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# INTRODUCTION

# **Purpose and Scope**

This process is intended to ensure the safe, coordinated, and reliable operation of generation resources interconnected to the Sacramento Municipal Utility District (SMUD)Electric System in compliance with the applicable standards, requirements and procedures established by North American Electric Reliability Corporation (NERC), Western Electricity Coordination Council (WECC), and Reliability Coordinator (RC).

This coordination process provides direction to Facility Owners, SMUD's Power Generation, Power System Operators (PSO), and Distribution System Operators (DSO) for outage coordination and real-time operations with Generation Site Operators and is not intended to supersede applicable reliability requirements and contractual agreements. Additionally, this procedure provides general real-time operating guidance for the SMUD PSO or DSO to provide operating instructions to the generation resources including coordination with SMUD's real-time energy trading regarding generation resource balancing considerations.

# **Review Frequency**

Review annually or when required based on changes to NERC, WECC, RC, and or SMUD requirements. Review with Rate Policy and Procedure 11-01 and Interconnection Agreement updates.

### **Audience**

PSO and DSO, Power Generation, Energy Trading and Contracts (ET&C), and Generation Site Operators for generating resources connected to the SMUD transmission system (115 kV or above) and generating resources greater than 10 MW connected to the SMUD distribution system. (Below 115kV).

#### **Assumed Conditions**

Routine and emergency operating conditions on SMUD's Electric System or on the interconnected bulk electric system in California and the Western Interconnection. Operating condition allow for SMUD curtailment of generation output or battery charging under the applicable PPA and IA.

# **General Description**

Facility Owners and Generation/BESS Site Operators interconnect and operate their facilities in parallel with SMUD's transmission and distribution facilities, and other distributed generation systems connected to the SMUD Electric System. This outage coordination

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process represents Prudent Utility Practice for such parallel operation and meets applicable electric utility industry requirements. Unless provided under a specific energy contract or capacity contract, SMUD is not obligated to provide retail electrical service to the generation facility when offline.

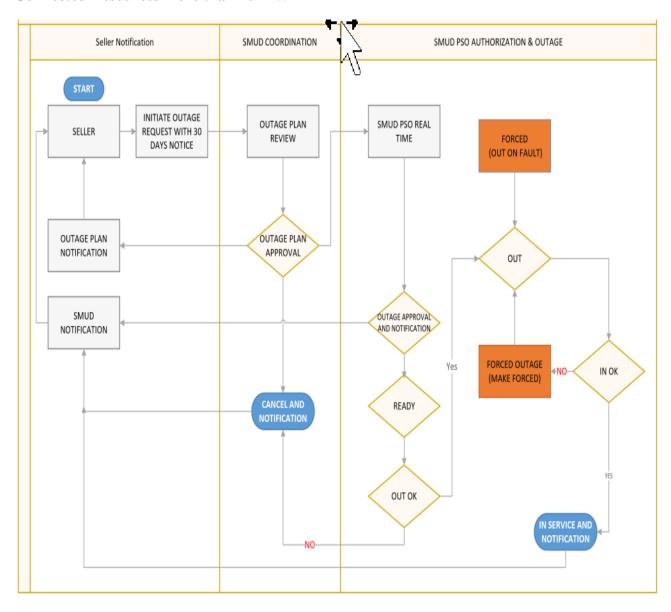
# References

- NERC Reliability Standards TOP-001, TOP-002, TOP-003, IRO-010, IRO-017
- Guidelines for IRO-010 RC Data Specification and Collection (RC0120)
- CAISO Reliability Coordinator (RC) Notification Requirements for Real-Time Events (RCO130).
- CAISO Reliability Coordinator (RC) Outage Coordination Process (RC0630)

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# **FLOWCHARTS**

Figure 1. BA Outage Coordination Process Transmission Connected Resources and Connected Resources more than  $10\,\mathrm{MW}$ 



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SMUD DSO

SMUD DSO

SMUD DSO

Short Term Notification (<30 days)

is generator

ASSET OWNER (OPERATOR)

Long Term Notification (>30 days – 5 yrs.)

