LUMA

Cybersecurity

CYBERSECURITY

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1.0 Executive Summary

This procedure directs System Operations OT Coordinator on all Cybersecurity matters that relate to the installation of new or addition of interconnection Remote Terminal Units that communicate to System Operations via an electronic interface.

2.0 Objective/Scope/Roles

2.1 Objective

Business and operational demands for managing and maintaining a reliable Bulk Power System increasingly rely on cyber assets supporting critical reliability functions and processes to communicate with each other, across functions and organizations, for services and data. This results in increased risks to these cyber assets.

The risk of procedural or informational gaps is minimized by ensuring all parties are reliant on the same governing procedures and critical documents regarding cybersecurity. This procedure serves as a reference point for all System Operations matters regarding cybersecurity.

2.2 Scope

This procedure applies to the connectivity between System Operations and any Interconnected Facility or Transmission Asset. This includes any system to provide telemetry for the Energy Management System system or OSISoft Pi system. It also includes any telemetry infrastructure, Remote Terminal Units, communications devices or protocols, data connectivity, and other devices within Interconnected Facilities that may fall under System Operator's data security plan.

2.3 Roles

The following roles are responsible for compliance with LUMA's Data Security Plan for their respective organizations:

2.3.1 Manager, Control Center Support (MCCS)

Manages the request and approval process. Manages the deployment and commissioning process, sign-off and closeout requests.

2.3.2 System Operations OT Coordinator

Manages the approval process of each new point of telemetry for compliance with LUMA's overall Data Security Plan.

2.3.3 Generator Facility Operator Designee (GFOD)

Responsible for notifying LUMA personnel of all changes or additions to inputs for existing or newly added Remote Terminal Units (RTUs).

2.3.1 LUMA Transmission Asset Requestor (LTAR)

Responsible for notifying LUMA personnel of all changes or additions to inputs or newly added RTU's.

3.0 Procedure

System Operations OT Coordinator **shall** supervise operations in accordance and compliance with the LUMA Data Security Plan and **shall** direct all Interconnected Facilities personnel to refer to and operate in accordance and compliance with the LUMA Data Security Plan. All interfaces to LUMA System Operations electronic data, telecommunication and other electric, electronic and wired interfaces with LUMA **shall** comply with LUMA written cybersecurity requirements.

This procedure related to the Interconnected Facilities only and consider either a modification to an existing Interconnected Facility or a new electrically Interconnected Facility.

With respect to a new Interconnected Facility:

- The GFOD shall refer to the attached New Interconnection Flow Chart attached for the procedure to install a new RTU for an Interconnected Facility.

With respect to an existing Interconnected Facility:

- The LTAR shall refer to the Modification to RTU Flow Diagarm to modify an existing RTU for an Interconnected Faciliy or Transmission Substation.

This Procedure shall be used in conjunction with the Telemetry Procedure.

