



MADHYA PRADESH POWER TRANSMISSION COMPANY LIMITED
STATE LOAD DESPATCH CENTRE, NAYAGAON, RAMPUR, JABALPUR

Telephone: (0761) 2970089 Fax: (0761) 2664343/2970119 e-mail sldcmpjbp@gmail.com

Corporate office: Madhya Pradesh Power Transmission Co. Ltd., Block No.2, Shakti Bhawan,
Rampur, Jabalpur 482008, CIN-U40109MP2001SGC014880, Email-mdtransco.nic.co.in



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Jabalpur, dated:18.06.2021

To

As per distribution list

Sub: Minutes of 77th meeting of Operation and Coordination Committee of MP.

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The Minutes of 77th meeting of the Operation and Coordination Committee of MP was held on 09th March 2021 has been uploaded on the website of SLDC 'www.sldcmpindia.com' and can be downloaded. It is also to intimate that due to outbreak of Covid-19 and as per precautionary measures the 77th OCC was conducted through video conferencing.

(R.A. Sharma)
Member Secretary, OCC
SLDC, MPPTCL, Jabalpur

Distribution List

1. The Chief Engineer (Works), MP Power Transmission Co. Limited, Shakti Bhawan, Jabalpur, email- ceehtmi@yahoo.com.
2. The Chief Engineer (T&C), MP Power Transmission Co. Limited, Jabalpur. Fax No- 0761-2665593, 2702710 Email- ce.tnc@mptransco.nic.in , se2.tc@mptransco.nic.in
3. The Chief Engineer (Transmission-East Zone), MP Power Transmission Co. Limited, Shakti Bhawan, Jabalpur. Email- sk.gaikwad@mptransco.nic.in.
4. The Chief Engineer (Transmission-West Zone), MP Power Transmission Co. Limited, Indore.
5. The Chief Engineer (Transmission-Central Zone), MP Power Transmission Co. Limited, Bijlee Nagar, Govindpura, Bhopal, email- setncbpl@gmail.com.
6. The Chief Engineer (Plg & Des), MP Power Transmission Co. Limited, Jabalpur, Fax No- 0761-2660908 Email- ceps321@yahoo.com
7. The Chief Engineer (Procurement.), MP Power Transmission Co. Limited, Jabalpur, .Fax No- 0761-2660908 Email – substation_vi@yahoo.com
8. The Chief Engineer(EHT:Const.), MP Power Transmission Co. Limited, Jabalpur. Fax-0761-2661618, E-mail- ce.ehtc@mptransco.nic.in.
9. The Chief Engineer(EHT:Maint&insp.), MP Power Transmission Co. Limited, Jabalpur. Fax-0761-2665593, E-mail- ce.mni@mptransco.nic.in.
10. The Executive Director (O & M:Gen), MP Power Generating Company Limited, Jabalpur. Fax No- 0761-2664749, Email- gcc.mppgcl@gmail.com, Email- edomg_mpeb@rediffmail.com
11. The Chief Engineer (O&M:Hydel), MP Power Generating Co. Ltd, Jabalpur, Fax No-0761-2664749.
12. The General Manager(PM), MPPMCL, Jabalpur Email – gm_pm@mpradeco.com controlroom.tradeco@gmail.com
13. The Superintending Engineer (GCC), MPPGCL, Jabalpur Email – segcc.mppgcl@gmail.com gcc.mppgcl@gmail.com.
14. The General Manger (DCC-EZ), DISCOM Control Centre, MP Poorva Kshetra Vidyut Vitaran Co.Limited, Jabalpur, Fax No- 0761-2668503, Email – cmdez_ld@yahoo.co.in.
15. The Dy. General Manager (DCC –CZ), DISCOM Control Centre, MP Madhya Kshetra Vidyut Vitaran Co. Limited, Bhopal, Fax No-0755-2580611,Email- plm.mpcz@gmail.com.
16. The Executive Engineer (DCC-WZ), DISCOM Control Centre, MP Paschim Kshetra Vidyut Vitaran Co. Limited, Near Polo Ground, Jail Road, Indore, Fax No- 0731-2421554, Email- dccindore@gmail.com.
17. The Executive Engineer, Sub Load Despatch Centre, MPPTCL, Indore, Fax No- 0731-2874515, Email – eesubldcind@yahoo.com.
18. The Executive Engineer, Sub Load Despatch Centre, MPPTCL, Bhopal, Fax No- 0755-2885220, Email – aldc_bpl@yahoo.co.in
19. The General Manger(RO), MPPMCL, In front of Bhojpur Club, E-4, Arera Colony,Bhopal, Fax No-0755-2423046, Email-Rajeev_keskar@rediffmail.com
20. The Chief Engineer (PM&C), Narmada Hydroelectric Development Corpn. Ltd, NHDC Parisar, Shamlia Hills, Bhopal – 462013., Fax No- 0755-4030130,Email – om.co.nhdc@gmail.com 5vinodnhdc@rediffmail.com
21. The Chief Electrical Distribution Engineer, West Central Railway (WCR), General Manager's Office, Electrical Department, Jabalpur-482001 (MP), Fax: 0761-2627629, Email- cede@wcr.gov.in, dyceetrdwcr@gmail.com, M-9752415312, Mr.Satyendra Kumar (Dy.CE), Mob.9752415301 (CEDE, WCR).
22. The General Manager, Indira Sagar Power Station, NHDC Office complex, PO : Narmada Nagar, Distt : Khandwa (MP) – 450 119, Fax No- 07323-284080, Email – nhdc_isp@rediffmail.com
23. The General Manager, Omkareshwar Power Station, Prashnsnik Bhawan, Urja Vihar, Sidhwarkut, Distt : Khandwa (MP) – 450 554, FaxNo-07280-271703, Email- pk saxena@nhdc.com, saxena_pks123@rediffmail.com, omkareshwar.nhdc@gmail.com.
24. The Director (Projects), BLA Power Limited, At : Niwari, PO: Khorsipan, Tah : Gadarwara, Distt ; Narsinghpur 487 551, Fax No. 07791-243667 / 243669, Email – manish@bla.co.in
25. The Sr. Vice President, Jaiprakash Power Ventures Ltd., Village Sirchopi Subpost Office-Agasod, Post Office-Bina-470113 Distt- Sagar, Fax No. 07580-277200, Email – jbtppbina400kvswitchyard@gmail.com jtpp.switchyard@jalindia.co.in.
26. The General Manager Operation Satpura Transco Pvt. Ltd., Satpura Colony, Betul Road, Old Itarsi, Distt. Hoshangabad, Email – piyush.pandya@clpindia.in , sachin.ashish@clpindia.in .
27. M/s Ujaas Energy Ltd. 701, NRK Business park, Vijay Nagar Sqaure, Indore – 452010, Email id :-solar@ujaas.com
28. M/s Suzlon Global Services Ltd., 1090, Scheme no. 114, Park-2, Ring Road, Universal Hospital Row, Email- deepesh.sankwa@suzlon.com, Indore – 452010, Badree.hirve@suzlon.com

AGENDA FOR 77th MEETING OF OPERATION & COORDINATION COMMITTEE OF MP TO BE HELD ON 09th MARCH 2021 AT 11:30 AM THROUGH VIDEO CONFERENCING.

The 77th meeting of Operation & Coordination Committee of MP was held on 09th March 2021 at 11:00 AM through video conferencing. The list of participants is enclosed as **Annexure -1.0**.

Shri. R.A.Sharma, Addl. CE, SLDC & Member Secretary OCCM welcomed all the guests & participants attending the 77th OCCM of MP and requested all the participants for formal introduction. Member Secretary OCC stated that the maximum demand of MP was met comfortably with the cooperation and coordination of all the entities i.e., MPPTCL, MPPGCL, MPPMCL, NHDC, Discoms. Thereafter the agenda points were taken up, which are narrated here under: -

ITEM NO. 1 : CONFIRMATION OF MINUTES : Minutes of 76TH meeting of Operation & Coordination Committee of MP held telephonically, on 06th October 2020 were forwarded to the committee members vide No. 07-05/SG-9B-II/324 Jabalpur dated 12.02.2021. No comments have been received. No comments have been received. Committee confirms the minutes.

ITEM NO.2: REVIEW OF SYSTEM OPERATION DURING THE MONTHS DECEMBER 2020 TO JANUARY 2021.

2.1. Frequency Particulars: The committee was apprised that During DECEMBER 2020 the system frequency was below 49.90 Hz for 4.79% of time against 4.85% of time during JANUARY 2021. The system frequency was above 50.05 Hz for 19.47% of time during DECEMBER 2020 against 19.04% of time during JANUARY 2021. The system frequency was within the IEGC range of 49.90-50.05 Hz for 75.74% of the time during DECEMBER 2020 against 76.11% of time during JANUARY 2021. The average monthly frequency was 50.00 Hz during month of DECEMBER 2020 and 50.00 Hz during month of JANUARY 2021.

The detailed frequency particulars for the month of DECEMBER 2020 & JANUARY 2021 are enclosed at **Annexure-2.1**. The brief detail of frequency profile is given here under:-

Month	Average frequency	Minimum Integrated frequency over an hour	Maximum integrated frequency over an hour	Instantaneous Minimum Frequency	Instantaneous Maximum Frequency
DECEMBER 2020	50.00 Hz	49.79 Hz	50.09 Hz	49.64 Hz	50.20 Hz
JANUARY 2021	50.00 Hz	49.89 Hz	50.12 Hz	49.70 Hz	50.24 Hz

2.2 Operational Matters

2.2.1 Operational Discipline: The committee was apprised that system operated in terms of frequency profile for the months DECEMBER 2020 & JANUARY 2021 is as given below for discussion by the committee:

Month	% of time Frequency Below 49.90 Hz	% of time Frequency above 50.05 Hz	% of time frequency within the permissible range of 49.90-50.05 Hz.	Average monthly frequency
DECEMBER 2020	4.79%	19.47%	75.74%	50.00 Hz
JANUARY 2021	4.85%	19.04%	76.11%	50.00 Hz

2.2.2 Voltage Profile: The committee was apprised about the maximum and minimum voltage as recorded at important 400 KV s/s in MP Grid from DECEMBER 2020 to JANUARY 2021 is enclosed as **Annexure – 2.2.2.**

2.2.3 Status of Capacitor Banks in sub-transmission system: The committee was apprised about the updated information of the status of capacitor banks in sub-transmission system as on 31th JANUARY 2021 as submitted by DISCOMs is detailed below:

DISCOM	Capacitor bank installed in good condition (No)				Capacitor Banks healthy but not in service due to control ckt problem			Capacitor bank installed but defective & are repairable (No)			Requirement of repair against each unit (No)	Requirement against non-repairable capacitor banks		Capacitor banks already covered under ADB T-V		Balance capacitor banks to be covered in other schemes	
	600 KVAR	1200 KVAR	1500 KVAR	1800 KVAR	600 KVA R	1200 KVA R	1500 KVA R	600 KVAR	1200 KVAR	1500 KVAR	No of 100 KVAR Units required	600 KVAR	1200 KVAR	600 KVAR	1200 KVAR	600 KVAR	1500 KVAR
EZ	410	134	109	-	1	7	0	10	6	0	6	24	7	0	0	-	0
CZ	0	555	1032	140	-	-	-	0	0	0	NIL	0	0	0	0	0	0
WZ	601	511	750	-	1	7	4	19	30	60	438	09	19	0	0	-	0

The matter was discussed in the meeting.

2.2.4 Status of Shunt Capacitor Banks installed at various EHV Transmission Substation: The committee was apprised about the updated information of the status of installed capacitor banks (in MVAR) in EHV transmission system as on 31.01.2021 as submitted by MPPTCL is given below: -

Voltage Class	Capacitor bank installed as on 30.11.20(MVAR)	Capacity Added after Last OCC Meeting (MVAR)	TOTAL CAPACITY AS ON 31.01.2021 (MVAR)	Capacitor Bank Installed but defective & are not repairable (No & MVAR)
220 KV	100.00	0.00	100.00	All in Service
132 KV	1238.00	0.00	1238.00	
33/36 KV	5695.00	72.00	5767.00	
TOTAL	7009.00	0.00	7105.00	

The plan for installation of capacitor banks installed at EHV Transmission Substation is enclosed as **Annexure-2.2.4.** The matter was discussed in the meeting.

2.2.5 U/F and df/dt Relay Operation

- (i) **U/F and df/dt Relay Operation:** The committee was apprised that frequency did not touch 49.20 Hz from December 2020 and JANUARY 2021. There was no df/dt operation during the same period. MPPTCL informed that under Frequency Plan for all the stages have been implemented and in operation.

(ii) **Defective u/f, df/dt Relays:** The committee was apprised that MPPTCL has informed that All the df/dt and U/F relays are in operation, where the U/F relays are not available, the numerical relays programmed for under frequency operation. At 132KV S/S Chapda the df/dt protection is provided through df/dt feature of DPR. All U/F stages are in good/ healthy & working condition.

2.3 Power Cuts / Load restrictions/Differential Load Shedding by DISCOMS & group allocation to 33 KV feeders:

(i) The committee was apprised that the details of DISCOM wise Power supply given to various domestic categories during the period DECEMBER 2020 TO JANUARY 2021 is enclosed at **Annexure 2.3(i)**.

(ii) **Group Allocation to Newly Commissioned existing EHV substations:-** The committee was apprised that the region wise list of 33 KV feeders emanating from various newly commissioned/existing EHV substations for which groups have not been allocated is given in **Annexure 2.3 (ii)**. The DISCOM wise details of pending group allocation to 33 KV feeders is given below:-

SN	DISCOM	Region	No of 33 KV feeders for which groups to be allocated
01	EAST	Jabalpur	14
02		Sagar	00
03		Rewa	00
04		Total	14
05	WEST	Indore	05
06		Ujjain	04
07		Total	09
08	CENTRAL	Bhopal	13
09		Gwalior	00
10		Total	13
TOTAL		Grand Total	36

Discoms are requested to furnish the details as per list enclosed at **Annexure-2.3(ii)** in the meeting.

In view of the above it is requested that the order copy for which group have been allocated may please be submitted to P&D, MPPTCL under intimation to SLDC.

ITEM NO. 3 : OPERATIONAL PLANNING:

3.1 Generating Units under planned outage and proposed maintenance program: : The committee was apprised about the latest status for annual maintenance /outages of thermal generating units of MPPGCL for FY 2020-2021 as provided by ED(O&M:Gen) for FY-2021 – 2022 is enclosed as **Annexure-3.1**.

Details regarding hydel unit outage has not been provided by CE (O&M:Hydel), MPPGCL.

3.2 Proposed shutdown program of Transmission lines / Transformers: The committee was apprised that the proposed shutdown of transmission elements for the period 01.03.2021 to 31.05.2021 as submitted by T&C, MPPTCL is enclosed as **Annexure-3.2**.