**Figure 2. Forced Outage Coordination Notification Process** 

# **Required Outage Notifications**

- Maintenance on any equipment which may affect the maximum output > 5 MW
- Generation control/monitoring/communication equipment OOS
- Automatic Voltage Regulator (AVR) Exciter OOS
- Power System Stabilizer (PSS) OOS
- Voltage support equipment OOS
- Unit performance testing
- Interconnection outage
- Outage Return/Completion

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# **PROCESS**

# 1. Authority and Responsibility

#### 1.1 General

SMUD's PSO and its Transmission Planning and Operations department are responsible for the safe and reliable operation of the Bulk Electrical System (BES) within the BANC Balancing Authority Area including maintaining load and resource balance and reserves. SMUD's DSO is responsible for the safe and reliable operations of the SMUD Distribution System (69kV and below) within SMUD's service territory.

PSO and DSO coordinate on matters impacting each other's function to ensure personnel safety, system reliability, and compliance with NERC, WECC and RC reliability criteria, and SMUD's load serving and energy trading functions, personnel, or stakeholders.

When SMUD or third-party personnel are or will be performing work on SMUD transmission and distribution facilities or third-party interconnection facilities, they will obtain prior approval and coordinate their activities as outlined below.

DSO will provide information associated with equipment outages (planned/forced) to PSO, impacted stakeholders of interconnect generation facilities and the SMUD Power Generation Outage Coordination.

PSO will provide information associated with equipment outages (planned/forced) to the RC in accordance with IRO-010; Guidelines for IRO-010 RC Data Specification and Collection (RC0120), and Notification Requirements for Real-Time events (RC0130), DSO and SMUD's load serving and energy trading functions.

SMUD Power Generation Outage Coordination will receive all planned generator and generation facility outage requests from the Generator Owner. Power Generation will create the iTOA and submit to PSOOC for processing.

# 1.2 Outage Coordination

SMUD Power Generation Outage Coordination receives all planned generator and generation facility outage requests from the Generator Owner. Power Generation Outage Coordination will create the iTOA and submit to PSOOC for processing.

SMUD PSO outage coordination is responsible for coordinating requests to work on or near the BES facilities within the SMUD transmission system areas including as applicable:

• 230 kV and 115 kV transmission equipment, buses, circuit breakers, bulk power transformers, reactive devices (including Automatic Voltage Regulator (AVR) and Power System Stabilizers (PSS) on generators, supplementary excitation control,

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synchronous condensers, shunt and series capacitors, reactors, etc.) as well as designated portions of the SMUD 69 kV and 21 kV system (typically lines with direct generator ties).

- All SMUD Generation Facilities and Interconnected Generation Facilities owned or operated by third parties, including collaboration with SMUD load serving and energy trading functions and in accordance with the established RC Outage Coordination Process.
- Generation connected to the SMUD system at the 69kV voltage level, including switching authority and responsibility for connecting or removing the generators from the system including, when applicable, coordination with DSO.
- Communication equipment, relay protection systems, Remedial Action Schemes
  (RAS), Overload Protection Scheme (OPS), revenue metering systems, Remote
  Terminal Units (RTU), Supervisory Control and Data Acquisition (SCADA), and
  Energy Management System (EMS) that affects or may affect real-time operational
  control of the transmission system within the BA area including telemetering and
  control equipment.

## 1.3 SMUD DSO

The SMUD DSO is responsible for and has the authority to ensure system reliability for the distribution system (69kV and below) and its interconnected operating entities in the "Real-Time" environment. SMUD DSO has the authority to coordinate generation connected facilities, including switching authority and responsibility for connecting or removing the generators from the distribution system and when applicable in conjunction with PSO.

#### 1.4 Stakeholders

Entities requesting Authorization to work on facilities that impact facilities under the control of PSO or DSO must prepare supplemental procedures to ensure safe conduct of their work that identify at a minimum SMUD facility Name or Resource, Start Time and Date, Estimated Return Time (date & time), description of work or impact to resource or facility However, the supplemental procedures shall not conflict with this process or the authority and responsibility established herein, nor shall they violate or cause to violate any portion of the Electric Switching Orders or instructions prepared by PSO or DSO .

PSO or DSO will only issue Authorizations to qualified personnel and Control Room Operators of the non-SMUD interconnected generation stations.

