

# Technical Workshop II on Implementing Operation and Maintenance Standards for Energy Storage Systems per Senate Bill 1383

Electric Safety and Reliability Branch  
Safety and Enforcement Division

May 30, 2024



California Public  
Utilities Commission

# Introductions

Nika Kjensli, Program Manager

Banu Acimis, Program and Project Supervisor

Lana Tran, Senior Public Utilities Regulatory Analyst

Stephen Hur, Senior Utilities Engineer - Specialist

Emmanuel Salas, Utilities Engineer

Timothy Smith, Utilities Engineer

Christopher Villalobos, Utilities Engineer

James Cheng, Retired Annuitant Utilities Engineer

Theresa Buckley, Staff Attorney

Evan Coughran, Utilities Engineer

Madonna Ebrahimof, Staff Services Analyst

# Table of Contents

- I. Workshop Purpose & Scope, Reminders, and Housekeeping
- II. Implementation Process: Proposed Changes to GO 167-B
  - A. Clarifications and Explanations in response to comments
    - 1. Section 2 – Definitions
      - a. 2.4 Emergency Response and Emergency Action Plan
      - b. 2.5.2 and 2.8.2 Qualifying Facilities
      - c. 2.5.3 Exemption
    - 2. Section 3 – MW Capacity Thresholds in Required Compliance
    - 3. Section 6.4 – Exemptions to Maintenance Standards
    - 4. Section 9.3.1 – CAISO Outage Reporting Requirements
    - 5. Section 9.3.3 – NERC GADS Transitional Compliance Period
    - 6. Section 9.3.4 – Historical Data (NERC GADS)
    - 7. Section 14 - Miscellaneous
  - B. Appendix A - Logbook Standards
  - C. Appendix C - Maintenance Standards
  - D. Appendix D - Operation Standards
  - E. Section 9.4 - Incident Reporting
- III. Next Steps

# Workshop Purpose & Scope

- The purpose of this workshop is to:
  - To open a dialog with stakeholders to discuss the Safety and Enforcement Division's (SED) Revision II to General Order (GO) 167-B, in implementing Senate Bill (SB) 1383 Operations and Maintenance Standards for Energy Storage System (ESS).
  - We carefully reviewed all of parties' comments and that review resulted in this draft.
  - Provide information on next steps and SED's implementation timeline for the ESS Operation and Maintenance Standards (O&M Standards).

# General Reminders

- Staff will present each section for discussion. Use the raise hand-function in your Webex browser for your workshop-related questions following each section.
- Staff will choose a participant to speak, and staff will answer the questions on the presented sections to our best ability.
- Please keep your questions related to the proposed changes that are discussed in the presentation.
- During the workshop there will be breaks every, one and a half hours, and an hour break for lunch.
- Note the workshop is being recorded and all presentations will be available on our website afterwards: [SB 1383 Technical Workshop](#)

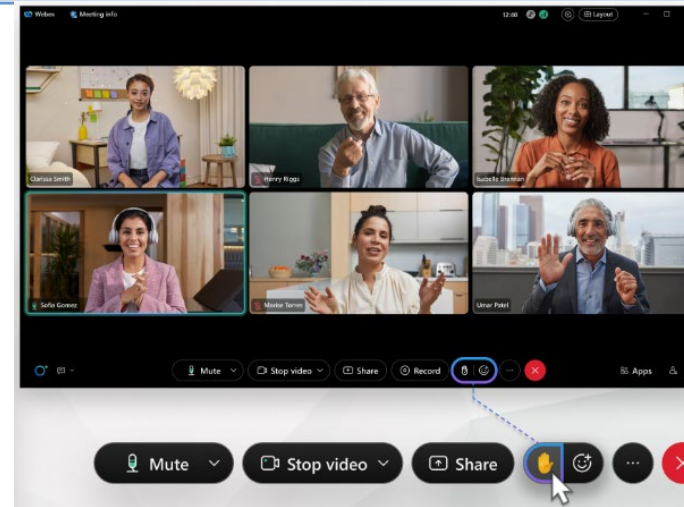
# Discussion – Ground Rules for a Productive Discussion

- Please raise your hand to speak
- Be mindful of your allotted speaking time
- Do not interrupt others as they speak
- Be respectful and professional



# Discussion - How to use the Raise Hand function

- Desktop
  - Click the hand icon on the center right bottom of the screen
  - To lower your hand, click the same button again
- Mobile
  - Click the three-dot icon on the bottom right of your screen
  - Click the hand icon on the upper-left corner of the screen
  - To lower your hand, click the same button again



# Clarifications and Updates to Proposed Changes to GO 167-B



California Public  
Utilities Commission



# Section 2 - Definitions

- **New Section 2.4 - Emergency Response and Emergency Action Plan**

## **2.4 EMERGENCY RESPONSE AND EMERGENCY ACTION PLAN**

In order to ensure the safety of employees, emergency responders, and surrounding communities, each battery energy storage facility located in the state and subject to subdivision (a) shall have an emergency response and emergency action plan that covers the premises of the battery energy storage facility, consistent with PU Code 761.3 (g).

