2007 had proposed the following transmission works:

- (a) 220 kV D/C line from Dalkhola (PG) to proposed 220/132kV Dalkhola s/s of WBSETCL.
- (b) Subashgram(PG)- Jagatballavpur 400 kV D/C line.
- (c) LILO of one ckt of Maithon- Ranchi 400 kV D/C line at PPSP
- (d) Guptamani-Jamsedpur 400 kV D/C line
- (e) Gokarna-Binaguri(PG)/ Purnea(PG) 400 kV D/C line
- (f) 132 kV connectivity with Melli(Sikkim) to WBSETCL system at Kalimpong.

7.2 (a) 220 kV D/C line from Dalkhola (PG) to proposed 220/132kV Dalkhola s/s of WBSETCL.

WBSETCL stated that 220 kV connectivity of WBSETCL system with Dalkhola 220 kV Switching Station of POWERGRID was required to meet the load demand of Malda, Dinajpur(S) and Dinajpur(W). Member (PS) stated that connectivity to WBSETCL network from Dalkhola substation could be provided subject to availability of space for bays.

The proposal was agreed subject to confirmation by PGCIL regarding availability of space for the bays and WBSETCL bearing the cost of bays at Dalkhola.

7.3 (b) Subashgram(PG)- Jagatballavpur 400 kV D/C line

This proposal was also discussed during the last meeting of SCM of ER. Chief Engineer WBSETCL stated that Jagatballavpur substation would be fed from Bakreswar TPS, Sagardighi TPS and Katwa STPS through 400 kV line. The line from Jagatballavpur to Subashgram was proposed for reliable supply to Subashgram area and not for injection in to the regional grid. Chief Engineer (SP&PA) stated that this was discussed during the last meeting and the view was that development of transmission system of the state was within the preview of the state and wherever interconnection from regional grid was required for drawal of power , the same could be provided with cost of bays at the regional station to b paid by the state utility. Accordingly the proposal of WBSETCL for Subashgram(PG) – Jagatballavpur 400 kV D/C could be agreed. However wherever interconnection and consequent injection by the state in to regional grid was involved WBSEDCL would need to apply for open access.

POWERGRID confirmed availability of space for the 2 nos. 400 kV bay at their Subashgram 400 kV sub-station required for termination of the line and the proposal for providing bays to WBSETCL on cost basis for connecting WBSETCL line from Jagatballavpur was concurred.

7.4 (c) LILO of one ckt of Maithon-Ranchi 400 kV D/C line at PPSP

This proposal was also discussed in the last meeting of SCM of ER. Chief Engineer, WBSETCL stated that Maithon-Ranchi 400 kV D/C line of PGCIL was in close proximity to the Purulia pumped storage plant and suggested LILO of one ckt of this line at PPSP. He further stated that LILO of one circuit of Maithon-Ranchi at PPSP would be useful and as the proposal of WBSETCL involved injection in to the eastern grid through this line then line beyond Ranchi would be over loaded. Chief Engineer(SP&PA), CEA stated that proposal involved injection in to the regional grid and WBSETCL would need to apply for open access for further examination and firming up.

7.5 (d) Guptomani-Jamsedpur 400 kV D/C

This proposal was also discussed during the last SCM of ER. Chief Engineer, WBSETCL stated that Guptamoni would be directly connected with KTPS and with Sagardighi via Jagatballavpur and as such this link would be useful under surplus conditions for export of power. Chief Engineer (SP&PA) stated that as it was being proposed to export power through this link WBSETCL would need to apply for open access indicating the quantum and the likely beneficiaries for firming up the proposal. Also, depending upon the quantum of export for which LTOA would be sought, necessary strengthening beyond Jamsedpur as may be required would also be firmed up.

7.6 (e) Gokarna-Binaguri(PG)/ Purnea(PG) 400 kV D/C line

This proposal was also discussed during the last SCM of ER. Chief Engineer, WBSETCL stated that this link would be useful during winter periods when hydro generation would be low in Sikkim, Bhutan and NER and when the existing links between north and south Bengal may get over loaded. Member (PS), CEA stated that the studies done in CEA had not shown the need of planning this line at this stage as the existing and planned links were found adequate. In case additional links were needed they could be taken from Purnea to avoid ROW constraints in chicken neck area. Also prior to proposing any north to south connectivity WBSETCL would need to carry out a study under various scenarios for justification of their proposal.