3.3 Long Outages of transmission elements and protections: : The committee was apprised about the status submitted by MPPGCL /MPPTCL are given below:-

Sr. No	Line/Transformer/ etc under long Outage	Outage date	Reason	Response from Utility
1	220/132KV, 40MVA, Y-Phase unit of 3X40MVA X'mer at 220KV S/s Indore SZ	23.12.2020	X'mer tripped on DTOC & Buchholz trip indication.	Defective unit replaced by spare 40MVA 220/33KV unit on 18.01.2021
2	315MVA BHEL X'mer – 3 at 400KV S/s Bhopal	04.03.2020	Differential protection optd, Bucholz relay optd, REF optd.	MPPTCL may submit the latest status.
3	220 KV ATPS – Railway Traction Ckt - 1	15.05.2019	B-Phase LA Burst	MPPGCL may submit the latest status.
4	20MVA 132/33KV GEC X'MER AT 220KV S/S TIKAMGARH S.NO. B-24042	09.11.2020	X'mer tripped & Differential & Buchholz trip indications	MPPTCL informed that transformer found defective in testing and replaced by another 20mva x'mer on 20.12.2020
7	50 MVAR (Make GE) Line Reactor at 400KV Sarni-Asta Ckt-I.	31.03.2018	Under outage since 31.03.18 due to concentration of Acetylene gas. DGA test of transformer oil of reactor was carried out by M/s CPRI, Bhopal.	M/s GE(T&D) India (OEM) deputed their team on dtd-30.10.2019 for internal inspection of reactor. After inspection corona ring of reactor found damage. Tender opened on 07.02.2020 & correspondence is going on with the firm. Presently work is under progress. Procurement of the same is under progress. Tender opened on 07.02.2020. Order placed to M/s GE T & D India Ltd. on 04.09.2020. Latest status may also be intimated by MPPGCL.

Any transmission element/ EHV element under outage, which has not been intimated/included under aforesaid outage list, should be invariably intimated to SLDC. All entities are requested to ensure the same. The utility may submit the latest status.

[Action:MPPGCL/MPPTCL]

ITEM NO. 4 : OPERATIONAL STATISTICS FROM DECEMBER 2020 TO JANUARY 2021:

The details of actual generation, Schedule from Central Sector, demand etc. are given in the following Annexures:

- Annex. 4.1** Unit wise actual Generation of MPPGCL thermal Units and station wise Generation of MPPGCL & NHDC Hydel Units.
- Annex. 4.2** Power Supply Position(Energy Balance Sheet).
- Annex. 4.3** Hourly Average of Availability and Demand.
- Annex. 4.4** Hourly average schedule Vs Drawal of DISCOMs.

[Committee may like to note]

ITEM NO. 5: SYSTEM DISTURBANCE IN MP

5.1 SYSTEM DISTURBANCE IN MP FOR DECEMBER 2020 & JANUARY 2021:- : The committee was apprised about the Grid Disturbances and Grid Incidents in MP during these months are given in **Annexure 5.**

[Committee May like to discuss]

5.2 REPORTING OF FLASH REPORT, DR AND EL FOR 400KV, INTERSTATE TRANSMISSION ELEMENTS & DETAILED TRIPPING REPORT:-

The committee was apprised that as per the provisions of Regulation 5.2 (r) of CERC (Indian Electricity Grid Code) Regulations 2010 and Regulation of 5(9) of CERC (Indian Electricity Grid Code) (First Amendment) Regulations, 2012 all the Regional Entities of the Region shall furnish the tripping details including DR & SEL output to RLDC with in 24 hrs of the event for analysis and identify the real-time measures required in future to ensure secured grid operation. The flash report is also required to be furnished to SLDC within an hour of tripping. It is observed that FLASH REPORT, DR & EL of station is not made available after tripping of transmission grid element by the State Grid Entities and the flash report is also not being sent after repeated pursuance.

It has been intimated by WRLDC wide letter no.- WRLDC/SO-II/004/2021/ Dated-19.02.2021 that in case of tripping of Inter State & inter Regional lines of voltage class 220 KV & above level, a tripping report along with the DR/EL files shall be submitted to WRLDC. In the matter it is to mention that the detailed report along with DR/EL shall be submitted to WRLDC/WRPC within 24Hrs. The incidences / tripping's which occurred during the month of December-2020 & January-2021 for which the details have not been submitted are as below: -

S.no.	Element	Date of tripping	Time of tripping in Hrs.	Remark
1.	220 Malanpur – Auraiya Ckt	07.12.2020	06.07	A/R not observed at both the ends. NTPC informed that the required relays for 220KV Auraiya – Mahalgaon & Auraiya – Malanpur lines have been procured and will be installed by 15.01.2021, after that Auto Reclousure will be put in service. MPPTCL may kindly update the status. DR not received. MPPTCL may share the DR/EL

				files at the earliest.
2.	220KV Mehgaon – Auraiya Ckt	27.12.2020	12:03	NTPC informed that the required relays for 220KV Auraiya – Mahalgaon & Auraiya – Malanpur lines have been procured and will be installed by 15.01.2021, after that Auto Reclousure will be put in service. MPPTCL may kindly update the status. DR not received. MPPTCL may share the DR/EL files at the earliest.
3.	220KV Bhanpura – Ranpur Ckt	06.01.2021	05:39	DR received. MPPTCL may kindly submit the DR within 24 Hrs.

T&C, MPPTCL was requested to upload the information/DR/EL files on WRLDC tripping portal.

Representative from T&C, MPPTCL informed the committee that the DR/EL files of the tripping's are being uploaded on WRLDC tripping portal. However, it will be ensured that the tripping details/DR/EL files for the inter-regional element is uploaded on the portal invariably in future without fail.

5.3 UPLOADING OF TRIPPING ON WRLDC TRIPPING PORTAL:- The committee was apprised that as intimated by WRLDC in 529th WR-OCCM, that WRLDC has started a tripping portal from 01.06.2019 for uploading FIR, DR/EL and other details related to the tripping of all 400KV elements, important grid elements, inter-state/inter-regional links and lines connected to PGCIL. Further details major Grid Disturbance resulting in significant load loss/generation loss is also required to be uploaded on the WR-Portal and as per IEGC 54.2(r), utilities need to submit the data within 24 hours of the event. The link (<https://portal.wrlcdc.in/Trippingnew/Account/Login.aspx>), common user ID & password for the entities of MP has been shared with all the entities vide this office letter No.07-05/RPC-51/ 18.06.2019.

As advised in 537th WR-OCCM, all Utilities are requested to use and submit the data through the WRLDC tripping portal. Therefore, entities are requested to use and upload the FIR, DR/EL and other details related to the tripping of elements mentioned above, in the Tripping Monitoring System of WRLDC within stipulated time.

The matter was discussed in the meeting and T&C MPPTCL ensured that the DR/EL files will be invariably uploaded on the WRLDC tripping portal.

ITEM NO. 6.0 : IMPORTANT OPERATIONAL ISSUES:-

6.1 STATUS OF COMPLETION OF ONGOING SCHEMES FOR COMMISSIONING OF REACTORS / TRANSMISSION ELEMENTS: - The present status regarding schedule and commissioning of reactors / transmission elements is as below: -

S.No.	400 KV S/s	Size MVAR	Implementing Agency	Expected Date of Commissioning as intimated in last OCC
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1.	Line Reactor on 400 kV Satpura-ISP line at STPS	50 MVAR	MPPGCL	Grant for the scheme for installation of 50MVAR line reactor at Sarni-ISP feeder of 400KV switchyard of Satpura has been sanctioned by MoP, Gol on 22.05.17. After extending the dates only single offer has been received which is under evaluation.
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The latest status may be submitted in the meeting.

[Action: MPPGCL/NHDC]

6.2 LOAD DROPPING SCHEME AT 400 KV SUBSTATIONS TO HANDLE

EMERGENCY CONDITION:- The committee was apprised that on dtd. 01.03.2021 at 09:00hrs at 400 KV substation sagar Load dropping scheme operated. However, load were 183 MW at 09:00 Hrs on both 315 MVA 400/220 KV transformer at sagar. This caused 24 minutes to 4 minutes supply interruption to various substation i.e. Rahatgarh, Gaurjhamar, Banda, Deori, Rehli 132kv substation. It is gathered that this incidence took place while 50 MVA 220/33 kV Xmer was hand tripped at 09.00 hr for maintenance. It is therefore desired matter may be examined and detailed report indicating remedial action may be provided.

It is also to mention that vide e-mail dtd-24.02.2021, T&C was requested to provide the details (setting for operation of load drop scheme, feeders included, quantum of load relief to be obtained etc) of load drop scheme installed and to test the load trimming schemes installed on quarterly basis and provide a report to SLDC in the format as below with an e.g.

S.NO	SUBSTATION	ELEMENT ON WHICH LOAD DROP INSTALLED	CRITERIA/SETTING AT WHICH LOAD DROP WILL OPERATE	ELEMENTS/FEEDERS TO PROVIDE LOAD RELIEF	QUANTUM OF LOAD RELIEF TO BE OBTAINED	TESTED (YES/NO)	LOAD RELIEF OBTAINED DURING TESTING	REMARK
1	SATNAPGCIL	315 MVA ICT - 1, 2 & 3	110% OF CURRENT LOADING ON ANY OF THE ICT WITH 2.5SEC. DELAY	132 KV SATNA - PAWAI CKT 133 KV SATNA - NAGOD CKT 134 KV SATNA - MAJHGAWAN CKT	120MW			
2								
3								
4								

Representative from T&C informed that due to mal-operation of O/C relay the load drop scheme at 400 KV S/s Sagar operated. The faulty relay has been replaced. He also agreed & ensured to test the load trimming schemes installed on quarterly basis and provide a report to SLDC.

6.3 INCIDENT OCCURRED ON 29.01.2020 AT OMKARESHWAR POWER

STATION:- The committee was apprised that at around 19:05 Hrs., on 29.01.2021, 220kv OSP-Khandwa ckt and 220kv OSP-Barwaha ckt tripped from the far end of OSP on DT receive indication. 220kv OSP-

Khandwa ckt and 220kv OSP-Barwaha ckt again tripped at 21:19 Hrs on 29.01.2021 from the far end of OSP on same indication. It is gathered that this incidence took place while relay testing work at OSP end was in progress relating with work of up gradation of existing high impedance (static) bus bar protection relay with latest low impedance (numerical) bus bar protection relays" of Omkareshwar Power Station. As per Indian Electricity Grid Code, flash report of incidence is to be submitted to WRLDC and WRPC within 24 hours indicating reason of tripping and remedial action taken to avoid such undesired trippings.

Omkareshwar Power Station may also be update the progress of CT replacement work of lower capacity CT as this creating reliability issue in the system.

Representative from OSP ensured that the tripping details shall be submitted in time in future. Further he also intimate that the CT replacement work with higher capacity CT shall be carried out shortly, during the upcoming annual maintenance program.

The matter was discussed in the meeting.

6.4 REGARDING INCREASING THE CAPACITY AT UPPER STREAM OF THE GRID CONSIDERING NETWORK EXPANSION IN 132/33 KV LEVEL – GRID SECURITY

CONSTRAINTS:- The committee was apprised that 400/ 220KV ICT at Bhopal, Bina and Shujalpur as well as 220kv Bina -Bina interconnector I&I , 220 kv Bhopal-Bhopal interconnector I&II have been found over loading during Rabi season. It becomes difficult for SLDC to maintain Grid security with the available Grid elements. If the drawal in the area is increased by charging new transformer (132/33 KV), the loading of the transmission elements of MPPTCL shall become unmanageable. Similar system constrain are observed in Satna Rewa Maihar area. In this area 220 / 400 kv system required to be strengthened.

As such, capacity addition at lower voltage levels increasing the loading on upper stream of network, due to this reliability of grid is facing the challenges in load management. Thus, it is requested to kindly ensure the up gradation of capacity of upper network along with the downstream one. The matter of Grid security has been brought to knowledge of all concern time to time.

In this matter it is also indicated that before issuing charging code of new element reliability of system shall be verified/validated, in absence of reliability consent it would be difficult to issue charging code / FTC clearance. MPPTCL is requested to ensure remedial action in this regard. In this connection it is also mentioned that WRLDC has already pointed out regarding overloading problem of MP system and issued warning time to time to restrict drawl of MP system. This matter has already been discussed in different forum and all stakeholders have been apprised for remedial action.

Representative from P&D stated that the augmentation work is being done as per the increase in demand and to take care reliability issue at 132/33 transformer. However, it would be ensured that the upper stream of network shall also be planned considering downstream increasing load pattern.

The matter was discussed in the meeting.

6.5 OUTAGE OF 400KV LINES/UNIT FROM JP BINA:- The committee was apprised that Power Grid is planning for 765KV (Bina- Indore) line shutdown tentatively from 09.00 hrs to 19.00 hrs for one day between 02.04.21 to 04.04.21, for wrapping the insulation sleeve on their line conductor. As this line is crossing over both the lines of Jaypee Bina (JPBina-PGCIL & JPBina- MPPTCL), hence as per the work requirement both the lines of Jaypee Bina will also be under shutdown, resulting in shutdown of both the units.

In order to ensure reliability and the safety of the Plant Equipment especially the Turbines and Boilers, considering that both the Transmission Lines will be under shutdown, the operational requirement is to take shutdown of both units at least 24 hrs. prior to lines shutdown. This is to ensure the smooth turbine operation on Turning Gears. It requires the 24 hrs. cooling system to be in service.

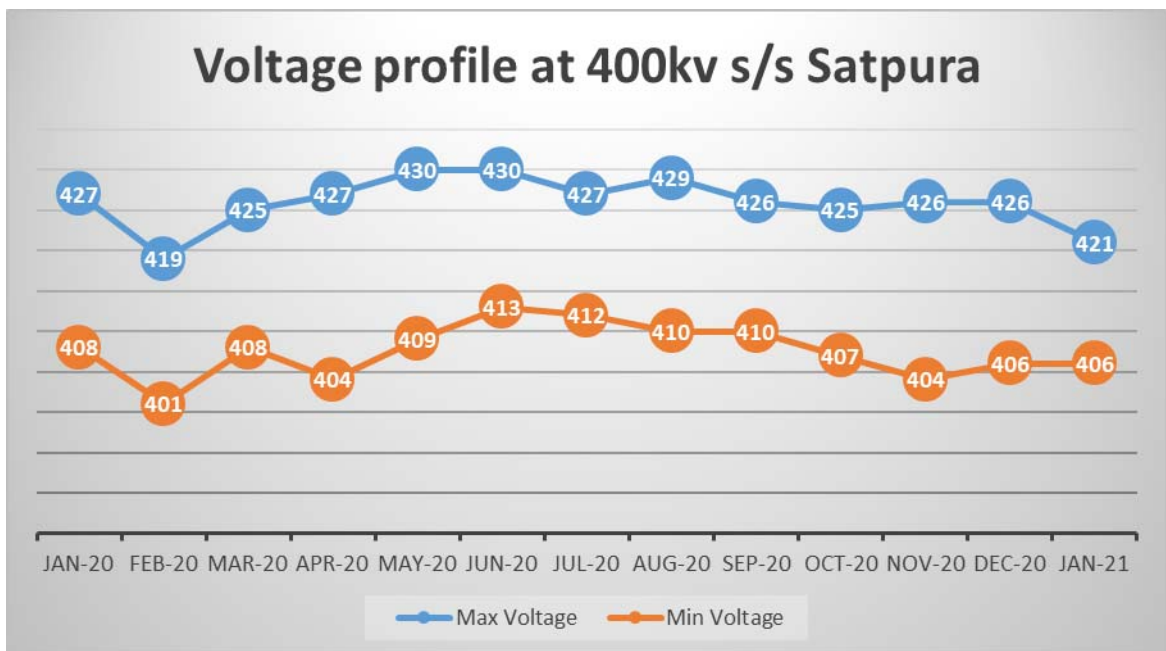
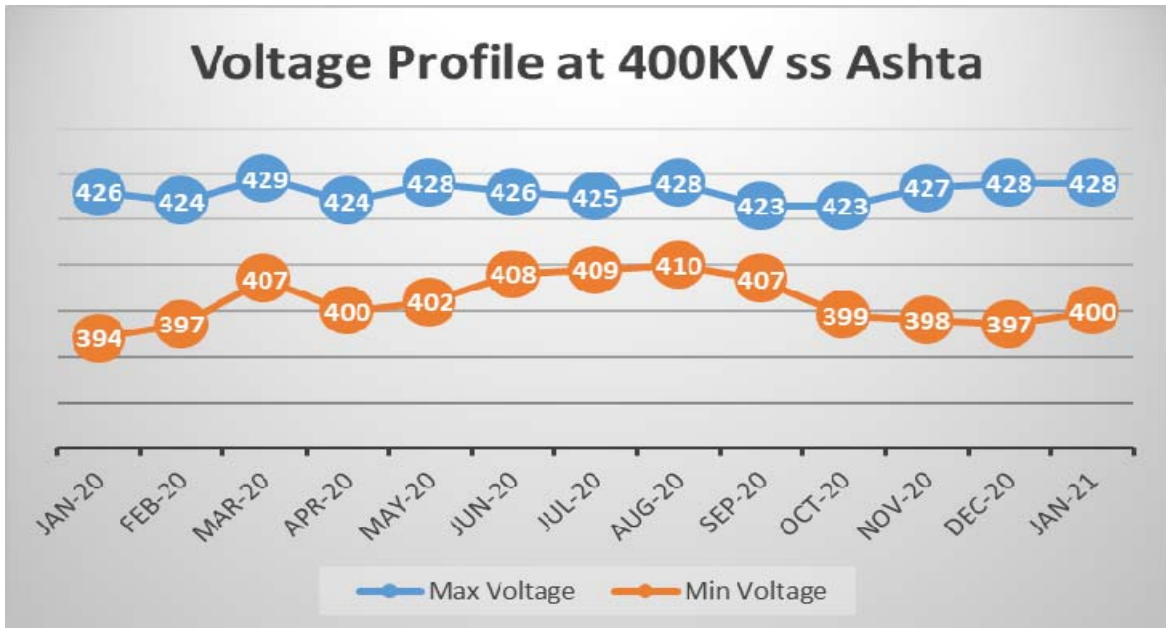
In view of the above it is to mention that:-

1. Accord approval for shutdown of both the Transmission lines of Jaypee Bina that is JPBina-PGCIL & JPBina - MPPTCL during the period between 02.04.2021 to 04.04.2021 and also accord approval for shutdown of both units of Bina for 48 hrs., during the above period as required operationally for ensuring reliability and safety of both units of Bina Plant.
2. As it is a Grid Requirement (PGCIL) for system stability, the DC of the Bina Plant for the 48 hrs. period as mentioned above be approved considering deemed availability of the Plant.

