

# **OUTAGE COORDINATION PROTOCOL**

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## **OUTAGE COORDINATION PROTOCOL (OCP)**

### **OCP 1      OBJECTIVES, DEFINITIONS, AND SCOPE**

#### **OCP 1.1      Objectives**

The objective of the OCP is to enable the ISO to coordinate maintenance as far as possible in advance to allow the ISO to maintain System Reliability and to minimize the quantity and effect of Congestion on the ISO Controlled Grid and Interconnections.

##### **OCP 1.1.1      The Role of the ISO**

The ISO Tariff authorizes the ISO to coordinate schedules for maintenance, repair and construction of Generating Units, sections of the ISO Controlled Grid, and Interconnections. This Protocol is designed to enable the ISO to perform this role.

The Facility Owner shall remain solely and directly responsible for the performance of all maintenance work, whether on energized or deenergized facilities, including all activities related to providing a safe working environment.

##### **OCP 1.1.2      ISO Outage Coordination Office**

The ISO Outage Coordination Office will be operational Monday through Friday, except holidays, and will accept, schedule, and approve Maintenance Outage requests. The Outage Coordination Office is located in Folsom, Alhambra and San Diego. Each office and the areas of responsibility of that office are:

Folsom

- (a) all transmission lines greater than 230 kV and associated station equipment on the ISO Controlled Grid;
- (b) all ISO Control Area Interconnections;
- (c) all 230 kV and lower voltage transmission lines and associated station equipment identified in the ISO Register as that portion of the ISO Controlled Grid located in the PG&E service area;
- (d) all Reliability Must-Run Generators;
- (e) all Non-Reliability Must-Run Generators as described in OCP 4.4.

Alhambra

- (a) all 230 kV and lower voltage transmission lines and associated station equipment identified in the ISO Register as that portion of the ISO Controlled Grid located in the SCE Service Area.

San Diego

- (a) all 230 kV and lower voltage transmission lines and associated station equipment identified in the ISO Register as that portion of the ISO Controlled Grid located in the SDGE Service Area.

## **OCP 1.2 Definitions**

### **OCP 1.2.1 Master Definitions Supplement**

Unless the context indicates otherwise, any word or expression defined in the Master Definitions Supplement to the ISO Tariff shall have the same meaning where used in this Protocol. A reference to a Section or an Appendix refers to a Section or an Appendix of the ISO Tariff unless otherwise indicated. References to OCP are to this Protocol or to the stated paragraph of this Protocol.

### **OCP 1.2.2 Special Definitions for this Protocol**

In this Protocol, the following words and expressions shall have the meaning set opposite them:

**“EOE”** means an Existing Operating Entity operating under an Existing Operating Agreement.

**“Final Approval”** means a statement of consent by the ISO Control Center to initiate a scheduled Outage.

**“ISO Home Page”** means the ISO internet home page at <http://www.caiso.com/iso> or such other internet address as the ISO shall publish from time to time.

### **OCP 1.2.3 Rules of Interpretation**

- (a) Unless the context otherwise requires, if the provisions of this Protocol and the ISO Tariff conflict, the ISO Tariff will prevail to the extent of the inconsistency. The provisions of the ISO Tariff have been summarized or repeated in this Protocol only to aid understanding.
- (b) Unless the context otherwise requires, if the provisions of this Protocol and that of an existing contract conflict, the existing contract will prevail to the extent of the inconsistency.

- (c) A reference in this Protocol to a given agreement, ISO Protocol or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented or restated through the date as of which such reference is made.
- (d) The captions and headings in this Protocol are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Protocol.
- (e) This Protocol shall be effective as of the ISO Operations Date.

## **OCP 1.3      Scope**

### **OCP 1.3.1      Scope of Application to Parties**

OCP applies to the ISO and to the following:

- (a) Participating Transmission Owners (PTOs);
- (b) Participating Generators;
- (c) Operators;
- (d) Connected Entities; and
- (e) Utility Distribution Companies (UDCs).

### **OCP 1.3.2      Scope of Application to Plant and Systems**

OCP does not apply to Generating Units having a rated capacity of less than 10 MW.

### **OCP 1.3.3      Liability of the ISO**

Any liability of the ISO arising out of or in relation to this Protocol shall be subject to Section 14 of the ISO Tariff as if references to the ISO Tariff were references to this Protocol.