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# 1.4.1 Generation & 115kV or above Transmission Outages Responsibilities Planned requests:

SMUD Power Generation Outage Coordination will receive all planned generator and generation facility outage requests from the Facility Owner or Facility Operator. Power Generation will create the iTOA and submit to PSOOC for processing.

## **Forced outages:**

Facility Owner shall contact the PSO real-time operator. The PSO real-time operator will then process the forced outage.

#### 1.5 ET&C Resource Coordination

The objective of ET&C within SMUD's outage coordination process is to allow anticipated, generation-impacting outages to be planned from a financial and operational perspective by ET&C.

The purpose of planning anticipated, generation-impacting outages is to develop a balanced portfolio to serve demand and assure that ET&C meets any generation-related activities, UARP FERC license requirements, adheres to generation constraints, delivers balanced power schedules to PSO, and meet participation requirements for energy markets, such as the CAISO Energy Imbalance Market (EIM).

# 2. Outage Coordination and Outage Request

### 2.1 Process

SMUD PSO is responsible for coordinating all work/outages that impact the BES within the SMUD TOP area as well as the availability of generation resources within the SMUD footprint.

SMUD PSOOC develops daily outage plans by referencing and coordinating outages scheduled via short-range (< 30 days) and long-range planning processes (> 30 days - 5 years).

SMUD Power Generation Outage Coordination serves as the single point of contact for planned outage activities for generation or generation facilities.

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SMUD DSO is responsible for coordinating all work/outages on the distribution system (69kV and below) within SMUD footprint as well as distribution interconnected generation as required to reliably maintain the system. DSO works in conjunction with PSO.

Outages are approved in a collaborated effort by all stakeholders via the SMUD Outage Coordination Team. Refer to the "BA Outage Coordination Process Flow Chart" and the "BA Outage Coordination Communication Flow Chart" (Reference Figure 1 and Figure 2 above). All forced outages shall be promptly notified to SMUD PSO or DSO.

# 2.2 Submission and Approval

In accordance with the RC OC Process and NERC Reliability Standards, outage submission is a TOP and BA responsibility. TOPs are responsible for submission of transmission outages, and BAs are responsible for submission of generation outages to the RC. All generation resources are considered able to determine an expected schedule for full capacity or contracted output unless curtailed by either a forced or planned outage.

A Facility Owner or Operator connected to the SMUD transmission system at 115kV and above is responsible for promptly notifying SMUD real-time PSO of any active (PSO has given final approval to start or any commenced activity) outage (forced/planned) changes. Planned outage changes are required to be communicated to Power Generation Outage Coordination if the outage change impacts resource operation and the expected start time or restoration time. Any changes to active outages require PSO notification. Any changes to planned outages which are not active, require Power Generation notification. See Attachment C.

A Facility Owner or Operator connected to the SMUD distribution system 69kV and below is responsible for promptly notifying SMUD DSO of any active (DSO has given final approval to start) outages changes for either forced or planned outages. Planned outage changes are required to be communicated to Power Generation Outage Coordination if the outage change impacts resource operation and the expected start time or restoration time.

SMUD DSO will provide appropriate notification to PSO of any distribution interconnected generation outages.

SMUD PSO will notify the RC of generation outages as provided in RC outage procedures.

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SMUD ET&C will submit curtailment outages for SMUD's intermittent renewables or temperature dependent limited resources based upon forecasted or historical data such as wind, solar, temperature or humidity.

In accordance with the RC OC Process and Guidelines for IRO-010 RC Data Specification and Collection (RC0120), SMUD Outage Guidelines and Prudent Utility Practices, outage information is required when:

- ➤ Any planned individual generating unit, or based on plant configuration, derate of > 5 MW reduction of available or contracted capacity (30 minutes or more in duration).
- Any planned AVR or PSS outage (30 minutes or more in duration) on an individual generation facility.
- ➤ Planned outages of telemetering and control equipment with potential impacts to State Estimator (SE) results, SOLs, IROLs, RAS visibility, or could lead to loss of visibility for an area; or communication channels impacting system protection that may result in EMS or SCADA alarms.
- Any planned Transmission or Distribution outages on Facilities/equipment identified in the In-Scope Outage Categories section of the RC Outage Coordination Process.

