

MINUTES OF THE 49th SLCF MEETING HELD ON 19.05.2017

Shri. P. K. Kundu, Chief Engineer (SLDC), WBSETCL & Chairperson, SLCF welcomed all the participant members to the 49th SLCF meeting.

ITEM-1: CONFIRMATION OF THE MINUTES OF THE 48th SLCF MEETING HELD ON 27/02/2017.

The minutes was circulated vide memo no: **SLDC/How/109/1870** dated 18/03/2017 and the same was also published in the website (www.wbslhc.in).

A Corrigendum of the minutes of the 48th SLCF Meeting held on 27.02.2017 has also been published vide memo no: **SLDC/How/109/256** dated 11/05/2017.

The minutes of the 48th SLCF meeting was taken as accepted.

ITEM-2: REVIEW OF THE STATE GRID PERFORMANCE:

Power point presentation on Grid Performance for the month of February 2017, March 2017 & April 2017.

Superintending Engineer, SLDC made a Power point presentation on the grid performance based on operational statistics for the period February 2017, March 2017 & April 2017. A critical analysis on the grid performance reveals the following:

- 2.1 Availability of WBPDC power plants in terms of *NAPAF & *PAFM for the month of February 2017, March 2017 & April 2017 are as follows:

Generating Station.	February 2017		March 2017		April 2017	
	NAPAF (%)	PAFM (%)	NAPAF (%)	PAFM (%)	NAPAF (%)	PAFM (%)
<i>BTPS</i>	74	86.56	74	86.44	74	68.80
<i>STPS</i>	85	100.19	85	98.13	85	94.18
<i>KTPS</i>	75	58.92	75	39.95	75	43.66
<i>BkTPP-I</i>	85	95.29	85	95.33	85	94.99
<i>BkTPP-II</i>	85	81.04	85	83.59	85	88.97
<i>SgTPP</i>	85	62.51	85	91.15	85	89.57

* **NAPAF**: Normative Annual Plant Availability Factor (in %).

***PAFM** : Plant Availability Factor achieved during the Month (in %).

2.2 Potential Demand of WBSEDCL in MU.

Month	Potential Demand	Remarks
February 2016	2508.970	0.05% Low
February 2017	2507.738	
March 2016	3159.030	4.74% Low
March 2017	3009.444	
April 2016	3479.616	3.57% Low
April 2017	3355.225	

2.3 Gross Generation of WBPDC (in MU) during February 2017, March 2017 & April 2017

February 2017	March 2017	April 2017
2009.65	2068.20	2060.79

2.4 System met and system Potential of distribution licensees during February 2017, March 2017 & April 2017 were as follows:

CONSTITUENT	February 2017		March 2017		April 2017	
	System Met (MU)	System Potential (MU)	System Met (MU)	System Potential (MU)	System Met (MU)	System Potential (MU)
WBSEDCL (OWN)	2501.94	2507.74	3002.53	3009.44	3328.92	3355.23
CESC	681.86	681.90	868.99	868.99	1055.24	1055.27
DPL	137.87	138.12	157.33	157.88	170.19	171.53

2.5 The Maximum demand (potential) and their time of occurrence during February 2017, March 2017 & April 2017 were as follows:

CONSTITUENT	MAXIMUM DEMAND (MW)		
	February 2017	March 2017	April 2017
WBSEDCL (OWN)	5393 MW on 22.02.17 at 20.00 hrs.	6277 MW on 31.03.17 at 20.00 hrs	6237 MW on 13.04.17 at 20.00 hrs.
CESC	1512 MW on 22.02.17 at 18.00 hrs.	1717 MW on 30.03.17 at 19.00 hrs.	1973 MW on 28.04.17 at 16.00 hrs.
DPL	230 MW on 01.02.17 at 20.00 hrs.	249 MW on 10.03.17 at 17.00 hrs.	273 MW on 20.04.17 at 01.00 hrs & 23.00 hrs.

The new Transformers, EHT lines and equipments commissioned during this period were also deliberated by S.E, SLDC. (**List of new Transformers, EHT lines & equipments are shown in Annexure-1**).

ITEM No. 3. IMPORTANT GRID INCIDENTS:

1. On 13.03.17 at 03:41 hrs, 400 KV Jeerat – BkTPP ckt tripped only from Jeerat end.

--- WBSETCL WBPDCCL representative may please deliberate.

Deliberation in the meeting.