## **OCP 2      PLANNING OF GENERATING UNIT OUTAGES**

### **OCP 2.1      Reporting for Regulatory Must-Take Generation**

Information regarding planned outages for resources providing Regulatory Must-Take Generation shall be provided to the ISO Outage Coordination Office by the Participating TO or UDC having an existing contract with such resource. Information provided will be that obtained by the Participating TO or UDC pursuant to the terms of the existing agreement with the Regulatory Must-Take Generation



resource. No information is required for individual Regulatory Must-Take Generation resources having a rated capacity of less than 10 MW.

## **OCP 2.2 Data to ISO**

All information submitted in relation to planned Generating Unit Outages must be submitted in accordance with OCP 7.

### **OCP 2.2.1 Provisional Program**

By October 1<sup>st</sup> of each year, each Participating Generator will provide the ISO in writing with a provisional planned Outage program referred to in this provision for each of its Generating Units (including its Reliability Must-Run Units) for the next calendar year. The following information is required for each Generating Unit:

- (a) the Generating Unit name and Location Code;
- (b) the MW capacity unavailable;
- (c) the scheduled start and finish date for each Outage; and
- (d) where there is a possibility of flexibility for Reliability Must-Run Units, the earliest start date and the latest finish date.

#### **OCP 2.2.1.1 Additional Maintenance Outages**

If conditions require, a Participating Generator may, upon seventy-two (72) hours advance notice, schedule with the ISO Outage Coordination Office a Maintenance Outage on its system. The Participating Generator shall supply to the ISO the data set out in OCP 2.2.1.

### **OCP 2.2.2 Quarterly Updates to Provisional Planned Generator Outage Program**

Each Participating Generator will provide the ISO with quarterly updates of its Outage program referred to in OCP 2.2.1 for Generating Units by the close of business on the fifteenth (15<sup>th</sup>) day of each January, April, and July. These updates must identify known changes to any previously planned Generating Unit Outages and any additional Outages anticipated over the next twelve months. As part of this update, each Participating Generator must include all known planned Outages for the following twelve months.

**OCP 2.2.3 Changes to Generator Outage Program**

Each Participating Generator shall notify the ISO in writing of any known changes to a Generator Unit Outage scheduled to occur within the next 30 days.

Participating Generators submitting notice of an outage less than seven (7) days before the Outage or who revise the date of a previously scheduled outage to less than seven (7) days before the planned Outage date, must obtain the approval of the ISO Outage Coordination Office in accordance with OCP 4 and Section 5.5.1 of the ISO Tariff. Such approval may only be withheld for reasons of System Reliability or security.

**OCP 2.2.4 Changes to Planned Maintenance Outages**

A Participating Generator may submit changes to its planned Maintenance Outage program at any time.

**OCP 2.2.5 Additional Information Requests**

The ISO may request additional information or seek clarification from Participating Generators of the information submitted in relation to a planned Generating Unit Outage.

**OCP 2.3 ISO Analysis of Generating Unit Outage Plans**

**OCP 2.3.1 Calculation of Aggregate Generating Capacity**

The ISO will use the provisional Generating Unit Outage program referred to in OCP 2.2.1 to calculate the aggregate Generation capacity projected to be available in the following time frames:

- (a) on an annual and quarterly basis, the ISO will calculate the aggregate weekly peak Generation capacity projected to be available during each week of the following year and quarter, respectively; and
- (b) on a monthly basis, the ISO will calculate the aggregate daily peak Generation capacity projected to be available during the month.

**OCP 2.3.2 System Adequacy Reports**

The ISO will publish the following reports comparing the projected aggregate Generation capacity to the peak forecast Demands, as calculated in accordance with the Demand Forecast Protocol (DFP):

- (a) on an annual basis and within eight weeks after receiving the annual or updated provisional planned Outage programs from all Participating Generators, the ISO shall publish on WEnet a report comparing the aggregated weekly peak Generation capacity to the weekly peak forecast Demand for the next 52 weeks;
- (b) on a quarterly basis, the ISO shall publish on WEnet a report comparing the aggregated weekly peak Generation capacity to the weekly peak forecast Demand for the next 3 months; and
- (c) on a monthly basis, the ISO shall publish on WEnet a report comparing the aggregated weekly peak Generation capacity to the weekly peak forecast Demand for the next month.

**OCP 2.3.3 Approval of Reliability Must-Run Generation Outages**

The information relating to each Maintenance Outage submitted by a Participating Generator with Reliability Must-Run Units in accordance with OCP 2.2 constitutes a request for a provisional Maintenance Outage and is not considered an Approved Maintenance Outage until the ISO has notified that Participating Generator of such approval pursuant to OCP 4.3.