Apart from above there are also other consequential losses to JBTPP due to start up power requirement and oil consumption during start up of the Units for resynchronization with the Grid.

The matter was discussed in the meeting and the same was also put forwarded in WRPC OCC forum for decision, wherein it was proposed that the shutdown on 765KV (Bina- Indore) line shall be planned along with the annual maintenance of the Generating Unit so that the availability of the generator is also not affected. Further WRPC did not provide any comment for providing any compensation to the generator.

6.6 50MVAR LINE REACTOR OF 400KV SARNI-ASHTA CKT 1 AT SARNI END :- The committee was apprised that reactors play a important role in maintaining the grid voltages within prescribed as per grid code , by absorbing the MVARs as and when required. As the units 6, 7, 8, 9 of STPS are intermittently on the bar(due to various system requirements) the presence of reactor at Sarni end becomes prominent. Also the length of 400kv Sarni-Ashta kt is 240KM, which itself is the heavy generator of VARs.



Above depicted is the voltage profile of 400kv s/s Ashta and Sarni of the full year (from Jan-20 to Jan-21), it clearly shows the higher voltages at Ashta/Sarni end are even higher than the permissible limit of 5% in each month.

This high voltage is very detrimental to the system equipment's and may lead to their failure even before the service life.

As per provisions of transmission planning criteria of CEA, normal voltage limit defined are 420 kv to 380 kv. Thus, beyond this limit voltage level required to be controlled with available option of Grid. The transmission planning criteria of CEA is vested with following provisions:

1. Switchable bus reactors shall be provided at EHV substations for controlling voltages within the limits without resorting to switching-off of lines. The bus reactors may also be provided at generation switchyards to supplement reactive capability of generators. The size of reactors should be such that under steady state condition, switching on and off of the reactors shall not cause a voltage change exceeding 5%.
2. Fixed line reactors may be provided to control power frequency temporary over-voltage (TOV) after all voltage regulation action has taken place within the limits under all probable operating conditions. Line reactors (switchable/ controlled/ fixed) may be provided if it is not possible to charge EHV line without exceeding the maximum voltage limits.
3. The possibility of reducing pre-charging voltage of the charging end shall also be considered in the context of establishing the need for reactors.

As enumerated above, the requirement of 50 MVAR reactor is almost vital for handling day to day system operation and to keep system voltage within safe limit. It is therefore required that 50 MVAR reactor at Sarni end on 400 KV Sarni- Astha line, should have taken back in ckt before rainy season, during this season load crushed and high voltage problems are predominant, in case outage of generators the voltage control becomes difficult.

The matter has been discussed and MPPGCL informed the committee that only single offer has been received and is under evaluation.

6.7 ABSORPTION / INJECTION OF REACTIVE POWER BY GENERATORS: - The committee was apprised that during the less system demand period the voltage profile is expected to be high. The problem of high voltages becomes severe during night/off peak hours. It is therefore desired that generating stations to ensure absorption of reactive power from grid with their capability curve to maintain voltages within operational limit whenever the necessity arises. Similarly, voltage profile is expected to below due to high system demand, it is desired that generating stations to ensure injection of reactive power from grid with their capability curve. Similarly, reactors / capacitors shall be switched on/off as per requirement.

MPPGCL ensured that the generators shall provide reactive support as per their capability curve. The matter was discussed in the meeting.

6.8 STATUS OF 125 MVAR SWITCHABLE BUS CUM LINE REACTOR AT 400 KV S/S SAGAR: -- The committee was apprised that the 125 MVAR switchable bus cum line reactor at 400 KV S/s Sagar was commissioned and first test charge at 00:41Hrs. on 04.03.2020 as Bus reactor. Thereafter the reactor was switched OFF at 01:23Hrs./04.03.3030 due to non-availability of requisite approval of Standing Committee.

In the above matter it is to mention that during the summer/rainy season/low load season the voltage of the system was high and during the prevailing high voltage at Sagar the proposal for taking the 125MVAR reactor at 400KV S/s Sagar in service was sent to WRLDC. But due to non availability of requisite Standing Committee approval the charging of the reactor was not permitted by WRLDC.

In view of the above P&D, MPPTCL is requested to provide the status of approval of standing Committee for 125MVAR Bus cum line reactor so that the reactor may be taken in service as per the system requirement. It is also requested to clarify that the reactor will be used as a bus reactor or line reactor or can be used as both in accordance to the Standing Committee approval. Moreover, it may also be clarify when 125 MVAR reactor shall be used as Bus reactor, at the same time whether 400 kv Sagar -Satna line shall be available or required to be kept off.

Representative from P&D informed that the matter has been taken up with CEA & the decision is pending. The status shall be intimated to SLDC after the decision is taken by CEA.

ITEM NO. 7: BLACK-START MOCK DRILL OF HYDEL POWER STATIONS:

7.1 BLACK START MOCK DRILL OF HYDEL STATIONS OF MP:- The committee was apprised that during 2020-2021 Black Start Mock Drill at Bargi HPS & Birsinghpur HPS has been conducted successfully on dtd- 15.12.2020 & 21.12.2020 respectively.

The proposed / tentative dates for conducting black start mock drill at various Hydel power station of MP is detailed as mentioned below:-

S.NO.	NAME OF HPS	PROPOSED/TENTATIVE DATE OF MOCK DRILL
1.	PENCH HPS	23.03.2021
2.	RAJGHAT HPS	05.01.2021
3.	MADIKHEDA HPS	06.01.2021
4.	TONS HPS	Unsuccessful
5.	ISP HPS	DATES FOR MOCK DRILL MAY BE PROPOSED BY NHDC FOR THE MONTH OF MARCH 2021. COMMITTEE MAY LIKE TO DISCUSS.
6.	OSP HPS	

The matter was discussed in the meeting and decided to conduct mock drill at ISP and OSP at the earliest.

7.2 BLACK START MOCK DRILL EXERCISE AT PENCH HPS ON 28.01.2021:- The committee was apprised that Pench Mock Drill was conducted on 28.01.2021 from 11:00Hrs. to 12:30Hrs. The islanding of 132 KV Lakhnadone S/s and Unit No. 2 was successfully made during Mock Drill exercise. However, Black Start Operation was unsuccessful, insite of four consecutive attempts. The unit no 2, could not sustained to feed supply to the island at Lakhnadone S/s. It is therefore requested to look into the matter and arrange to rectify the problem associated with m/c. It appears that problem was with Auto Governor operation. The Manual operation of governor was not functioning. The report on the matter still has not been provided. It is also requested to intimate the next date for arranging mock drill exercise after rectifying the problem. Further, it is also been observed that Mock Drill Exercise of Hydel power stations were not successful.

Therefore, remedial action required to be ensured so that Black start successful Mock Drill Exercise may be carried out.

MPPGCL informed the committee that the issue has been rectified and the next date for Mock Drill may be intimated by SLDC. Thereafter the mock drill at Pench was conducted successfully on 23.03.2021.

ITEM NO. 8: AVAILABILITY BASED TARIFF (ABT) RELATED ISSUES:

8.1 PROVIDING METER DATA TO NLDC FOR COMPUTATION OF INTER STATE TRANSMISSION CHARGES & LOSSES:

SLDC representative informed that CERC has notified (Sharing of Inter State Transmission Charges & Losses) Regulations, 2020 dated 04th May 2020 which has come into force from 01st November 2020. In compliance of regulations, NLDC computes Inter State transmission charges and losses every month for which node wise injection & drawal recorded in ABT meters at a particular block in previous month is required to be provided by SLDC prior to 7th of every month. In compliance of CERC regulations, all Intra State entities of MP are required to carry out folling activities-

1. All state entities shall ensure that at inter-face meters installed under their jurisdiction, AMR facility is provided for data downloading at SLDC and should be functional at all the time. Any new Inter-face meter installed in future, shall be capable of transmitting data to SLDC through AMR system installed at SLDC.
2. In case of some of the meter's data is not received through AMR, the state entity shall manually download the data and send through e-mail sldcmpsem@gmail.com within one day on request of SLDC.
3. All state entities shall furnish injection / drawal JMR data on 2nd day of every month through e-mail sldcmpsem@gmail.com to SLDC for checking / verification / assessment of meter data.
4. All the Intra State entities are requested to instruct the nodal officers appointed for providing data to SLDC to furnish the missing meter data within one day and JMR data by 2nd day of every month.

SLDC representative requested to MPPTCL, MPPGCL, Discoms, NHDC, IPPs and Railway to issue necessary instructions to concerned officials for compliances of above regulatory provisions.

8.2 TESTING & CALIBRATION OF METERS AND TIME DRIFT IN ABT METERS INSTALLED AT THE INTERFACE POINTS:

1. SLDC representative informed that as already requested in previous OCCMs to conduct testing / calibration of meters installed at the interface points under their jurisdiction as per Regulations 10 and 18 of Central Electricity Authority (Installation and operation of meter) Regulation 2010. He also informed that in this regard U.O. note no. 195 dated 11.11.2020 send to CE(T&C) Office. CE(T&C) office representative informed that first replacement of ABT meter which are older than 10 years shall be carried out and thereafter meters testing / calibration of balance interface meters shall be carried out by MPPTCL. CE(T&C) office representative informed that first replacement of ABT meters which are older than 10 years & time synchronization with GPS shall be done and thereafter balance meters shall be tested / calibrated.
2. SLDC representative informed that the list of ABT meters installed at the interface points of T-D having time drift to CE(T&C) Office vide email dated 16.03.2020 & UO note no. 191 dated 29.10.2020 send to CE(T&C) Office and requested to take up the matter with M/s Secure Meters Ltd. for time synchronization with GPS. CE(T&C) office is requested to apprise the status of time synchronization of meters and replacement of ABT meter which are older than 10 years. Also, SLDC informed that initially 11 meters were time synchronized and then 86 meters time synchronized with GPS, step-by-step time synchronization with GPS is being done. CE(T&C) office representative informed that time synchronization in ABT meters installed at the interface points is under process and 50 meters ABT has

been replaced which are older than 10 years, he has further informed that instructions were issued to field offices for replacement of balance ABT meters which are older than 10 years.

3. SLDC representative requested CE(T&C) office to issue instructions to field offices for providing load survey data of 22-23 Nos. ABT meters installed at TSS end by 10th of every month as these meters are not communicating with SLDC AMR system.

8.3 NON RECEIPT OF ABT METER DATA OF RAILWAY TSS THROUGH AMR SYSTEM AND JMR:

No representative of Railways has attended the meeting.

8.4 NON- RECEIPT OF ABT DATA OF ISP AND OSP THROUGH AMR SYSTEM:

SLDC representative informed that meter data of ISP & OSP HPS is not being received through AMR system since last 3-4 months. ISP & OSP were already requested to coordinate with M/s Secure Meters Ltd. (Contact Person – Shri Abhishek Yadav M- 8120320576) for integrating the meters with AMR system of SLDC, however the issues are not resolved so far. ISP & OSP representative informed that they will coordinate with M/s Secure Meters Ltd. and SLDC for resolving the problems related with downloading of meter data through AMR system of SLDC.

8.5 NON- RECEIPT OF ABT DATA OF BLA POWER HOUSE THROUGH AMR SYSTEM:

SLDC representative informed that ABT meter data of BLA is not being received through AMR system. It is requested to coordinate with M/s Secure Meters Ltd. for integrating the ABT meters so that data of GT-I&II & ST-I and outgoing feeders is received through AMR System of SLDC. BLA Power representative informed that they will coordinate with M/s Secure Meters Ltd. and resolve the problems related with downloading of meter data through AMR system of SLDC.

8.6 REGARDING AMC CONTRACT ABT METERS TO M/S SECURE METERS LTD:

SLDC representative requested to ISP, OSP, IPPs and Railways to coordinate with CE(T&C) Office for including ABT meters installed at their interface points in the AMC Contract to M/s Secure Meters Ltd. for successful downloading of meter data through AMR server of SLDC.

8.7 Testing & Calibration of interface meters and Mismatch in generation of outgoing feeders & actual generation:

1. SLDC representative informed that as already requested in the previous OCCMs to MPPGCL to conduct testing / calibration of main, check and standby meters installed at the interface points of Hydel power stations and check meters installed at the interface points of Thermal power stations as per Regulations 10 and 18 of Central Electricity Authority (Installation and operation of meter) Regulation 2010. He requested MPPGCL to apprise the Committee about the status of Testing / Calibration as per regulatory provisions and to ensure that meters installed at the interface points are time synchronized with GPS. MPPGCL representative assured that testing / calibration of meters installed at Hydel Power Stations and check meters of Thermal Power Stations alongwith time synchronization of all meters with GPS shall be done.
2. SLDC representative requested to MPPGCL to send injection / drawal AMR / JMR data on 2nd day of every month through e-mail sldcmpsem@gmail.com to SLDC for checking / verification / assessment of meter data.

8.8 NON RECEIPT OF MONTHLY INJECTION DATA (JMR) SOLAR / WIND POWER PROJECTS FOR ISSUANCE OF MONTHLY STATE ENERGY ACCOUNT:

SLDC representative informed that the concerned EE(T), MPPTCL do not furnish the JMR injection data of the following wind & solar generators connected at 132KV level However, SLDC consider the data received through AMR or through MRI by site official in monthly SEA, but verification of data could not be done.

- i) 49.5MW Wind Power Project of M/s Betul Wind Farm connected at 132KV Gudgaon.
- ii) 46MW Wind Power Project of M/s Kukru Wind Farm Pvt. Ltd. connected at 132KV Gudgaon.
- iii) 51MW Solar Power Project of M/s Renew Clean Energy P Ltd. connected at 132KV Kohtiya.

