

MINUTES OF THE 52nd SLCF MEETING HELD ON 21.11.2017

Shri. P. K. Kundu, Chief Engineer (SLDC), WBSETCL & Chairperson, SLCF welcomed all the participant members to the 52nd SLCF meeting.

ITEM-1: CONFIRMATION OF THE MINUTES OF THE 51st SLCF MEETING HELD ON 11/09/2017.

The minutes was circulated vide memo no: **SLDC/How/109/980** dated 20/09/2017 and the same was also published in the website (www.wbsldc.in).

Regarding Item no:6.1 of 51st SLCF meeting minutes, WBPDCCL representative requested WBSLDC to arrange to send schedule through e-mail also. There are several cases when website is not getting updated and consequently, generating stations are receiving the revision after the pertinent block is over.

The minutes of the 51st SLCF meeting was taken as accepted.

ITEM-2: REVIEW OF THE STATE GRID PERFORMANCE:

Power point presentation on Grid Performance for the month of August, September and October 2017.

Superintending Engineer, SLDC made a Power point presentation on the grid performance based on operational statistics for the period August, September and October 2017. A critical analysis on the grid performance reveals the following:

- 2.1 Availability of WBPDCCL power plants in terms of *NAPAF & *PAFM for the month of August, September and October 2017 are as follows:

Generating Station.	August 2017		September 2017		October 2017	
	NAPAF (%)	PAFM (%)	NAPAF (%)	PAFM (%)	NAPA F (%)	PAFM (%)
<i>BTPS</i>	74	50.48	74	49.48	74	46.65
<i>STPS</i>	85	49.56	85	50.16	85	49.41
<i>KTPS</i>	75	37.19	75	45.20	75	39.11
<i>BkTPP-I</i>	85	85.79	85	83.56	85	66.85
<i>BkTPP-II</i>	85	82.03	85	90.34	85	58.88
<i>SgTPP-I</i>	85	38.94	85	69.51	85	46.04
<i>SgTPP-II</i>	85	54.53	85	41.00	85	29.03

* **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
August 2016	3206.37	5.81% Rise
August 2017	3392.66	
September 2016	3144.94	8.69% Rise
September 2017	3418.28	
October 2016	3084.62	1.57% Fall
October 2017	3036.27	

2.3 Gross Generation of WBPDCCL (in MU) during August, September and October 2017

August 2017	September 2017	October 2017
1926.28	1985.60	1635.71

2.4 System met and system Potential of distribution licensees during August, September and October 2017 were as follows:

CONSTITUENT	August 2017		September 2017		October 2017	
	System Met (MU)	System Potential (MU)	System Met (MU)	System Potential (MU)	System Met (MU)	System Potential (MU)
WBSEDCL (OWN)	3372.49	3392.66	3405.16	3418.28	3021.73	3036.27
CESC	1083.25	1083.25	1080.68	1080.68	978.60	978.60
DPL	176.82	177.99	162.63	163.43	161.11	162.97

2.5 The Maximum demand (potential) and their time of occurrence during August, September and October 2017 was as follows:

CONSTITUENT	August 2017	September 2017	October 2017
WBSEDCL (OWN)	6143 MW on 25.08.17 at 21.00 hrs.	6441 MW on 15.09.17 at 21.00 hrs.	6072 MW on 18.10.17 at 20.00 hrs.
CESC	1792 MW on 02.08.17 at 19.00 hrs.	1960 MW on 25.09.17 at 18.00 hrs.	1896 MW on 18.10.17 at 18.00 hrs.
DPL	277 MW on 17.08.17 at 22.00 hrs.	263 MW on 21.09.17 at 19.00 hrs.	252 MW on 03.10.17 at 23.00 hrs.
West Bengal	8149 MW on 30.08.17 at 19.00 hrs.	8454 MW on 25.09.17 at 19.00 hrs.	8172 MW on 17.10.17 at 19.00 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 31.10.17 at 16:53hrs, R-Ph CT of DPL-B zone S/S 132KV feeder 2 failed with heavy surge. Total power failed at old 132KV S/Y.220KVDPL – DGP CKT 2 tripped at DPL end and PCBL unit desynchronized from the grid at the same time.

--- DPL representative may please deliberate.

Deliberation in the meeting.

Representative of DPL described the event of grid incident took place on 31/10/17 at 16.35 hrs inside DPL switchyard.

Due to bursting of R ph CT of DPL B-Zone, 100 MVA Auto Tr, 132 KV U/G cable between old & new 132 KV switch yard tripped. Also 132 KV O/H tie between old & new 132 KV switch yard tripped.