**OCP 3 PLANNING OF ISO CONTROLLED GRID MAINTENANCE**

**OCP 3.1 Data to ISO**

All information submitted in relation to planned Outages of ISO Controlled Grid facilities must be submitted in accordance with OCP 7.

**OCP 3.1.1 Provisional Program**

By October 1<sup>st</sup> each year, each Participating TO will provide the ISO in writing with its list of proposed Maintenance Outages for the next calendar year. This list shall include the following data:

- (a) the identification of the facility including Participating TO and location;
- (b) the nature of the proposed Maintenance Outage;
- (c) the preferred start and finish date for each Maintenance Outage; and
- (d) where there is a possibility of flexibility, the earliest start date and the latest finish date.

**OCP 3.1.1.1 Additional Maintenance Outages**

If conditions require, a Participating TO may, upon seventy-two (72) hours advance notice, schedule with the ISO Outage Coordination Office a Maintenance Outage on its system. The Participating TO shall supply to the ISO the data set out in OCP 3.1.1.

**OCP 3.1.2 Quarterly Update**

Each Participating TO will provide the ISO with quarterly updates of the data provided under OCP 3.1.1 by close of business on the fifteenth (15<sup>th</sup>) day of each January, April, and July. These updates must identify known changes to any previously planned ISO Controlled Grid facility Maintenance Outages and any additional Outages anticipated over the next twelve months. As part of this update, each Participating TO must include all known planned outages for the following twelve months.

**OCP 3.1.3 Changes to Planned Maintenance Outages**

A Participating TO may submit changes to its planned Maintenance Outage information at any time.

**OCP 3.1.4 Nature of Maintenance Outage Information**

The information relating to each Maintenance Outage submitted by a Participating TO in accordance with OCP 3.1 constitutes a request for a provisional Maintenance Outage and is not considered an Approved Maintenance Outage until the ISO has notified the Participating TO of such approval pursuant to OCP 5.4.

**OCP 3.1.5 Additional Information**

The ISO may request additional information or seek clarification from Participating TOs of the information submitted in relation to a planned Maintenance Outage.

**OCP 3.1.6 Adjacent Control Areas**

The ISO will coordinate the exchange of proposed ISO Controlled Grid Maintenance Outages, as appropriate, with the operators of adjacent Control Areas.

## **OCP 3.2      ISO Analysis of ISO Controlled Grid Outage Plans**

### **OCP 3.2.1    Review of Planned Maintenance Outages**

The ISO Outage Coordination Office will review the Maintenance Outages submitted under OCP 2.2 and OCP 3.1 to determine if any one or a combination of Maintenance Outage requests relating to ISO Controlled Grid facilities or Reliability Must-Run Units may cause the ISO to violate the Applicable Reliability Criteria. This review will take consideration of factors such as, but not limited to, the following:

- (a)    forecast peak Demand conditions;
- (b)    other Maintenance Outages, previously Approved Maintenance Outages, and anticipated Generating Unit Outages;
- (c)    potential to cause Congestion; and
- (d)    impacts on the transfer capability of Interconnections.

If in the ISO's determination, any of the proposed Maintenance Outages would cause the ISO to violate the Applicable Reliability Criteria, the ISO will notify the relevant Participating Generator or Participating TO. The Participating Generator or Participating TO will revise the proposed maintenance Outage and inform the ISO of the changes pursuant to OCP 2.2 and 3.1.

### **OCP 3.2.2    Suggested Amendments by the ISO**

The ISO Outage Coordination Office may provide each Operator in writing with any suggested amendments to those Maintenance Outage requests rejected by the ISO Outage Coordination Office. Any such suggested amendments will be considered as an ISO maintenance request and will be approved in accordance with the process set forth in Section 2.3.3.6 of the ISO Tariff.

## **OCP 4        SCHEDULING AND APPROVAL OF GENERATOR MAINTENANCE OUTAGES**

### **OCP 4.1      Regulatory Must-Take Generation**

Scheduling and approvals of Generator Maintenance Outages for resources providing Regulatory Must-Take Generation shall continue to be governed by the existing contract with a Participating TO or UDC. The Participating TO or UDC will advise the ISO Outage Coordination Office of scheduled and approved Generator Maintenance Outages on resources providing Regulatory Must-Take

Generation if they have a rated capacity of 10 MW or greater when such schedules are established and when Outages are approved pursuant to the terms of the existing contracts.