Pursuant to PU Code 761.3 (g) (2), the emergency response and emergency action plan shall do all of the following:

2.4.1 Establish response procedures for an equipment malfunction or failure.

2.4.2 Include procedures that provide for the safety of surrounding residents, neighboring properties, emergency responders, and the environment. These procedures shall be established in consultation with local emergency management agencies.

2.4.3 Establish notification and communication procedures between the battery energy storage facility and local emergency management agencies.

2.4.4 Pursuant to PU Code 761.3 (g) (3), the emergency response and emergency action plan may do all of the following:

2.4.4.1 Consider responses to potential offsite impacts, including, but not limited to, poor air quality, threats to municipal water supplies, water runoff, and threats to natural waterways.

2.4.4.2 Include procedures for the local emergency response agency to establish shelter-in-place orders and road closure notifications when appropriate.

# Section 2 - Definition/Acronyms

- QF Exemptions to ESS and GA -Sections 2.5.2 and 2.8.2

2.8.2 ~~2.8.2~~ A qualifying small power production facility or a qualifying cogeneration facility within the meaning of ~~sections 201 and 210 of Title 11 of the federal Public Utility Regulatory Policies~~the Federal Power Act of 1978 (16 U.S.C. §§ ~~796(17)~~796 (17), ~~796(18)~~796 (18), & 824a-3) and the regulations adopted pursuant to those sections by the Federal Energy Regulatory Commission (18 C.F.R. §§ ~~292.101 to 602~~292.101-602, inclusive), provided that an electrical corporation that has a contract with a qualifying small power production facility, or a qualifying cogeneration facility, with a ~~name plate~~nameplate rating of 10 megawatts or greater, shall comply with the reporting requirements of Pub. Util. Code § 761.3 (~~d~~C) (2) (B).

https://www.ecfr.gov

Titles	Last Amended	Recent Changes
Title 1 :: General Provisions	Dec 29, 2022	
Title 2 :: Grants and Agreements	May 01, 2024	<a href="#">view changes</a>
Title 3 :: The President	Mar 17, 2015	
Title 4 :: Accounts	May 01, 2018	
Title 5 :: Administrative Personnel	May 09, 2024	<a href="#">view changes</a>
Title 6 :: Domestic Security	Apr 04, 2024	<a href="#">view changes</a>
Title 7 :: Agriculture	May 09, 2024	<a href="#">view changes</a>
Title 8 :: Aliens and Nationality	May 06, 2024	<a href="#">view changes</a>
Title 9 :: Animals and Animal Products	May 09, 2024	<a href="#">view changes</a>
Title 10 :: Energy	May 07, 2024	<a href="#">view changes</a>
Title 11 :: Federal Elections	May 02, 2024	<a href="#">view changes</a>
Title 12 :: Banks and Banking	May 06, 2024	<a href="#">view changes</a>
Title 13 :: Business Credit and Assistance	May 02, 2024	<a href="#">view changes</a>
Title 14 :: Aeronautics and Space	May 07, 2024	<a href="#">view changes</a>
Title 15 :: Commerce and Foreign Trade	May 10, 2024	<a href="#">view changes</a>
Title 16 :: Commercial Practices	May 07, 2024	<a href="#">view changes</a>
Title 17 :: Commodity and Securities Exchanges	May 01, 2024	<a href="#">view changes</a>
Title 18 :: Conservation of Power and Water Resources	Mar 08, 2024	<a href="#">view changes</a>
Title 19 :: Customs Duties	Apr 24, 2024	<a href="#">view changes</a>

## Section 2.5.3 – Definitions for Exemption

- **2.5.3 For the purposes of this General Order, ESS does not include distributed storage systems owned by individual Load Serving Entity (LSE) customers.**
- Example : a Distributed Energy Resource (DER) owned by residential or commercial customers such as battery storage for a grocery store. transit system, etc would be exempt.
- **Exemption for Generating Assets includes:**
- **2.8.3 A generation unit installed, operated, and maintained at a customer site, exclusively to serve that customer's load.**
- We do not apply this to ESSs, as this would exempt BTM ESS which may at times serve this function.

