LUMA

Plant Level Communications

PLANT LEVEL COMMUNICATIONS

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1.0 Executive Summary

This Plant Level Communications Procedure **shall** be used to develop a separate accepted operating procedure for each interconnected facility in the Bulk Power System.

2.0 Objective/Scope/Roles

2.1 Objective

This procedure directs both parties, LUMA system operations and the Interconnected Facilities in the development of a Plant Level Communications procedure to ensure proper communications related to any commercial arrangement are established and maintained

2.2 Scope

The scope of this procedure defines the steps to develop clear Plant Level Communications procedures and **shall** provide the steps to establish the methods of communication, protocols, facility scheduling, energy dispatching, capability dispatching, the transfer of data and the management of emergency activities. The Interconnected Facilities and System Operations **shall** follow this procedure prior to commercial operation.

2.3 Roles

2.3.1 Manager Energy Management (MEM)

The MEM **shall** manage the activities of the development of the Plant Level Communications procedure and the accepted operating procedure including assignments and approval.

2.3.2 Interconnected Facility Representative (IFR)

The IFR is the main point of contact for development of the Plant Level Communications procedure including accepted operating procedures including assignments and approval.

3.0 Procedure

This procedure will document agreement on the following topics and additional topics as the specific Interconnected Facility capabilities allow.

3.1 Identify Representatives

The IFR and the MEM **shall** identify personnel to fulfill the roles listed in the following table.

Designated Contacts

Company	Position Title	Phone	Fax
Facility	Generator Facility Operator (GFO)	TBD	TBD
Facility	Generator Facility Operator Back-up (GFOBU)	TBD	
System Operations	Senior Shift Engineer (SSE)	TBD	TBD
System Operations	Shift Engineer (SE)	TBD	TBD

3.2 System Operation Procedures

The MEM **shall** provide the IFR access to the applicable System Operating procedures that the Interconnected Facility **shall** be required to follow upon approval of the Plant Level Communication procedure and accepted operating procedures. The list of applicable procedures **Shall** be made available to the IFR (see Appendix C).

3.3 Communication Procedure

The MEM and the IFR **shall** develop language in the Plant Level Communications procedure, including accepted operating procedures, that addresses communication mechanisms. These communications **shall** include, but are not limited to:

- Provisions to monitor all modes of communication.
- Direct, non-public, voice communication between System Operator and Interconnected Facilities.
- Direct data communication between System Operator and Interconnected Facilities.
- Each of the Interconnected Facilities **shall** manage, alarm, test and/or actively monitor vital telecommunication facilities and equipment not used for routine communication.
- All email communication related to the operation of Interconnected Facilities **shall** be secured and classified as proprietary.
- Data Transmissions
- Electronic Transmission
- Public Communications
- Electronic Data Capture
- Electronic Data Loggers

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3.4 Declaration of Capabilities

The execution of a Power Purchase Agreement **shall** trigger the requirement under the Plant Level Communications procedure and the accepted operating procedures for the ICF GFO to inform the System Operator of the Interconnected Facility capabilities.

3.5 Dispatch Capability

The execution of a Power Purchase Agreement **shall** trigger the requirement under the Plant Level Communications procedure and the accepted operating procedures for the ICF GFO to inform the System Operator of the Interconnected Facility dispatch capability.

3.6 Ancillary Services

The Plant Level Communication procedure and accepted operating procedures will identify how the ICF GFO **shall** provide the System Operator of the Interconnected Facility capabilities as they relate to; reactive power, regulation, Automatic Generator Control, Spinning reserves capability, emergency dispatch capability, Black Start capability and additional ancillary services available.

3.7 Scheduling

The ICF GFO and System Operator will agree on communication of and limits of capability scheduling.

3.8 T&D System Operation and Communication

System Operator **shall** communicate T&D related

3.9 Emergency Communications

The MEM **shall** ensure the IFR is aware of the Emergency Response Plan and their responsibilities during emergency events.

3.10 Interconnected Facilities Emergency Reporting Requirements

The IFR **shall** establish emergency reporting protocol and required actions to respond to an Interconnected Facility Emergency within the Plant Level Communications, including accepted operating procedures. Examples of site/facility emergency events are:

- Death
- Major Injury
- Homeland Security Violation or breach of security
- Risk of permit or license Loss
- Major equipment failure
- Fuel supply interruption

3.11 Sabotage

The MEM and the IFR **shall** ensure there are provisions to address Sabotage events included in the Plant Level Communications, including accepted operating procedures.

3.12 Three-Part Communication

The MCCO and IFR **shall** ensure that there is a policy to use the three-part communication protocol in all modes of communication.

3.13 Data Retention and Storage Requirements

MCCO and IFR **shall** prepare and implement a backup and archiving plan which minimizes the loss of critical data upon the occurrence of any hardware failure or a catastrophic system loss.

