

# 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

आई एस ओ : 9001-2008 ISO: 9001-2008

No.07-05/RPC-42/1043

Jabalpur, dtd: 23.06.2021

To

#### As per Distribution List.

Sub: Detailed Procedure for Planned Outages of Generating Units and Planned / Emergency Outages of Transmission Elements.

As directed by Managing Director, M.P. Power Transmission Co. Ltd., Detailed Procedure for Planned Outages of Generating Units and Planned / Emergency Outages of Transmission Elements of State Transmission network is prepared by SLDC and enclosed with this letter. This Procedure shall be implemented w.e.f. 1st July, 2021.

Encl: as above.

Chief Engineer, SLDC, MPPTCL, Jabalpur.

# **Distribution List**

- 1. The Executive Director (O&M:Gen.), M.P. Power Generating Co. Ltd., Jabalpur.
- 2. The Chief Engineer (O&M:Hydel), M.P. Power Generating Co. Ltd., Jabalpur.
- 3. The Chief Engineer (T&C), M.P. Power Transmission Co. Ltd., Jabalpur.
- 4. The Chief Engineer (EHT:Maint.), M.P. Power Transmission Co. Ltd., Jabalpur.
- 5. The Chief Engineer (EHT:Constn.), M.P. Power Transmission Co. Ltd., Jabalpur.
- 6. The Suptdg. Engineer (GCC), M.P. Power Generating Co. Ltd., Jabalpur.
- 7. The Shift Incharge, SLDC Control Room, M.P. Power Transmission Co. Ltd., Jabalpur.
- 8. The Executive Engineer, Sub LDC, M.P. Power Transmission Co. Ltd., Bhopal/Indore.
- 9. The P.S. to Managing Director, M.P. Power Transmission Co. Ltd., Jabalpur.
- 10. The P.S. to Director Technical, M.P. Power Transmission Co. Ltd., Jabalpur.
- 11. The Sr. Vice President, Jaiprakash Power Ventures Ltd., Village Sirchopi Subpost Office-Agasod, Post Office-Bina- 470113 Distt- Sagar, Fax No. 07580-277200, Email jptpp.switchyard@jalindia.com
- 12. The General Manager, Indira Sagar Power Station, NHDC Office complex, PO: Narmada Nagar, Distt: Khandwa (MP) 450 119, Fax No- 07323-284080, Email <a href="mailto:nhdc-isp@rediffmail.com">nhdc-isp@rediffmail.com</a>
- 13. The General Manager, Omkareshwar Power Station, Prashsnik Bhawan, Urja Vihar, Sidhwarkut, Distt: Khandwa (MP) 450 554, FaxNo-07280-271703, Emailomkareshwar.nhdc@gmail.com
- 14. 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
- 15. The Deputy General Manager, Kalpataru Satpura Transco Pvt. Ltd., Satpura Colony, Betul Road, Old Itarsi, Distt. Hoshangabad, Email <a href="mailto:cbhandari@kalpatarupower.com">cbhandari@kalpatarupower.com</a>

## **OUTAGE PLANNING PROCEDURE**

#### INTRODUCTION

This document sets out the procedure for planning of planned / emergency outage on generating units and transmission elements of the State in coordinated and optimal manner keeping in view the State Transmission System in operating conditions and maintaining load generation balance in the Grid.

Particularly it is important that the planned outages of Generators and transmission elements in the important flow-gates shall be properly coordinated as detailed in IEGC clause 5.7 and Section-11 of MPEGC.

The annual outage planning is reviewed on yearly and bi - monthly basis in the OCC forum of MP.

As per Clause-6.1.3 of MPEGC -

No part of the State Transmission System shall be deliberately Isolated from the integrated Grid, except

- (a) Under an emergency and conditions in which such isolation would prevent a total Grid collapse and/or enable early restoration of power supply.
- (b) When serious damage to a costly equipment is imminent and such isolation would prevent it.
- (c) For safety of Human Life.
- (d) When such isolation is specifically advised by SLDC and
- (e) On operation of under frequency/islanding scheme as approved by WRPC/MPERC.

All such isolations shall be either as per standing guidelines approved by WRPC/MPERC or shall be put up in the Grid Code Review Committee for ratification. Complete synchronization of integrated Grid shall be restored as soon as the conditions again permit it. The restoration process shall be supervised by SLDC and no transmission elements shall be synchronized without prior consent and real time code of SLDC / Sub-LDC.

All operational instructions given by RLDC and SLDC shall have unique codes which shall be recorded and maintained as specified in Central Electricity Authority (Grid Standards) Regulations, 2010 and subsequent amendment thereof.