# Section 3 - Required Compliance

- **3.2 SMALL FACILITIES**

Generating Assets or ESSs smaller than one megawatt are currently exempt from enforcement of the Standards pursuant to this General Order.

Notwithstanding this exemption, Generating Asset or ESS Owners of such Generating Assets and ESSs shall cooperate in any Commission or SED investigation, inspection, or audit by permitting access to those Generating Assets or ESSs and by providing information (orally or written) or documents about the maintenance and operation of those Generating Assets or ESSs if so requested by the Commission or SED.

- **3.3 MEDIUM FACILITIES**

Generating Assets and ESSs of one megawatt or larger but smaller than 50 megawatts are exempt from Generator Logbook Standards (Hydroelectric Energy), Generating Asset and ESS Logbook Standards, Maintenance Standards, and Operation Standards. Accordingly, such Generating Assets and ESSs are subject to all requirements of this General Order except for Sections 4 (“Generating Asset and ESS Logbook Standards”), 5 (“Hydroelectric Logbook Standards”), 6 (“Maintenance Standards”), and 7 (“Operation Standards”). Notwithstanding these exemptions, such facilities must follow prudent practices as required by Sections 4.2, 5.2, 6.4, and 7.4.

## Section 3.0 Continued

- For planning purposes, we need information on MW capacity available at any given hour for all resources.
  - CAISO's NQC List <http://www.caiso.com/Documents/FinalNetQualifyingCapacityReportForComplianceYear2024.xls> .
  - LocalCapacity Requirements/LCT also counts capacity for ESS, as well as MWH, duration (see p 25 and 150): <https://www.caiso.com/Documents/Final2023LocalCapacityTechnicalReport.pdf> ).
- While MW/Hr is useful, knowing "duration", MW-Hr can be derived. No change is needed.

## Section 6.4 - Exemption

### Before

- Each facility's capacity shall be determined by summing the nameplate capacities of all units of the Generating Asset and/or ESS.

### After

- Each facility's capacity shall be determined by summing the nameplate capacities of all units of the Generating Asset and/or ESS **utilizing the same meter.**

# 9 - Information Requirements

## CHANGES FROM GO 167-B:

### ~~10~~ 9.3.1 MONTHLY OUTAGE REPORT TO ISO

- As required by Pub. Util. Code § 761.3 ~~(g)~~ (e), each Generating Asset or ESS Owner owning or operating a Generating Asset or ESS in California ~~with a rated maximum capacity of 50 megawatts or greater~~ shall provide an outage monthly report to the ISO ~~(once the ISO has announced it is ready to receive such reports)~~ that identifies any periods when the unit generating or storage facility is unavailable to produce or discharge electricity or is available only at reduced capacity. The report ~~will include~~ shall also identify the reasons for any such unscheduled unavailability or reduced capacity.

## ACTUAL ISO REPORTING REQUIREMENTS

- No monthly outage report exists
- Almost real-time reporting requirement to CAISO Outage Management System (OMS)
  - CAISO Tariff Section 9, (e.g. Forced Outages in 9.3.10.3.1)
  - CAISO Business Practice Manual (BPM) for Outage Management, Section 4.0 Outage Reporting, p.28
    - “Changes in availability of 10 MW or 5% of PMAX (whichever is greater) lasting 15 minutes or longer must be reported to the ISO. These reports are due to the ISO within 60 minutes of discovery, and are required only to include effective time and MW availability. Either the OMS Web-Client or the OMS Real-Time Availability Monitoring (which utilizes the OMS API) may be used to report availability changes. “

## 9.3.3 Transitional Compliance Period – NERC GADS

### 9.3.3 COMPARABLE DATA AVAILABILITY ~~TRANSITIONAL COMPLIANCE~~ ~~PERIOD~~

- If upon the effective date of this General Order, a Generating Asset or ESS Owner ~~is~~has not submitted design, performance, or event data concerning a Generating Asset or ESS to NERC for inclusion in GADS, the Generating Asset or ESS Owner shall ~~do so within a transitional period of 180 days of the effective date of this General Order~~ make available comparable data to SED. Upon SED's request, the Generating Asset or ESS Owner shall provide comparable data directly to SED until the Generating Asset or ESS Owner begins to submit that information to NERC and the information becomes available to SED.

- GADS is a NERC requirement, and the ESS would be submitting to NERC under NERC deadlines:
  - ESS with Solar reporting started 1/1/24 for 100 MWs and greater.
  - 20 MWs and greater will start 1/1/25.