SLDC requested CE(T&C) office to issue necessary instructions to field offices for furnishing the JMR data of the above RE Projects. CE(T&C) office have assured to issue instructions to field offices for furnishing the JMR data of above mentioned RE Projects by 3rd or 4th of every month connected at 132KV level and above.

8.9 TIME DRIFT IN ABT METER INSTALLED AT THE POOLING STATIONS OF WIND AND SOLAR GENERATING STATIONS AND SLIDING WINDOW PROBLEM:

SLDC representative stated that ABT meters installed at the following Pooling Stations of Wind and Solar Project has time drift and thus not recording the correct data. SLDC has requested to QCA / Generators with copy to concerned licensee vide letter no 147 dated 25/01/2021 for time synchronization of the ABT meters with GPS so that correct DSM account of these Wind and Solar Projects is issued by SLDC.

Sr. no.	FEEDER	SUBSTATION		Meter No.	TIME DRIFT IN MINUTES
1	Ujaas -I Susner	132KV S/s Susner	WZONE	XB571653	268
2	M/S SIDHANT WIND_KUCHROD	33/11KV S/s KUCHDOD	WZONE	XB589231	218.20
3	M/S SIDHANT WIND_AFJALPUR	33/11KV S/s AFJALPUR	WZONE	XC502289	213.00
4	SHANKESHWAR WIND POWER_NAGRI	220KV S/s DALODA	WZONE	XC525573	210.60
5	SHANKESHWAR WIND POWER_DHMNAR	220KV S/s DALODA	WZONE	XC525575	208.80
6	33KV MARUTSHAKTI CHANDWASA	33KV CHANDWASA	WZONE	XC502303	199.80
7	33KV SUDHIR_WIND BERCHHA-I	132KV S/S BERCHHA	WZONE	XC529837	20.00
8	AMPL BHADRESH	132KV S/s Susner	WZONE	XB593639	57.15
9	33KV CLEAN SOLAR -2 ALOT	132KV S/S ALOT	WZONE	XC502300	47.00
10	33KV CLEAN SOLAR -1 ALOT	132KV S/S ALOT	WZONE	XC502298	36.00
11	WIND WORLD 1 CHAPDA	132 KV S/s CHAPDA	WZONE	Q0296375	35.00
12	WIND WORLD 2 CHAPDA	132 KV S/s CHAPDA	WZONE	Q0296376	34.00
13	25MW_DELIGENTIA CKT-II	132KV S/S RATANGARH	WZONE	MPC72365	30.00
14	SUNPHARMA POWER BLOCK-3	132KV S/S RATANGARH	WZONE	Q0287962	29.00
15	25MW_DELIGENTIA CKT-I	132KV S/S RATANGARH	WZONE	MPC72366	24.23
16	33 KV UJAAS 1 BERCHHA	132KV S/S BERCHHA	WZONE	XB571652	24.02

17	UJAAS -2 ICHHAWAR 33 KV	132KV S/S ICHHAWAR	WZONE	MPC59975	20.03
18	33KV SUZLON_GUJRAT_WIND KHACHROD-II	132KV S/S KHACHROD	WZONE	MPC73886	19.00
19	M/S SUZLON INFRA MAHURIYA 2 SUSNER	132KV S/S SUSNER	WZONE	XE479865	19.00
20	132KV ENERCON (WEG)	132KV S/S CHAPDA	WZONE	MPE53467	17.20
21	VIVAAN SOLAR -3 MAKDON	132KV S/S MAKDON	WZONE	XC529586	15.00
22	WIND WORLD 4 SUSNER	132KV S/S SUSNER	WZONE	XA474846	14.08
23	33KV SUZLON_GUJRAT_WIND KHACHROD-I	132KV S/S KHACHROD	WZONE	MPC73884	13.00
24	33KV TODAY CLEAN ENERGY FDR-II	220KV S/S BAROD	WZONE	XD511507	12.12
25	KUKRU WIND 132 KV	132KV S/S GUDGAON	CZONE	XC579525	12.12
26	33 KV UJAAS II SITAMAU	132KV S/s SITAMOU	WZONE	XD501479	12.00
27	GAMESA JAMGODRANI 2	220 KV DEWAS	WZONE	XB575668	11.53
28	GLOBUS STEEL & POWER	132KV S/s SITAMOU	WZONE	XC562469	11.25
29	GAMESA JAMGODRANI 1	220 KV DEWAS	WZONE	XB575670	11.00
30	33KV VIVAAN SOLAR -1 TARANA	132KV S/S TARANA	WZONE	XD501478	9.00
31	33KV Ujaas feeder-II Rajgarh	132KV S/S RAJGARH	WZONE	XC595281	6.28
32	BETUL WIND FARM 132 KV	132KV S/S GUDGAON	CZONE	MPC62876	5.52
33	132KV MALWA SOLAR (IL&FS) FEEDER	220KV S/S BAROD	WZONE	XB587792	5.52
34	33KV PRISM_WIND FEEDER_I	132KV S/S SONKATCH	WZONE	XD500621	5.00
35	VIVAAN SOLAR -1 MAKDON	132KV S/S MAKDON	WZONE	MPC55922	5.00
36	220KV KSHEMA_AMBA_II	220KV S/S RATLAM	WZONE	XC579528	4.55
37	220KV GUJARKHEDI_NTPC_I	220KV S/S GUJAR KHEDI	WZONE	Y0280256	4.25
38	220KV KSHEMA_AMBA_I	220KV S/S RATLAM	WZONE	XC576468	4.17
39	NTPC-1	220KV S/S RAJGARH BIAORA	WZONE	XC510612	4.10
40	UJAAS 1 RAJGARH	220KV S/S RAJGARH BIAORA	WZONE	Y0356649	4.10
41	33KV PRISM_WIND FEEDER_II	132KV S/S SONKATCH	WZONE	XD500619	4.00
42	M/S SIDHANT WIND_MANDVI	33/11KV S/s MANDVI	WZONE	XC529818	4.00
43	FOCAL PHOTOVOLTIAC INDIA P LTD	132KV S/s SITAMOU	WZONE	MPC70760	4.00
44	132KV RENEW CLEAN ENERGY	132KV S/S KOTHIYA	WZONE	XE518730	3.72
45	NTPC-2	220KV S/S RAJGARH	WZONE	XC510614	3.27

		BIAORA			
46	33KV KSHEMA_GHONSLA FEEDER-I	132KV S/S GHONSLA	WZONE	Y0056951	3.00
47	33KV KSHEMA_GHONSLA FEEDER-II	132KV S/S GHONSLA	WZONE	Y0056953	3.00
48	132KV SEIL VOLTA_SITARA	132KV S/s SITAMOU	WZONE	XB581188	3.00
49	UJAAS-1 AGAR	132KV S/S AGAR	WZONE	MPC59595	2.53
50	UJAAS-2 AGAR	132KV S/S AGAR	WZONE	MPC59596	2.48
51	M P WIND FARM NAGDA HILL	220 KV DEWAS	WZONE	XE525393	2.10
52	33KV UJAAS 2 BAROD	220KV S/S BAROD	WZONE	XE525399	2.05
53	33 KV RATLAM WIND FARMS -I	132KV S/S JAORA	WZONE	Y0056957	2.00
54	SUZLON ENERGY SANDALA I	132 KV KHACHROD	WZONE	XB579646	2.00
55	33KV VIVAAN SOLAR -2 TARANA	132KV S/S TARANA	WZONE	XE479821	1.60
56	UJAAS SAI SABURI	132KV S/S MAKDON	WZONE	X0888531	1.60
57	33 KV UJAAS 1 BAROD	220KV S/S BAROD	WZONE	XE525398	1.47
58	SUN PHARMACEUTICAL INDUSTRIES LTD.	132KV S/S TARANA	WZONE	Q0190158	1.38
59	132KV ORANGE BERCHA_WIND FEEDER	220KV S/S BARNAGAR	WZONE	XC576471	1.32
60	33KV AVP_POWER_INFRA_feder-I	132KV S/S SONKATCH	WZONE	XD595991	1.30
61	220KV INOX_LAHORI FEEDER I	220KV S/S SHAJAPUR	WZONE	MPC73532	1.17
62	33KV BADONI_POWER_MAXI_feder-I	132KV S/S MAXI	WZONE	XD522128	1.08
63	VIVAAN SOLAR -2 MAKDON	132KV S/S MAKDON	WZONE	XC529587	1.02
64	220KV MARUTSHAKTI FEEDER-I	220KV S/S NIPANIYA	WZONE	MPC70479	1.02
65	33KV BADONI_POWER_MAXI_feder-II	132KV S/S MAXI	WZONE	XD558031	1.00
66	33KV Suzlon Gujrat_barod_feder-I	220KV S/S BAROD	WZONE	XD595980	1.00
67	RENEW WIND ENERGY (MP TWO) PVT LTD_DALODA	220KV S/s DALODA	WZONE	XB593636	1.00
68	SUZLON ENERGY SANDALA 2	132 KV KHACHROD	WZONE	XB579649	1.00
69	SUZLON V RATLAM	132KV S/S JAORA	WZONE	XE479860	1.00

Further, SLDC representative informed that ABT meters installed at the following Wind and Solar Generating Stations are recording the 15 minutes block wise data on sliding window principal thus blockwise data do not match with midnight data. SLDC has requested to Generators with copy to concerned licensee vide letter no. 2353 dated 31/08/2019, letter no. 2771, dated 16/10/2019 and letter no. 809 & 810 dated 03/06/2020 for immediate replacement of these ABT meters.

Sr.No.	FEEDER NAME	SUBSTATION	ABT METER No.	ZONE	QCA NAME
1	33KV SUZLON-I SAILANA	132 KV SAILANA	XE479853	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
2	33KV SUZLON-II SAILANA	132 KV SAILANA	XE479854	WZONE	RECONNECT ENERGY SOLUTION PVT LTD

3	33KV SUZLON-III SAILANA	132 KV SAILANA	XE479855	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
4	33KV SUZLON-I RATLAM	132KV S/S JAORA	XE479856	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
5	33KV SUZLON- IV RATLAM	132KV S/S JAORA	XE479859	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
6	33KV SUZLON- V RATLAM	132KV S/S JAORA	XE479860	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
7	33KV SUZLON-IV AGAR	132KV S/S AGAR	XE479864	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
8	33KV SUZLON-V (SUSNER-III)	132KV S/S SUSNER	XE479867	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
9	33KV SUZLON-III (AGAR- I).	132KV S/S AGAR	XE479863	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
10	33KV SUZLON BEHAPUR DALODA-I	220 KV S/s DALODA	XE479862	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
11	33KV SUZLON BEHPUR DALODA-II	220 KV S/s DALODA	XE479861	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
12	33KV SUZLON I (SUSNER-I).	132KV S/S SUSNER	XE479866	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
13	33KV SUZLON I (SUSNER-II).	132KV S/S SUSNER	XE479865	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
14	33 KV M P WIND FARM NAGDA HILL	220 KV DEWAS	XE525393	WZONE	MANIKARAN ANALYTICS LTD..
15	33 KV SUZLON GUJRAT WIND	220 KV BAROD	XD595984 XD595980	WZONE	MANIKARAN ANALYTICS LTD...
16	33KV FREEWING POWER PVT. LTD.	132KV S/s MAKDON	Y0505422	WZONE	FREEWING POWER LTD.
17	33KV AVP POWER PVT. LTD.	132 S/s SONKATCH	XD595991, XD595994	WZONE	MANIKARAN ANALYTICS LTD..
18.	33KV BADONI PVT LTD.	132KV S/s MAXI	XD522128	WZONE	MANIKARAN ANALYTICS LTD..
19.	33KV GI POWER PVT. LTD.	220KV S/s MAKDON	X1071843	WZONE	KREATE TECHNOLOGY PVT LTD
20.	33KV SAI SABURI MAKDON	132KV MAKDON	X0888531	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
21.	33KV UJAAS-I RAJGARH	220KV RAJGARH	Y0356649	CZONE	MANIKARAN ANALYTICS LTD..
22.	33KV UJAAS –I BAROD	220KV BAROD	XE525398	WZONE	MANIKARAN ANALYTICS LTD..
23.	33KV UJAAS –II BAROD	220KV BAROD	XE525399	WZONE	MANIKARAN ANALYTICS LTD..
24.	33KV FRIEND SALT SUSNER	132KV SUSNER	X0888530	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
25	SUZLON DEV 1 NAGDA HILL	220 KV DEWAS	XE479868	WZONE	RECONNECT ENERGY SOLUTION PVT LTD
26.	33KV EASTMAN INTERNATIONAL	132KV TARANA	X1305766 X1305767	WZONE	MANIKARAN ANALYTICS LTD..
27.	33KV UJAAS-I RAJGARH	220KV RAJGARH	Y0356649	CZONE	MANIKARAN ANALYTICS LTD..
28.	SIMCON FEEDER -2	220KV GANJBASODA	Y0327309	CZONE	KREATE TECHNOLOGIES LLP

SLDC representative requested to DDCs, Indore & Bhopal to take-up the issue with concerned officials for time synchronization and replacement of ABT meters. DCCs Indore & Bhopal has informed that concerned nodal officer / SE(O&M) / Commercial Section have been intimated for necessary action.

8.10 TESTING & CALLIBRATION OF INTERFACE METERS:- SLDC representative requested to DCCs, Indore and Bhopal to take-up the matter with concerned officials for testing / calibration of meters installed at the interface points of Renewable Energy Generators and Inter Discom feeders under their jurisdiction as per Regulations 10 and 18 of Central Electricity Authority (Installation and operation of meter) Regulation 2010.

In response, DCCs Indore and Bhopal representative informed that concerned officers have already been informed for necessary action. DCC, Indore representative has not attended the meeting, therefore issue could not be discussed.

ITEM NO. 9: SCADA and E&T RELATED ISSUES

9.1 ARRANGEMENT OF TELEMETRY OF IMPORTANT 220KV SUB STATIONS & 132KV S/S HAVING INJECTION FROM RENEWABLES/CAPTIVE POWER PLANTS OR HAVING INTERDISCOM FEEDERS /TRACTION FEEDERS-

SLDC informed that the telemetry integration of all the substations of MPPTCL planned to be integrated at SLDC has been successfully completed.

SLDC further informed that telemetry Birsinghpur HPS and Zinna HPS is still pending. The RTUs has been installed in Birsingpur HPS & Zinna HPS, however its telemetry is pending due to non-availability of data communication channel . MPPGCL informed that the data channel between Birsingpur TPS upto SLDC has been tested and there is some issue in PLCC between Birsingpur TPS & Birsingpur HPS. SLDC requested MPPGCL to expedite the progress. MPPGCL agreed to resolve the matter at the earliest.

9.2 UPGRADATION OF EXISTING RTUS & DISCREPANCY IN TELEMETRERED VALUES RECEIVED FROM DIFFERENT EHV S/S & POWER STATIONS

SLDC informed that various telemetry discrepancies are pertaining to MPPTCL & MPPGCL are pending since long time & are detailed below:-

(a)MPPGCL Generating Substations :-

1. Satpura TPS :-

Sr.No.	Description	Unit	Pending since	MPPGCL response in meeting dtd.30.10.18	MPPGCL response in 77 TH OCCM
1	400 KV Satpura - Itarsi	MW	1 year	-	SLDC informed that the telemetry discrepancy issue of 400 KV Satpura-Seoni & 400 KV Satpura-Koradi has been resolved after replacement of high accuracy class transducers, however the the discrepancy of 400 KV Satpura-Itarsi is still pending. MPPGCL informed that issue will be rectified at the earliest.

