भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
पूर्वी क्षेत्रीय विद्युत समिति
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NO. ERPC/MS/2018/ 4715-16

DATE: 01.10.2018

To

Chief Engineer (CTD), WBSETCL
Central Testing Laboratory
Abhikshan, Salt Lake
Kolkata –91.

Sub: Third Party Protection Audit observation by the Protection team of ERPC

Sir,

Third Party Protection audit of 21(twenty one) 132kV Substations of WBSETCL was conducted from 26th August 2018 to 07th September 2018. The substation-wise observations of the Audit team are enclosed at Annexure-A.

The Audit observations are also available at ERPC website (http://erpc.gov.in/important-documents/).

You are requested to comply the observations at the earliest.

Thanking you.

Yours faithfully,

01/10/2018

(J. Bandyopadhyay)
Member Secretary

Encl:-
1. Annexure-A

Copy for information to:

1. Director(Operation), WBSETCL, Vidyut Bhawan, 8th Floor, Block-DJ, Sector-II, Bidhan Nagar, Kolkata-91

Annexure-A

Third Party Protection Audit Observations of WBSETCL Sub-stations

Sl. No.	Name of Sub-station	Date of Audit	Observations/Remarks	Category
1	Sonarpur 132/33/25 kV - WBSETCL	26-07-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper. All DC cables are old and needs replacement.	B
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for all the lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10. Overload alarm may be provided for 132/33 kV Transformers	B
			11. Most of the isolators are old and manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			12. Surge Arrestors of transformers are old and needs replacement.	B
			13. ACDB and DCDBs are old and do not have provision for future expansion.	B
			14. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			15. The relay settings shall be reviewed based on the ERPC protection philosophy.	A
2	Behela 132/33/11 kV - WBSETCL	26-07-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper. DC cables are old and needs replacement.	B
			4. Panels in the control room and control cable wirings are old and needs replacement.	B

			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for all the lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10.Some of the LA's are very old and needs replacement.	B
			11. Overload alarm may be provided for 132/33 kV Transformers	A
			12. Most of the isolators are old and manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			13. ACDB and DCDBs are old and do not have provision for future expansion.	B
			14.Backup protection for 132kV Serakhol line is disabled. It must be enabled.	A
			15. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			16. Minor oil leakage was found in 50 MVA transformer-II. Necessary corrective measure may be taken.	A
			27.The relay settings shall be reviewed based on the ERPC protection philosophy.	A
3	Titagarh132/33/25 kV - WBSETCL	27-07-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Panels in the control room and control cable wirings are very old and needs replacement.	B
			4.. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			5. Time synchronising equipment is not available.	B
			6. Autorecloser feature and inter tripping schemes are not in service for all the lines.	B
			7. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			8. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			9. Overload alarm may be provided for 132/33 kV Transformers	A

			10. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			11. ACDB and DCDBs are old and do not have provision for future expansion.	B
			12.Some of the LA's are very old and needs replacement.	B
			13. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			14.The relay settings should be reviewed based on the ERPC protection philosophy.	A
			15.Switchyard gravelling shall be made properly. Antiweeding to be done on regular interval.	B
4	Dharampur 132/33 kV - WBSETCL	27-07-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper. All DC cables are old and needs replacement.	B
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10. Overload alarm may be provided for 132/33 kV Transformers	A
			11. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			12. ACDB and DCDBs are old and do not have provision for future expansion.	B
			13.Some of the LA's are very old and needs replacement.	
			14. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			15.The relay settings should be reviewed based on the ERPC protection philosophy.	A

			16.Switchyard gravelling shall be made properly. Antiweeding to be done on regular interval.	B
5	Ashoknagar 132/33/25 kV - WBSETCL	31-07-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper. All DC cables are old and needs replacement.	B
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10. Overload alarm may be provided for 132/33 kV Transformers	A
			11. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			12.Some of the LA's are very old and needs replacement.	B
			13. ACDB and DCDBs are old and do not have provision for future expansion.	B
			14. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			15.The relay settings should be reviewed based on the ERPC protection philosophy.	A
			16.Switchyard gravelling shall be made properly. Antiweeding to be done on regular interval.	B
			17.RTU was in damaged condition. It needs replacement.	B
6	Barasat 132/33/11 kV - WBSETCL	31-07-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper. All DC cables are old and needs replacement.	B