## 9.3.4 – Historical Information (NERC GADS)

- 9.3.4 HISTORICAL INFORMATION
- Upon SED's request and for any period after January 1, 1998, a Generating Asset or ESS Owner shall provide SED and/or NERC with design, performance, or event data concerning the Generating Asset or ESS.
- NERC GADS Database maintained by NERC
- Access to historical data (GADS design, event, and performance data) when GAO or ESS submits data to NERC through this section

## 9.3.5.2-9.6.3 Outdated References

- Example:
- As required by Pub. Util. Code § 761.3(c)(1)(C), each Generating Asset Owner who owns or operates a nuclear-powered generating facility shall report on a monthly basis to ~~the Oversight Board and~~ SED all actual planned and unplanned outages of each facility during the preceding month.
- Removed outdated reference to "Oversight Board"
- Verified that SB 1383 also removed "Oversight Board" references.

Introduced by Senator Hueso

February 18, 2022

An act to amend Section 761.3 of the Public Utilities Code, relating to electricity.

### LEGISLATIVE COUNSEL'S DIGEST

SB 1383, as amended, Hueso. Electricity: storage facilities: standards and records.

Existing law vests the Public Utilities Commission with regulatory authority over public utilities, including electrical corporations. Existing law establishes an Independent System Operator (ISO) as a nonprofit public benefit corporation and, among other things, requires the ISO to ensure efficient use and reliable operation of the electrical transmission grid, as specified.

The Public Utilities Act requires the commission to implement and enforce standards for the maintenance and operation of facilities for the generation of electricity owned by an electrical corporation or located in the state to ensure their reliable operation. Existing law requires the ISO to maintain records of generation facility outages and to provide those records to the Electricity Oversight Board and the commission on a daily basis.

This bill would require the commission to implement and enforce standards for the maintenance and operation of facilities for the storage of electricity owned by an electrical corporation or located in the state. The bill would require the ISO to maintain records of storage facility outages and to provide those records to ~~the Electricity Oversight Board and~~ the commission on a daily basis.

# Section 14 - Miscellaneous

- 14.4.4 DURATION OF CONFIDENTIALITY CLAIMS

- ~~15.4.4 Duration of Confidentiality Claims.~~ A confidentiality claim, whether or not specifically acted upon by the Commission, expires on the earliest of the following dates: (a) at the end of the period specified by the Generating Asset **or ESS** Owner pursuant to ~~subsection 15.4.3.2~~ Subsection 14.4.3.2; (b) at the end of a period specified in a specific Commission ruling or decision; or (c) two years after the claim was first asserted before the Commission. To reassert the confidentiality claim, the Generating Asset **or ESS** Owner must again satisfy the requirements of this ~~subsection 15.4~~ Subsection 14.4 before the end of the confidentiality period. Staff may disclose information provided under a claim of confidentiality if the Commission has already authorized disclosure of that class of information.

- Parties commented that the two-year period is burdensome, and that confidential nature of data does not change over time.
- No change from procedure that GAOs have used to request confidentiality since 2005.
- Confidentiality of data does change over time (e.g. CAISO outage data is public after 90 days, changes of ownership, etc).

# **Implementation Process: Proposed Changes to GO 167-B Logbook Standards**



California Public  
Utilities Commission

# Logbook Standard Overview

## 1. Required Compliance for Logbook

- Generating Assets or Energy Storage Systems of greater than 50 MWs (Section 4.1)
- Less than 50 megawatts facilities are exempt (Section 4.2)

## 2. Verified Statement for Compliance

Require filing Verified Statement within 30 days of being in active service or ownership transfer.

- The identity of the Generating Asset or Energy Storage System. (Section 4.3.1)
- Confirmation of maintaining logbooks in compliance with Logbook Standards. (Section 4.3.2)
- Confirmation of logbook compliance documents prepared and available at the facility. (Section 4.3.3)
- Confirmation that logbooks are being and will be updated and maintained as necessary. (Section 4.3.4)
- Relevant information of the authorized representative of the facility including CAISO ID. (Section 4.3.5)

# Revision of Logbook Standard- Appendix A

## 3. Logbook Standards in Appendix-A

- **Control Operator Log:** Each facility shall maintain this log in chronological history of operation and maintenance activities during the shift.
- **Facility status Entry:** Part of the Control Operator Log in which each facility must record overall facility status entry at least once a day.
- **Exceptions:** Allows separate logbooks for special events such as out of service equipment and work authorization in addition to Control Operator Log.
  - Equipment Out of Service Logbook.
  - Work Authorization Logbook.
  - Work Order Management System.