2. SGTPS :-

Sr.No.	Description	Unit	Pending since	MPPGCL response in meeting dtd.30.10.18	MPPGCL response in 77 th OCC
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1	220/33 KV Transformer	MW/MVAR	More than one year	MPPGCL informed that it shall be provided <u>within one month.</u>	MPPGCL informed that it will be rectified at the earliest.
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3. Gandhi Sagar HPS :-

Restoration of the telemetry of Gandhi Sagar HPS through wideband equipment: -

SLDC informed that the RTU integration work has been completed in the month of November 2020. However, CB of Gen No 5 and MW, MVAR of 33 KV feeder Kuakheda and Bhanpura has still not provided. Further CB status of Gen-2,3,4 & 5 is faulty. MPPGCL agreed to resolve the matter at the earliest.

SLDC further requested MPPGCL to arrange for participation of all the Thermal & Hydel representatives in the next OCCM meeting so that the correct status & actions taken in the issues may be identified. MPPGCL agreed for the same.

(b) Transmission/ other Generating Substations :-

SI No.	Name of Substation	Name of feeders/transformers
01	400 KV ISP	<p>(i) Telemetry of power plant is not updating properly/update with time delay.</p> <p>(ii) MW of 400 KV Indore feeder 1 is showing wrong value.</p> <p>(iii) Isolator telemetry not available.</p>
02	400 KV Julwaniya	CB status of all the three 132/33 KV Xmer is showing open. This problem is persisting since last one year .No action in the matter has been taken.
04	220 KV Ratlam	220 KV TBC and bus coupler CB are faulty

MPPTCL & NHDC informed that the issues will be resolved at the earliest.

9.3 Extension of RGMO/FGMO signal to SLDC/WRLDC :-

SLDC informed that extension of RGMO/FGMO signal of following generating units is still pending:-

S.No.	Name of Generating Station	Unit.No.	MPPGCL response in last OCC

1	SGTPS	1,2,3,4	SLDC informed that it was intimated by MPPGCL in last three OCC meetings that integration work of RGMO/FGMO signal is under tendering process & telemetry integration of RGMO/FGMO signal shall be completed within 3-4 months. However no progress in the matter has been observed even after lapse of 1 year period. MPPGCL informed that there is no response from OEM i.e. M/s BHEL in the matter.
2	BARGI HPS	2	SLDC informed that integration of RGMO/FGMO signal at Bargi HPS shall be done during AOH of units in 2019. However no progress in the matter has been observed. MPPGCL informed that the integration of RGMO/FGMO signal will be done during the next planned outage.
3.	Singha ji Phase 2	3, 4	MPPGCL informed that matter has been taken up with L&T to initiate the work at the earliest & the integration work will be done when the units will be taken on operation.

9.4 REPLACEMENT OF RTUS IN THERMAL POWER STATIONS:-

SLDC informed that the RTUs installed at Thermal & Hydel power stations for providing real time data to SLDC has completed their life and giving problems in expansion of telemetry & maintenance of RTUs. As, replacement of RTUs required sufficient time, the matter of replacement of RTUs at power stations was taken up by SLDC since 2018. The replacement of RTUs of hydel power stations is under progress. However, no progress regarding replacement of RTUs of thermal power stations is observed.

The matter was taken up by SLDC in various OCCM meetings as well as in separate SCADA and communication meetings held with power station officers. However, no progress is observed. In response it was informed by MPPGCL representative that in place of arranging replacement of RTUs, MPPGCL is exploring the possibility of integrating the telemetry of thermal Power Stations through existing SCADA system at Power stations. SLDC enquired regarding availability of IEC 60870-5-101 gateway in SCADA and protocol compatibility with SLDC along with its testing. MPPGCL informed that they will arrange for the same at the earliest.

9.5 NON AVAILABILITY/ UNRELIABLE VOICE COMMUNICATION BETWEEN SLDC TO THERMAL/ HYDEL POWER STATIONS:-

It is to inform that as per CERC communication regulation 2017, availability of communication channel is required to be ensured more than 99.9%. However, despite constant pursuance, presently most of the PLCC voice communication of various power stations to SLDC is out since long time and detailed of non-availability as here under: -

Sr.No	Name of HPS/TPS	2 wire channel	PLCC voice communication is not established	MPPGCL response in meeting dtd.30.10.18	Remark
1.	Bansagar- IV	PLCC	voice communication is not established	AE, Tons HPS informed that he will visit Bansagar-IV for restoration of voice communication of Bansagar-IV at the earliest.	Restoration of PLCC channel is still pending.

2.	Madikheda	PLCC voice channel is not working since long time.		Restoration of PLCC channel is still pending
3	Birsinghpur HPS/TPS	PLCC voice channel is not working since long time due to faulty PLCC exchange at Birsinghpur.	AE Birsinghpur informed that presently voice communication between SLDC to thermal power house is proper & the commissioning of EPAX at site is under progress. AE Birsinghpur assured that the voice channel of Birsinghpur HPS shall be restored within one month .	In last meeting it was informed that the restoration completed by a month. However restoration of voice channel of Birsinghpur HPS is still pending.

The matter regarding Non Availability/ Unreliable voice communication Between SLDC to Thermal/ Hydel Power Stations was discussed in various OCC meeting however 2 wire voice facility extension of Singhaji 2 TPS, Madikheda HPS, is still pending. MPPGCL informed that issue will be resolved at the earliest.

9.6 NON AVAILABILITY & WRONG TIME STAMPING OF SOE AT SLDC SCADA

SLDC informed that out of 175 RTUs, SOE verification of 171 RTUs has been completed & SOE verification of 4 Sub – station i.e 400 KV Astha ,220 KV Gudgoan and 132 KV Khirkiya and Harda is still pending. MPPTCL informed that SOE verification work of balance S/s will be completed at the earliest.

9.7 RECTIFICATION OF OPGW LINK BETWEEN 220 KV S/S SATNA –KATNI AND 400 KV BHOPAL -220 KV BHOPAL:-

SLDC informed that Presently one link between 220 KV S/s Satna – Katni is in working condition as Out of 8 fibre 3 fibre is in healthy condition hence only one link is working and restoration of alternate/secondary link is still pending.

Further in 400 KV -220 KV Bhopal OPGW Link out of 24 Fiber 18 Fiber are found faulty. The restoration of this fiber is requested. Hence both the link between 400 KV Bhopal -220 KV Bhopal are not in working condition. As no representative from EHT was present, the matter could not be discussed.

9.8 TELEMETRY OF RAILWAY TSS SUB STATIONS: -

The telemetry of existing 38 Nos Railway Traction Sub Stations & upcoming 25 new Railways TSS is required to be provided by railway for monitoring of drawl by each TSS and also monitoring of demand of railway in MP. Hence telemetry of 25 Nos Railway Traction Sub Stations out of 63 has been commissioned and are reporting to SLDC, Jabalpur . However telemetry availability of Railway TSS are very poor. Please provide the status of remaining 38 Nos Railway Traction Sub Stations as well as ensure reliable telemetry of existing Railway TSS. As **No representatives from Railways were present in the meeting**, the matter could not be discussed

ITEM NO 10 : DATE AND VENUE OF NEXT OCC MEETING

It is proposed to hold 78th Operation and Coordination Committee meeting of MP in June 2021. The host and venue of the same shall intimated seperately.

[Action :- All the concerned entities]

FREQUENCY PARTICULARS

S. No.	Particulars	Dec-20		Jan-21	
1 INTEGRATED OVER AN-HOUR					
1.1	Maximum Frequency	50.09 Hz	Between 21.00 hrs & 22.00 Hrs on 18.12.20	50.12 Hz	Between 13.00 hrs & 14.00 Hrs on 06.01.21
1.2	Minimum Frequency	49.86 Hz	Between 03.00 hrs & 04.00 Hrs on 24.12.20	49.89 Hz	Between 13.00 hrs & 14.00 Hrs on 05.01.21
1.3	Average Frequency	50.01 Hz		50 Hz	
2 INSTANTANEOUS FREQUENCY					
2.1	Maximum Frequency	50.26 Hz	AT 14.02.00 HRS ON 25.12.20	50.24 Hz	AT 18.02:00 HRS ON 30.01.21
2.2	Minimum Frequency	49.66 Hz	AT 09:57:20 HRS ON 16.12.20	49.7 Hz	AT 05:11:30. HRS ON 30.01.21

3 Percentage of time when frequency was :-

	%age of time when frequency was	Dec-20	Jan-21
3.1	Below 48.5 Hz	0.00	0
3.2	Between 48.50 Hz and 48.8 Hz	0.00	0
3.3	Between 48.80 Hz and 49.2 Hz	0.00	0
3.4	Between 49.20 Hz and 49.5 Hz	0.00	0
3.5	Between 49.50 Hz and 49.7 Hz	0.00	0
3.6	Between 49.70 Hz and 49.9 Hz	4.79	4.85
3.7	Between 49.9 Hz and 50.05 Hz	75.74	76.11
3.8	Between 50.05 Hz AND 51.5 Hz	19.47	19.04
3.9	Above 51.5 Hz	0.00	0.00
4	No. of times frequency touched 48.80 Hz	0	0
4.1	No. of times frequency touched 48.60 Hz	0	0
4.2	No. of times frequency touched 51.0 Hz	0	0

ANNEXURE-2.2.2

Dec-20

Sr No	Name of Sub Station	M A X I M U M			M I N I M U M		
		KV	TIME	DATE	KV	TIME	DATE
1	Indore	420	20.00	30 Dec 20	398	9.00	15 Dec 20
2	Bhopal	420	2.30	12 Dec 20	396	10.25	20 Dec 20
3	Nagda	423	21.00	4 Dec 20	399	9.00	31 Dec 20
4	Satpura	426	21.00	4 Dec 20	406	9.00	15 Dec 20
5	SGTPS Birsinghpur	421	24.00	11 Dec 20	400	10.00	31 Dec 20
6	Bina	418	4.00	12 Dec 20	391	10.10	21 Dec 20
7	Pithampur	422	21.00	4 Dec 20	402	9.00	31 Dec 20
8	Ashta	428	20.00	11 Dec 20	397	9.00	21 Dec 20
9	Julwania	428	20.00	11 Dec 20	401	9.00	31 Dec 20
10	Kirnapur	435	4.00	16 Dec 20	411	20.00	27 Dec 20
11	Badnawar	426	20.00	11 Dec 20	404	9.00	31 Dec 20

Jan-21

Sr No	Name of Sub Station	M A X I M U M			M I N I M U M		
		KV	TIME	DATE	KV	TIME	DATE
1	Indore	422	21.00	15 Jan 21	397	10.00	18 Jan 21
2	Bhopal	422	1.10	10 Jan 21	397	11.35	18 Jan 21
3	Nagda	423	21.00	2 Jan 21	400	9.00	8 Jan 21
4	Satpura	421	21.00	1 Jan 21	406	16.00	25 Jan 21
5	SGTPS Birsinghpur	419	1.00	10 Jan 21	399	11.00	1 Jan 21
6	Bina	418	2.00	27 Jan 21	393	11.20	1 Jan 21
7	Pithampur	423	21.00	15 Jan 21	404	16.00	21 Jan 21
8	Ashta	428	21.00	17 Jan 21	400	9.00	8 Jan 21
9	Julwania	425	21.00	14 Jan 21	403	15.00	21 Jan 21
10	Kirnapur	432	2.00	9 Jan 21	427	2.00	24 Jan 21
11	Badnawar	427	21.00	15 Jan 21	403	11.35	18 Jan 21

Discoms wise Average Supply Hours

PARTICULARS	East Zone		Central Zone	
	Dec-20	Jan-21	Dec-20	Jan-21
Commissary HQ	23:56	23:56	23:53	23:44
District HQ	23:54	23:56	23:51	23:48
Tehsil HQ	23:41	23:44	23:47	23:44
Rural -Mixed	23:23	23:23	23:37	23:33
Rural -DLF	23:26	23:24	23:39	23:33
Rural -Irrigation	9:50	9:50	9:55	9:54
PARTICULARS	West Zone		MP	
	Dec-20	Jan-21	Dec-20	Jan-21
Commissary HQ	23:56	23:57	23:55	23:52
District HQ	23:55	23:56	23:54	23:54
Tehsil HQ	23:53	23:52	23:46	23:46
Rural -3Phase	23:37	23:44	23:29	23:29
Rural -1Phase	23:45	23:47	23:36	23:34
Total Rural	9:51	9:52	9:52	9:52

Annexure-2.3.ii

LIST OF 33KV FEEDERS UNDER MPPKVCL, JABALPUR
(For which group to be allocated)
JABALPUR REGION

Name of EHV Substation	Name of 33KV feeder	Date of commissioning of feeder bay	Date of commissioning of feeder
220KV			
220 KV Seoni	33 KV Karirat	21.08.2007	06.01.2016
132KV			
132 KV Ponder	33 KV NSPL	19.01.2018	19.01.2018
132 KV Palohabada	33 KV Bilthari	01.04.2019	01.04.2019
	33 KV Sadumar	02.04.2019	02.04.2019
132 KV Narsinghpur	33 KV Nagar Palika	28.02.2018	02.11.2018
132 KV Karapgaon	33 KV Karapgaon	29.12.2017	24.02.2018
	33 KV Bansadehi	29.12.2017	27.01.2018
	33 KV Kareli	29.12.2017	27.01.2018
	33 KV Aamgaon	29.12.2017	28.01.2018
132 KV Nainpur	33 KV Keolari-II	22.01.2018	28.03.2018
132 KV Saori	33 KV Saori	05.10.2018	12.11.2018
	33 KV Lawaghogri	05.10.2018	13.11.2018
	33 KV Mujawar	06.11.2018	12.11.2018
	33 KV Bhutai	06.11.2018	30.01.2019

LIST OF 33KV FEEDERS UNDER MPPKVCL, INDORE
(For which group to be allocated)

INDORE REGION

Name of EHV Substation	Name of 33KV feeder	Date of commissioning of feeder bay	Date of commissioning of feeder
220KV			
220KV Pithampur (Sec-III)	33KV SRF	03.09.2013	03.09.2013
132KV			
132KV Chandrawatiganj	33KV Chandrawatiganj	27.04.2015	27.04.2015
132KV Electronic	33KV AKVN (Namkeen Cluster)	31.03.2016	31.03.2016
132KV Raukhedi	33KV DLF-I	03.01.2014	15.09.2018
	33KV DLF-II	03.01.2014	15.09.2018

UJJAIN REGION

Name of EHV Substation	Name of 33KV feeder	Date of commissioning of feeder bay	Date of Charging of feeder
220KV			
220KV Barnagar	33KV Bangred	23.10.2017	20.10.2018
132KV			
132KV Agar	33KV Agar Town-II	03.12.2012	24.05.2018
132KV Arniyakalan	33KV Designco Manufacture & Exporter (5MW Solar Power Plant)	01.05.2018	01.05.2018
132KV Agrod	33KV Madhopur	30.06.2018	26.07.2018

LIST OF 33KV FEEDERS UNDER MPPKVCL, BHOPAL
(For which group to be allocated)

BHOPAL REGION

Name of EHV Substation	Name of 33KV feeder	Date of charging of feeder bay	Date of charging of feeder
220 KV			
220 KV Pipariya	33 KV Food Park (AKVN)	19.06.2017	25.06.2017
132 KV			
132 KV Tamot	33 KV Obedullaganj 33 KV AKVN-1 33 KV AKVN-2	05.05.2016 05.10.2016 05.10.2016	02.02.2017 05.10.2016 05.10.2016
132 KV Lateri	33 KV Anantpura	15.06.2017	22.05.2018
132 KV Salamatpur	33 KV Dewanganj 33 KV Aamkheda	04.12.2017 04.12.2014	04.12.2017 04.12.2017
132 KV Udaipura	33 KV Thaladigawan 33 KV Boras 33 KV Udaipura	26.04.2018 04.06.2018 04.06.2018	04.06.2018 06.06.2018 07.01.2019
132 KV Ayodhya Nagar	33 KV Maholi	30.10.2018	30.10.2018
132 KV Khirkiya	33 KV Killod	07.12.2017	10.01.2018
132 KV Bilquisganj	33 KV Uljhawan	07.01.2018	20.07.2018