			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10. Overload alarm may be provided for 132/33 kV Transformers	A
			11. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			12. ACDB and DCDBs are old and do not have provision for future expansion.	B
			13.Some of the LA's are very old and needs replacement.	B
			14. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			15.The relay settings should be reviewed based on the ERPC protection philosophy.	A
			16.RTU was in damaged condition. It needs replacement.	B
7	Ranaghat 132/66/33/25/11 kV - WBSETCL	07-08-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper. All DC cables are old and needs replacement.	B
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B

			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10. Overload alarm may be provided for 132/33 kV Transformers	A
			11. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			12.Some of the LA's are very old and needs replacement.	
			13. ACDB and DCDBs are old and do not have provision for future expansion.	B
			14. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			15.The relay settings should be reviewed based on the ERPC protection philosophy.	A
8	Kalyani 132/33 kV - WBSETCL	07-08-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. All DC cables are old and needs replacement.	B
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10.Some of the LA's are very old and needs replacement.	B
			11. Overload alarm may be provided for 132/33 kV Transformers	A
			12. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			13. ACDB and DCDBs are old and do not have provision for future expansion.	B
			14. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			15.The relay settings should be reviewed based on the ERPC protection philosophy.	A

9	Liluah 132/33 kV - WBSETCL	08-08-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper.	B
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10. Overload alarm may be provided for 132/33 kV Transformers	A
			11. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			12. ACDB and DCDBs are old and do not have provision for future expansion.	B
			13.Some of the LA's are very old and needs replacement.	B
			14. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			15.N-1 contingency for the transformers during peak loading is not being satisfied.	B
			16.DR time duration to be increased and digital status need to be configured.	A
			17.The relay settings should be reviewed based on the ERPC protection philosophy.	A
			18.For most of the lines, only main protection(distance) is present. Back up protection for those lines shall be provided.	A
			19.Sockets to be covered in Junction boxes/Panel boxes.	A
10	Adisaptagram 132/33/25/11 kV - WBSETCL	08-08-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper.	B
			4. Panels in the control room and control cable wirings are old and needs replacement.	B

			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10. Overload alarm may be provided for 132/33 kV Transformers	A
			11. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			12. ACDB and DCDBs are old and do not have provision for future expansion.	B
			13.Some of the LA's are very old and needs replacement.	B
			14. JB/Panel boxe are quite old and need to be replaced to avoid unwanted tripping due to external stimuli.	B
			15. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			16. Definite time sttings of E/F and O/C relay may be reviewed.	A
			17. DR time duration to be increased and digital status need to be configured.	A
			18.N-1 contingency for the transformers during peak loading is not being satisfied.	B
			19.The relay settings should be reviewed based on the ERPC protection philosophy.	A
			20.Anti-weeding at substation shall be done regularly.	A
11	Kolaghat 132/33/11 kV - WBSETCL	09-08-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper.	B
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B

			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			11. ACDB and DCDBs are old and do not have provision for future expansion.	B
			12. Some of the LA's are very old and needs replacement.	B
			13. O/C protection in KTPP lines is set as non-directional and definite time which need to be reviewed.	A
			14.Distance protection is absent for for 132 kV Madras Cement feeder.	A
			15.DR time duration to be increased and digital status need to be configured.	A
			16.The relay settings should be reviewed based on the ERPC protection philosophy.	A
12	Haldia 132/33/25/11 kV - WBSETCL	09-08-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Panels in the control room and control cable wirings are old and needs replacement.	B
			4. Electromechanical relays of primary and backup protection are to be replaced with numerical relays..	B
			5. Time synchronising equipment is not available.	B
			6. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			7. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT..	B
			8. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			9. Overload alarm may be provided for 132/33 kV Transformers	A
			10. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			11.Some of the LA's are very old and needs replacement.	B
			12. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			13. DR time duration to be increased and digital status need to be configured.	A
			14.N-1 contingency for the 50 MVA transformer is not being satisfied.	B
			15.As the substation is a part of islanding scheme(TPCL), synchronising trolley is required at the station.	B
			16.The relay settings should be reviewed based on the ERPC protection philosophy.	A
			17.Differential protection shall be put for short cable portion of 132 kV IOCL line.	B