Representative of WBSETCL informed that on 13.03.17 at 03:41 hrs, 400 KV Jeerat – BkTPP ckt tripped from Jeerat end due to receiving of Carrier Direct Trip signal from BkTPP end. However, no tripping from BkTPP end has occurred. On this issue, WBPDCCL representative informed that while the ckt was diverted through bus-tie and the main breaker was made switched-off before switching on the trip transfer/protection transfer switch.

The house advised to avoid such type of manual error in future.

2. On 17.03.17 at 12:33 hrs 220 KV BBGS-EMSS ckt 1 tripped through operation of Differential protection relay from BBGS end and resulting in islanding of BBGS and SGS subsystem from the grid with excess generation.

--- CESC representative may please deliberate.

Deliberation in the meeting.

Representative of CESC informed that on that day 220 KV BBGS-EMSS ckt 2 got tripped previously at 12:23 hrs. Therefore, on 17.03.17 at 12:33 hrs when the loading of 220 KV BBGS-EMSS ckt 1 was around 200 MW, the ckt #1 also tripped through operation of Differential protection relay from BBGS end due to entangling of metallic string of Kite, resulting in islanding of BBGS and SGS subsystem from the grid with excess generation. Islanded system frequency rose to 51.53 HZ. At BBGS HP-LP bypass operated reducing BBGS generation from 696 MW to 450 MW. Due to such islanding drawal at Kasba point rose above 330 MW and alarm was observed. CESC system finally was synchronized with grid through Howrah point at 12:42 hrs. Synchronizing point was shifted at Kasba point at 13:43 hrs. 220 KV BBGS-EM Ckt #2 restored at 12:55 hrs. and 220 KV BBGS – EM Ckt. #1 restored at 13:19 hrs.

CESC representative opined to increase O/L alarm set point from 450 amp to 600 amp across each between Kasba and CESC.

3. On 21.04.17 at 16:35 hrs, Total power failure at 132 KV Siliguri S/S due to 132 KV main bus fault.

--- WBSETCL representative may please deliberate.

Deliberation in the meeting.

Representative of WBSETCL informed that on 21.04.17 at 16:35 hrs metallic foreign element fell from a bird on the 132 KV bus resulting in a bus fault, causing tripping of 132 KV NJP-SLG Ckt- I & II, 132 KV Ujanu-SLG ckt. from other end.

The system normalized at 16:45 hrs. Total load loss was 32 MW.

4. On 26.04.17 at 16:15 hrs, 132 KV side high level Y-Ph strung bus of 160 MVA (220/132 KV) Tr-2 snapped on low level 132 KV Main Bus resulting simultaneous tripping of all 3 Nos. 160 MVA (220/132 KV) Trs at Lakshmikantapur 220 KV S/S.

--- WBSETCL representative may please deliberate.

Deliberation in the meeting.

Representative of WBSETCL informed that on 26.04.17 at 16:15 hrs Y-Phase Tension Disk Insulator string at high level Strung bus of 160 MVA (220/132 KV) Tr-2 snapped falling below on low level 132 KV Main Bus resulting in simultaneous tripping of all 3 Nos. 160 MVA (220/132 KV) Tr. As all the 3 nos. 160 MVA Tr. are on the same side of Bus section at Lakshmikantapur 220 KV S/S., only Transformer #1 was loaded through 132 KV B/C and Traction was given power at 16: 48 hrs. Falta and Behala was transferred to Kasba. Total power restored at 8.20 hrs. on 27/04/17 after normalizing Kakdwip S/S.

5. On 28.04.17 at 17:30 hrs, 132 KV east side main bus & 132 KV west side main bus got dead through east bus differential relay(Y-phase) & west bus differential protection along with Busbar protection relay in BTPS. As a result Unit#2, 4 & 5 and all 132 KV feeders along with 25 MVA reserve Tr, 25 MVA plant #1 Tr and 25 MVA plant #2 Tr got tripped.

--- BTPS / WBPDCCL representative may please deliberate.

Deliberation in the meeting.

Representative of WBPDCCL informed that on 28.04.17 at 17:30 hrs, at BTPS 132 KV east side main bus & 132 KV west side main bus got dead through east bus differential relay(Y-phase) & west bus differential protection along with Bus bar protection relay due to bursting out of Y-phase CT of West side bus section. As a result Unit#2, 4 & 5 and all 132 KV feeders along with 25 MVA reserve Tr, 25 MVA plant #1 Tr and 25 MVA plant #2 Tr got tripped through Bus bar differential relay operation.