8/Jan/2021

TENTATIVE MAINTENANCE PROGRAMME OF MPPGCL THERMAL UNITS FOR THE YEAR 2020-2021 R(5)

STATION	UNIT No.	AOH START	AOH COMP	MONTHS												No of Days	REMARKS										
				APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR												
AMK EXT	5	21/Jul/20	23-Aug																					34	A.O.H.	Eco. Coil Replacement	
STP-II	6	Diferred																						0	A.O.H.		
STP-II	7	Diferred																						0	A.O.H.		
STP-III	8	Diferred																						0	A.O.H.		
STP-III	9	Diferred																						0	A.O.H.		
STP-IV	10	15/Aug/20	15-Sep																					32	C.O.H.	LPT Overhauling	
STP-IV	11	Diferred																						0			
SGTSPS - I	1	20/Jun/20	8-Jul																					19	A.O.H.		
SGTSPS - I	2	6/Aug/20	27-Aug																					22	A.O.H.		
SGTSPS - II	3	1/Sep/20	30-Sep																					30	C.O.H.	HP, IP & LP Module Overhauling	
SGTSPS - II	4	5/Jul/20	3-Aug																					30	A.O.H.		
SGTSPS - III	5	27/Aug/20	8-Sep																					13	A.O.H.		
SSTPS - i	1	1/Jul/20	23-Aug																					54	C.O.H.	LP Module Overhauling	
SSTPS - i	2	Diferred																						0		LP Module Overhauling	
SSTPS - II	3	22/Aug/20	31-Mar																					222	C.O.H.	Generator Overhauling	
SSTPS - II	4	22/Sep/20	31-Mar																					191	C.O.H.	Generator Overhauling	
Capacity under Planned Maintenance				0	0	0	0	0	140	880	950	1020	1387	1453	1090	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320		
PLANNED MAINTENANCE %				0	0	0	0	0	3	16	18	19	26	27	20	24	24	24	24	24	24	24	24	24	24		
Sent out MW				4435	4370	4257	3321	2835	3197	2945	2849	3035	3039	2800	2800												
Generation In MW				4792	4722	4600	3588	3063	3454	3182	3078	3279	3284	3025	3025												

A.O.H

C.O.H

The unit no.6, 7,8 & 9 of STPS PH II & PH III Sarni are expected to be decommissioned during Feb.-March 2020. The proposal is under consideration with GoMP.The program of these units is subject to continued operation.

Unitwise / Stationwise Generation in MU				
A. Thermal		Ann 4.1		
Stn. Name	UNIT No.	Capacity MW	Dec-20	Jan-21
AMARKA	5	210	151.74	154.22
	PH III	210	151.74	154.22
	TOT	210	151.74	154.22
SATPURA	6	200	66.25	98.99
	7	210	72.11	75.37
	PH II	410	138.36	174.36
	8	210	0.00	0.00
	9	210	0.00	0.00
	PH III	420	0.00	0.00
	10	250	173.07	162.67
	11	250	172.07	172.61
	PH IV	500	345.14	335.28
TOT	1330	483.50	509.64	
SANJAY GANDHI	1	210	108.21	110.02
	2	210	111.69	124.66
	PH I	420	219.90	234.68
	3	210	125.99	125.20
	4	210	127.10	125.84
	PH II	420	253.09	251.04
	5	500	354.80	356.01
	PH III	500	354.80	356.01
TOT	1340	827.79	841.74	
SSTPS	1	600	345.69	359.82
	2	600	320.04	355.32
	PH1	1200	665.73	715.14
	3	660	0.00	0.00
	4	660	0.00	0.00
	PH II	1320	0.00	0.00
TOT	1860	665.73	715.14	
MPPGCL THERMAL		4740	2128.76	2220.73
Note : 1. Amarkantak Thermal Power Station-II Unit # 4 De-commissioned wef 01-May-2014.				
2. Amarkantak Thermal Power Station-II Unit # 3 De-commissioned wef 13-Jan-2015.				
B. Hydel				
Station Name	Capacity MW	Dec-20	Jan-21	
GANDHISAGAR	115.0	19.50	29.13	
R.P.SAGAR	172.0	0.00	0.00	
J.SAGAR	99.0	42.47	29.10	
CHAMBAL	386.0	61.97	58.23	
M.P.CHAMBAL	193.0	30.98	29.12	
PENCH	160.0	21.18	26.29	
M.P.PENCH	107.0	14.12	17.52	
BARGI	90.0	21.92	32.60	
TONS	315.0	117.60	109.07	
BIRSINGHPUR	20.0	0.33	0.05	
B.SGR(DEOLONDH)	60.0	0.00	13.63	
B.SGR(SILPARA)	30.0	13.16	11.86	
RAJGHAT	45.0	9.19	12.04	
M.P.RAJGHAT	22.5	5.48	7.18	
B.SGR(JINHA)	20.0	14.77	15.56	
MADIKHEDA	60.0	11.60	10.83	
TOTAL HYDEL	1186.0	271.73	290.15	
MPPGCL Hydel	915.0	229.26	261.05	
MPSEB HYDEL Share	917.5	229.97	247.42	
C. NHDC (Ex-Bus)				
Station Name	Capacity MW	Dec-20	Jan-21	
Indira Sagar Hydel Project	1000	287.43	273.60	
Omkareshwar Hydel Project	520	126.47	140.12	

58	Schedule L/S : Year-2020-21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59	Un-Restricted Requirement : Year-2020-21	5422.73	6231.07	5277.31	6510.80	5890.87	6456.86	7405.73	8295.34	8593.45	8792.88	0.00	0.00	68877.03

ENERGY BALANCE SHEET : Demand & Syppy Hours

Year : 2020 -21

S.NO.		Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Yr 20-21
C. MORNING PEAK (MAX)														
1	DEMAND MET	9000	10003	8940	10112	9774	10103	12546	14234	15425	15252	14758	0	15425
2	LOAD RELIEF	0	0	0	0	0	0	0	0	0	0	0	0	0
3	LOAD SHEDDING	0	0	0	0	0	0	0	0	0	0	0	0	0
D. EVENING PEAK (MAX)														
1	DEMAND MET	7562	8833	8048	9514	9012	9670	10741	12424	12927	12591	11959	0	12927
2	LOAD RELIEF	0	0	0	0	0	0	0	0	0	0	0	0	0
3	LOAD SHEDDING	0	0	0	0	0	0	0	0	0	0	0	0	0
F. REGISTERED MAXIMUM		9000	10003	8940	10112	9774	10103	12546	14234	15425	15252	14758	0	15425
G. COMPUTED MAXIMUM DEMAND		9008	10003	8940	10139	9774	10103	12546	14234	15499	15280	14758	0	15499
H. UNRESTRICTED MAXIMUM DEMAND		9008	10003	8940	10139	9774	10103	12546	14234	15499	15280	14758	0	15499
I. Average Power Supply per day to														
1.	Div. Head Quarters	23:55	23:45	23:52	23:53	23:51	23:52	23:51	23:53	23:55	23:52	23:53	0:00	23:52
2.	District Head Quarters	23:52	23:48	23:47	23:53	23:52	23:50	23:51	23:54	23:54	23:54	23:53	0:00	23:52
3.	Tahsil Head Quarters	23:53	23:44	23:46	23:50	23:47	23:43	23:45	23:48	23:46	23:46	23:48	0:00	23:47
4.	Rural -Mixed	23:47	23:35	23:38	23:41	23:33	23:26	23:26	23:33	23:29	23:29	23:29	0:00	23:34
5.	Rural -DLF	23:48	23:34	23:34	23:40	23:34	23:28	23:31	23:37	23:36	23:34	23:35	0:00	23:36
6.	Rural -Irrigation	9:55	9:50	9:49	9:54	9:50	9:48	9:50	9:52	9:52	9:52	9:52	0:00	9:51
J LOAD FACTOR %		83.66	83.70	81.96	86.50	80.98	88.73	79.31	80.91	74.68	77.28	#DIV/0!	#DIV/0!	81.77

FREQUENCY ANALYSIS YEAR 2020-21

S.N	PARTICULARS	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Yr 20-21
A. INTGRATED FREQUENCY														
1	MAXIMUM	50.15	50.14	50.19	50.26	50.10	50.09	50.11	50.08	50.09	50.12	0.00	0.00	50.26
2	MINIMUM	49.87	49.86	49.86	49.81	49.77	49.79	49.78	49.84	49.86	49.89	0.00	0.00	49.77
B. INSTANTANEOUS FREQUENCY														
1	MAXIMUM	50.30	50.29	50.31	50.39	50.23	50.20	50.27	50.27	50.26	50.24	0.00	0.00	50.39
2	MINIMUM	49.61	49.57	49.63	49.62	49.60	49.64	49.70	49.68	49.66	49.70	0.00	0.00	49.57
C. AVG FREQUENCY		50.01	50.01	50.01	50.00	50.00	50.00	50.00	50.00	50.01	50.00	0.00	0.00	50.00
D. % TIME WHEN FREQUENCY WAS														
1	ABOVE 51.5 Hz	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	50.05 TO 51.5 Hz	19.78	19.10	18.58	15.13	13.00	11.54	14.21	15.65	19.47	19.04	0.00	0.00	16.55
3	49.9 TO 50.05 Hz	75.13	76.67	76.91	78.16	80.92	84.23	81.87	79.82	75.74	76.11	0.00	0.00	78.55
4	49.7 TO 49.9 Hz	5.09	4.23	4.51	6.71	6.08	4.23	3.92	4.53	4.79	4.85	0.00	0.00	4.90
5	49.5 TO 49.7 Hz	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	49.2 TO 49.5 Hz	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	48.8 TO 49.2 Hz	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	48.5 TO 48.8 Hz	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	BELOW 48.5 Hz	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hourly Average Own Generation, Schedule Drawal, Actual Drawal & Demand
Month :- December 2020

FIGURES IN MW

Hrs.	FREQ.	Own Generation										Schedule from																	Load Shedding			REST. DEMAND	UNREST. DEMAND	DEMAND MET						
		THER. Incl Aux	THER. Excl Aux	HYD.	ISP	OSP	Total IPPs Injection	Total CPPs Injection	Total	CSS	Net NR to MP	Suge n	Lanco	Sasan	Essa r	JP Nigri	RUMS (SOLA R) REWA TO MPPM CL	MB Power	Jhabu a Power	SSP	SCH to Railway	SEZ	Banking	Sale	Pur	STOA	Rihan d+Ma tattila-Rajgh at	MTOA / STOA FROM RAJAST HAN	Total	Tot Avl.	Act. Drl				Devia tion	Expor t to MS	DEMAND MET	SCH	UN SCH	TOTAL
1:00	50.01	2622	2432	243	108	57	277	455	3573	2712	27	0	255	1140	12	367	0	252	76	99	255	0	629	-8	107	-250	12	56	5741	9314	5606	-134	-13	9166	0	0	0	9167	9167	9166
2:00	50.01	2492	2311	239	51	23	277	443	3345	2567	28	0	252	1140	12	366	0	197	61	98	254	0	629	-16	99	-250	12	56	5505	8850	5317	-189	-13	8648	0	0	0	8650	8650	8648
3:00	50.01	2511	2329	237	32	15	277	437	3326	2671	30	0	252	1142	12	366	0	226	77	98	250	0	629	0	104	-249	12	56	5676	9002	5696	20	-13	9010	0	0	0	9012	9012	9010
4:00	50.01	2547	2362	232	43	19	283	424	3363	2733	40	0	252	1145	12	360	0	237	83	97	255	0	629	0	107	-249	12	56	5768	9132	5694	-75	-12	9044	0	0	0	9048	9048	9044
5:00	50.01	2610	2421	232	43	23	289	422	3430	2727	40	0	255	1155	12	361	0	253	86	97	253	0	629	0	107	-251	12	56	5791	9221	5640	-151	-13	9057	0	0	0	9059	9059	9057
6:00	49.99	2720	2524	256	117	49	301	429	3677	2836	47	0	255	1159	12	369	0	316	143	96	255	0	629	0	125	-253	12	56	6057	9734	6102	45	-14	9765	0	0	0	9771	9771	9765
7:00	50.00	2882	2675	329	275	117	316	445	4157	3238	79	2	255	1162	12	391	4	327	160	301	254	0	1444	-1	154	-209	12	56	7642	11799	7850	208	-16	11991	0	0	0	11997	11997	11991
8:00	50.01	3042	2827	391	579	242	349	630	5019	3514	91	2	255	1162	13	401	42	334	167	468	252	0	1776	-127	173	-201	12	56	8391	13410	8317	-73	-16	13320	0	0	0	13325	13325	13320
9:00	50.01	3081	2863	385	614	272	363	918	5415	3487	34	2	255	1161	14	402	213	339	170	468	251	0	1950	-172	173	-264	12	56	8550	13965	8549	-1	-16	13948	0	0	0	13955	13955	13948
10:00	50.00	3087	2869	365	648	292	346	1019	5540	3336	18	2	255	1154	14	402	350	339	172	468	241	0	1950	-167	173	-319	12	56	8455	13995	8297	-158	-18	13819	0	0	0	13829	13829	13819
11:00	50.03	3093	2875	341	631	281	330	1129	5587	3370	16	2	255	1146	14	402	435	346	173	471	237	0	1950	-119	166	-367	12	56	8565	14151	8340	-225	-17	13910	0	0	0	13912	13912	13910
12:00	50.00	3041	2826	326	642	286	307	1174	5561	3129	15	0	255	1142	13	402	462	339	165	204	231	0	1950	-194	148	-469	12	56	7861	13422	7561	-300	-18	13105	0	0	0	13111	13111	13105
13:00	50.01	3035	2820	295	627	273	323	1145	5483	3336	23	5	255	1135	12	408	440	348	173	101	230	0	1950	-53	152	-440	12	56	8143	13626	8218	75	-18	13684	0	0	0	13688	13688	13684
14:00	50.02	3054	2838	292	646	276	338	1036	5426	3349	37	5	259	1136	12	408	373	349	173	101	231	0	1950	-30	154	-389	12	56	8185	13611	8173	-13	-18	13580	0	0	0	13583	13583	13580
15:00	50.00	3054	2838	303	613	251	351	858	5214	3398	73	7	259	1137	12	412	252	337	167	101	228	0	1950	-21	161	-310	12	56	8231	13445	8223	-8	-18	13419	0	0	0	13426	13426	13419
16:00	49.99	3065	2849	312	649	275	374	560	5018	3485	67	9	259	1141	12	415	87	348	178	102	233	0	1950	-26	163	-251	12	56	8239	13257	8240	1	-19	13239	0	0	0	13249	13249	13239
17:00	49.99	3087	2869	345	765	338	385	252	4954	3498	43	12	259	1141	13	416	2	348	176	103	241	0	1850	-120	164	-183	12	56	8030	12984	7980	-50	-17	12917	0	0	0	12928	12928	12917
18:00	49.99	3095	2877	356	685	296	369	223	4804	3496	29	7	259	1140	13	418	0	346	176	104	247	0	1683	-353	166	-141	12	56	7657	12461	7135	-521	-17	11923	0	0	0	11932	11932	11923
19:00	50.03	3057	2841	333	544	236	323	303	4580	3182	24	0	259	1140	12	419	0	349	179	107	252	0	629	-261	164	-220	12	56	6302	10882	6126	-177	-16	10689	0	0	0	10690	10690	10689
20:00	50.03	2866	2662	320	352	153	293	377	4157	2788	18	0	259	1131	12	419	0	308	136	108	256	0	629	-316	144	-242	12	56	5716	9874	5590	-126	-18	9729	0	0	0	9731	9731	9729
21:00	50.01	2599	2412	290	196	90	285	440	3712	2529	15	0	255	1130	12	419	0	221	85	109	255	0	629	-112	91	-252	12	56	5453	9165	5233	-220	-18	8927	0	0	0	8929	8929	8927
22:00	50.05	2520	2336	269	130	69	285	474	3564	2486	14	0	255	1133	12	418	0	194	80	108	256	0	629	-46	91	-247	12	56	5451	9015	5327	-125	-16	8874	0	0	0	8874	8874	8874
23:00	50.02	2655	2463	271	163	92	305	480	3774	2878	36	0	252	1138	12	400	0	301	128	106	255	0	629	-6	116	-258	12	56	6052	9827	6158	105	-15	9917	0	0	0	9919	9919	9917
24:00	50.04	2682	2488	261	172	113	284	485	3803	2752	32	0	252	1140	12	384	0	261	108	106	255	0	629	0	116	-259	12	56	5855	9657	5749	-106	-14	9537	0	0	0	9537	9537	9537
Avg.	50.01	2854	2650	301	389	172	318	607	4437	3062	37	2	256	1144	12	397	111	301	137	176	247	0	1246	-90	138	-272	12	56	6972	11408	6880	-92	-16	11301	0	0	0	11305	11305	a
00 TO 06 HRS.	50.01	2584	2397	240	66	31	284	435	3452	2708	36	0	253	1147	12	365	0	247	88	98	254	0	629	-4	108	-251	12	56	5756	9209	5676	-81	-13	9115	0	0	0	9118	9118	
06 TO 12 HRS.	50.01	3038	2822	356	565	248	335	886	5213	3346	42	2	255	1154	13	400	251	337	168	397	244	0	1836	-130	165	-305	12	56	8244	13457	8153	-91	-17	13349	0	0	0	13355	13355	
12 TO 18 HRS.	50.00	3065	2848	317	664	285	356	679	5150	3427	45	7	258	1138	12	413	192	346	174	102	235	0	1889	-101	160	-286	12	56	8081	13231	7995	-86	-18	13127	0	0	0	13134	13134	
06 TO 18 HRS.	50.00	3051	2835	337	615	266	346	783	5181	3386	44	5	257	1146	13	406	222	342	171	249	240	0	1863	-115	162	-295	12	56	8162	13344	8074	-89	-17	13238	0	0	0	13245	13245	
18 TO 24 HRS.	50.03	2730	2534	291	260	125	296	427	3932	2769	23	0	255	1135	12	410	0	273	119	107	255	0	629	-124	120	-247	12	56	5805	9737	5697	-108	-16	9612	0	0	0	9613	9613	