Appendix A: Glossary

Term	Definition
Black Start	A black start is the process of restoring an electric power station or a part of an electric grid to operation without relying on the external electric power transmission network to recover from a total or partial shutdown.
Bulk Power System	Refers to all transmission and distribution system and related facilities, equipment and other assets related to the transmission and distribution system.
Reactive Power	Reactive power is a term for the imaginary (non-real) power from inductive loads like motor or capacitive loads (less common). It is generally measured in units of VARs (volt-amps reactive). It is used to support imbalances in a bulk power system

Appendix B: Procedure Cross-Reference Matrix

Procedure Reference Matrix, Part 1 of 2	Short Term Load Forecasting	New Facility Interconnection	Resource Adequacy Planning	Interconnected Facility Retirements	Legacy T&G Demarcation	Interconnected Facilities Capabilities	Black Start	Telemetry	Cybersecurity	Root Cause Analysis & Corrective Actions	Public Reporting	Performance Reporting	Stakeholder Management	Policy on Reserves
Short Term Load Forecasting														
New Facility Interconnection														
Resource Adequacy Planning														
Interconnected Facility Retirements														
Legacy T&G Demarcation														
Interconnected Facilities Capabilities														
Black Start														
Telemetry														
Cybersecurity														
Root Cause Analysis and Corrective Actions														
Public Reporting														
Performance Reporting														
Stakeholder Management														
Policy On Reserves														
Reducing Risk Exposure to Contingencies														
Critical Loads														
Load Shedding														
Contingency and System Operating Limits Response														
Energy Dispatch, Scheduling and Merit Order														
Transmission Operations														
Plant Level Communications														
Balancing Frequency and Voltage														
Demand-Side Resources (Non-Wire Alternatives)														
System Operator Training														
Scheduling Planned T&G Outages														
Forced Outage														
Outage Execution and Closeout														
Emergency Response Execution														
Emergency Response Drills														

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Procedure Reference Matrix, Part 2 of 2	Reducing Risk Exposure to Contingencies	Critical Loads	Load Shedding	Contingency & System Operating Limits Response	Energy Dispatch, Shedding & Merit Order	Transmission Operations	Plant Level Communications	Balancing Frequency & Voltage	Demand Side Resources (NWA)	System Operator Training	Scheduling Planned T&G Outages	Forced Outage	Outage Execution & Closeout	Emergency Response Execution	Emergency Response Drills
Short Term Load Forecasting															
New Facility Interconnection															
Resource Adequacy Planning															
Interconnected Facility Retirements															
Legacy T&G Demarcation															
Interconnected Facilities Capabilities															
Black Start															
Telemetry															
Cybersecurity															
Root Cause Analysis and Corrective Actions															
Public Reporting															
Performance Reporting															
Stakeholder Management															
Policy On Reserves															
Reducing Risk Exposure to Contingencies															
Critical Loads															
Load Shedding															
Contingency and System Operating Limits Response															
Energy Dispatch, Scheduling and Merit Order															
Transmission Operations															
Plant Level Communications															
Balancing Frequency and Voltage															
Demand-Side Resources (Non-Wire Alternatives)															
System Operator Training															
Scheduling Planned T&G Outages															
Forced Outage															
Outage Execution and Closeout															
Emergency Response Execution															
Emergency Response Drills															

Appendix C: Procedure List

SOP Procedure 1_Short Term Load Forecasting
SOP Procedure 2_New Facility Interconnection
SOP Procedure 3_Resource Adequacy Planning
SOP Procedure 4_Interconnected Facility Retirements
SOP Procedure 5_Legacy T&G Demarcation
SOP Procedure 6_Interconnected Facilities Capabilities
SOP Procedure 7_Black Start
SOP Procedure 8_Telemetry
SOP Procedure 9_Cybersecurity
SOP Procedure 10_Root Cause Analysis and Corrective Actions
SOP Procedure 11_Public Reporting

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SOP Procedure 12_Performance Reporting
SOP Procedure 13_Stakeholder management
SOP Procedure 14_Policy On Reserves
SOP Procedure 15_Reducing Risk Exposure to Contingencies
SOP Procedure 16_Critical Loads
SOP Procedure 17_Load Shedding
SOP Procedure 18_Contingency and System Operating Limits Response
SOP Procedure 19_Energy Dispatch, Scheduling and Merit Order
SOP Procedure 20_Transmission Operations
SOP Procedure 21_Plant Level Communications
SOP Procedure 22_Balancing Frequency and Voltage

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SOP Procedure 23_Demand-Side Resources (Non-Wire Alternatives)
SOP Procedure 24_System Operator Training
SOP Procedure 25_Scheduling Planned T&G Outages
SOP Procedure 26_Forced Outage
SOP Procedure 27_Outage Execution and Closeout
SOP Procedure 28_Emergency Response Execution
SOP Procedure 29_Emergency Response Drills

Note: Procedures as of 06/01/2021. This list will be updated when a new procedure is added.

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