6. On 01.05.17 at 19:52 hrs at 220 KV Domjur S/S, HV & LV side of 132/33 KV, 50 MVA Tr.- I, II & III tripped along with 33 KV Jangalpur – I due to R, Y, B-phase Pole burst out i.r.o CB of 33 KV Domjur – Jangalpur ckt-1 at Domjur end.

--- WBSETCL representative may please deliberate.

Deliberation in the meeting.

Representative of WBSETCL informed that on 01.05.17 at 19:52 hrs due to R, Y, B-phase Pole bursting out i.r.o CB of 33 KV Domjur – Jangalpur ckt-1, HV & LV side of 132/33 KV, 50 MVA Tr.-I, II & III tripped along with 33 KV Jangalpur – I. CB was not able to clear the fault. All 33 KV and 11 KV power interrupted from 19:52 hrs to 20:13 hrs on 01.05.17.

7. On 05.05.17 at 12.31 hrs. Bus-zone protection operated at 132 KV Main Bus-2 at BBGS causing tripping of GT Breaker of Unit 2 (Unit #2 went on house load), ST-2, 132 KV Chakmir ckt 3 &4 and ICT –I and Transfer Bus-Coupler.

--- CESC representative may please deliberate.

Deliberation in the meeting.

Representative of CESC informed that on 05.05.17 at 12:31 hrs due to bursting out of B-ph PT, Bus-zone protection operated at 132 KV Main Bus-2 at BBGS causing tripping of GT Breaker of Unit 2 (Unit #2 went on house load initially but ultimately got tripped), ST-2, 132 KV Chakmir ckt 3 &4 and ICT –I and Transfer Bus-Coupler. Essential loads were restored at 12:42 hrs and all supply was restored at 13:26 hrs. Total 186 MW load loss occurred. Unit #2 synchronized at 14:52 hrs.

ITEM No. : 4. OPERATIONAL PLANNING:-

- (a) Anticipated power supply position for the month of JUNE-2017, JULY-2017 & AUGUST-2017 (All figures are in MW) :-

Description	JUNE-2017	JULY-2017	AUGUST-2017
WBPDC Generation	3000 (72 MU)	2920 (70 MU)	2920 (70 MU)
WBSEDCL Own Maximum Demand	6000	5770	5950
CESC Maximum Demand	2120	1880	1890
CESC Own gen. + HEL + IPP/CPP	830+540+40	765+540+40	765+540+40
DPL Generation Availability	445	445	445
DPL Maximum Demand	250	250	250
IPCL demand connected to J.K.Nagar system	50/55	50/55	50/55

(b) Finalization of Shut Down proposal for the month JUNE-2017, JULY-2017 & AUGUST-2017 i.r.o. Generating Units, Transmission Lines and other equipments etc. as provided by constituents.

(i) SHUT DOWN APPROVED FOR WBPDC, WBSEDCL, CESC and OTHER GENERATING UNITS:

UNIT	DURATION	REASON
KTPS # 5	01.07.2017 TO 31.08.2017	B.T.G
BkTPP # 4	02.07.2017 TO 22.07.2017	Boiler Overhauling
STPS # 5	24.07.2017 TO 19.08.2017	B.T.G
SgTPP # 4	13.08.2017 TO 02.09.2017	Boiler Overhauling
BTPS #5	For 05 days (actual date will be intimated later by BTPS)	OLTC change
BTPS #1	For 05 days (actual date will be intimated later by BTPS)	OLTC change
DPL #7	From 16.07.17 for 45 days (Expected)	Annual Overhauling
IPCL 12 MW unit	July,17 and August,17	

DPL representative informed that if DPL Unit #7 goes under shutdown then, 132 KV old Switchyard and DPL bay #7 may be under Shutdown.

(c) Prolonged outage of power system elements :-

Sl.No.	Network elements under outage	From	Remarks
1.	220 KV Durgapur- J.K.Nagar Ckt	19:45 hrs of 19/11/2016	

Deliberation in the meeting.

- *WBSETCL representative informed that 220 KV cable terminations failed. Material has been despatched from Germany. Expected date for normalization is end of May-17.*

ITEM No: 5. ISSUES RAISED BY SLDC:

- A. Inter-state & intra-state trading details should be checked by individual constituents during real-time scheduling.

Deliberation in the meeting:

All constituent were requested to track their inter-state as well as intra-state tradings during real time scheduling process.

The house agreed for the same.

ITEM No: 6. AGENDA NOTE PUT UP BY SLCF MEMBERS FOR DISCUSSION:

6.1. Agenda note put up by DPL

- A. Issuance of instant clearance by SLDC for closing of 132 KV DPL-Durgapur tie lines under any exigency condition on communication from ALDC/DPL to avoid any kind of system hazard at DPL end.