Hourly Average Own Generation, Schedule Drawal, Actual Drawal & Demand
Month :- January 2021

FIGURES IN MW

Hrs.	FREQ.	Own Generation										Schedule from																	Load Shedding			REST. DEMAND	UNREST. DEMAND	DEMAND MET						
		THER. Incl Aux	THER. Excl Aux	HYD.	ISP	OSP	Total IPPs Injection	Total CPPs Injection	Total	CSS	Net NR to MP	Suge n	Lanco	Sasan	Essa r	JP Nigri	RUMS (SOLA R) REWA TO MPPM CL	MB Power	Jhabu a Power	SSP	SCH to Railway	SEZ	Banking	Sale	Pur	STOA	Rihan d+Ma tattila-Rajgh at	MTOA / STOA FROM RAJAST HAN	Total	Tot Avl.	Act. Drl				Devia tion	Expor t to MS	DEMAND MET	SCH	UN SCH	TOTAL
1:00	50.01	2543	2357	271	20	6	294	590	3539	2756	13	0	263	1193	12	387	0	196	54	96	254	0	654	-16	129	-259	15	56	5801	9340	5696	-105	-13	9222	0	0	0	9225	9225	9222
2:00	50.01	2414	2237	264	28	11	292	573	3404	2566	12	0	259	1197	12	391	0	124	16	94	254	0	654	-47	129	-260	15	56	5470	8874	5287	-183	-13	8678	5	0	5	8680	8685	8678
3:00	49.99	2459	2279	257	24	8	292	552	3412	2670	13	0	259	1197	12	393	0	169	25	90	254	0	654	-10	129	-260	15	56	5665	9077	5664	-1	-12	9064	0	0	0	9070	9070	9064
4:00	50.02	2492	2309	265	20	13	292	533	3430	2732	13	0	259	1197	12	393	0	169	42	90	254	0	654	-8	129	-259	15	56	5747	9177	5641	-107	-12	9059	0	0	0	9060	9060	9059
5:00	49.99	2571	2383	266	40	26	292	517	3523	2685	13	0	263	1200	12	394	0	173	60	91	255	0	654	-9	129	-260	15	56	5729	9253	5567	-162	-12	9078	0	0	0	9083	9083	9078
6:00	50.00	2751	2550	293	108	72	293	511	3827	2702	16	0	263	1201	12	413	0	282	89	92	255	0	654	-14	129	-261	15	56	5902	9729	5880	-22	-13	9694	0	0	0	9699	9699	9694
7:00	50.01	3052	2832	341	229	130	294	525	4353	3196	20	0	263	1204	12	429	2	354	129	148	254	0	1495	-68	170	-248	15	56	7430	11783	7443	12	-16	11779	0	0	0	11783	11783	11779
8:00	50.02	3229	3000	368	446	231	391	656	5092	3883	31	0	263	1207	13	433	26	354	151	465	253	0	1635	-350	205	-131	15	56	8505	13597	8478	-27	-17	13553	0	0	0	13556	13556	13553
9:00	50.02	3280	3047	394	608	326	406	907	5689	3879	26	2	263	1207	13	433	181	354	152	533	253	0	1798	-482	205	-199	15	56	8686	14375	8681	-5	-16	14353	0	0	0	14357	14357	14353
10:00	50.02	3300	3067	397	676	360	383	992	5875	3832	24	2	263	1205	13	433	349	354	151	535	249	0	1798	-702	205	-265	15	56	8514	14389	8412	-102	-18	14269	0	0	0	14274	14274	14269
11:00	50.03	3293	3060	381	589	330	363	1134	5856	3670	17	0	263	1198	13	433	463	354	152	536	247	0	1798	-772	205	-309	15	56	8337	14193	8057	-279	-17	13896	0	0	0	13899	13899	13896
12:00	50.01	3221	2992	363	635	340	334	1202	5865	3546	15	0	263	1198	13	433	514	354	146	210	246	0	1798	-715	184	-423	15	56	7853	13718	7639	-214	-18	13486	0	0	0	13492	13492	13486
13:00	50.00	3201	2974	345	595	316	325	1206	5761	3552	15	2	263	1198	12	433	504	354	151	102	246	0	1798	-179	184	-422	15	56	8283	14044	8365	82	-17	14109	0	0	0	14118	14118	14109
14:00	50.02	3200	2973	340	653	342	314	1117	5738	3539	16	0	263	1193	12	433	452	354	155	103	245	0	1801	-76	187	-424	15	56	8322	14061	8260	-63	-18	13980	0	0	0	13987	13987	13980
15:00	50.01	3202	2974	335	536	287	325	944	5402	3639	22	0	263	1191	12	433	332	354	155	104	243	0	1801	-50	193	-339	15	56	8422	13824	8394	-28	-17	13778	0	0	0	13783	13783	13778
16:00	49.98	3247	3017	346	625	303	355	667	5314	3732	32	2	263	1188	12	426	150	354	155	104	247	0	1801	-80	193	-275	15	56	8375	13688	8434	59	-18	13729	0	0	0	13741	13741	13729
17:00	49.99	3263	3032	388	726	354	387	334	5222	3810	30	0	263	1185	13	426	14	354	155	106	251	0	1708	-319	205	-145	15	56	8124	13346	7941	-183	-17	13145	0	0	0	13153	13153	13145
18:00	50.00	3242	3012	428	639	321	354	219	4972	3764	33	2	263	1185	13	420	0	354	155	109	253	0	1535	-721	205	-103	15	56	7537	12510	7044	-493	-18	11999	0	0	0	12007	12007	11999
19:00	50.00	3233	3004	416	641	324	349	333	5066	3622	19	4	263	1190	12	422	0	348	152	109	254	0	654	-1060	196	-181	15	56	6073	11140	6015	-58	-16	11065	0	0	0	11070	11070	11065
20:00	50.02	3086	2865	396	522	262	329	429	4804	3301	14	2	263	1185	12	425	0	325	144	108	254	0	654	-1104	183	-229	15	56	5607	10412	5495	-113	-18	10281	0	0	0	10283	10283	10281
21:00	50.01	2792	2590	362	254	120	299	494	4119	2857	12	0	263	1183	12	425	0	242	72	108	254	0	654	-550	134	-259	15	56	5478	9597	5260	-217	-17	9362	0	0	0	9365	9365	9362
22:00	50.06	2711	2514	313	53	15	296	551	3741	2699	11	0	263	1183	12	425	0	207	36	108	254	0	654	-112	129	-256	15	56	5683	9424	5494	-189	-16	9219	0	0	0	9219	9219	9219
23:00	50.02	2869	2662	305	64	23	297	570	3921	2961	13	0	263	1184	12	407	0	295	107	107	254	0	654	0	129	-263	15	56	6194	10115	6160	-34	-15	10066	0	0	0	10068	10068	10066
24:00	50.04	2769	2568	285	53	23	297	582	3808	2857	14	0	259	1189	12	388	0	243	87	107	255	0	651	0	129	-262	15	56	5999	9806	5756	-243	-14	9549	0	0	0	9550	9550	9549
Avg.	50.01	2976	2762	338	366	189	327	672	4656	3269	18	1	262	1194	12	418	124	292	112	177	252	0	1192	-310	167	-262	15	56	6989	11645	6878	-112	-16	11517	0	0	0	11522	11522	a
00 TO 06 HRS.	50.00	2538	2353	269	40	23	292	546	3523	2685	13	0	261	1198	12	395	0	186	47	92	254	0	654	-17	129	-260	15	56	5719	9242	5622	-97	-13	9133	1	0	1	9136	9137	
06 TO 12 HRS.	50.02	3229	3000	374	530	286	362	903	5455	3668	22	1	263	1203	13	432	256	354	147	405	250	0	1720	-515	195	-262	15	56	8221	13676	8118	-103	-17	13556	0	0	0	13560	13560	
12 TO 18 HRS.	50.00	3226	2997	364	629	321	344	748	5401	3673	25	1	263	1190	12	428	242	354	154	105	248	0	1740	-237	194	-285	15	56	8177	13579	8073	-104	-18	13457	0	0	0	13465	13465	
06 TO 18 HRS.	50.01	3227	2998	369	580	303	353	825	5428	3670	23	1	263	1197	13	430	249	354	151	255	249	0	1730	-376	195	-274	15	56	8199	13627	8095	-104	-17	13506	0	0	0	13512	13512	
18 TO 24 HRS.	50.03	2910	2700	346	264	128	311	493	4243	3049	14	1	262	1186	12	415	0	277	100	108	254	0	654	-471	150	-242	15	56	5839	10082	5697	-142	-16	9924	0	0	0	9926	9926	

Discomwise Hourly Average Schedule Drawal , Actual Drawal &Over(+)/Under(-) Drawal
Month :- December 2020

FIGURES IN MW

Hrs.	FREQ.	EZONE							CZONE							WZONE							Railway	
		SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand	SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand	SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand	Total Sch	Total Drawal
1:00	50.01	2761	2718	-43	0	0	2718	2718	3167	3116	-51	0	0	3117	3117	3131	3080	-51	0	0	3081	3081	255	251
2:00	50.01	2556	2498	-58	0	0	2498	2498	2916	2849	-67	0	0	2850	2850	3123	3050	-73	0	0	3051	3051	254	251
3:00	50.01	2622	2624	2	0	0	2625	2625	3041	3045	3	0	0	3046	3046	3088	3094	6	0	0	3094	3094	250	247
4:00	50.01	2629	2604	-25	0	0	2605	2605	3094	3065	-30	0	0	3066	3066	3153	3124	-29	0	0	3125	3125	255	252
5:00	50.01	2646	2600	-46	0	0	2601	2601	3172	3116	-57	0	0	3116	3116	3150	3092	-58	0	0	3093	3093	253	249
6:00	49.99	2597	2608	11	0	0	2609	2609	3330	3342	12	0	0	3344	3344	3552	3563	12	0	0	3565	3565	255	252
7:00	50.00	3258	3313	55	0	0	3315	3315	3996	4063	67	0	0	4065	4065	4290	4364	74	0	0	4366	4366	254	251
8:00	50.01	3660	3636	-24	0	0	3638	3638	4240	4213	-27	0	0	4215	4215	5257	5222	-35	0	0	5224	5224	252	249
9:00	50.01	3777	3775	-3	0	0	3776	3776	4435	4432	-3	0	0	4434	4434	5502	5494	-7	0	0	5497	5497	251	247
10:00	50.00	3808	3761	-48	0	0	3763	3763	4484	4428	-56	0	0	4431	4431	5462	5394	-68	0	0	5398	5398	241	237
11:00	50.03	3920	3854	-66	0	0	3854	3854	4659	4579	-80	0	0	4580	4580	5334	5243	-92	0	0	5244	5244	237	234
12:00	50.00	3573	3488	-85	0	0	3490	3490	4306	4203	-102	0	0	4206	4206	5313	5186	-126	0	0	5189	5189	231	227
13:00	50.01	3684	3698	14	0	0	3699	3699	4498	4516	19	0	0	4518	4518	5215	5243	28	0	0	5245	5245	230	227
14:00	50.02	3601	3593	-8	0	0	3594	3594	4448	4438	-9	0	0	4439	4439	5332	5322	-10	0	0	5323	5323	231	227
15:00	50.00	3579	3573	-6	0	0	3575	3575	4355	4348	-7	0	0	4350	4350	5282	5273	-9	0	0	5276	5276	228	225
16:00	49.99	3536	3531	-5	0	0	3534	3534	4389	4384	-5	0	0	4387	4387	5099	5094	-4	0	0	5098	5098	233	230
17:00	49.99	3590	3573	-17	0	0	3576	3576	4481	4460	-22	0	0	4464	4464	4671	4646	-25	0	0	4650	4650	241	238
18:00	49.99	3770	3607	-164	0	0	3610	3610	4333	4145	-188	0	0	4148	4148	4111	3928	-183	0	0	3931	3931	247	243
19:00	50.03	3693	3627	-66	0	0	3627	3627	3953	3882	-71	0	0	3883	3883	2984	2931	-53	0	0	2931	2931	252	249
20:00	50.03	3497	3446	-51	0	0	3446	3446	3452	3402	-51	0	0	3402	3402	2668	2629	-39	0	0	2630	2630	256	252
21:00	50.01	3324	3236	-88	0	0	3237	3237	3066	2986	-80	0	0	2987	2987	2520	2453	-66	0	0	2454	2454	255	251
22:00	50.05	2914	2867	-47	0	0	2868	2868	2931	2885	-46	0	0	2885	2885	2914	2869	-44	0	0	2869	2869	256	253
23:00	50.02	2897	2926	28	0	0	2926	2926	3372	3404	32	0	0	3405	3405	3301	3335	34	0	0	3336	3336	255	252
24:00	50.04	2849	2811	-38	0	0	2811	2811	3269	3228	-41	0	0	3228	3228	3283	3246	-38	0	0	3246	3246	255	252
Avg.	50.01	3281	3249	-32	0	0	3250	3250	3808	3772	-36	0	0	3774	3774	4072	4037	-36	0	0	4038	4038	247	244
00 TO 06 HRS.	50.01	2635	2609	-27	0	0	2609	2609	3120	3089	-31	0	0	3090	3090	3200	3167	-32	0	0	3168	3168	254	250
06 TO 12 HRS.	50.01	3666	3638	-28	0	0	3639	3639	4353	4320	-34	0	0	4322	4322	5193	5151	-42	0	0	5153	5153	244	241
12 TO 18 HRS.	50.00	3627	3596	-31	0	0	3598	3598	4417	4382	-35	0	0	4384	4384	4951	4918	-34	0	0	4920	4920	235	232
06 TO 18 HRS.	50.00	3646	3617	-30	0	0	3619	3619	4385	4351	-35	0	0	4353	4353	5072	5034	-38	0	0	5037	5037	240	236
18 TO 24 HRS.	50.03	3196	3152	-44	0	0	3153	3153	3341	3298	-43	0	0	3298	3298	2945	2911	-34	0	0	2911	2911	255	252