7.7 (f) 132 kV connectivity with Melli(Sikkim) to WBSETCL system at Kalimpong.

Chief Engineer, WBSEDCL stated that at present Kalimpong 66/11 kV substation (16.3 MVA capacity) draws power from Chalsa and Melli at 66 kV and there was no space for future expansion. WBSEDCL had planned a 132/66/33 kV substation at Kalimpong. This substation would be connected to Chalsa through 132 kV line. He proposed another 132 kV interconnection for Kalimpong from Melli (Sikkim) 132/66 kV substation for reliable supply. Chief Engineer (SP&PA) stated that the corridor downstream of Melli was to accommodate the 400 kV lines proposed for power evacuation from Sikkim hydro projects and considering

the ROW constraints, WBSETCL may consider 132 kV D/C line between Chalsa and Kalimpong.

8. Establishment of 400/220 kV substation at Bolangir by LILO of Meramundali-Jeypore 400 kV S/C line.

8.1 Chief Engineer (SP&PA) stated that establishment of 400 kV substations at Bolangir was discussed during the last Standing Committee meeting and the ER constituents were not agreeable to the same as a regional scheme and it was decided that Bolangir substation could be taken up for execution by POWERGRID for earliest implementation and OPTCL would bear the transmission charges till finalization of shares from new ISGS projects viz Norh Karanpura, Barh-II etc. However GRIDCO had subsequently vide their letter had expressed reservations stating that since the CTU network was in optimum use and Bolangir substation was required for supply of additional power to GRIDCO in view of additional allocation from Kahalgaon Extn and expected allocation from the upcoming NTPC generating stations it should be provided as a regional substation. Chief Engineer (SP&PA) opined that Bolangir substation and also other such proposal should form part of the regional scheme otherwise there would be difficulty in firming up any proposal as a regional scheme . It was decided that this could be taken up at the RPC meeting.

9. Long term Open access cases

9.1 In addition to the open access proposals for Sikkim projects and Farakka-III (500 MW) of NTPC which have been discussed at Para 3 and Para 6 respectively of the minutes open access cases for Chitrapur (4x135 MW) Distt Latehar in Jharkhand) by PTC Ltd and Gurudijhatia (560 MW), Distt Cuttak, Orissa by M/S KVK Nilachal Power Pvt Ltd were also discussed.

9.2 Regarding Chitrapur it was discussed that the interconnecting line should be planned keeping in view future expansion plan at the generating station. PGCIL suggested that considering the expansion, they should plan 400kV D/C line with quad conductors. However, the project authorities stated that they had planned

twin moose conductor 400kV D/C line and keeping in view the commercial aspects, they would retain the same and with expansion at generating station, they would plan additional line.

- 9.3 Regarding Gurudijhatia, it was discussed that as the project interconnectivity was proposed through LILO of Baripada – Mendhsal 400kV D/C line which was being built with transmission charges committed by DVC and WBPDCIL and not pooled with ER charges, the project developer/PTC would share its transmission charges with DVC and WBPDCIL in such ratio as may be derived based on projected utilization of the line and agreed among them. For further transmission using pooled network of ER and other regions, they would bear proportionate transmission charges payable to PGCIL.
- 9.4 Detailed minutes for the long term open access cases would be issued by PGCIL.

