LUMA

INTERCONNECTED FACILITY RETIREMENTS

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Contents

1.0 Executive Summary 3

2.0 Objective/Scope/Roles 3

2.1 Objective 3

2.2 Scope 3

2.3 Roles and Responsibilities 4

3.0 Procedure 5

3.1 Plant Retirement Worksheet 5

3.2 No Reliability Issue Identified 6

3.3 Reliability Issue Identified 6

3.4 Economic or Congestion Impact Identified 8

Appendix A: Glossary 9

Appendix B: Plant Retirement Worksheet 10

Appendix C: Plant Retirement Flow Chart 11

Appendix D: Procedure Cross-Reference Matrix 12

1.0 Executive Summary

This procedure defines the preparatory steps necessary to retire existing Interconnected Facilities including proper scheduling, and notifications in accordance with prudent utility practices and the Integrated Resource Plan to safeguard the viability of the Bulk Power System while complying with the laws of Puerto Rico and the IRP.

2.0 Objective/Scope/Roles

2.1 Objective

Management of Interconnected Facility retirements and the transition to replacement resources. This procedure provides the steps to execute the complex process and coordination between System Operations and resource planners as well as market operators and regulators.

This procedure defines the required data, interfaces with stakeholders and integration of the intended shut down of an existing Interconnected Facility with system load forecasts. This procedure addresses the required studies that assess the impact to the bulk power system of such retirements.

2.2 Scope

This Procedure defines the steps and timeline for the LUMA Bulk Power System (BPS)Interconnected Facility retirement process.

2.3 Roles and Responsibilities

The following are key roles for the request submission and approval of Interconnected Facility retirements.

2.3.1 Lead Engineer Energy Planning (LEEP)

The LEEP is responsible for directing the Lead Engineer Energy Balancing (LEEB) and the Engineer, Energy Planning (EEP) to conduct the studies necessary to implement this procedure

2.3.2 Manager, Energy Management (MEM)

The (MEM) is responsible for reviewing all studies for plant retirement and coordinating the results with the Manager, Control Center Operations (MCCO) to implement this procedure.

2.3.3 Manager Control Center Operations (MCCO)

The MCCO is responsible to disseminate all proposed plant retirement information to transmission operators and coordinate final implementation of this procedure.

3.0 Procedure

Follow the steps below to retire a facility from the BPS.

3.1 Plant Retirement Worksheet

The Interconnected Facility Owner shall complete the Plant Retirement Worksheet (see Appendix B) no less than 2-years in advance of the planned retirement date (see Appendix C, Plant Retirement Flow Chart).

3.1.1 Notice

An Interconnected Facility Owner, or designated agent, who wishes to retire a unit from LUMA operations must initiate a retirement request in writing to the Manager, Energy Management no less than 2-years in advance of the planned retirement date.

3.1.2 Black Start Owners

Owners of Black Start resources **shall** also be required to provide no less than 2-years' advanced notice in writing to the MEM.

3.1.3 LUMA Regulatory

LUMA Regulatory Department **shall** notify LUMA Planning of the request received from the Interconnected Facility Owner or designated agent and initiate preliminary analysis of the request.

3.1.4 LUMA's Energy Management Department

LUMA's Energy Management Department **shall** perform an initial analysis of the request.

3.1.5 Summer Peak Analysis

LUMA Planning **shall** perform standard analysis for the affected summer peaks.

3.1.6 Maintenance Considerations

LUMA's Energy Management Department **shall** also identify maintenance and appropriate sensitivity analyses to be performed.

3.1.7 System Impact Analysis

LUMA's Energy Management Department **shall** review planned system reserve levels and conduct appropriate system impact analysis.

3.2 No Reliability Issue Identified

3.2.1 No Reliability Issues Identified

If the MEM concludes that there are no reliability issues identified in section 3.1, the Interconnected Facility can retire as soon as practical, and a date is agreed upon and communicated to the Director of System Operations (DSO). MEM **shall** keep LUMA Regulatory department informed of communications with Interconnected Facility Owners.

3.2.2 Black Start Considerations

If the unit is a Black Start resource, MEM **shall** identify feasible alternative sites, and **shall** communicate the retirement impact to the (DSO).

3.3 Reliability Issue Identified

3.3.1 Reliability Issue

LUMA **shall** notify the Interconnected Facility Owner, or its designated agent, within 30 days of the original retirement request if a reliability issue has been identified. This notice **shall** include the specific reliability impact resulting from the proposed retirement of the unit, as well as an initial estimate of the period of time it will take to complete the Transmission upgrades necessary to alleviate reliability impact. MEM **shall** keep LUMA Regulatory department informed of communications with Interconnected Facility Owners.

3.3.2 Repair Timeline

If repairs would be required to keep or return the unit to operation, the Interconnected Facility Owner or designated agent, **shall** provide LUMA with an updated estimate of the period of time within 60 days of the original retirement request. The MEM **shall** refer cost indications to the LUMA Regulatory department. The outage request **shall** comply with the Scheduled Outage Procedure.

3.3.3 Time to Complete

LUMA **shall** provide an updated estimate of the period of time it will take to complete the Transmission upgrades necessary to alleviate reliability impact within 75 days of the original retirement request.

3.3.4 LUMA Approval

LUMA shall submit a recommendation to the PREB to utilize the Unit as a Reliability Must Run (RMR) Unit indicating the period of time would the RMR services would be required.