**OCP 4.2      Schedule Confirmation and Final Approval of Scheduled Outages Required Under the ISO Tariff**

Each Participating Generator with resources providing Reliability Must-Run Generation which has scheduled a planned Maintenance Outage pursuant to OCP 2 must schedule and receive approval of the Outage from the ISO Outage Coordination Office in accordance with OCP 4 prior to initiating the Approved Maintenance Outage.

Participating Generators must also schedule and secure the approval of the ISO Outage Coordination Office for any Generating Unit Outage scheduled to begin in the next seven (7) days, pursuant to OCP 2.2.3.

Under no circumstance shall an Operator start any Approved Maintenance Outage without receiving Final Approval from the ISO Control Center being requested and given in accordance with OCP 4.3.8.

**OCP 4.3      Reliability Must-Run Generator Outage Scheduling and Approval**

**OCP 4.3.1    Data Required**

The Operator of a Reliability Must-Run Unit shall submit to the ISO pursuant to OCP 7 its request to confirm the schedule of a planned Maintenance Outage or to change the schedule of a planned Maintenance Outage. Such request must be made to the ISO Outage Coordination Office by no later than 11:30 am three (3) working days prior to the starting date of the proposed Outage and may not be made more than 7 working days in advance of the proposed Outage. Such schedule confirmation request shall specify the following:

- (a) the Generating Unit name and Location Code;
- (b) the nature of the maintenance to be performed;
- (c) the date and time the Outage is to begin;
- (d) the date and time the Outage is to be completed;
- (e) the time required to terminate the Outage and restore the Generating Unit to normal capacity;

- (f) identification of primary and alternate telephone numbers for the Operator's single point of contact; and
- (g) in the case of a request for a change to an Approved Maintenance Outage, the date and time of the original Approved Maintenance Outage.

**OCP 4.3.2 Delay**

The ISO Outage Coordination Office may delay its approval of a scheduled Maintenance Outage for a Reliability Must-Run Unit if sufficient or complete information is not received by the ISO Outage Coordination Office within the time frames set forth in OCP 4.3.1.

**OCP 4.3.3 Acceptance or Rejection of Outage Schedule**

The ISO Outage Coordination Office shall acknowledge each request to confirm or approve a Maintenance Outage for a Reliability Must-Run Unit within two (2) working hours of the receipt of the request. The ISO Outage Coordination Office shall approve or reject each request within a reasonable time of the receipt of the request but in any event shall notify the Operator of its decision not later than 3:30 pm of the working day after receipt of the request.

**OCP 4.3.4 Withdrawal or Modification of Request**

The Operator of the Reliability Must-Run Unit may withdraw a request at any time prior to actual commencement of the Outage. The Operator of the Reliability Must-Run Unit may modify a request at any time prior to receipt of any acceptance or rejection notice from the ISO Outage Coordination Office or pursuant to OCP 4.3.1, but the ISO Outage Coordination Office shall have the right to reject such modified request because of the complexity of the modifications proposed or insufficient time to assess the impact of such modifications.

**OCP 4.3.5 Rejection Notice**

The ISO Outage Coordination Office shall, in a rejection notice, identify the ISO's reliability and security concerns which prompt the rejection and suggest possible remedies or schedule revisions which might mitigate any ISO concerns.

**OCP 4.3.6 Approval Mandatory**

The Operator of the Reliability Must-Run Unit shall not initiate the Generating Unit Outage without receiving Final Approval as prescribed in OCP 4.3.8.

**OCP 4.3.7 Priority of Participating Generator Outage Requests**

Outage requests which are listed in the planned maintenance schedules submitted to the ISO will be given a priority in the scheduling and approval of Outage requests over those which have not been listed.

**OCP 4.3.8 Final ISO Approval**

On the day when an Approved Maintenance Outage is scheduled to commence the relevant Reliability Must-Run Generator shall contact the ISO Control Center for Final Approval of the requested Outage including the starting time and return time. No such Outage shall commence without such Final Approval being obtained from the ISO Control Center, whose decision shall be final.

**OCP 4.3.9 Withholding of Final Approval and Rescheduling of Outage**

The ISO Control Center shall have the authority to withhold a Final Approval for an Approved Maintenance Outage for reasons of System Reliability. The ISO Control Center shall immediately notify the relevant Reliability Must-Run Generator of its intention to withhold the Final Approval. The Generator Maintenance Outage will then be rescheduled pursuant to the Dispatch Protocol.