## 2.2.1 Minimum Outage Information for Submittal and Notification

All requests shall at a minimum, contain the location or Facility Name and the identification of the equipment to be worked on; the date and time the work is to start, estimated time of return (ETR, End or stop date and time, includes switching time when required); Requestors name and phone number; the name of the Authorization holder (person doing the work) and phone number; details of work being performed; emergency return time; Clearance points (if applicable) and all details or special requirements or operational limitations associated with the work being performed and any other facilities/equipment affected by the work being done. Other relevant details, i.e., will crew perform switching or are switchmen requested and where? Use only approved abbreviations.

# 2.3 Planned Outages

See Attachment A "Defined Outage Types" for definition. Requests to work on associated equipment shall be submitted as follows:

SMUD requires planned outages to be submitted 30 days or greater from the date of the outage period start. Outages submitted less than 30 days and greater than 7 days from the date of the outage period start will be evaluated for consideration as a planned outage request. Outages submitted less than 7 days from the date of the outage period start or do not meet the RC outage submittal timelines will be considered Forced Outages.

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Outage requests will be reviewed, accepted, and approved by SMUD outage coordination team on a first come, first served basis. If the requested schedule conflicts with other outages or to reduce adverse impacts to SMUD, SMUD may request to coordinate a mutually agreeable modification to the proposed schedule period.

Competing Outage Example: Relay Technician wants to perform calibration on one (1) of two (2) redundant primary relays. The line will remain in service with both primary and back-up relay protection, and it overlaps with emergency generation testing. SMUD Outage Coordination team will work with outage submitters to determine a mutually agreeable period to perform the maintenance to ensure outages are not impeded, taking into account operations and testing procedures

Routine Outage Example: Facilities wants to perform routine test, maintenance activity or requires an outage to repair equipment and it overlaps with a restricted maintenance operation. SMUD Outage Coordination team will work with outage submitter to determine a mutually agreeable period to perform the maintenance.

SMUD DSO <u>will</u> notify PSO of any work that limits or restricts generation, reduces import/export capability, or changes the BES topography. Outage requests shall be submitted prior to 08:00 AM at least 3 business days prior to the RC submittal requirements as outlined below. Refer to Attachment C for RC outage submittal lead time requirements. Outage requests will be reviewed, accepted, and approved by the SMUD outage coordination team, on a first come, first served basis as previously identified in this document. If the requested schedule conflicts with other outages or to reduce adverse impacts to SMUD, SMUD will make a request to coordinate a mutually agreeable modification to the proposed schedule period.

# **Facility Owner or Operator**

In general, generation facilities shall notify SMUD Power Generation Outage Coordination at least 30 days in advance of the Planned Outage start date and time. SMUD may request the Facility Owner or Operator to provide a maintenance outage schedule for a period up to five years or any revisions to the schedule for outages with a duration of 1 day or greater. Outage priority is given on a first come, first served basis upon receipt of outage notification. (See Attachment C)

# ➤ Long Range Planning

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- Upon request by SMUD contact SMUD Power Generation Outage Coordination via email
- Outage start > 30 days contact SMUD Power Generation Outage Coordination via email
- Outage Start 30 days to 7 days contact SMUD Power Generation Outage Coordination and PSO or DSO as applicable based on the interconnection, via email

# ➤ Short Range Planning

- Outage start 6 days to 3 days contact SMUD Power Generation Outage Coordination and DSO (generation impacting outages include PSO & ET&C) via email with follow up phone notification to DSO
- Outage start less than 3 days contact PSO or DSO as applicable based on the interconnection by phone and follow up with email notification (generation impacting outage include PSO & ET&C.

# **DSO** Coordination (for distribution connected generation)

Planned distribution circuit outages impacting interconnected distribution generation must be communicated to PSO. SMUD may require interconnected distribution generation to be interrupted or to reduce deliveries of Energy: (a) when necessary to construct, install, maintain, repair, replace, remove, or investigate any of its equipment or part of SMUD's transmission or distribution system or facilities; or (b) if SMUD determines that curtailment, interruption, or reduction is necessary because of an operational need or system emergency.

Distributed generation facilities are more likely to be operated or curtailed by SMUD due to reliability than generation facilities connected to SMUD's transmission system.