			18.Open sockets to be covered in Junction boxes/Panel boxes.	A
			19.Silica gel of transformer to be replaced.	A
13	Hizli 132/33/11 kV - WBSETCL	10-08-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3.Isolation of 220 V DC supply positive w.r.t. Ground is not proper.	A
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10. Overload alarm may be provided for 132/33 kV Transformers	A
			11. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			12. ACDB and DCDBs are old and do not have provision for future expansion.	B
			13.Some of the LA's are very old and needs replacement.	B
			14.The relay settings should be reviewed based on the ERPC protection philosophy.	A
			15.O/C setting of V. Park & Hizli TSS feeders are made non-directional which need to be reviewed.	A
			16. Anti-weeding at substation shall be done regularly.	A
14	Chandrakuna Road 132/33/11 kV - WBSETCL	10-08-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Panels in the control room and control cable wirings are old and needs replacement.	B
			4. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			5. Time synchronising equipment is not available.	B
			6. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B

			7. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			8. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			9. Overload alarm may be provided for 132/33 kV Transformers	A
			10. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			11. ACDB and DCDBs are old and do not have provision for future expansion.	B
			12.Some of the LA's are very old and needs replacement.	B
			13. Definite time sttings of E/F and O/C relay may be reviewed.	A
			14. DR time duration to be increased and digital status need to be configured.	A
			15.The relay settings should be reviewed based on the ERPC protection philosophy.	A
			16.O/C and E/F settings of Birsingha feeders need to be reviewed.	A
			17.SOTF function shall be enabled in Bishnupur line.	A
			18.Anti-weeding at some of the bays need to be done.	A
			19.Silica gel of some of the transformer to be replaced.	A
			20.Sockets to be covered in Junction boxes/Panel boxes.	A
15	Falta 132/33/11 kV - WBSETCL	14-08-2018	1. LBB protection and busbar protection is not available for 132kV system.	B
			2. Event logger is not available for 132kV and 33kV system.	B
			3. Panels in the control room and control cable wirings are old and needs replacement.	B
			4. Electromechanical relays of primary and backup protection are to be replaced with numerical relays..	B
			5. Time synchronising equipment is not available.	B
			6. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			7. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			8. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			9. Overload alarm may be provided for 132/33 kV Transformers	A
			10. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			11. ACDB and DCDBs are old and do not have provision for future expansion.	B
			12.Some of the LA's are very old and needs replacement.	B

			13. Power swing blocking and unblocking settings are to be reviewed for some the lines.	A
			14. DR time duration to be increased and digital status need to be configured.	A
			15.O/C and E/F settings of Joka feeders shall be enabled.	A
			16.N-1 contingency for the 50 MVA transformer is not being satisfied.	B
			17.The relay settings should be reviewed based on the ERPC protection philosophy.	A
			18.Sockets to be covered in Junction boxes/Panel boxes.	B
16	Raiganj 132/33/11 kV - WBSETCL	31-08-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper.	B
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Time synchronising equipment is not available.	B
			7. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			8. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			9. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			10. Overload alarm may be provided for 132/33 kV Transformers	A
			11. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			12. ACDB and DCDBs are old and do not have provision for future expansion.	B
			13.Some of the LA's are very old and needs replacement.	B
			14. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			15. DR time duration to be increased and digital status need to be configured.	A
			16.N-1 contingency for the transformers during peak loading is not being satisfied.	B
			17.The relay settings should be reviewed based on the ERPC protection philosophy.	A
17	Malda 132/33/11 kV - WBSETCL	31-08-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Panels in the control room and control cable wirings are old and needs replacement.	B