**OCP 4.4 Non-Reliability Must-Run Generator Outage Scheduling and Approval**

**OCP 4.4.1 Size Exclusions**

Generating Units which have a rated MW capacity of less than 10 MW are excluded from the application of OCP 4.4.

**OCP 4.4.2 Scheduling Maintenance Outages for Generating Units**

Participating Generators submitting notice of an Outage less than seven (7) days before the Outage or who revise the date of a previously scheduled Outage to less than seven (7) days before the Outage, must notify the ISO Outage Coordination Office pursuant to OCP 7 of any such Outages by 11:30 am at least 3 working days prior to the planned start of the Outage. Such notice must contain the same information as specified in OCP 4.3.1.

**OCP 4.4.3 Delay**

The ISO Outage Coordination Office may delay its approval of an Outage schedule if sufficient or complete information is not received



by the ISO Outage Coordination Office within the time frames set forth in OCP 4.3.4.

**OCP 4.4.4 Acceptance or Rejection of Outage Schedule**

The ISO Outage Coordination Office shall acknowledge each request to confirm or approve an Outage within two (2) working hours of the receipt of the request. The ISO Outage Coordination Office shall approve or reject each request within a reasonable time of the receipt of the request but in any event shall notify the Participating Generator of its decision not later than 3:30 pm on the working day after receipt of the request.

**OCP 4.4.5 Withdrawal or Modification of Request**

The Participating Generator may withdraw a request at any time prior to commencement of the Outage. The Participating Generator may modify a request at any time prior to receipt of any acceptance or rejection notice from the ISO Outage Coordination Office or pursuant to OCP 4.4.2, but the ISO Outage Coordination Office shall have the right to reject such modified request because of the complexity of the modifications proposed or insufficient time to assess the impact of such modifications.

**OCP 4.4.6 Rejection Notice**

The ISO Outage Coordination Office shall, in a rejection notice, identify the ISO's reliability concerns which prompt the rejection and suggest possible remedies or schedule revisions which might mitigate any ISO concerns. Approval may only be withheld by the ISO for reasons of System Reliability or security.

**OCP 4.4.7 Approval Mandatory**

The Participating Generator shall not initiate the Generating Unit Outage referred to in OCP 4.4.2 or make a change to its planned maintenance schedule less than 7 days prior to the start date of the relevant Outage without receiving Final Approval as required in OCP 4.4.9.

**OCP 4.4.8 Priority of Participating Generator Outage Requests**

Outage requests which are listed in the planned maintenance schedules submitted to the ISO will be given a priority in the scheduling and approval of Outage requests over those which have not been listed.

**OCP 4.4.9 Final ISO Approval**

On the day when an Approved Maintenance Outage is scheduled to commence the relevant Participating Generator shall contact the ISO Control Center for Final Approval of the requested Outage. No such Outage shall commence without such Final Approval being obtained from the ISO Control Center, whose decision shall be final.

**OCP 4.4.10 Withholding of Final Approval and Rescheduling of Outage**

The ISO Control Center shall have the authority to withhold a Final Approval for reasons of System Reliability. The ISO Control Center shall immediately notify the relevant Generator of its intention to withhold the Final Approval. The Generator Maintenance Outage will then be rescheduled pursuant to the Dispatch Protocol.

**OCP 5 ISO Controlled Grid Maintenance Scheduling and Approval**

**OCP 5.1 Schedule Confirmation and Final Approval of Scheduled Outages Required Under the ISO Tariff**

Each Participating TO which has scheduled a Maintenance Outage pursuant to OCP 3 must schedule and receive approval of the Outage from the ISO Outage Coordination Office in accordance with OCP 5.4 prior to initiating the Approved Maintenance Outage.

Under no circumstance shall an Operator start any Approved Maintenance Outage without Final Approval from the ISO Control Center being requested and given in accordance with OCP 5.7.

**OCP 5.2 Adjacent Control Areas**

The ISO will coordinate the scheduling of ISO Controlled Grid facilities and approvals, as necessary, with the operators of adjacent Control Areas and EOE's.