SLDC pointed out that in absence of bus differential scheme between old and new 132 KV S/Y buses, problem in one bus affected the other bus also. DPL representative mentioned delay in tripping of 100 MVA A/T at DPL switchyard resulted spreading of the effect of the fault. This type of event is experienced before also for DPL as stated by three representatives. SLDC proposed two remedial actions

- i. Introduction of bus differential scheme at DPL end to connect between 132 KV old and new switchyard buses to ensure “selectivity” feature of protection system.*
- ii. Numeric relay may please be assured to change old electromagnetic relay across 100 MVA A/T & across all 220/132 KV transformers.*

2. On 06.11.17 at 19:11 hrs , at Budge Budge generating station, Bus zone Protection operated at 220KV MAIN2 Bus causing tripping of 160MVA ICT1 & 2 AND EMSS – BBGS CKT2 which resulted in islanding of BBGS from the grid.

--- CESC representative may please deliberate.

Deliberation in the meeting.

Representative of CESC has given detail deliberation on the network hazard of 06-11-17 which took place at Budge-Budge. The main reason of tripping of 160 MVA ICT 1, 2 and EMSS-Budge-budge ckt-2 was due to operation of bus differential protection and this resulted islanding of Budge-Budge with southern Gen station making a subsystem of around 147 MW excess generation & frequency shot up to the tune of 51.35 Hz for the subsystem. At Budge-budge HP-LP bypass system operated, reducing Budge-Budge generation to combat the situation.

On analysis CESC apprehended the root cause of the problem is due to flowing of circulating current through the CT (as both side of the CT was earthed) and the voltage actuating relay operated resulting operation of bus bar protection scheme.

Remedial action taken by CESC:

1. Ensuring one side earthing of the CT in case of such S/D in future.
2. Voltage actuating relay is replaced by current actuated relay (with pre-settled current value).

ITEM No. : 4. OPERATIONAL PLANNING:-

(a) Anticipated power supply position for the month of DECEMBER2017 , JANUARY & FEBRUARY 2018 (All figures are in MW) :-

Description	DECEMBER-2017	JANUARY-2018	FEBRUARY-2018
WBPDC Generation	2000	2000	2000
WBSEDCL Own Maximum Demand	4660	4755 (1 st week) 4900 (2 nd week) 5085 (3 rd week) 5320 (4 th week)	5300
CESC Maximum Demand	1480	1420	1600
CESC Own gen. + HEL + IPP/ CPP	460+540+40=1040	700+270+40=1010	700+540+40=1280
DPL Generation Availability	230	230	230
DPL Maximum Demand	240	240	240
IPCL demand connected to J.K.Nagar system	75	75	75

- (b) Finalization of Shut Down proposal for the month DECEMBER 2017, JANUARY 18 & FEBRUARY 2018 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	REMARKS
BTPS # 5	10 days after synchronization of KTPP Unit #6	Boiler License Renewal
BkTPP # 1	From 08.01.2018 for 35 days	BTG
KTPS # 4	Tentatively, January & February 2018, after synchronization of STPS Unit #5	Annual overhauling
KTPP #5	March-2018 & April-2018	Annual overhauling
HEL #1	16.01.18 to 31.01.18	

ITEM No: 5. ISSUES RAISED BY SLDC:

A. VAR absorption by WBPDC units.

In view of incoming lean load season during winter, WBPDC generating units must absorb VAR particularly in the night lean hours in accordance with the capability of individual unit. It is extremely important for managing grid voltage.

Deliberation in the meeting:

WBSLDC representative explained in detail the damaging effect of excess leading/lagging VAR in different hours of the day & its negative impact on the system technically and its commercial impact on Discoms.

1. *As primary measure of VAR control, SLDC requested all generating stations to control excitation effectively for maximum possible VAR absorption within limit of capability curves of respective units during night lean hours when voltage is very high. As on careful study it is seen that VAR absorption by state generating units are far below than expected level (in view of capability curves), so following measures in this regard are proposed.*
 - i. *Either manual control of excitation to maximise VAR absorption during night lean hours/ high voltage hours.*
 - ii. *And / or by proper setting of (P-Q limiter) in consultation with manufacturer better control of excitation voltage for more VAR absorption during night lean hours/ high voltage hours.*

SLDC circulated a format for sending VAR controlling parameters on regular basis to SLDC for night lean hours to all generating stations of the state.

- 2. SLDC mentioned that system study report with proposal for introducing reactors on different strategic points has already been initiated from SLDC end and it is under process.*
- 3. Also in addition to present practice of switching off maximum VAR contributing EHT lines, careful study in going on for switching off more lines on requirement of VAR control without endangering system redundancy.*

B. Submission of daily hourly VAR data of each unit# from 22:00 to 06:00.

Deliberation in the meeting:

All Generating Stations were requested to submit daily hourly VAR data of each unit# from 22:00 to 06:00 as per given format.

All concerned were agreed.