# ➤ Long Range Planning

- o Upon request by SMUD personal contact request SMUD personal via email
- Outage start > 30 days contact SMUD Power Generation Outage Coordination via email
- Outage Start 30 days to 7 days contact SMUD Power Generation Outage Coordination and ET&C via email

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# ➤ Short Range Planning

- Outage start 6 days to 3 days contact SMUD Power Generation Outage Coordination and PSO (generation impacting outages include PSO & ET&C) via email with follow up phone notification.
- Outage start less than 3 days contact DSO by phone and follow up with email notification (generation impacting outages include PSO & ET&C)

# 2.4 Forced Outages

See Attachment A "Defined Outage Types" for definition. All requests shall at a minimum, contain the location or facility name, identification of the equipment to be worked on; the date and time the work is to start and stop, (include switching time when required); Requestors name and phone number; the name of the Authorization holder (person doing the work) and phone number; details of work being performed; emergency return time; Clearance points (if applicable) and all details or special requirements associated with the work being performed and any other facilities/equipment affected by the work being done. Other details, i.e., will crew perform switching or are switchmen requested and where? The minimum required notification information as indicated in this document (see section 2.2 Submission & Approval)

## **Facility Owner or Operator**

Generation facility operators are obligated to report outages to SMUD as soon as practicable but not later than 2 hours from the start of an outage or facility curtailment. Distribution connected generation facilities report outages to SMUD DSO.

## **DSO** Coordination (for distribution connected generation)

SMUD DSO is obligated to report any circuit outage, switching or routine operations that impact the distribution interconnected generation facility to the Facility Owner or Operator and SMUD PSO as soon as practicable but not longer than 2 hours from the start of an outage or facility curtailment that impacts SMUD transmission operations, export/import capability or SMUD interconnected generation.

## 2.5 Business Days

SMUD Outage Coordination business days are Monday thru Friday, 0500-1500, excluding SMUD Holidays. If the requestor is unable to contact SMUD Power Generation Outage Coordination or is making a notification or request outside of business hours notify SMUD

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Power Generation via email for Planned Outages or contact either Real-time PSO or DSO for active (final approval to start granted) outages or for emergency requests that are made outside of normal office hours. Real-time PSO or DSO, will process the work as practicable. This means the outage coordination process transitions to the PSO or DSO at 1500 Monday through Friday, and all day on Weekends and Holidays.

## 2.6 Extension of Work in Progress

As conditions arise during the outage and the work that is currently being performed needs to be extended beyond the scheduled request, Real-time PSO or DSO shall be notified at the earliest possible opportunity but no later than 2 hours prior to original ETR or new ETR (which ever time is closer). Studies may be required to identify any conflicts and/or extra requirements. Extension of work may require a status change; the scheduled (*Planned*) work may be *re-identified* as *Forced*, to comply with RC requirements. The extension or earlier return of current work may cause conflict(s) and require other scheduled clearance/outages previously scheduled to be postponed/rescheduled.

Requests associated with equipment forced out of service in "Real Time" shall be handled by the Real-time PSO or DSO. All Forced Outages will be returned as expeditiously as possible.

# 2.7 Early Return to Service of Work in Progress

As conditions arise during the outage, the resource owner or operator may desire to return to service earlier than ETR. In such cases, the resource owner or operator shall notify SMUD no later than 2 hours before the new ETR. SMUD shall use reasonable efforts to accommodate the return to service as soon as practicable after such request but no later than original ETR; provided that SMUD can permit the resource to return to service.

In the case of a notice to return to service prior to the ETR, the following will occur: (i) SMUD will permit the Project to return to service, or (ii) if SMUD is not able to accommodate all or a portion of the resources Energy due to SMUD's scheduling of replacement energy prior to the original ETR or the anticipated resource Energy schedule may jeopardize reliable operations, SMUD may deny or reduce such Energy until the occurrence of the original ETR on a non-compensable basis; or (iii) if SMUD is not able to accommodate all or a portion of the resource's Energy due to SMUD's scheduling of

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replacement energy or any other economic reason at or following the new ETR, SMUD may curtail such Energy and such curtailment shall be considered a SMUD Curtailment. However, notwithstanding the prior sentence, SMUD may require resource owner or operator to interrupt or reduce deliveries of Energy pursuant to a Dispatch Down Instruction due to an event or circumstance at or following the revised (early) ETR.

