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Purpose

- Describes the CAISO Operations uniform SLIC (Scheduling and Logging for ISO California) logging practices.
- Describes the policy, rationale, philosophy, standards, and general requirements for logging.
- The attachments to this procedure contain desk-specific details on the content and structure of the information documented in the log, which includes both log entries and outage cards.

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Importance of Accurate Logs Detailed logging of all operational communications with Generator Operators, Generator Owners, Scheduling Coordinators (SCs), other Market Participants, Transmission Operators, Balancing Authorities, and Reliability Coordinators is imperative.

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Departments such as Settlements, Compliance, Legal, and Markets depend on accurate logging to successfully perform their functions.

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Comment [C11]: I would replace all this with the above.

- Accurate Logs Provide**
- A chronological history of real time events.
 - Assistance in dispute resolution.
 - Aid in determining if financial consequences apply.
 - Help for research by various departments.
 - Backup support for various databases
 - Support in scheduling maintenance.
 - History of real time issues with internal systems.
 - Aid in determining whether a resource is compliant with FERC, NERC rules
 - NERC Standards compliance evidence

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Settlements data is derived and/or supported by the information contained in these entries; hence, discrepancies between these entries and the records of the other entities result in disputed settlement data. ¶ In addition, unexplained verbal dispatch instructions that deviate from schedules or RMR Dispatch Notices cause non-Operations CAISO personnel to attempt classification of the instructions and to base billing and settlements either upon their potentially incorrect classification or upon information gathered from other resources. ¶ Reports are also driven by the data entered in the log. Operations personnel who forecast and react to real time energy needs utilize these reports. If the data is inaccurate or missing, the ability to respond in a timely and efficient manner diminishes, which can affect the entire transmission system.

- Inaccurate Logs Render**
- An incomplete or inaccurate history of real time events and transactions.
 - Numerous hours of research at increased costs.
 - Market Participants to be overpaid, underpaid, or incorrectly charged penalties for market transactions.
 - Possible damage to business relationships.
 - Compromises in CAISO's ability to fulfill data requests from federal, state, and local entities.
 - A weak legal position (log entries and outage cards may be subpoenaed) for the CAISO.

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1. Logging Practices

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- Log Entries & Outage Cards**
- There are two types of log items:
- Log entries, used for operational events, communications and forced transmission outages of a momentary nature – i.e. facilities that test good within three minutes via SCADA or by automatic reclosure.
 - Outage Cards used for planned and forced generation outages and for planned and forced transmission outages greater than three (3) minutes long.
- Log entries and outage cards create log items in both the log and in the appropriate selected reports.

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Requirements

Because **Log entries** and **outage cards** are subpoenaable records, create log entries for all of the following:

- Operational events
- Operational communications
- Unusual or abnormal system conditions
- Any other information pertaining to the operation of the CAISO-controlled grid

Log entries should state the who, what, when, where, why, and how to accurately depict the chain of events.

Additional related information that is pertinent to a log entry previously entered, such as new data or subsequent related operations, is entered by Operations personnel in the same log entry, including:

- Actions
- Returns to normal
- Resolutions

Create a new log entry whenever an operational event or communication results in a branch group, flowgate, or path capacity change and/or a change of status to a CAISO controlled facility. Information related to an initial log entry may be added to the initial entry.

Create outage cards for all planned and forced outages of generator equipment and for all planned and sustained forced outages of transmission equipment. Include all subsequent operational events and operational communications regarding those outages on their associated outage cards.

Duplicate entries in the log and in the outage card are not necessary. Keep log events and communications in a single location. For example, log outage-related events in the outage card. If, during the course of an outage, a system event occurs, create a log entry.


At or near the end of a shift, real time personnel review open outages and close them out as applicable. Specifically, close out the No Call Outage Report at the end of each shift.

**Reports &
Report Flags**

SLIC provides the option to attach report flags to log entries. These flags identify the reports to which a log entry is assigned. It is important to attach these flags to the entries at the time of logging for accurate and complete reporting. The reporting procedures and specifications determine which log entries are flagged to which reports. Refer to Attachment G, Reports, for guidance on report flagging.

All items in a report, e.g., the CAISO Grid Operations Report (IGOR), have a support log entry that typically provides more detail.

- If it is determined that an additional event or communication needs to be added

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to a report, create a log entry to support the addition to the report.

- Once a report is generated, if further editing of a log entry is required, edit the specific report; do not change the original log entry.


**Responsibilities
for Accurate &
Complete Logs**

All dispatch positions are responsible for accurate and complete logging and perform the following:

- Review their respective logs at the end of each shift for accuracy, clarity, and thoroughness. Ensure logs are assigned to the correct reports.
- Review the entire 24-hour log for their respective position at the end of the day (midnight).