**OCP 5.3 Data Required**

All Participating TOs shall submit a formal request to confirm or change an Approved Maintenance Outage with respect to any ISO Controlled Grid facility to the ISO Outage Coordination Office in accordance with OCP 5.3.1 and OCP 5.3.2

A request to confirm a planned Maintenance Outage or to change an Approved Maintenance Outage shall specify:

- (a) the identification of the transmission system element(s) to be maintained including location;
- (b) the nature of the maintenance to be performed;
- (c) the date and time the Maintenance Outage is to begin;
- (d) the date and time the Maintenance Outage is to be completed;
- (e) the time required to terminate the maintenance and restore the transmission system to normal operation;
- (f) identification of primary and alternate telephone numbers for the Operator's single point of contact; and
- (g) in the case of a request for a change to an Approved Maintenance Outage, the date and time of the original Approved Maintenance Outage.

**OCP 5.3.1 Three (3) Day Prior Notification**

Any request to confirm an Approved Maintenance Outage that may affect the transfer capability of any part of the ISO Controlled Grid must be submitted no later than 11:30 am at least three (3) working days prior to the starting date of the Approved Maintenance Outage. OCP 5.3.1 applies to:

- (a) all 500 kV facilities;
- (b) any line Outage;
- (c) any load transformer Outage;
- (d) any bus Outage;
- (e) relay protection Outages that reduce the transfer capability of a line or path;
- (f) any Outage that requires coordination by two (2) or more Connected Entities;
- (g) communication system outages, including SCADA facilities; and
- (h) any other Outage that the ISO reasonably considers will affect the transfer capability of a line or path compromising any part of the ISO Controlled Grid.

Failure to submit a request for an Outage by the proper time may mean a delay in approval from the ISO.

**OCP 5.3.2 One (1) Day Prior Notification**

Any request to confirm or change the Schedule for an Approved Maintenance Outage must be submitted no later than 11:30 am at least one (1) day prior to the starting date of the Outage. For example, a request under this OCP 5.3.2 may be for:

- (a) washing insulators on an energized line or station equipment;
- (b) circuit breaker Outages;
- (c) relay protection maintenance that does not reduce the transfer capability of a line or path;
- (d) reactive device maintenance that does not reduce the transfer capability of a line or path.

Failure to submit a request for an Outage by the proper time may mean a delay in approval from the ISO.

**OCP 5.3.3 Priority of Transmission Facility Outage Requests**

Outage requests which are listed in the planned maintenance schedule submitted to the ISO will be given a priority in scheduling and approval of Outage requests over those which have not been listed.

**OCP 5.3.4 Delay**

The ISO Outage Coordination Office may delay its approval of an Approved Maintenance Outage schedule if sufficient or complete information is not received by the ISO Outage Coordination Office within the time frames referred to in OCP 5.3.1 and 5.3.2.

**OCP 5.4 Acceptance or Rejection of Outage Schedule**

The ISO Outage Coordination Office shall acknowledge each request to confirm or approve a Maintenance Outage within two (2) working hours of the receipt of the request. The ISO Outage Coordination Office shall approve or reject each request within a reasonable time of the receipt of the request but in any event shall notify the Participating TO of its decision not later than 3:30 pm of the working day after receipt of the request pursuant to OCP 5.3.1 and 3:30 pm of the same working day as the receipt of the request pursuant to OCP 5.3.2.

**OCP 5.5      Withdrawal or Modification of Request**

The Participating TO may withdraw a request at any time prior to actual initiation of the Outage. The Operator may modify a request at any time prior to receipt of any acceptance or rejection notice from the ISO Outage Coordination Office or pursuant to OCP 5.3.1 and 5.3.2, but the ISO Outage Coordination Office shall have the right to reject such modified request because of the complexity of the modifications proposed or insufficient time to assess the impact of such modifications.

**OCP 5.6      Rejection Notice**

The ISO Outage Coordination Office shall, in a rejection notice, identify the ISO's reliability and security concerns which prompt the rejection and suggest possible remedies or schedule revisions which might mitigate any ISO concerns.

**OCP 5.6.1    Failure to Meet Requirements**

Any request to consider maintenance that does not meet the notification requirements contained in OCP 5.3.1 and 5.3.2 will be rejected without further consideration, unless OCP 6 applies.

**OCP 5.7      Final Approval Mandatory**

Under no circumstance shall any Outage be initiated for which an approval is required, under this Protocol without the relevant Operator or Participating TO receiving Final Approval of that Outage in accordance with OCP 5.8.

**OCP 5.8      Final ISO Approval**

On the day when an Approved Maintenance Outage is scheduled to commence the relevant Participating TO shall contact the ISO Control Center for Final Approval of the requested Outage including the starting time and return time. No such Outage shall commence without such Final Approval being obtained from the ISO Control Center, whose decision shall be final.