# Revision of Logbook Standard- Appendix A

## 1. Change of Logbook Standards

No significant changes to 1st SED Staff Proposal.

## 2. Overview of Stakeholders' Comments.

- Logbook vs SCADA data.
- Technical terminologies and wording.
- Applicability of the standard for various, diverse resources.
- Logging requirement for operational changes.
- Work Order Management System with safety procedures.
- Retention period of logbooks and documents.

# Appendix A – Control Operator Log

## Before

10) Additionally, for [Battery Energy Storage Systems](#) but not limited to:

- a) Apparent power (kVA)/phase, real power (kW) and Volts on each phase; recorded in 15-minute intervals;
- b) HVAC operating status;
- c) BESS state of charge (SOC);
- d) BESS state of health (SOH);
- e) Ambient temperature, hourly average at hourly intervals, either from on-site measurements or a reliable climate data service;
- f) Inverter logs; and
- g) Supervisory control and data acquisition (SCADA) logs and logs historical data, service record log.

## After

10) Additionally, for [Battery Energy Storage Systems](#) but not limited to:

- a) Real power (MW), Reactive power (MVAR), Voltages (KV) on each phase, and Frequency;
- b) Current discharge and charge capability of the system (MW);
- c) State of energy such as maximum usable energy the BESS can discharge or can be charged (MWh), and charging/discharging status;
- d) Dispatch information if not ADS
- e) Critical operating parameters and alarms
- f) Major activities for operation and maintenance
- g) The functional status of communication systems and Supervisory Control and Data Acquisition (SCADA) system;
- h) Records of communication with internal and external entities
- i) Weather information.



# **Implementation Process: Proposed Updates to GO 167-B Maintenance Standards**



# MS 4 – Problem Resolution and Continuing Improvement

## Before

### MS 4 – Problem Resolution and Continuing Improvement

The company values and fosters an environment of continuous improvement, timely and effective problem resolution, and problem prevention. This is accomplished by applying industry best practices and **emerging technologies, as applicable, appropriate, and proven**, for the safety and reliability of both the GA and ESS.

## After

### MS 4 – Problem Resolution and Continuing Improvement

The company values and fosters an environment of continuous improvement, timely and effective problem resolution, and problem prevention. **This can be accomplished by applying industry best practices, lessons learned, and proven safety measures** for the safety and reliability of both the GA and ESS.

# MS 7 – Balance of Maintenance Approach

## Before

### MS 7 – Balance of Maintenance Approach

The maintenance program includes the proper balance of the various approaches to maintenance, e.g., preventive, predictive, or corrective. The approach is adequately documented with consideration of economics and reliability of equipment or components, and their effect on reliable operation of the unit. Operating experience is factored into the program. Maintenance procedures and documents should include the generation and/or ESS equipment and all components. All integral parts of delivering power to the grid (e.g. fuel supply systems, electrical switchyards, transmissions lines, **energy storage management systems**, penstocks, flumes, heating and cooling

## After

### MS 7 – Balance of Maintenance Approach

The maintenance program includes the proper balance of the various approaches to maintenance, e.g., preventive, predictive, or corrective. The approach is adequately documented with consideration of economics and reliability of equipment or components, and their effect on reliable operation of the unit. Operating experience is factored into the program. Maintenance procedures and documents should include the generation and/or ESS equipment and all components. All integral parts of delivering power to the grid (e.g. fuel supply systems, electrical switchyards, transmissions lines, **controls systems**, penstocks, flumes, heating and cooling

# MS 12 – Spare Parts, Material, and Services

## FROM EXISTING GO 167-B:

### MS 12 – Spare Parts, Material and Services

Correct parts and materials in good condition, are available for maintenance activities to support both forced and planned outages. Procurement of services and materials for outages are **performed in** time to ensure materials will be available without impact to the schedule. Storage of parts and materials support maintaining quality and shelf life of parts and materials.

## FROM PROPOSED GO 167-C:

### MS 12 – Spare Parts, Material and Services

Correct parts and materials in good condition and are available for maintenance activities to support both forced and planned outages. Procurement of services and materials for outages are **completed on** time to ensure materials will be available without impact to the schedule. Storage of parts and materials support maintaining quality and shelf life of parts and materials.

# MS 13 – Equipment Performance and Material Condition

## FROM EXISTING GO 167-B:

MS 13 - Equipment Performance and Materiel Condition

Equipment performance and materiel condition support reliable **plant** operation. This is achieved using a strategy that includes methods to anticipate, prevent, identify, and promptly resolve equipment performance problems and degradation.