Appendix A: Glossary

Term	Definition
Bulk Power System (BPS)	The transmission and distribution system and related facilities, equipment and other assets related to the transmission and distribution of electric power
Cyber Asset	Programmable electronic devices, including the hardware, software and data in those devices.
Energy Management System	OT tool used by BPS operators to monitor, control, and carry out optimal management of the energy on the system.
Interconnected Facility	Any power facility that is connected to the Bulk Power System
Operational Technology (OT)	Hardware and software that detects or causes a change, through the direct monitoring and/or control of industrial equipment, assests, processes and events
Remote Terminal Unit (RTU)	RTUs in SCADA systems is a microprocessor-based electronic device present at geographically distributed remote locations in order to facilitate communication of various devices within the distributed SCADA system.
Transmission Asset	Any Transmission Element on the 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								X						
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															
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Root Cause Analysis and Corrective Actions															
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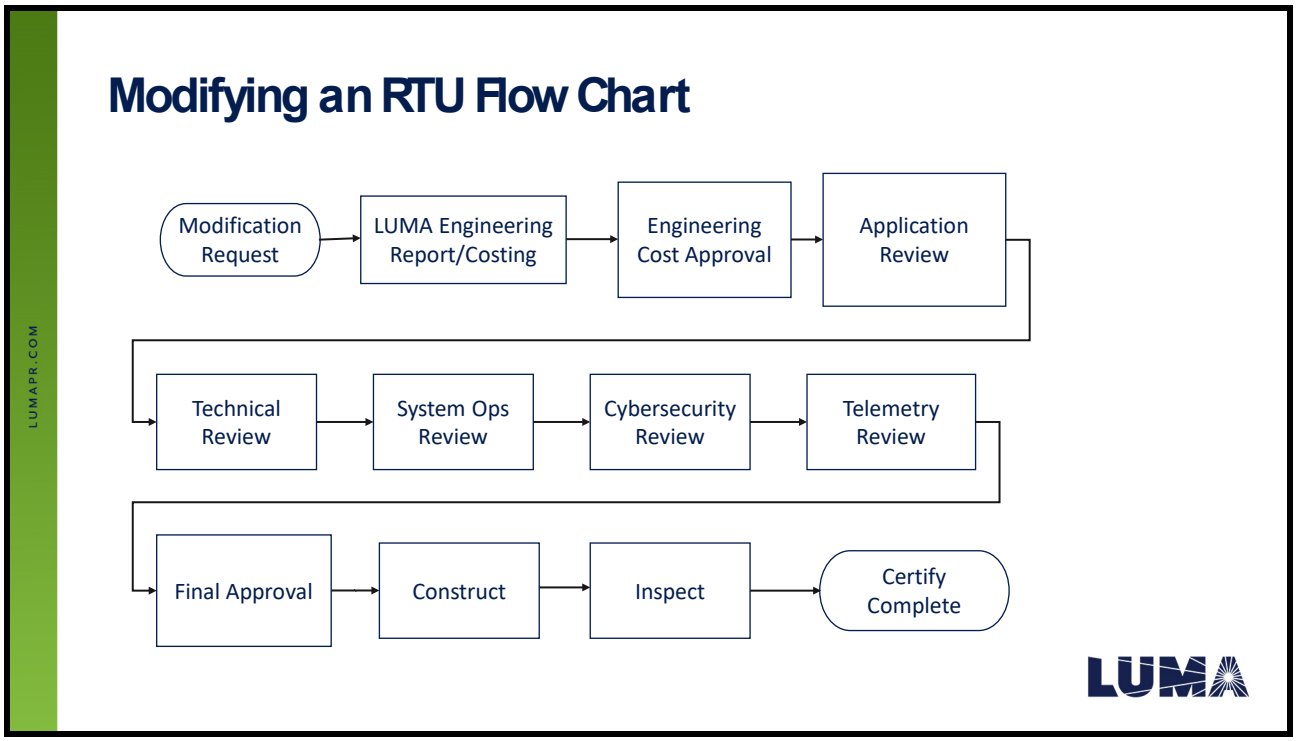
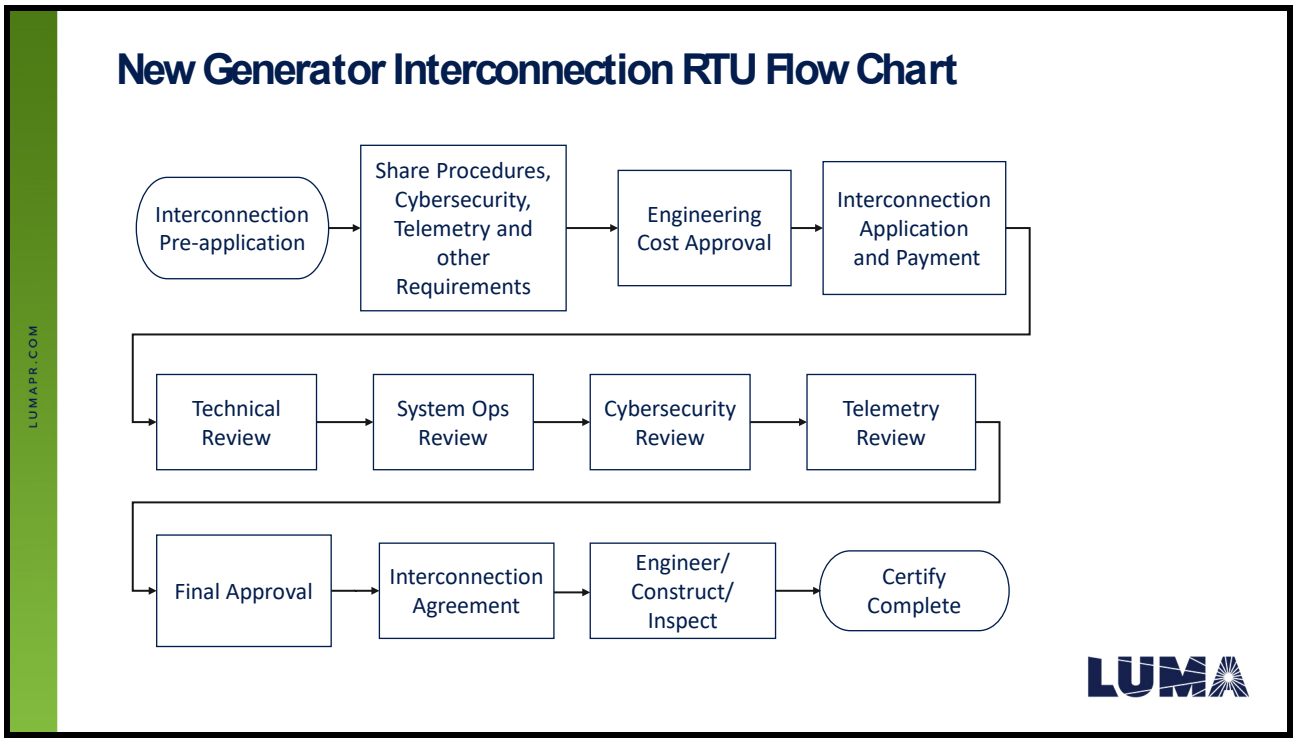
Demand-Side Resources (Non-Wire Alternatives)															
System Operator Training															
Scheduling Planned T&G Outages															
Forced Outage															
Outage Execution and Closeout															
Emergency Response Execution															
Emergency Response Drills															

Appendix C: Modifying An Existing Interconnected Facility



Appendix D: New Interconnected Facility



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