# 2.8 Reliability Coordinator Notifications

SMUD Outage Coordination and Notification shall be implemented and conducted via SMUD's iTOA (SMUD's outage application) which communicates with the RC outage application by an application programming interface (API).

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# **Attachment A - Defined Outage Types**

Outage types in alphabetical order: Forced, Informational, Operational, Opportunity, Planned, and Urgent. The Outage types and their priorities are described in the sections below.

# 1.1.Outage Type Descriptions

# 1.1.1. Forced Outage

<u>Forced Outage</u> – Facility/equipment that is removed from service real-time with limited or no notice that impact SMUD transmission operations, import/export capacity, SMUD interconnected resources capability or contracted capacity.

Submission requirements for Forced outages:

- 1. Submit to WebOMS as soon as possible, the expectation is no later than 30 minutes after the Forced outage began; however, a System Operator's first priority is to address the operating issue. There may be instances where outages cannot be submitted within 30 minutes due to prevailing emergency conditions.
- 2. Forced outages that have (or are expected to have) a continuous duration of less than 30 minutes do not require submission to WebOMS. Forced outages that have a continuous duration of 30 minutes or more are required to be submitted to WebOMS even if they are submitted after the fact.
- Submissions are required to have a scheduled end time based on the best information available at the time. It is expected that submitters update the scheduled end time of a Forced outage as information becomes available.

# 1.1.2. Informational Outage

<u>Informational Outage</u> – Facility/equipment outage that is entered for informational reasons including increased situational awareness, for BA/TOP internal purposes or to satisfy the RC Data Specification where WebOMS is the mechanism for communicating the information.

Submission requirements for *Informational outages*:

- 1. No specific requirements for the Outage Coordination Process. Reference the RC Data Specification where WebOMS is the mechanism for communicating the information.
- 2. No specific requirement to include these outages within engineering studies.

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## 1.1.3. Operational Outage

<u>Operational Outage</u> – Transmission Facility/equipment that is removed from service in the normal course of maintaining optimal or reliable system conditions but remains available if needed upon short notice. (This outage type may be either planned or real-time. Work is not being performed on the equipment/facility but may be part of an operating plan.)

Submission requirements for *Operational outages*:

- 1. No work is being performed on this equipment/facility. It remains ready to return to service with short notice.
- 2. Submit to WebOMS as soon as possible. Submitters should attempt to submit *Operational* outages within 30 minutes after the Operational outage is identified if in real- time. Reference the Same-Day and Real-Time Outage Update Requirements section for more information.
- 3. If an *Operational* request is needed as a mitigation, impacted TOPs should coordinate with one another to submit the request. Note: If part of a planned outage, it should be included with that request; not separately if possible. (If not, still need to link/group outage cards in WebOMS or include a reference in the work description.)

# 1.1.4. Opportunity Outage

<u>Opportunity Outage</u> – A Facility/equipment outage that can be taken due to a change in system conditions, weather, or availability of field personnel.

Opportunity outages did not meet the short-range window requirements.

Special requirements for *Opportunity outages*:

- 1. *Opportunity* outages must be studied/evaluated by the TOP, BA and/or RC as required against other existing *Submitted* and *Confirmed* outages.
- 2. *Opportunity* outages that cause reliability issues or conflict with other *Submitted* or *Confirmed* outages of a higher priority cannot be implemented.
- 3. Opportunity outages should have an emergency return time of 8 hours or less. This allows for unforeseen conflict resolution during the OPA process and avoids cancelling planned work.
- 4. Same-day and real-time *Opportunity* outages may be allowed at the discretion of the RCSO. These outages must be coordinated and studied by the TOP and the RCSO prior to implementation.
- 5. Opportunity outages may include an operating plan at the discretion of the RC.

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Submission requirements for *Opportunity* outages:

1. Should be submitted to WebOMS with as much advance notice as possible and before OPA lock-down time, or their allowance will be at the discretion of the RCSO. Reference the OPA Window Process section for more information on the OPA process.

## 1.1.5. Planned Outage

<u>Planned Outage</u> – Facility/equipment outage with enough advance notice to meet as a minimum short range submittal requirement, but typically greater than 30-days from start of outage activity.