## FROM PROPOSED GO 167-C:

MS 13 - Equipment Performance and Material Condition

Equipment performance and material condition support reliable **facility** operation. This is achieved using a strategy that includes methods to anticipate, prevent, identify, and promptly resolve equipment performance problems, **corrosion**, and degradation.

# MS 14 – Engineering and Technical Support

## Before

### MS 14 – Engineering and Technical Support

Engineering and technical support activities are conducted such that equipment performance is optimized for reliable facility operation. Engineering and technical support implements industry best practices, **emerging technologies**, and technical information necessary for the facility to be operated and maintained within the operating parameters defined by facility design.

## After

### MS 14 – Engineering and Technical Support

Engineering and technical support activities are conducted such that equipment performance is optimized for reliable facility operation. Engineering and technical support implements industry best practices, **lessons learned**, **proven safety measures**, and technical information necessary for the facility to be operated and maintained within the operating parameters defined by facility design.

## MS 15 – Chemistry Control

### MS 15 – Chemistry Control

Chemistry controls optimize chemical conditions during all phases of facility operation and system non-operational periods.

Optimize: to make as perfect, effective, or functional as possible

# **Implementation Process: Proposed Updates to GO 167-B Operation Standards**



California Public  
Utilities Commission



# OS 7 – Operation Procedures and Documentation

## Before

- OS 7 - Operation Procedures and Documentation Operation step wise procedures exist for critical systems and states of those systems necessary for the operation of the unit including startup, shutdown, charging, discharging, normal operation, failure detection, reasonably anticipated abnormal and emergency conditions, and restoration.

## After

- OS 7 - Operation Procedures and Documentation Operation step wise procedures exist for critical systems and states of those systems necessary for the operation of the unit including startup, shutdown, charging, discharging, normal operation, failure detection, **alarm response**, reasonably anticipated abnormal and emergency conditions, and restoration.

# OS 9 – Engineering and Technical Support

## Before

- OS 9 - Engineering and Technical Support Engineering activities are conducted such that equipment performance supports reliable facility operation. Engineering provides the technical information necessary for the facility to be operated and maintained within the operating parameters defined by facility design. **Software should be up to date for cyber security, safety, reliability, and operational purposes.**

## After

- OS 9 - Engineering and Technical Support Engineering activities are conducted such that equipment performance supports reliable facility operation. Engineering provides the technical information necessary for the facility to be operated and maintained within the operating parameters defined by facility design. **Software is up-to-date for cyber security and routinely backed-up-for safety, reliability, and operational purposes.**

# OS 11 – Operations Facilities, Tools, and Equipment

## Before

- OS 11 - Operations Facilities, Tools, and Equipment
- Facilities and equipment are adequate to effectively support operations activities, including housekeeping, tool storage, and equipment storage

## After

- OS 11 - Operations Facilities, Tools, and Equipment
- Facilities and equipment are adequate to effectively support operations activities, including housekeeping, tool storage, and equipment storage. **Physical separation, such as but not limited to, egress requirements, clearance for electrical equipment, ESS equipment shall be maintained.**
- **This was removed from OS 14 and rewritten to clarify.**

# OS 13 – Routine Inspections

## Before

- OS 13
- d) Monitoring and trending routine inspections.

## After

- OS 13
- d) Monitoring and **conducting trend analysis from** routine inspections.

# Operation Standards with no changes from SED Proposal v.1

- OS 18 – Unit Performance Testing
- OS 19 – Emergency Grid Operations
- OS 20 – Preparedness for On-Site and Off-Site Emergencies
- OS 22 – Readiness
- OS 25 - Transfer of Ownership

## OS 27 – Corrosion Control

- Where circumstances require it, the GAO or ESSO shall prepare and follow a comprehensive corrosion mitigation and control programs for all types of corrosions to identify vulnerable systems, implement appropriate corrective actions, and preventive measures to maintain facilities with designed performance condition.

# **Implementation Process: Proposed Changes to GO 167-B Incident Reporting Requirements**



## Section 9.4 Incident Reporting

### 9.4 Safety-Related Incident Reporting

Within 24 hours of its occurrence, a GAO or ESSO shall report to the Commission's emergency reporting website any incident involving a GA or ESS which meets any of the following criteria for a reportable incident. If internet access is unavailable, the GAO or ESSO may report by calling an established CPUC Incident Reporting Telephone Number designated by the Commission's SED, or its successor. Telephone notices provided at times other than normal business hours shall be followed by an email report by the end of the next business day.