Discomwise Hourly Average Schedule Drawal , Actual Drawal &Over(+)/Under(-) Drawal
Month :- January 2021

FIGURES IN MW

Hrs.	FREQ.	EZONE							CZONE							WZONE							Railway	
		SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestric ted Demand	SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestric ted Demand	SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestric ted Demand	Total Sch	Total Drawal
1:00	50.01	2943	2906	-37	0	0	2906	2906	3055	3017	-38	0	0	3017	3017	3089	3051	-39	0	0	3052	3052	254	249
2:00	50.01	2692	2633	-60	0	0	2633	2633	2794	2732	-62	0	0	2732	2732	3134	3065	-69	0	0	3065	3065	254	249
3:00	49.99	2790	2787	-3	0	0	2789	2789	2913	2910	-2	0	0	2912	2912	3121	3119	-2	0	0	3121	3121	254	248
4:00	50.02	2777	2741	-36	0	0	2741	2741	2959	2922	-38	0	0	2922	2922	3187	3147	-40	0	0	3147	3147	254	249
5:00	49.99	2789	2736	-52	0	0	2738	2738	3059	3002	-58	0	0	3003	3003	3150	3091	-59	0	0	3093	3093	255	249
6:00	50.00	2728	2720	-8	0	0	2721	2721	3212	3202	-10	0	0	3204	3204	3534	3523	-11	0	0	3524	3524	255	249
7:00	50.01	3417	3418	0	0	0	3419	3419	3876	3877	1	0	0	3878	3878	4236	4236	0	0	0	4237	4237	254	249
8:00	50.02	3859	3847	-12	0	0	3848	3848	4236	4224	-13	0	0	4225	4225	5249	5235	-14	0	0	5236	5236	253	247
9:00	50.02	4034	4030	-5	0	0	4031	4031	4502	4497	-5	0	0	4498	4498	5586	5580	-6	0	0	5581	5581	253	247
10:00	50.02	4071	4038	-33	0	0	4040	4040	4532	4495	-37	0	0	4497	4497	5537	5492	-45	0	0	5493	5493	249	244
11:00	50.03	4128	4043	-86	0	0	4044	4044	4581	4485	-96	0	0	4486	4486	5237	5127	-110	0	0	5128	5128	247	242
12:00	50.01	3746	3683	-63	0	0	3685	3685	4377	4303	-74	0	0	4305	4305	5349	5259	-90	0	0	5261	5261	246	241
13:00	50.00	3936	3955	20	0	0	3958	3958	4551	4574	23	0	0	4577	4577	5311	5339	27	0	0	5342	5342	246	241
14:00	50.02	3852	3831	-21	0	0	3833	3833	4510	4485	-25	0	0	4488	4488	5453	5424	-30	0	0	5426	5426	245	240
15:00	50.01	3809	3797	-12	0	0	3798	3798	4428	4414	-13	0	0	4416	4416	5344	5328	-16	0	0	5330	5330	243	239
16:00	49.98	3765	3778	12	0	0	3781	3781	4412	4427	15	0	0	4430	4430	5264	5283	19	0	0	5287	5287	247	242
17:00	49.99	3789	3732	-57	0	0	3734	3734	4588	4519	-69	0	0	4522	4522	4718	4648	-70	0	0	4651	4651	251	246
18:00	50.00	3791	3634	-157	0	0	3636	3636	4388	4207	-181	0	0	4210	4210	4078	3910	-168	0	0	3913	3913	253	248
19:00	50.00	3790	3766	-24	0	0	3768	3768	4073	4047	-26	0	0	4049	4049	3023	3004	-19	0	0	3005	3005	254	248
20:00	50.02	3686	3641	-45	0	0	3642	3642	3743	3697	-46	0	0	3698	3698	2728	2694	-34	0	0	2695	2695	254	248
21:00	50.01	3513	3427	-86	0	0	3428	3428	3226	3147	-79	0	0	3148	3148	2604	2540	-64	0	0	2541	2541	254	248
22:00	50.06	3120	3052	-68	0	0	3052	3052	3074	3007	-66	0	0	3007	3007	2977	2912	-64	0	0	2912	2912	254	248
23:00	50.02	3150	3136	-15	0	0	3137	3137	3345	3331	-14	0	0	3332	3332	3365	3351	-14	0	0	3352	3352	254	248
24:00	50.04	3056	2973	-82	0	0	2973	2973	3193	3109	-83	0	0	3109	3109	3303	3219	-84	0	0	3219	3219	255	248
Avg.	50.01	3468	3429	-39	0	0	3431	3431	3818	3776	-41	0	0	3778	3778	4107	4066	-42	0	0	4067	4067	252	246
00 TO 06 HRS.	50.00	2786	2754	-33	0	0	2755	2755	2999	2964	-35	0	0	2965	2965	3203	3166	-37	0	0	3167	3167	254	249
06 TO 12 HRS.	50.02	3876	3843	-33	0	0	3844	3844	4351	4313	-37	0	0	4315	4315	5199	5155	-44	0	0	5156	5156	250	245
12 TO 18 HRS.	50.00	3824	3788	-36	0	0	3790	3790	4479	4438	-42	0	0	4440	4440	5028	4989	-39	0	0	4992	4992	248	243
06 TO 18 HRS.	50.01	3850	3815	-34	0	0	3817	3817	4415	4376	-39	0	0	4378	4378	5113	5072	-42	0	0	5074	5074	249	244
18 TO 24 HRS.	50.03	3386	3332	-53	0	0	3333	3333	3442	3390	-52	0	0	3391	3391	3000	2953	-46	0	0	2954	2954	254	248

POWER SUPPLY POSITION FOR THE MONTH : Dec 20

All Fig in MW

Particulars	Max Dem Met on : 31-Dec-20 AT : 09-30	Average 01-10 Dec	Average 11-20 Dec	Average 21-30 Dec	Average Monthly
STATE PEAK DEMAND MET	15425	11628	10161	12039	11301
<u>BREAKUP :-</u>					
STATE THERMAL (Actual Gen)	3158	2629	2424	2875	2650
STATE THERMAL (RSD) Total MW	0	73	726	314	369
STATE HYDEL	1291	891	857	840	862
IPP (STATE)	498	341	283	329	318
CENTRAL SECTOR (Schedule)	4595	3773	3133	4232	3730
CENTRAL SECTOR (Surrender)	509	1175	674	1632	1175
IPP (INTER STATE)	2727	2452	2087	2210	2248
RAILWAY	257	246	248	247	247
RENEWABLE ENERGY	1173	418	505	871	607
OTHERS	-259	-278	-299	-286	-288
BANKING / PURCHASE / SALE	1917	1421	1219	1248	1294
DEVIATION	132	-73	-87	-112	-92
DEVIATION (AVERAGE)		Between (-902 to 717)	Between (-845 to 721)	Between (-1120 to 562)	Between (-1120 to 721)
ENERGY SUPPLY STATE (LU)	2954.77				

POWER SUPPLY POSITION FOR THE MONTH : Jan 21

All Fig in MW

Particulars	Max Dem Met on : 01-Jan-21 AT : 10-45	Average 01-10 Jan	Average 11-20 Jan	Average 21-30 Jan	Average Monthly
STATE PEAK DEMAND MET	15252	11384	11358	11783	11517
<u>BREAKUP :-</u>					
STATE THERMAL (Actual Gen)	3204	2761	2741	2784	2762
STATE THERMAL (RSD) Total MW	0	419	433	265	369
STATE HYDEL	1547	932	905	848	893
IPP (STATE)	494	350	340	295	327
CENTRAL SECTOR (Schedule)	4229	3851	3957	4123	3982
CENTRAL SECTOR (Surrender)	3228	1433	1174	1586	1404
IPP (INTER STATE)	2842	2144	2324	2395	2291
RAILWAY	236	249	251	255	252
RENEWABLE ENERGY	1174	580	655	772	672
OTHERS	-303	-280	-289	-266	-278
BANKING / PURCHASE / SALE	1796	1254	880	1016	1049
DEVIATION	31	-135	-98	-102	-112
DEVIATION (AVERAGE)		Between (-928 to 420)	Between (-1136 to 1055)	Between (-1221 to 452)	Between (-1221 to 1055)
ENERGY SUPPLY STATE (LU)	2899.05				

System Disturbance / System Incidence

1. **System Disturbance on 23.12.20 at 220kv s/s South Zone:** On dated 23.12.20 at around 18.37 hrs , MP system was normal and frequency of National Grid was 50.04 Hz . At 18.38 hrs, Y-Ph CT of 145 kV 33MVAR Capacitor bank got burst & R-Ph bus side jumper from 132 kV Isolator snapped and touched the ground. This created 132kv bus fault and in this event following elements tripped –
 - 160 MVA BHEL X-mer-I
 - 3*40 MVA CGL X-mer-II
 - 160 MVA TELK X-mer-III
 - 160 MVA AREVA X-mer-IV
 - 132KV Southzone- Ghatabillod ckt
 - 132KV Southzone- Navdapanth ckt
 - 132KV Southzone- Rau ckt
 - 132KV Southzone- Simrol ckt
 - 132KV Southzone- Balwada ckt
 - 132KV Southzone- Mangliya ckt
 - 132KV Southzone- Satyasai ckt
 - 132KV Southzone- Electronic complex cktThere was no generation loss and load loss of around 94 MW . Interruption occurred at 220kv s/s Southzone . 220kv Supply restored by charging 132kv Main bus and 160 MVA X-mer BHEL and later other elements normalized.

LIST OF TELEMETRY DISCRIPIENCY REWA 220 KV S/S

Sr.no.	DESCRIPTION	Status	telemetry value at SLDC	actual value at site	Remark
1	220 KV SGTSP	CB	FAULTY	CLOSE	

LIST OF TELEMETRY DISCRIPIENCY KOTMA 132 KV S/S

Sr.no.	DESCRIPTION	Status	telemetry value at SLDC	actual value at site	Remark
1	132 KV ANUPPUR 1	CB	FAULTY	CLOSE	

LIST OF TELEMETRY DISCRIPIENCY MAIHAR 220 KV S/S

Sr.no.	DESCRIPTION	Status	telemetry value at SLDC	actual value at site	Remark
1	132 KV BUS COUPLER	CB	FAULTY	CLOSE	

LIST OF TELEMETRY DISCRIPIENCY BARGI HPS

Sr.no.	DESCRIPTION	Status	telemetry value at SLDC	actual value at site	Remark
1	20 MVA XFMR	MW/MVAR	N/C	6/-5	

SATPURA 400T P S					
1	GEN-8	CB	FAULTY		

STPPH-2					
1	220 KV ITARSI-2	MW	NON-CURRENT		
ALL CB STATUS ARE FAULTY					

LIST OF TELEMETRY DISCRIPIENCY DAMOH 220 KV S/S

Sr.no.	DESCRIPTION	Status	telemetry value at SLDC	actual value at site	Remark
1	220 /132 XFMR(SEC) LV	CB	FAULTY	CLOSE	

LIST OF TELEMETRY DISCRIPIENCY KIRNAPUR 400 KV S/S

Sr.no.	DESCRIPTION	Status	telemetry value at SLDC	actual value at site	Remark
1	400 /132 XFMR 1(SEC) LV	CB	FAULTY	CLOSE	

LIST OF TELEMETRY DISCRIPIENCY KATNI 400 KV S/S

Sr.no.	DESCRIPTION	Status	telemetry value at SLDC	actual value at site	Remark
1	400 KV BUS	VOLTAGE	N A	410	
2	400 KV BUS	FREQUENCY	N A	50	

LIST OF TELEMETRY DISCRIPIENCY AND NOT CONNECTED PARAMETER

25-02-2021					
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ASTHA 400 KV S/S					
1	400 KV BUS-Tie CB	CB	FAULTY		

GUDGAON 220 KV S/S					
1	220 KV BETUL-1 & 220 KV BETUL-2	MW	MISMATCH		
2	220 KV BUS-COUPLER	CB	FAULTY		
*REMARK THE MW VALUES OF 220 KV BETUL-1&2 FEEDERS AT 220 KV S/s GUDGAON & 220 KV S/s BETUL ARE					

ITARSI 220 KV S/S					
1	220 KV ITASRI PG-1 & 2	MW	MISMATCH		
*REMARK THE MW VALUES OF 220 KV ITARSI PG-1&2 FEEDERS AT 220 KV S/s ITARSI & 400 KV S/s ITARSI PG ARE					

RAJGARH 220 KV S/S				
1	220 KV MAIN BUS	VOLTAGE/FREQUENCY	INTERMITTENT	
2	132 KV MAIN BUS	VOLTAGE/FREQUENCY	INTERMITTENT	
3	132 KV RAGHOGARH	MW/MVAR	INTERMITTENT	
4	132 KV MAQSUDANGARH	MW/MVAR	INTERMITTENT	
5	132 KV KHILCHIPUR-1 &2	MW/MVAR	INTERMITTENT	
6	132 KV KHUJNER	MW/MVAR	INTERMITTENT	
7	160 XMER -2	MW/MVAR	INTERMITTENT	

ASTHA 132 KV S/S				
1	50 MVA XMER(HV SIDE)	CB	FAULTY	

SARANGPUR 132 KV S/S				
1	132 KV MOMEN- BARODIA	CB	FAULTY	

NARSINGARH 132 KV S/S				
*REMARK	THE TELEMETRY OF 132 KV S/s NARSINGARH IS INTERMITTENT			

LIST OF TELEMETRY DISCRIPIENCY AND NOT CONNECTED PARAMETER

25-02-2021				
GWALIOR -2 220 KV S/S				
1	220/132 KV 160 MVA XMER-2	CB	FAULTY	

BANMORE 132 KV S/S				
1	132 KV MOTIJEEL -1	CB	FAULTY	CLOSE

SHEOPURKALAN 132 KV S/S				
1	132 KV INTERCONNECTOR-2	MW/MVAR	NON-CURRENT	
2	132 KV BUS	VOLT/FREQ	NON-CURRENT	
THE TELEMETRY OF 132KV S/S SHEOPURKALAN IS INTERMITTENT				

LIST OF TELEMETRY DISCRIPIENCY AND NOT CONNECTED PARAMETER

25-02-2021				
ASHOKNAGAR 220 KV S/S				
1	220/132 KV 160 MVA XMER-2(HV SIDE)	CB	NON-CURRENT	
2	220/132 KV 160 MVA XMER-2(LV SIDE)	CB	NON-CURRENT	

ESAGARH 132 KV S/S				
1	132 KV BUS COUPLER	CB	FAULTY	
2	132 KV BUS COUPLER	MW/MVAR	NON-CURRENT	