Deliberation in the meeting:

After detailed discussion it was found that permission of closing of 132 KV DPL-Durgapur tie lines may be given after considering surrounding network configuration status. Therefore, a written request citing reason in gist is requested from WBSLDC for fast and secured action.

6.2. Agenda note put up by BkTPP

- A. As mentioned in agenda no. (A) of WBPDCCL.

Deliberation in the meeting:

As mentioned in agenda no. (A) of WBPDCCL.

6.3. Agenda note put up by WBPDCCL

- A. 220 KV BkTPP-Gokarna double ckt. changed to BkTPP -Sadaipur Double ckt. Discussion on review of Feeder protection setting, Maintenance of PLCC panel, review of Islanding protection is needed.

Deliberation in the meeting:

Regarding review of Feeder protection setting, Islanding protection separate meeting may be arranged.

- B. Frequent de-synchronisation of BTPS unit #5 due to low system demand causing severe problem. Requesting for relieving the said unit from the purview of frequent de-synchronisation.

Deliberation in the meeting:

After detailed discussion it was decided that relieving the unit from de-synchronisation due to low system demand will lead to merit order by-pass. Therefore, the decision cannot be taken at this platform. WBPDCCL was advised to approach Hon'ble WBERC regarding the matter.

- C. No information available at STPS regarding commissioning of OPGW LINK(ULDC expansion project).

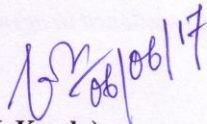
Deliberation in the meeting:

The house advised WBPDCCL representative to communicate with Communication Wing, WBSETCL regarding the matter.

ITEM No: 7. Date and venue of next SLCF (i.e. 50th) Meeting.

It will be intimated in due course of time.

ITEM No: 8. MISCELLANEOUS


(P. K. Kundu)
C.E., SLDC, HOWRAH.

Annexure -1

<u>Transformers</u>			
Sl. No.	Location	Identification of equipments	Date & Time
1	220 KV Krishnanagar Sub/stn.	50 MVA 132/33 KV Tr. #3	Commissioned & charged at no load at 17:19 hrs. on 03/03/17 and loaded at 13:23 hrs. on 04/03/17
2	220 KV Domjur Sub/Stn	160 MVA 220/132 KV Tr. # 3	Commissioned & charged at no load at 16:51 hrs. on 16/03/17 and loaded at 15:25 hrs. on 17/03/17.
3	400 KV Kharagpur Sub/stn.	315 MVA 400/220 KV Tr. # 3	Commissioned & charged at no load at 11:26 hrs. on 19/03/17 and loaded at 12:54 hrs. on 20/03/17
4	132 KV Basirhat Sub/stn.	31.5 MVA 132/33 KV Tr. # 3	Commissioned & charged at no load at 18:40 hrs. on 21/03/17 and loaded at 19:14 hrs. on 21/03/17
5	132 KV Raina Sub/stn.	50 MVA 132/33 KV Tr. # 3	Commissioned & charged at no load at 18:20 hrs. on 06/04/17 and loaded at 17:02 hrs. on 07/04/17
6	132 KV Barasat Sub/stn.	50 MVA 132/33 KV Tr. # 4	Commissioned & charged at no load at 12:45 hrs. on 08/04/17 and loaded at 15:25 hrs. on 11/04/17
7	132 KV Raghunathgunj Sub/stn.	50 MVA 132/33 KV Tr. # 3	Commissioned & charged at no load at 22:28 hrs. on 17/04/17 and loaded at 22:55 hrs. on 18/04/17
8	132 KV Mankar Sub/stn.	31.5 MVA 132/33 KV Tr. # 1 (Replacing dead tr.)	Commissioned & loaded at 21:40 hrs. on 20/04/17
9	132 KV Hizli Sub/stn.	50 MVA 132/33 KV Tr. #1 (Augmentation of 31.5 MVA)	Commissioned & charged at no load at 20:02 hrs. on 24/04/17 and loaded at 15:15 hrs. on 25/04/17

<u>New Lines</u>		
Sl. No.	Identification of equipments	Date & Time
1	132 KV C. K Road - Birshingha ckt # 1 & 2 (Line length 34 KM)	Commissioned & charged at no load at 15:09 hrs. on 10/03/17 and loaded at 11:52 hrs. on 11/03/17.
2	220 KV New Haldia – IPC(H)L Ckt #2	Commissioned & charged at 16:43 hrs. on 15/03/17
3	400 KV Farakka(NTPC)-Gokarna Ckt. #1 & 2 (Line length 119.7 KM)	Ckt #1 commissioned at 20:30 hrs. on 28/03/17 and Ckt #2 commissioned at 17:04 hrs. on 29/03/17.