# Section 9.4 Safety-Related Incident Reporting

## Before

## After

### 9.4.1 REPORTABLE INCIDENTS

Reportable incidents are those which:

- a) result in a fatality or personal injury/illness that requires medical attention from a healthcare professional and are attributable or allegedly attributable to GA or ESS facilities; or
- b) result in a report to Cal/OSHA, OSHA, or other regulatory agencies; or
- c) involve damage to property estimated to equal or exceed \$200,000. Property in this section refers to any GA or ESS and/or other property and facilities. In calculating the amount of damages, the utility shall estimate the cost to replace any damaged facilities. The cost shall also include the labor involved to replace the damaged facilities and should be broken down to show the cost of damages to both GA-owned or ESS-owned and other facilities; or

### 9.4.1 REPORTABLE INCIDENTS (continued)

Reportable incidents are those which:

- a) result in a fatality or personal injury/illness that requires **in-person** medical **treatment attention** from a healthcare professional and are attributable or allegedly attributable to GA or ESS facilities; or
- b) result in a report to Cal/OSHA, OSHA, or other regulatory agencies; or
- c) **result in involve** damage to property estimated to equal or exceed \$200,000. Property in this section refers to any GA or ESS and/or other property and facilities. In calculating the amount of damages, the utility shall estimate the cost to **repair or** replace **anyall** damaged facilities. The cost shall also include the labor involved to **repair or** replace the damaged facilities and should be broken down to show the cost of damages to both GA-owned or ESS-owned and other facilities; or

# Section 9.4 Safety-Related Incident Reporting

## Before

## After

### 9.4.1 REPORTABLE INCIDENTS (continued)

Reportable incidents are those which:

- d) are the subject of significant negative public attention or media coverage and are attributable or allegedly attributable to the GA or ESS facilities, resulting in a news story or editorial from one media outlet with a circulation or audience of 25,000 or more persons in the area, city and/or county where the incident occurred; or
- e) involve GA or ESS malfunctions or failures resulting in fires, thermal runaway, explosions, or hazardous emissions.

### 9.4.1 REPORTABLE INCIDENTS (continued)

Reportable incidents are those which:

- d) are the subject of significant negative public attention or media coverage and are attributable or allegedly attributable to the GA or ESS facilities, resulting in a news story or editorial from one media outlet with a circulation or audience of 25,000 or more persons **when the GAO or ESSO has actual knowledge of the media coverage; ~~in the area, city and/or county where the incident occurred~~**
- e) involve GA or ESS malfunctions or failures resulting in fires, thermal runaway **propagation**, explosions, hazardous emissions or reports to other agencies.

# Section 9.4 Safety-Related Incident Reporting

## New Section

### 9.4.4 Quarterly Reports

Within twenty (20) business days after the close of each calendar quarter, the GAO or ESSO shall submit to SED or its successor, a Quarterly Report for incidents that meet the criteria in Section 9.4.4.1 and 9.4.4.2. Each item in the quarterly report shall include:

- Date and time of the incident;
- Location of the incident;
- Identification of the facilities involved in the incident (by facility name, facility type, and nameplate capacity);
- Estimated amount of property damage to the facilities;
- Identification and estimated amount of property damage to other facilities (if known);
- A brief description of the incident and the damaged property;
- Name, telephone number, and email address of a GAO or ESSO contact person.

Such reports shall be submitted to [GO167@cpuc.ca.gov](mailto:GO167@cpuc.ca.gov) in a searchable spreadsheet format with a separate column for each of the categories of information listed above. SED or its successor, has the discretion to request a different format for the report and/or additional information to be included as necessary.

# Section 9.4 Safety-Related Incident Reporting

## New Section

### 9.4.4.1 Damaged Property Report

The GAO or ESSO shall submit to SED or its successor, a quarterly report of all incidents that occurred in the most recent calendar quarter and resulted in estimated property damages of \$50,000 or greater but less than \$200,000. The definition of cost is the same as defined in Section 9.4.1. The quarterly report shall only include damaged property in the most recent calendar quarter which did not meet any criteria of Section 9.4.1.

# **Section 9.4 Safety-Related Incident Reporting**

## **New Section**

### **9.4.4.2 Thermal Runaway Report**

The ESSO shall submit to SED or its successor, a quarterly report of all thermal runaway events that occurred in the most recent calendar quarter which did not result in thermal runaway propagation or meet any criteria of Section 9.4.1.