**OCP 5.9      Withholding of Final Approval and Rescheduling of Outage**

The ISO Control Center shall have the authority to withhold a Final Approval for reasons of System Reliability, security or system status of the ISO Controlled Grid. The ISO Control Center shall immediately

notify the relevant Participating TO of its intention to withhold the Final Approval. The ISO Grid facility Maintenance Outage will then be rescheduled pursuant to the Dispatch Protocol.

## **OCP 6      MANAGEMENT OF FORCED OUTAGES OR IMMEDIATE NATURE MAINTENANCE**

### **OCP 6.1      Immediate Forced Outage**

A Participating TO or Participating Generator which identifies a situation likely to result in a Forced Outage within the next twenty-four (24) hours unless immediate corrective action is taken, where such action requires the removing from service or restricting an operating Generating Unit or removing a transmission facility from service, shall communicate directly with the ISO Control Center as set forth in the emergency procedures of the Dispatch Protocol.

### **OCP 6.2      Imminent Forced Outage**

A Participating TO or Participating Generator which identifies a situation likely to result in a Forced Outage but of a nature not requiring a removal from service until some time more than twenty-four (24) hours in the future will be subject to the provisions of OCP 4 and OCP 5 with respect to any necessary Outage except the requirements imposing time limits for notification will be waived and the request will be expedited by the ISO provided notice is given as soon as possible.

## **OCP 7      Communication of Scheduled Maintenance Requests**

### **OCP 7.1      Single Point of Contact**

All communications concerning a Maintenance Outage request or a request to confirm or change an Approved Maintenance Outage shall be between the ISO and the designated single point of contact for each Participating TO or Participating Generator. The Participating TO or Participating Generator shall provide in their initial request the identification of the single point of contact along with primary and alternate means of communication. This identification will be confirmed in all communications with the ISO in relation to Outage requests including any request for confirmation, change or Final Approval of an Outage made to the ISO.

**OCP 7.2      Method of Communications**

The method of communication from the Operator or Participating Generator to the ISO can be in the form of the following forms:

- (a)    voice;
- (b)    fax; and
- (c)    electronic (E-mail, FTP file, etc.).

**OCP 7.3      Confirmation**

When fax or electronic communication is utilized, confirmation from the ISO must be received by the Participating TO or Participating Generator to validate the receipt of the request pursuant to OCP 7.2.

**OCP 7.4      Communication of Approval or Rejection**

The ISO shall use the same methods in communicating the approval or rejection of an Outage request or approval of a request to change an Approved Maintenance Outage to the relevant Participating TO or Participating Generator.

**OCP 8        OUTAGE COORDINATION FOR NEW FACILITIES**

**OCP 8.1      Coordination by ISO**

The procedure to energize and place in service any new or relocated piece of equipment, connected to the ISO Controlled Grid, must be set out by the Participating TO, Participating Generator or Connected Entity in a written procedure and coordinated by the ISO Outage Coordination Office.

**OCP 8.2      Types of Work Requiring Coordination**

The types of work which the ISO will coordinate under OCP 8 includes any new addition, replacement or modification to the ISO Controlled Grid, including:

- (a)    transmission lines forming part of the ISO Controlled Grid;
- (b)    equipment including circuit breakers, transformers, disconnects, reactive devices, wave traps, forming part of the ISO Controlled Grid;
- (c)    Generating Unit interconnections; and

- (d) protection and control schemes, including RAS, SCADA, EMS, or AGC.

### **OCP 8.3 Uncomplicated Work**

When line rearrangements and/or station equipment work is uncomplicated and easily understood, the ISO Outage Coordination Office may determine that the work can be accomplished using Outages approved in accordance with OCP 5. The ISO Outage Coordination Office will make this determination in coordination with the respective requesting Participating TO, Participating Generator or Connected Entity.

### **OCP 8.4 Special Procedures for More Complex Work**

#### **OCP 8.4.1 Responsibility for Preparation**

In cases to which OCP 8.3 does not apply, it is the responsibility of the requesting Participating TO, Participating Generator or Connected Entity to prepare a written procedure to enable the ISO to approve Outages in a manner that enables the necessary work to proceed. The ISO Outage Coordination Office must approve the procedure.

#### **OCP 8.4.2 Information to be Provided to the ISO**

The written procedure must be received by the ISO Outage Coordination Office a minimum of four (4) weeks prior to the start of procedure. Adequate drawings will be attached to the procedure to help clarify the work being performed and the Outages that will be required to complete the work must be specified. The procedure shall include all of the information referred to in OCP Appendix A.