<u>Newly Commissioned Sub-stn/Generating Station</u>			
Sl. No.	Location	Identification of equipments	Date & Time
1	400 KV Gorarna Sub/Stn	400 KV Farakka- Gokarna Ckt 1	Commissioned on 28/03/2017 at 20:30 hrs.
		315 MVA 400/220 KV Tr. # 1	
		315 MVA 400/220 KV Tr. # 2	Commissioned on 28/03/2017 at 20:45 hrs.
		400 KV Farakka- Gokarna Ckt 2	Commissioned on 29/03/2017 at 17:04 hrs.
		80 MVA Bus Reactor	Commissioned on 30/03/2017 at 12:38 hrs.
2	220 KV Sadaipur Sub/stn. (LILO of BKTPP- Gokarna Ckt.)	160 MVA 220/132 KV Tr. # 2 50 MVA 132/33 KV Tr. # 1 220 KV BKTPP- Sadaipur Ckt 1 & 2 220 KV Sadaipur- Gokarna Ckt 1 & 2	Commissioned on 21/04/2017
3	220 KV IPC(H)L generating station	150 MW unit #1	First synchronization at 10:02 hrs on 01/04/2017

Memo No. SLDC/ How/ 109/ 417 (1-35)

Dated : 6/6/2017.

Copy for information please:-

1. PS to Managing Director, WBSETCL, Vidyut Bhavan, Kolkata-91.
2. PS to Managing Director, DPL, Kolkata -107.
3. PS to Director (Operations), WBSETCL, Vidyut Bhavan, Kolkata-91.
4. PS to Director (RT), WBSEDCL, Vidyut Bhavan, Kolkata-91.
5. PS to Executive Director (OS), WBPDC, Salt Lake City, Kolkata-700 098.
6. C.E, SLDC, WBSETCL, Howrah-09.
7. C.E, Transmission Headquarter, WBSETCL, Vidyut Bhavan, Kol-91.
8. C.E, CTD, WBSETCL, Abhiksan Bhavan, Kol-91.
9. C.E, Communication, WBSETCL, Abhiksan Bhavan, Kol-91.
10. Chief Engineer, CLD, DVC, Howrah.
11. C.E.(PTP) WBSEDCL, Vidyut Bhavan, Kolkata-91.
12. G.M , (SO) CESC Ltd., Statesman House, Kol- 01.
13. G.M. BTPS, WBPDC.
14. G.M. STPS, WBPDC.
15. G.M. KTPP, WBPDC.
16. G.M. BKTPP, WBPDC.
17. G.M. SGTPP, WBPDC.
18. Sri S. Namjoshi, Vice-President, Engineering & Projects, IPCL
19. Sri I. B. Chakraborty, Vice-President, Engineering & Projects, IPCL
20. Addl. Chief Engineer, SLDC, WBSETCL, Howrah-09.
21. Addl. Chief Engineer, ALDC, WBSEDCL.
22. Sri A.Sengupta, Manager, CESC Ltd, Statesman House, Kol- 01.
23. Sri D.De,Dy. Manager, CESC Ltd, Statesman House, Kol-01.
24. Sri S. K. Sarkar, G.S.(T&D, Load Management), DPSC Ltd.
25. Sri R. Biswas, Sr. Manager, ALDC, DPL.
26. Sri P. Banerjee, Sr. Manager(RISO), KTPP, WBPDC.
27. Sri A. Guha, Sr. Manager (SO),KTPP, WBPDC.
28. Sri D. Chanda, Sr.Manager (PS), BKTPP, WBPDC.
29. Mr. Joynal Abedin, Sr.Manager (E.O.), BKTPP, WBPDC.
30. Sri A.Biswas, Manager(PS),BKTPP, WBPDC.
31. Sri F.Hossain, Manager (PS), SGTPP, WBPDC.
32. Sri M.S.Bapari, Manager (PS), SGTPP, WBPDC.
33. Sri N.Saha, Sr. Manager (PS), WBPDC.
34. Sri M. Mallik, Sr. Manager, (System Operation – Electrical), BTPS, WBPDC.
35. Sri S. Maiti, Sr. Manager (O), STPS, WBPDC.

Dibyendu Bhattacharya

Convenor, SLCF

06.06.17.