			4. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			5. Time synchronising equipment is not available.	B
			6. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			7. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			8. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			9. Overload alarm may be provided for 132/33 kV Transformers	A
			10. Most of the isolators are old and manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			11. ACDB and DCDBs are old and do not have provision for future expansion.	B
			12. Lightning Arrestors are quite old and spare not available.	B
			13. Power swing blocking and unblocking settings are to be reviewed for all the lines.	A
			14. DR time duration to be increased and digital status need to be configured.	A
			15.N-1 contingency for the transformers during peak loading is not being satisfied.	B
			16.The relay settings should be reviewed based on the ERPC protection philosophy.	A
18	NBU 132/33/11 kV - WBSETCL	06-09-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Panels in the control room and control cable wiringsas well as DC wirings are old and needs replacement.	B
			4. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			5. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			6. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT.	B
			7. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			8. Overload alarm may be provided for 132/33 kV Transformers	A
			9. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			10. ACDB and DCDBs are old and do not have provision for future expansion.	B

			11. Back up protection is absent in Lebong Feeder. The same must be enabled.	A
			12. DR time duration to be increased and digital status need to be configured.	A
			13.The relay settings should be reviewed based on the ERPC protection philosophy.	A
19	Maynaguri 132/33/11 kV - WBSETCL	06-09-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper. Annunciation for DC earth fault is not working.	A
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			7. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT..	B
			8. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			9. Overload alarm may be provided for 132/33 kV Transformers	A
			10. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			11. ACDB and DCDBs are old and do not have provision for future expansion.	B
			12.Some of the LA's are very old and needs replacement.	B
			13. DR time duration to be increased and digital status need to be configured.	A
			14.The relay settings should be reviewed based on the ERPC protection philosophy.	A
			15.Oil leakage found in 30 MVA transformer. The corrective measures may be teken.	A
			16.Fire wall between the transformers shall be built.	B
20	Birpara 132/66/33/11 kV - WBSETCL	07-09-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper. Annunciation for DC earth fault is not working.	A
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B

			6. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			7. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT..	B
			8. PLCC are not in service.	B
			9. Overload alarm may be provided for 132/33 kV Transformers	A
			10. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			11. ACDB and DCDBs are old and do not have provision for future expansion.	B
			12.Some of the LA's are very old and needs replacement.	B
			13. DR time duration to be increased and digital status need to be configured.	A
			14.REF protection is absent in all the 132/66 kV transformers. The same must be implemented.	B
			15.Directional component of O/C & E/F relay of the 132/66 kV transformers may be reviewed.	A
			16.Line differential protection shall be implemented in Birpara(PG) feeders.	B
			17.The relay settings should be reviewed based on the ERPC protection philosophy.	A
			18.N-1 criteria for 132/66 kV transformers during summer and puja period is not being fulfilled.	B
			19.Proper PCC and graveling should be done in the substation.	B
21	Alipurduar 220/132/66/33/11 kV - WBSETCL	07-09-2018	1. LBB protection and busbar protection is not available for 132kV system	B
			2. Event logger is not available for 132kV and 33kV system	B
			3. Isolation of 220 V DC supply positive w.r.t. Ground is not proper. Annunciation for DC earth fault is not working.	A
			4. Panels in the control room and control cable wirings are old and needs replacement.	B
			5. Electromechanical relays of primary and backup protection are to be replaced with numerical relays.	B
			6. Autorecloser feature and inter tripping schemes are not in service for132 kv lines.	B
			7. All indicating instruments in control room may be upgraded to digital meters as old analog instruments give high burden to CT..	B

			8. Old PLCC panels are being used only for speech and data transmission . PLCC system may be upgraded to new system.	B
			9. Most of the isolators are manual type. Isolators and breakers are not having interlock facilities. Soft interlocks may be provided.	B
			10. Some of the LA's are old and needs replacement.	B
			11. DR time duration to be increased and digital status need to be configured.	A
			12.Proper PCC and graveling should be done in the substation.	B
			13.The relay settings should be reviewed based on the ERPC protection philosophy.	A

Note:

1. As per CERC order dated 21st Feb 2014 protection deficiencies are categorised as
Category-A : The deficiencies which can be corrected without any procurement.
Category-B : The deficiencies involving procurement of equipments.