

Classifying Forced Outages Transmission Maintenance Procedure No. 5

**Version 4
Effective Date 10/17/2017**

Approved by:

Transmission Maintenance
Coordination Committee

10/17/2017

 California ISO	Transmission Maintenance Coordination Committee (TMCC)	Procedure No.	5
		Version No.:	4
Classifying Forced Outages		Effective Date.:	October 17, 2017

REVISION HISTORY

VERSION NO.	APPROVED DATE	EFFECTIVE DATE	REVISED BY	DESCRIPTION
1.0	9/7/2000	9/7/2000	TMCC	Procedure Adopted
2.0	7/21/2005	7/21/2005	TMCC	Revised to align with TCA Appendix C rewrite in 2004
3.0	1/24/2014	1/24/2014	TMCC	Updated Table 1 bullets No. 8 and 9 to reflect TMCC approval of revised availability metric streamline method.
4.0	10/17/2017	10/17/2017	TMCC	Updated company logo and revised format to align with corporate standard

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		Version No.:	4
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TABLE OF CONTENTS

5.1	PURPOSE.....	1
5.2	SCOPE.....	1
5.3	SAFETY	1
5.4	DESCRIPTION CLASSIFICATIONS	2
5.6	CONTACTS	2

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		Version No.:	4
Classifying Forced Outages		Effective Date.:	October 17, 2017

5.1 PURPOSE

This procedure supports efforts to accurately interpret and report Forced Outage^(IMS) data used to calculate Availability Measures as described in Appendix C.

5.2 SCOPE

To accurately calculate Availability Measures, Appendix C definitions must be applied. Unlike Appendix D, Appendix C classifies an event as an Outage^(IMS) if it interrupts power flow between terminals. This distinction is significant because Appendix C definitions properly reduce the number of events classified as Forced Outages^(IMS). For example, a Station Outage^(IMS) may still be recorded as a Forced Outage^(IMS), but, it shouldn't be recorded as a Transmission Line Circuit Forced Outage^(IMS) unless the event actually interrupts power flow in the associated Transmission Line Circuit. Similarly, when a piece of equipment is taken out of service, either scheduled or unscheduled, this event is not considered an Outage^(IMS) for the purposes of calculating "Availability Measures", provided it does not interrupt the flow of power between terminals

5.3 SAFETY

The ISO and PTOs want to encourage the safe operation of the ISO grid. Therefore, it is their intention to encourage safe work practices. The concern of reducing the number of Forced Outages^(IMS) should not affect the safety of personnel or the general public.

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		Version No.:	4
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5.4 DESCRIPTION CLASSIFICATIONS

Table 1 illustrates some common events and indicates how each should be classified when preparing Availability Measures reports.

Table 1 – Examples of Outage Classification for Common Events

No.	Description	Classification
1	Request for cutout on a reclosing relay.	Not a Forced Outage
2	Circuit breakers, switches and buses taken out of service, provided power flow can be maintained between Line terminals.	Not a Forced Outage
3	Line Section is in outage condition with one breaker energized and not part of the clearance. Terminal with this breaker was de-energized, provided no power was flowing through it.	Not a Forced Outage
4	Transmission Line Circuit terminates into a series transformer and transformer experiences an outage that interrupts power flow.	Forced Outage
5	PTOs RAS causes outage condition on its Transmission Line Circuits.	Forced Outage
6	Line Section is in outage condition and ISO determines request for extension to last approved return date/time will compromise only grid reliability.	Forced Outage
7	Line Section is in outage condition and ISO determines request for extension to last approved return date/time impacts safety or will not compromise grid reliability.	Not a Forced Outage
8	Late notification on Transmission Line Circuit outage request and the request does not impact safety.	Forced Outage
9	Late notification on Transmission Line Circuit outage request and the request impacts safety.	Not a Forced Outage

5.6 CONTACTS

For questions regarding subject matter covered in this procedure, please contact the Director of Grid Assets, California ISO.