The Shift Supervisor is ultimately responsible for the accuracy and completeness of the log and performs the following:

- Ensure complete and accurate logging by personnel on his/her shift.
- Prior to finalizing the log at the end of the day, review all log entries for accuracy, completeness, and correct report assignment to the extent possible.

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2. Logging Requirements

Basic Log Entries


The following data is required in all entries. Most of the basic log entry elements are incorporated in the SLIC logging software, and the consistent structure of the log is formalized in the SLIC logging template. Completing the appropriate template is required to ensure the correct format.

Basic Log Entry Description	
a)	Date and Time <ul style="list-style-type: none"> • Time of event • Time of communication • If applicable, Effective Settlement Period in Hour Ending (HE) format or start and stop time
b)	Entity: Acronym for the other company or SCID.
c)	Contact Person: Operator or person at the entity involved (last name, first name or initial).
d)	Details: Content or details of event that is cause for report
e)	Other Areas of Potential Interest: Injuries, property damage, etc.
f)	Cross-References to other related log entries and outage cards

Free-Form Text Actions

The following requirements apply to freeform text description:

Step	Operator Actions
1	Use written format closely resembling the flow of the actual Operational Communication so the entry is a clear record of the conversation.
2	Use narrative style in third person (e.g., “Local FD stated that wildfire is approaching...”) to give a clear direction of the information flow.
3	Use complete sentences with correct grammar and standard sentence-style capitalization, not ALL CAPS.
4	Consistently format similar log entries.
5	Provide sufficient detail of the event or communication so the CAISO actions can be reconstructed after the fact, even years later.
6	Do not repeat information already covered in data fields. However, if the data fields do not provide adequate coverage of details, elaborate as needed and refer to specific data field as appropriate.

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**SLIC Log
Screen
Definition**

Figure 1 displays a SLIC Log, which includes the numbered sequence for entering data. Below the figure resides a description for each numbered entry.

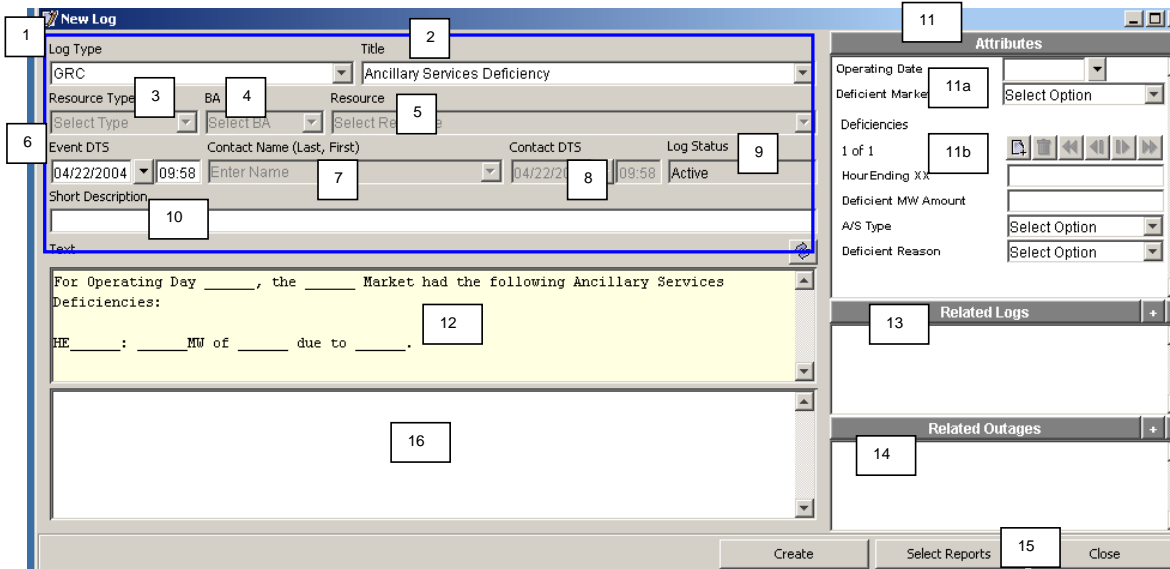


Figure 1. Anatomy of a Log

#	SLIC Log Screen Descriptions
1	Log Type. Also known as a Log Category. By categorizing log Titles it is quicker to find the template needed. Logs are categorized mainly by group function (e.g., Generation Desk, Transmission Desk, etc.). Regardless of the categorization, any person with the user role allowing for log creation can create any Log Title in any category.
2	Title. Log Titles are standardized and each template is customized according to the needs associated with that Title. The same title does not exist in more than one category; however, each Log Type has its own version of an “other” (e.g., Other Market Info, Unique Scheduling Event, etc.).
3	Resource Type. The first selection in the Common Log Data section (signified by the blue square in Figure 1). Selecting a Resource Type filters the BA and Resource fields according to the selection (e.g., selecting Line filters to the BA and Resource fields to those associated with lines). This selection can be set up as required (default value), optional, or grayed out (as shown above).