LUMA's submittal to PREB shall include economic justification related to the RMR classification and define the system impacts and replacement resources for each case submitted to PREB

Upon PREB's concurrence, LUMA **shall** inform the Interconnected Facility Owner, or designated agent, the full details of the transmission upgrades that **shall** be required of the Interconnected Facility as a pre-requisite to allow the unit to retire. Such communication **shall** be provided within 90 days of original retirement request.

3.3.5 Black Start Considerations

If the unit is a Black Start resource, Manager Energy Management **shall** identify feasible alternative sites, and **shall** communicate the retirement impact to the Director of System Operations and to the Regulatory Department.

3.4 Economic or Congestion Impact Identified

3.4.1 Congestion Risk

The Interconnected Facility **shall** be retired as soon as practicable, if LUMA identifies no economic or congestion impact (e.g., potential for additional congestion due to the retirement). Communication of the retirement date **shall** be shared with all stakeholders.

3.4.2 Request to Operate Costs

If the request for retirement is not feasible due to BPS constraints, and that the LUMA Regulatory department has obtained necessary approvals or waivers from regulatory bodies, the MEM **shall** request that the facility operate past its desired retirement date. The MEM **shall** review cost calculations with LUMA Regulatory department and a contractual agreement which embodies the extension's terms and conditions **shall** be negotiated with the Interconnected Facility Owner by the Regulatory Department.

LUMA's shall submit the extension terms and conditions to PREB including economic justification related to the RMR classification and replacement resources for each case submitted to PREB.

3.4.3 Black Start Considerations

If the unit is a Black Start resource, Manager Energy Management **shall** identify feasible alternative facilities capable of providing Black Start capability (if any) and **shall** communicate the retirement impact to the Director of System Operations and to the Regulatory Department.

Appendix A: Glossary

Term	Definition
Reliability Must Run (RMR)	A generating unit that is slated to be retired by its owners but is needed to be available for reasons of reliability. Typically, it is requested to remain operational beyond its proposed retirement date until additional resources or other system upgrades are completed.

Appendix B: Plant Retirement Worksheet

OPERATIONAL PLANT RETIREMENT REQUEST FORM

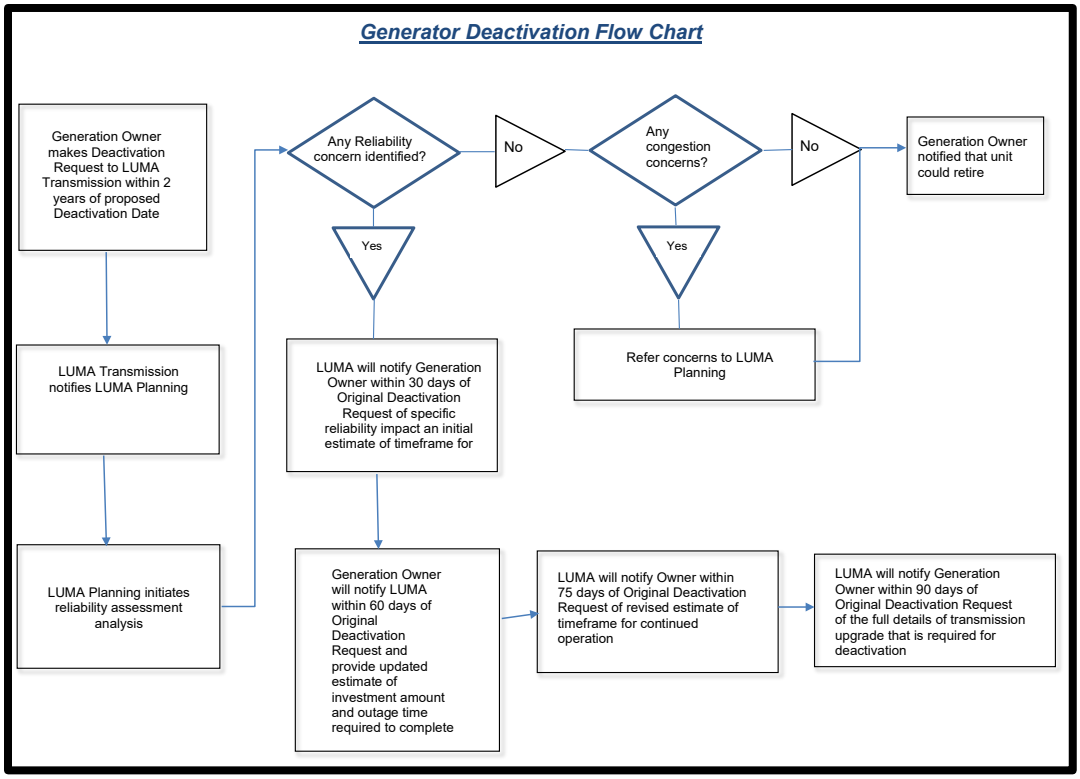
Technology: **BOILER**

Seller provides the following information:

Filing Date:	
Generating Unit Name:	Aguirre 1

Nameplate Capacity	
Nameplate Capacity (MW):	
	450.00
Plant Reitrement Notification Data	
Retirement Request Date (minimum 2 years)	
Retired or Mothballed	
Project Investment necessary to continue Operations	
Plant Retirement Capabolity Data	
Minimum Load, PMin (MW):	**250.00**
PMax (MW):	**350.00**
AGC Available	Yes
Regulation Up MW	
Regulation Down MW	
Spinning Reserve MW	

Appendix C: Plant Retirement Flow Chart



Appendix D: 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			X	X	X	X	X	X						X
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														
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														

INTERCONNECTED FACILITY RETIREMENTS

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				X		X					X				
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															
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Emergency Response Drills															

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