#### 2.OBJECTIVE

a) To formulate a coordinated outage programme of transmission elements and generating units for the State Grid, considering all the available Regional / State resources and taking into account transmission constraints as well as other requirements.

b) To minimize surplus or deficit, if any, in the requirement of power and

energy and help to operate system within system standards.

c) To maintain adequate generation and transmission availability after taking into account the outages and to achieve the security standards.

### 3.GENERAL

a) Stipulations in this document are applicable to all generating units (thermal, hydel) and transmission elements of MP State grid or as specified in the List of Important Grid Elements of Western Region-2020.

b) Annual outage plan shall be prepared in advance for the financial year by Generating Companies and Transmission Licensees and submitted to SLDC. This plan shall be submitted to CEA through WRPC for Load Generation Planning.

c) Annual outage plan shall be finalized in OCC forum of MP.

d) Transmission Licensees and Generating Companies shall adhere to the proposed Annual outage plan except emergency outages.

## 4. OUTAGE PLANNING PROCESS

### 4.1 INTER STATE ELEMENTS: -

**4.1.1** As per standard procedure of WRPC, all proposed outages of interstate 400 / 220 / 132 KV transmission lines emanating from PGCIL sub-stations / NTPC, all the planned shutdown proposed to be availed in next month should be got approved in the OCC forum of WRPC in the current month.

State Grid entities shall intimate in the first week of the current month details of the outages proposed to be availed in the next month for getting approval in OCC forum of WRPC.

State Grid entities shall inform to the SLDC readiness for availing WR OCC approved shutdowns on **D-3** basis i.e. 3 days before the date of approved outage.

Readiness of availing WR OCC forum approved shutdown shall be communicated to WRLDC on the same day by SLDC. Reliability Group of WRLDC shall study for secure operation of the Grid without the proposed outage of transmission element.

After ensuring Grid security in all respects, Reliability Group of WRLDC forwards outage message to the Control Room of WRLDC for issuing code during the real time of operation. If the outage on the proposed transmission element is not possible, WRLDC shall intimate the SLDC in advance with a request to postpone it.

If this procedure is followed strictly by the entity seeking outage on 400 / 220 / 132 KV transmission lines evacuating from PGCIL / NTPC and Inter-state / Inter-regional lines, there shall not be any unusual delay in availing the outage at the designated time.

**4.1.2** WRLDC and WRPC always discourage outages which have not been approved by the OCC forum of WRPC.

If any important / urgent outage is required by the State Grid entity on critical 400 KV lines / transmission lines connecting STU network with network of other agencies, the request of such outage shall be forwarded by the concerned Chief Engineer indicating nature of urgency along with contingency plan to the SLDC.

This proposal has to be forwarded prior to **5** working days of proposed outage to WRLDC through WRPC by the SLDC. Thus such type of outage proposal should be submitted to SLDC prior to **6** working days before the proposed outage date.

- **4.1.3** Emergency outage proposal shall be submitted to the SLDC along with the photographs of the location and temperature, if applicable, clearly indicating the nature of emergency. WRLDC does not approve emergency outages without photographs.
- **4.1.4** Charging of transmission line after outage which involves modification in tower / augmentation of element-
  - (i) Approval of Electrical Inspector under the CEA (Safety & Electric Supply Regulations) is a necessary requirement and it has to be submitted by all entity to WRLDC through SLDC for charging any new or altered installation.
- (ii) Submission of PTCC route approval after any modification in transmission line and charging of new line.
- (iii) Protection settings should be revised in coordination with PGCIL / other agencies.
- **4.1.5** 400 KV and 220 KV transmission element which are not included in the important grid elements list of WRLDC for the year 2021, outage on these transmission elements shall be approved by the SLDC in consultation with WRLDC.

The agency seeking outage on these elements shall submit request through Eltrix portal on **D-4** basis so that these outages could be got approved from WRLDC before the proposed date of availing outages. These messages are to be sent to WRLDC on **D-3** basis.

## 4.2 INTRA STATE ELEMENTS: -

**4.2.1** Outage proposal for Intra-state transmission elements should be submitted on Eltrix Portal of SLDC on **D-3** basis i.e. three working days prior to the proposed date of outage. If due to one or the other reason site officials

are unable to submit application for outage through Eltrix Portal, same can be sent to SLDC on email Id-sldcmpjbp@gmail.com if there is some problem in Eltrix portal.