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#	SLIC Log Screen Descriptions
4	BA. List of Business Associates that reside in the Master File or Transmission Registry (for lines, interties, and stations). Selecting a BA filters the Resource field according to the selection (e.g., selecting PAC1 filters the Resource field by those resources linked to PAC1). This selection can be set up as required (default value), optional, or grayed out (as shown in Figure 1).
5	Resource. List of Resources that reside in the Master File or Transmission Registry. This selection can be set up as required (default value), optional, or grayed out (as shown in Figure 1).
6	Event DTS. <i>Event Date/Time Stamp.</i> Defaults to the time the log template is opened and must be changed by the <i>Log Creator</i> if it does not correspond to the date/time of the event being logged. This selection is always required.
7	Contact Name. List of common <i>Contact Names</i> ; however, any name can be entered if it does not appear on the list. This selection can be set up as required (default value), optional, or grayed out (as shown above).
8	Contact DTS. <i>Contact Date Time Stamp.</i> The date/time the <i>Log Creator</i> spoke with the <i>Contact</i> . This selection can be set up as required (default value), optional, or grayed out (as shown above).
9	Status. Reflects whether the log is <i>Active</i> , <i>Deleted</i> , or <i>Frozen</i> (no further modifications to the information contained in the log can be made). This field is populated by the SLIC II system. Only the <i>Log Creator</i> can delete a log, although anyone with the user role to create logs can modify any log.
10	Short Description. Brief (2-3 word) description of the information contained within the log. This field is always optional.
11	<p>Attribute Section. This section holds fields (<i>attributes</i>) that when filled-out allow for users to query specific information within SLIC II by using Microsoft Query, Excel, Access, etc. <i>Attributes</i> are not necessary for all log <i>Titles</i>. <i>Attributes</i> can be set up as required (default) or optional. If an <i>attribute</i> is required, the log cannot be saved until an entry has been made in that field. <i>Attributes</i> are set up in a variety of ways:</p> <ul style="list-style-type: none"> • As a specific data type (e.g., text, numeric, etc.) • As a free-entry field, drop down list, checkbox, or cache set • As a <i>Single Attribute</i> or part of a <i>Multiple Attribute</i> set <p>11A Single Attribute. Allows the log to capture one instance of an event. If another instance of the same event occurs, create another log.</p> <p>11B Multiple Attribute. Allows the log to capture more than one instance of an event. The set is similar to entering records in an Access database. It is possible to have both <i>Single</i> and <i>Multiple Attributes</i> set up within one log template (e.g., Hour Ending set up as a single with many other attributes set up in a multiple set). When this occurs, it allows the log to be created for a given hour (or reason, or whatever value the single attribute is) but for multiple instances within that constraint.</p>

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#	SLIC Log Screen Descriptions
12	Fixed Text. The <i>Fixed Text</i> is not editable by the <i>Log Creator</i> . The text is set up as part of the log template and pulls the <i>attribute</i> information into it to allow for easy interpretation of the attribute information.
13	Related Logs Section. If more than one log template is created surrounding the same event, they should be linked to one another through the <i>Related Logs Section</i> . Once linked, it allows a user to double click on the number and open the other log.
14	Related Outages Section. If an outage card is created surrounding the same event (or one that is a consequence of the outage) entered into a log template, they should be linked to one another in the <i>Related Outages Section</i> . Once linked, it allows a user to double click on the number and open the outage.
15	Report Selection. <i>Log Creators</i> can select which reports to tie the log to when creating the log. Default report(s) are always set up when creating the log template (at least one report).
16	Free Text. This section allows the <i>Log Creator</i> to add additional information that is not captured in the <i>attribute</i> section. Some log templates are not set up with <i>attributes</i> , and the <i>Free Text</i> is the only place information is captured. Note that other tools cannot query information entered in this section. If a particular piece of information is vital for a particular log template, it is set up in the <i>attribute</i> section.


Logging Actions	
1	Do not add information covered by an Attribute (e.g., Start Time) or Common Log Data (e.g., Contact DTS) to the Free Text section.
2	Do not add information not previously covered to the Free Text section.
3	Create logs within any category; but remember each desk is ultimately responsible for the creation of logs found under that specific category.

Comment [C12]: This should not be stated. While this section cannot be queried it is the correct place to enter additional information for clarity.

Miscellaneous Logs

The following table represents miscellaneous logs that can be entered by any of the Control Room desks, Scheduling, or by Outage Management.