# Section 9.4 Safety-Related Incident Reporting

## 9.4.2 Initial Report

Within 24 hours of the incident occurring, the GAO or ESSO must provide the following information in its initial report to SED:

- Date and time of the incident;
- Date and time of report to the Commission's SED;
- Location of the incident;
- A brief description of the incident;
- Any injuries sustained either by a GA or ESS employee, contractor, or civilian that may have resulted from the incident;
- Identification of injured individual(s) and the nature of their injuries, as applicable;

*(continued on next page)*

# Section 9.4 Safety-Related Incident Reporting

## 9.4.2 Initial Report (continued)

- Identification of the facilities involved in the incident (by facility name, facility type, and nameplate capacity);
- Estimated amount of property damage to the facilities;
- Identification and estimated amount of property damage to other facilities; ~~(if known)~~
- Names of other agencies, equipment material suppliers, service providers, and consultants that were contacted as a result of the incident;
- Name, telephone number, and email address of a GAO or ESSO contact person;
- Nature and extent of the release of hazardous emissions, gases, surface runoff, and any other environmentally toxic substances from the GA or ESS; and
- Nature and extent of uncontrolled release of energy.
- If any of the information is not available within 24 hours, provide justification and follow-up when it becomes available.

# Section 9.4 Safety-Related Incident Reporting

## No Changes

### 9.4.3 20-Day Report

Within twenty (20) business days of a reportable incident, the GAO or ESSO shall provide designated CPUC staff along with a notification to the GO167 mailbox ([GO167@cpuc.ca.gov](mailto:GO167@cpuc.ca.gov)) a written report of the incident. The report shall include, at a minimum, the following information as well as updates to any previous information provided:

- Location of the incident, date and time of the incident, date and time the GAO or ESSO became aware of the incident, and date and time of the notice to the Commission;
- A detailed description of the nature of the incident and its cause;
- Outage ID number reported to CAISO and/or CPUC through the Power Plant Outage Reporting (PPOR) web portal if applicable, and estimated time of return to service;
- A description of the GAO's or ESSO's response to the incident and the corrective actions planned and taken to repair the facilities and/or remedy any related problems;
- A description of preventive measures planned or taken to prevent recurrence of problems on the system which may have contributed to the incident, if available;
- The name(s) and contact information of any injured person(s);



# Section 9.4 Safety-Related Incident Reporting

## No Changes

### 9.4.3 20-Day Report (Continued)

- Whether the GAO or ESSO is investigating the incident, the status of the investigation, and the status of the Root Cause Analysis;
- Identification of any agencies, equipment material suppliers, service providers, and consultants that were notified of the incident;
- A list of evidence collected by the GAO or ESSO as a result of the incident;
- A list of witnesses the GAO or ESSO identified and their contact information;
- Identification of the GA or ESS facilities/equipment that were damaged as a result of the incident, an updated amount of the cost of damages to the GA or ESS and other facilities/property that were damaged as a result of the incident; and
- Provide justification for any of the above information that is not available or submitted with the 20-Day Report. Provide a projected completion date for the missing information.

# Next Steps



California Public  
Utilities Commission

# Timeline

March 26, 2024	First workshop to present SED's Initial Staff Proposal.
April	Stakeholder comments on SED's proposed changes to GO 167-B were submitted.
May 30, 2024	A second workshop to present changes to the proposal will be held.
June 27, 2024	Comments on SED's proposed revisions to GO 167-B are due.
July	ESRB will be reviewing parties' comments and revising SED's Staff Proposal
July/ August	A draft resolution will be issued, followed by a 20-day comment period .
August/ Sept	The final resolution will be up for Commission vote.

# Implementation Timeline - Feedback from Parties

- Six parties responded to the Guiding Questions, most pertaining to timelines in Q3.
  - Q3: What are the recommended timelines to allow stakeholders sufficient time to comply with the new proposed regulatory requirements of GO 167-B: proposed Logbook Standards, Operation Standards, Maintenance Standards, Operation and Maintenance Compliance filings, Incident Reporting, and Outage Reporting requirements.
    - Parties recommended extensions of effective dates to implement proposed standards and requirements, and provide training.
    - SED has not made any changes to the GO 167 deadlines, still under consideration except Section 9.4.
    - Section 9.4 Safety-Related Incident Reporting will become effective on the third day following the mailing of the Commission's decision adopting these changes (See Section 14.11 in SED Proposal II).

# How to Provide Comments

- Email the GO 167 inbox at [GO167@cpuc.ca.gov](mailto:GO167@cpuc.ca.gov) .
- Subject Title “SB 1383 ESS Operation and Maintenance Standards Workshop II”.
- Provide your comments with any changes to SED’s Proposal for GO 167-B in redline/track changes.
- Comments are due by close of business on Thursday, June 27, 2024.

# Thank you!

Email us @:

[GO167@cpuc.ca.gov](mailto:GO167@cpuc.ca.gov)



## California Public Utilities Commission