#### **OCP 8.4.3 Approval of the Procedure**

Upon receipt of the procedure referred to in OCP 8.4.2, the ISO Outage Coordination Office will review the procedure and notify the Participating TO, Participating Generator or Connected Entity of any required modifications. The ISO Outage Coordination Office may, at its discretion, require changes to and more detail to be inserted in the procedure. The requesting Participating TO, Participating Generator or Connected Entity will consult with other entities likely to be affected and will revise the procedure, following any necessary or appropriate discussions with the ISO to reflect the requirements of the ISO. Following the ISO approval, an approved copy of the procedure will then be transmitted to the Participating TO,



Participating Generator or Connected Entity and the other entities likely to be affected.

**OCP 8.4.4      Changes to Procedure**

Once the procedure is approved by the ISO Outage Coordination Office any modifications to the procedure will require the requesting Participating TO, Participating Generator or Connected Entity to notify the ISO Outage Coordination Office with as much lead time as possible of the recommended changes. The modified procedure will then have to be approved by the ISO Outage Coordination Office to which the provisions of OCP 8.4.3 will apply.

**OCP 8.4.5      Approval of Work Requiring Coordination**

No work can begin pursuant to any approved procedure unless approved by the ISO Outage Coordination Office and only in accordance with OCP 4 and OCP 5.

**OCP 9            RECORDS AND REPORTS**

**OCP 9.1        Records of Approved Maintenance Outages**

The ISO Outage Coordination Office will maintain a record of each Approved Maintenance Outage as it is implemented. Such records are available for inspection by Participating Generators, Participating TO and Connected Entities at the ISO Outage Coordination Office.

**OCP 10        AMENDMENTS TO THE PROTOCOL**

If the ISO determines a need for an amendment to this Protocol, the ISO will follow the requirements as set forth in Section 16 of the ISO Tariff.

# **OUTAGE COORDINATION PROTOCOL**

## **APPENDIX A**

### **PROGRAM PREPARATION OUTLINE FOR NEW FACILITIES**

The following information must be included in each request for an Outage under OCP 8.

- 1.0 Entity performing work.
- 2.0 Location of work including Location Code if applicable.
- 3.0 Comprehensive scope of work identifying existing facilities involved and new facilities (if any) being added or existing facilities being permanently removed from service.
- 4.0 Outages required (clearly identify each Outage if multiple Outages are required) including:
  - 4.1 sequence of Outage;
  - 4.2 estimate of Outage duration.
- 5.0 Clearances required (including identification of all switching devices to be tagged) including:
  - 5.1 line;
  - 5.2 Generating Unit;
  - 5.3 equipment.
- 6.0 Detailed statement of work to be completed with intermediate progress dates/events identified including:
  - 6.1 transmission line work;
  - 6.2 Generating Unit work;
  - 6.3 SCADA modification work;
  - 6.4 protective scheme work.
- 7.0 Procedure for reporting work accomplished including:
  - 7.1 to the ISO Control Center;
  - 7.2 to the Participating TO;
  - 7.3 to the participating Generator;
  - 7.4 to other Connected Entities.

- 8.0 Method used to energize and test new/rebuilt Generating Units, line(s) and station equipment including:
  - 8.1 protection to be used:
    - 8.1.1 relay settings;
    - 8.1.2 CTs involved and status.
  - 8.2 System status including:
    - 8.2.1 line arrangement;
    - 8.2.2 Generating Unit arrangement;
    - 8.2.3 station equipment arrangement.
- 9.0 Procedure for phasing including:
  - 9.1 Generating Unit/station synchroscope;
  - 9.2 potentials required;
  - 9.3 existing potentials;
  - 9.4 portable phasing equipment;
  - 9.5 personal performing phasing;
  - 9.6 connections for phasing;
  - 9.7 phase identification method.
- 10.0 Inservice testing including:
  - 10.1 procedure to be performed;
  - 10.2 notice of testing completion.
- 11.0 Statement of completion including:
  - 11.1 statement to be made at the completion of each section of program;
  - 11.2 statement to be made at completion of total project.
- 12.0 Drawings to be Attached.
  - 12.1 existing status;
  - 12.2 for each intermediate stage;
  - 12.3 proposed completion of job.
- 13.0 Transfer of facilities to ISO Controlled Grid.