Log Title	Purpose
CAISO System Trouble	Log any problems in regards to CAISO systems that affect Control Room performance, <u>neighboring systems</u> , and the normal functionality of the market.
Facilities	Log any event affecting CAISO facilities that impacts the daily Control Room operations.
Grid Event	Log any general event occurring on the Grid.
IT Incident Report	Log any event affecting CAISO IT that affects the network or computer operations.

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Shift Supervisor Logs The following table represents shift supervisor logging requirements.

Log Title	Purpose
Grid Ops Notes	<ul style="list-style-type: none"> Log meter error corrections Log any information from the Shift Supervisor desk that is relevant to the performance of the Control Room
RC- Directive	Log actions taken by the Shift Supervisor to comply with a <u>WECC RC</u> directive.

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Supporting Information

- Affected Parties**
- Grid Operations
 - Regional Transmission
 - WECC Reliability Coordinator

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Responsibilities The affected parties comply with WECC RC directives unless such actions violate safety, equipment, or regulatory/statutory requirements. Under these circumstances, immediately inform the WECC RC of the inability to perform the directive so that the WECC RC may implement alternate remedial actions, and then log the inability to perform the directive in SLIC. Refer to Attachment A for detailed requirements of all responsible parties.

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Policy The CAISO personnel with responsibility for logging shall maintain an accurate log. Operations personnel shall make log entries for every operational event and every operational communication that is known by or reported to the CAISO. Log entries shall be made clearly, completely, and uniformly so that they can be easily interpreted by all departments.

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References

CAISO Operating Procedure	G-202, Overgeneration
CAISO Operating Procedure	G-203 RMR Unit Commitment and Dispatch
CAISO Operating Procedure	S-301 Unscheduled Flow
NERC Reliability Changes	IRO-001 bookmark R8
	TOP-001 bookmark R3


Field Code Changed

Field Code Changed

Field Code Changed

Definitions

BA	Business Associate, which includes both name and SCID.
Log	The CAISO Operations Center chronological account of all operational events, operational communications, conditions, and other information pertaining to the operation of the CAISO controlled grid. All real time Operations personnel maintain logs. The log is also the primary source of information available to other CAISO departments for accounting, legal (may be subpoenaed at any time), managerial, and compliance issues. In some cases, there is no other record of this critical data or any other resource for these non-operational departments.
Log entry	A <u>n accurate</u> record of an operational event or operational communication other than an outage card.
Log item	A chronological log entry or an outage in the log containing information regarding an operational event or operational communication.
Normal Card	Used as a substitute for forced outages when units cannot respond to a dispatch due to designed operations.
Operational event	Any event involving any element, condition, operation, schedule, or occurrence related to power system operation.
Operational communication	Any communication pertinent to any element, condition, schedule, or occurrence related to power system operation.
Outage card	A record of operational information and events related to a particular planned or forced outage of facilities and/or equipment such as series capacitors or generator boilers with the exception of momentary forced outages (facilities that test good within three minutes via SCADA or by automatic reclosure) to transmission facilities, which are simply logged.
Pmin Re-rate Card	Only used in real-time to temporarily increase the resource PMIN used by the market due to a physical problem.
Ramp Rate	Only used in real-time to make changes to a ramp rate bid in the market due to a physical problem.
SLIC	Scheduling and Logging for ISO California program. It includes Outage Coordination functions including outage cards. It also includes various report making functions. It makes use of dropdown menus and input fields in formal templates to assist Operations personnel in the quick creation of clear and uniform log items.

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Version History

Version	Change	By	Date
1.0	Drafted		
2.0	Annual Review		
3.0	Changed for SLIC II		
3.1	Minor Changes		
3.2	Section 1, OSMOSIS replaced with OOS/OOM too		
3.3	Changes to responsibilities		
3.4	Adjusted Responsibilities to coincide with NERC standards.		
4.0	Audited and reorganized D-50 & its attachments.		
5.0	MRTU Changes		
5.1	Minor changes		

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Technical Review


Reviewed by Content Expert	Signature	Date
Ops Support		
Regional Transmission		
Grid Ops		
Market Operations		
Scheduling		

Approval

Approved By	Signature	Date
Director of Grid Operations		

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* Signed previous version only, changes to this version were minor and did not require full signature approval.

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Appendix

Attachment A: [Transmission Desk Logging](#)

Attachment B: [Generation Desk Logging](#)

Attachment C: [Scheduling Logging](#)

Attachment D: [GRC Logging Standards](#)

Attachment E: [SLIC Outage Logging](#)

Attachment F: [California/Mexico Reliability Coordination Logging](#)

Attachment G: [Reports](#)

Attachment H: [SLIC User Guide](#) (available in electronic version only through SLIC Help function, Intranet, & Documentum)