Submission requirements for *Planned outages*:

1. Reference Study Window Process section for submission requirements of *Planned* outages.

## 1.1.6. Urgent Outage

<u>Urgent Outage</u> – Facility/equipment that is known to be operable yet carries an increased risk of a *Forced* outage occurring. Facility/equipment remains in service until personnel, equipment and/or system conditions allow the outage to occur.

*Urgent* outages allow Facilities to be removed from service at an optimal time for overall system reliability. For *Urgent* outages, the work may or may not be able to wait for the Short-Range outage window.

Submission requirements for *Urgent* outages:

- 1. *Urgent* outages should be submitted to WebOMS with as much advance notice as possible.
- 2. An *Urgent* outage must have a justification of its urgency documented in the BA/TOP comments section of the outage submission.

# 1.2. Outage Type Priority

The outage types are listed below in their order of priority for conflict resolution purposes from top to bottom. Reasonable attempts should be made to accommodate and allow for planned outages.

- 1. Forced Outage Urgent Outage
- 3. Operational Outage
- 4. Planned Outage
- 5. Opportunity Outage
- 6. Informational Outage

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# **Attachment B: Contact Information**

SMUD Distribution System Operations (DSO):

Phone: (916)-455-1671

<u>SMUD DSO – Outage Coordination</u>:

Phone: (916) 732-2829 Email: DSOOC@smud.org

SMUD ET&C – Resource Optimization (RO)

Email: resourceoptimization@smud.org

SMUD ET&C – Real-Time Traders

Phone: (916) 732-5177

Email: rtt1@smud.org, rtt2@smud.org, RealTimeTrading@smud.org

SMUD ET&C – Day-Ahead Traders

Phone: (916) 732-5669

Email: dayaheadtrading@smud.org

SMUD Power Generation Outage Coordination (PGOC)

Phone: 916-732-4882

Email: PGOutageCoord@smud.org

SMUD Real-time Power System Operations (PSO)

Phone: 916-732-6225 (generation desk), or 916-732-6730 (back-up)

SMUD PSO Outage Coordination (PSOOC)

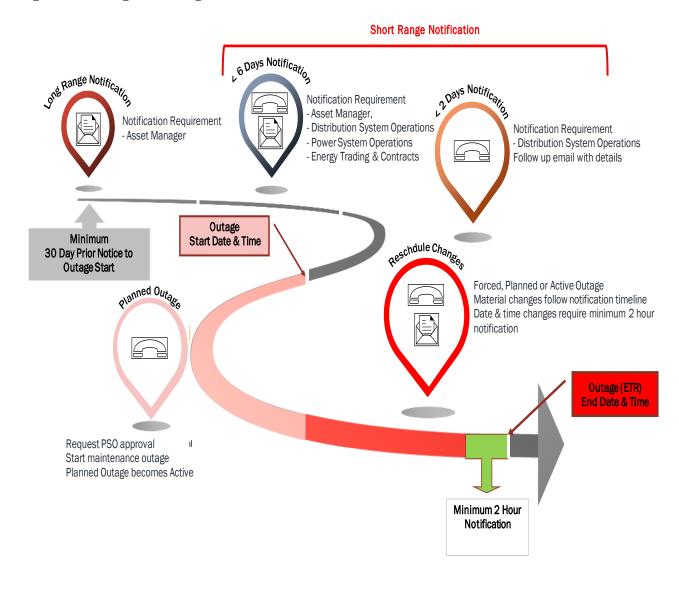
Phone: 916-732-5242

Email: PSOOC@smud.org

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# **Attachment C: Time of Notification Periods**

Figure 1. Outage Planning Notification



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Thursday Monday Tuesday Wednesday Friday Saturday Sunday Planned outages in red below need to be submitted Mon prior by 00:01 Planned Outage **Planned Outage Planned Outage Planned Outage Planned Outage Planned Outage Planned Outage** Start Date (Monday) (Tuesday) (Wednesday) (Thursday) (Friday) (Saturday) (Sunday)

Figure 2. RC Short-range Timeline (Monday Submission)

For example, using the Figure 3 above, any work scheduled during the week (Monday 8<sup>th</sup> – Sunday 14<sup>th)</sup> must be submitted to the RC by 0001 Monday 1<sup>st</sup>. Therefore, the iTOA must be submitted to PSOOC **prior to 0800 on Thursday of the previous week.** 

When submitting requests, the requestor shall consider any holidays that may fall between the date of the request(s) submission and the date the work is to begin. The requestor shall submit the request for the outage 2 or more days ahead of the stated requirements in the timeline. If the requestor has any questions, contact PSOOC at 916-732-5242.