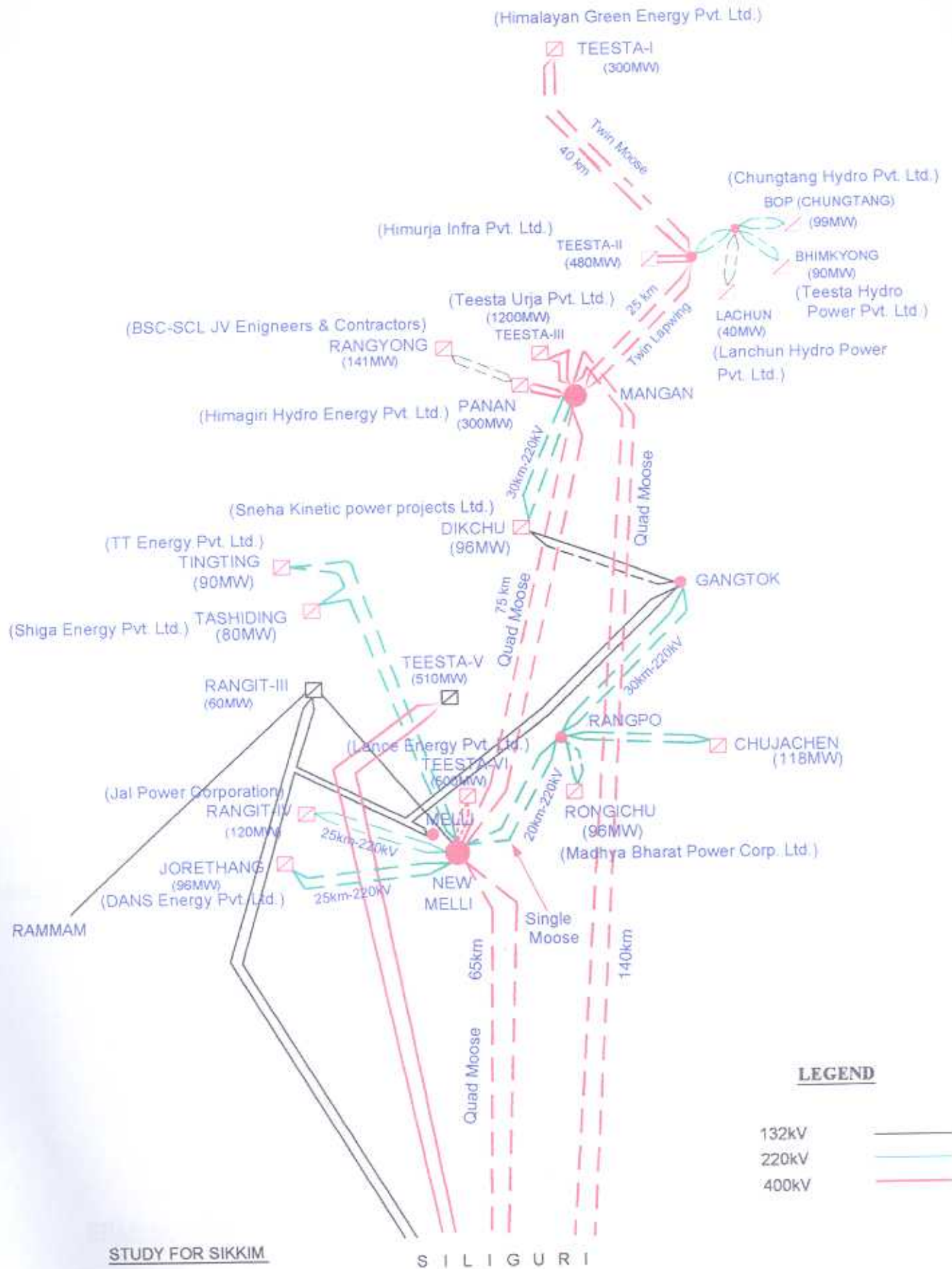
List of participants for the Standing Committee Meeting on Power System Planning in ER held on 05.11.07 at Ranchi, Jharkhand.

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Status of Projects in Eastern Region

Sl No.	Project / Transmission Line	Status
1	Teesta-V Transmission System	To be Commissioned matching with 1st unit of generation Project (Jan 15th, 2008)
2	Ranchi - Sipat 400kV D/c	Expected to be Commissioned in March, 2008
3	ERSS-I	Expected to be Commissioned in Oct, 2009
4	ERSS-II	Expected to be Commissioned in Oct, 2009
5	Trans. Sytem (in ER & NR) for export of power from Sikkim to NR	DPR submitted to MoP on 13-09-2007
6	Transmission System for DVC & Maithon-RB generation Projects	DPR submitted to MoP on 24-09-2007
7	Supplementary Transmission System for DVC & Maithon-RB generation Projects	DPR submitted to MoP on 14-11-2007

TRANSMISSION SYSTEM AS WAS PROPOSED IN THE AGENDA CIRCULATED BY PGCIL



**TRANSMISSION SYSTEM FOR EVACUATION OF POWER FROM HYDRO PROJECTS
IN SIKKIM- AS AGREED IN THE MEETING OF ER STANDING COMMITTEE ON 5.11.07**