- C. Overdrawal by Discom should be minimized so that net overdrawal of state remains within 12% of schedule or 150 MW whichever is less to avoid tie disconnection by ERLDC.

Deliberation in the meeting:


On this issue, several discussions were already taken place in previous SLCF meeting. However, it has been observed that instead of several request for minimizing over-drawal / under injection, concerned constituent were not able to minimize their over-drawal / under injection to desired limit in several instances which led to tie disconnection by ERLDC .

Therefore, all the constituents are again requested to co-operate to avoid tie disconnection.

The house agreed for the same.

ITEM No: 6. Date and venue of next SLCF (i.e. 53rd) Meeting.

ITEM No: 7. MISCELLANEOUS:


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

Annexure -1

<u>Transformers</u>			
Sl. No.	Location	Identification of equipments	Date & Time
1	132 KV Dalkhola Sub/stn.	12.5 MVA 132/33 KV Tr.3	Commissioned & charged at no load at 18:57 hrs. on 22/09/17 and loaded at 01:33 hrs. on 23/09/17.
2	66 KV Kamakhyaguri Sub/stn.	8/5/4 MVA 66/33 KV Tr.4	Commissioned & charged at no load at 12:50 hrs. on 26/09/17 and loaded at 14:15 hrs. on 27/09/17.
3	132 KV Mahispota Sub/stn.	31.5 MVA 132/33 KV Tr. # 3	Commissioned & charged at no load at 16:00 hrs. on 12/09/17 and loaded at 11:05 hrs. on 13/09/17
4	132 KV Tamluk Sub/stn.	31.5 MVA 132/33 KV Tr. # 3	Commissioned & charged at no load at 17:37 hrs. on 22/09/17 and loaded at 16:20 hrs. on 23/09/17
5	132 KV Jhargram Sub/stn.	31.5 MVA 132/33 KV Tr. # 3	Commissioned & charged at no load at 15:16 hrs. on 14/10/17 and loaded at 12:11 hrs. on 15/10/17
6	132 KV Rampurhat Sub/stn.	31.5 MVA 132/33 KV Tr. # 3	Commissioned & charged at no load at 14:15 hrs. on 26/09/17 and loaded at 14:20 hrs. on 26/09/17

Memo No. SLDC/ How/ 109/ 2017-18/ 1282 {1-36}

Dated : 04/12/2017

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-I, WBSETCL, Vidyut Bhavan, Kol-91.
8. C.E, Transmission-II, WBSETCL, Vidyut Bhavan, Kol-91.
9. C.E, CTD, WBSETCL, AbhiksanBhavan, Kol-91.
10. C.E, Communication, WBSETCL, AbhiksanBhavan, Kol-91.
11. Chief Engineer, CLD, DVC, Howrah.
12. C.E.(PTP) WBSEDCL, Vidyut Bhavan, Kolkata-91.
13. G.M. (SO) CESC Ltd., Statesman House, Kol- 01.
14. G.M. BTPS, WBPDC.
15. G.M. STPS, WBPDC.
16. G.M. KTPP, WBPDC.
17. G.M. BKTPP, WBPDC.
18. G.M. SGTTP, WBPDC.
19. Sri S. Namjoshi, Vice-President, Engineering & Projects, IPCL
20. Sri I. B. Chakraborty, Vice-President, Engineering & Projects, IPCL
21. Addl. Chief Engineer, SLDC, WBSETCL, Howrah-09.
22. Addl. Chief Engineer, ALDC, WBSEDCL.
23. Sri N.G.Saha, DGM, WBPDC.
24. Sri A. Sen Gupta, DGM, System Control Department, CESC Ltd, CESC House, Kol- 01.
25. Sri S. K. Sarkar, G.S.(T&D, Load Management), DPSC Ltd.
26. Sri R. Biswas, Sr. Manager, ALDC, DPL.
27. Sri Suhas Ch. Ray Sr.Manager(Operation), KTPP WBPDC.
28. Sri Indrajit Banerjee Manager(Operation), KTPP WBPDC.
29. Sri D. Chanda, Sr.Manager(PS), BKTPP, WBPDC.
30. Mr. Joyal Abedin, Sr.Manager(E.O.), BKTPP, WBPDC.
31. Sri K. Banerjee, Manager, System Control Department, CESC Ltd, CESC House, Kol- 01.
32. Sri A.Biswas, Manager(PS), BKTPP, WBPDC.
33. Sri F.Hossain, Manager (PS), SGTTP, WBPDC.
34. Sri M.S.Bapari, Manager (PS), SGTTP, WBPDC.
35. Sri M. Mallik, Sr. Manager, (System Operation – Electrical), BTPS, WBPDC.
36. Sri S. Maiti, Sr. Manager (O), STPS, WBPDC.



Convenor, SLCF