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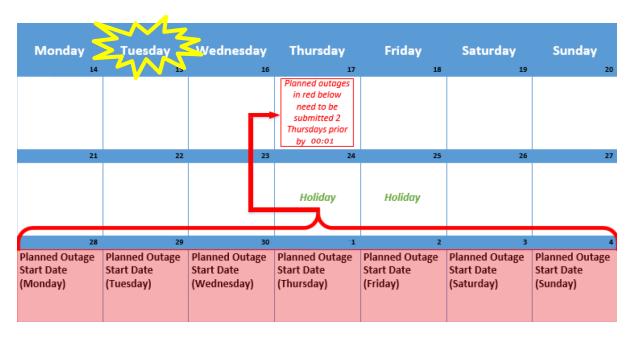
Eri lav Wednesday Monday Tuesday Thursday Saturday Sunday III TEU CIUW need to be submitted 2 Fridays prior by Holiday Planned Outage Start Date (Monday) (Tuesday) (Wednesday) (Thursday) (Friday) (Saturday) (Sunday)

Figure 3. RC Short-range Timeline – Monday Submission (Monday Holiday Example)

For example, using the Figure 4 above, any work scheduled during the week of Monday 8<sup>th</sup> – Sunday 14<sup>th</sup> (with Monday 1<sup>st</sup> being a holiday) must be submitted to the RC by 0001 Friday 29<sup>th</sup>. Therefore, the iTOA must be submitted to PSOOC **prior to 0800 on Wednesday 27<sup>th</sup>.** 

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Figure 4. RC Short-range Timeline - Monday Submission (Thursday & Friday Holiday Example)



For example, using the Figure 5 above, any work scheduled during the week Mon  $28^{th}$  – Sunday  $4^{th}$  (with Thursday  $24^{th}$  & Friday  $25^{th}$  being a holiday) must be submitted to the RC by 0001 Thursday  $17^{th}$ . Therefore, the iTOA must be submitted to PSOOC **prior to 0800 on Tuesday 15<sup>th</sup>**.

**Note:** Per RC Outage Coordination process, week is defined as Monday – Sunday.

SMUD PSOOC shall acknowledge the request within two (2) business days prior to the start of the outage.

All requests shall at a minimum, contain the location and the identification of the equipment to be worked on; the date and time the work is to start and stop, (include switching time when required); Requestors name and phone number; the name of the Authorization holder (person doing the work) and phone number; details of work being performed; emergency return time; Clearance points (if applicable) and all details or special requirements associated with the work being performed and any other facilities/equipment affected by the work being done. Other details, i.e., will the work crew perform switching or are SMUD switchmen requested and where? Use only approved abbreviations.

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If the SMUD does not receive sufficient or complete information within the times outlined, the approval of a request may be delayed or denied.

- SMUD PSOOC shall determine the need for additional information associated with the work such as schematics and diagrams.
- SMUD PSOOC shall determine the impact of the request on system operations from a "System Reliability" perspective.
- SMUD PSOOC shall coordinate all requests with adjacent BAs and other entities as applicable.
- SMUD integrated Tools for Operations Application (iTOA) will be used to submit all requests for authorization to work.
- SMUD PSOOC shall inform SMUD operations engineering and Energy Trading and Contracts (ET&C) via email if the requested outage is changed as soon as possible (e.g., outage duration, or starting/ending dates, or affected facilities, etc.).
- Email psooc@smud.org; FAX 916-732-6313; Telephone 916-732-5242
- SMUD PSOOC shall notify the RC, affected Balancing Authorities (BA) and Transmission Operators (TOP) in accordance with NERC Standard TOP-003, the RC OC Process and Guidelines for IRO-010 RC Data Specification and Collection (RC0120).

**Note**: SMUD PSOOC utilizes iTOA/webOMS to make these notifications.

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