- **4.2.2** In case of supply interruption to Discoms / HT Consumers or non-compliance of N-1 contingency and probability of interruption to consumer supply, consent of Discoms / HT Consumer for outage shall also be submitted to the SLDC along with request for availing outage.
- **4.2.3** If generation of any Generating Station including RE Generators is affected, consent of Generator is necessarily submitted to SLDC along with proposal for outage of transmission element.
- **4.2.4** SLDC after ensuring reliability of Grid Operation under N-1 contingency, shall convey the approval at 18:00 Hrs. of the day prior to proposed date of outage, on Eltrix Portal. If outage is not approved, reason for not approving it on the proposed date shall also be intimated by the SLDC.
- **4.2.5** Long outages shall be proposed after discussions with Reliability Group of SLDC.
- **4.2.6** Emergency outage proposal shall be submitted to the SLDC along with the photographs of the location clearly indicating the nature of emergency. Control Room of SLDC shall immediately process the request of emergency outage and try to give permission as early as possible after ensuring Grid security / Load Management, if required. Any other information sought by SLDC shall also be furnished to SLDC by the agency proposing the outage.
- **4.2.7** Outage on transmission elements of 132 KV voltage level within the geographical areas of West Discom and Central Discom shall be approved by the Sub LDC Indore and Sub LDC Bhopal, respectively.

- **4.2.8** If any outage of 132 KV transmission element involves the outage of generation, shall be approved by the SLDC Control Room, Jabalpur.
- **4.2.9** If site officials are unable to avail any proposed outage of transmission element, SLDC should be intimated on **D-1** basis so that outage request on other transmission element could be considered.
- **4.2.10** Opportunity shut down can be availed by the other department for carrying out the maintenance work, but agency availing the opportunity shut down shall complete the work within the time period for which original shutdown of transmission element is approved by the SLDC.
- **4.2.11** For rescheduling of outage of transmission element, a fresh / new request shall be made by the entity / agency on **D-3** basis through Eltrix portal.
- **4.2.12** Authorized user can view the status of outage request on online web based Eltrix portal.
- **4.2.13** Respective department / agency should check the status of proposed outage on Eltrix portal before moving the staff, if the outage is at distant location.
- **4.2.14** All efforts shall be made for timely completion of work. Delay, if any in restoration of transmission element, should be intimated to the SLDC / Sub LDC, Control Room immediately along with the reason and likely time of completion of work.
- **4.2.15** Electrical system is very volatile, switching off code shall be issued by SLDC / Sub LDC Control Room as the case may be, after ensuring Grid security during the real time of operation.
- **4.2.16** SLDC / Sub LDC Control Room shall issue the switching code to the MPPTCL, MPPGCL, IPPs and NHDC officials only.

# 5. PROCEDURE FOR INTEGRATION OF NEW NETWORK ELEMENT TO A TRANSMISSION LICENSEE INTO THE GRID AND ISSUANCE OF CERTIFICATE BY REGIONAL LOAD DESPATCH CENTRE FOR SUCCESSFUL TRIAL OPERATION OF A TRANSMISSION ELEMENT.

The utility seeking approval of WRLDC for integration of new element with Regional Grid is required to upload data in prescribed formats of WRLDC in FTC software i.e. A1, A2, A3, A5, B1, B2, B3, B4, B5, CEA approval, nameplate details, SLD, CEIG approval, PTCC approval etc. generally 10 days prior to the anticipated date of first test charging. After uploading desired data /document by utility, SLDC shall take up the matter with WRLDC for processing the case and all requisite support provided to State agency to complete the FTC formalities.

All the above formalities shall also be submitted by the State agency to SLDC for integration of new transmission element with the State Grid prior to request for integration of new transmission element. Charging code for this shall be issued by the SLDC Control Room.

The authority submitting FTC document should ensure compliance of protection/ metering issue in coordination with T&C officials. It is also desired that all necessary data should be made available to all adjacent S/s for relay coordination well before the date of integration with Regional/State Grid.

#### 6. AOH OF GENERATING UNITS-

- **6.1** MPPGCL, NHDC and IPPs shall submit the proposed Annual Overhaul / Capital Overhaul Plan of their Generating Units / Machines for the next financial year in the month of January of previous year.
- **6.2** The AOH / COH plan of all generating units shall be discussed and approved in the OCC Meeting of MP.

- **6.3** Generating Units / Machines shall be allowed for AOH / COH from the dates approved by the OCC Forum.
- **6.4** If there shall be any change in date of taking unit / machine under AOH / COH, the same shall be intimated to the SLDC at least 10 days in advance.
- **6.5** Readiness of taking unit / machine under AOH / COH shall be communicated to SLDC **3 days in advance** else permission for taking unit / machine for AOH / COH shall be given 3 days after receipt of communication from the Generating Station.
- **6.6** If any Generating Unit is required to be taken under Planned Outage, the intimation in this regard and expected time of synchronization shall be given to the SLDC **7 days in advance**.

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