Demand-Side Resources (Non-Wire Alternatives)

DEMAND-SIDE RESOURCES (NWA)

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APPROVED BY:

Name / Title _Raphael Gignac / Director System Operations

Signature _____

REVIEWED BY:

Title _____

Signature _____

Title _____

Signature _____

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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 6

3.1 Demand-Side Resource Capability Assessment 6

3.2 Dispatching the Demand-Side Resource 8

3.3 Supply Contracts and Administration 9

Appendix A: Glossary 10

Appendix B: Procedure Cross-Reference Matrix 11

Appendix C: Categorization of DRs 13

DEMAND-SIDE RESOURCES (NWA)

1.0 Executive Summary

This procedure defines the communication requirements between the Transmission Operations Center and the Demand-Side Resource as well as the reporting requirements of the Transmission Operations Center to stakeholders.

2.0 Objective/Scope/Roles

2.1 Objective

To prepare for the implementation of Demand-Side Resource programs available for dispatch by detailing the specific requirements of those programs to ensure that they are predictable, reliable, and transparent resources to efficiently manage the grid. This capability **shall** assist the Transmission Operations Center to increase generation capacity, reduce load, and/or deliver ancillary services to the Bulk Power System.

2.2 Scope

The Transmission Operations Center evaluates and implements Demand-Side Resources on a per-request basis. This procedure applies to new demand-side resources to be evaluated and when accepted, integrated into the Bulk Power System. The procedure covers the rules for integrating, operating, communicating and, eventually, retirement from the Bulk Power System. The procedure relates only to resources that **shall** be dispatched from the TOC. The procedure does not cover the development of the regulatory framework and/or procurement process for sourcing participants.

2.3 Roles and Responsibilities

The following roles and responsibilities are included in this procedure.

2.3.1 Business Transformation Director (BTD)

The Business Transformation Director is the System Operator's main contact for the initiation of a new demand-side resource.

2.3.2 Project Director (PD)

The PD **shall** be the point of contact for requests for the analysis of BPS impact, operability, and location of Demand-Side Resources on the BPS. The PD **shall** support the BTD as needed for Stakeholder or Technical Conferences to represent the TOC as required.

2.3.3 Manager Control Center Operations (MCCO)

The Manager of Control Center Operations **shall** oversee the implementation of new dispatchable Demand side resources into the BPS. MCCO **shall** ensure that new resources are well understood by the TOC and that communication tools and dispatch rules are consistently applied.

2.3.4 Manager, Energy Management (MEM)

The Manager of Energy Management **shall** coordinate load-flow studies and other ad-hoc studies upon request from the Project Director as relates to a Demand-Side Resource or Non-Wire Alternative request.

2.3.5 Shift Engineer (SE)

The Shift Engineer calls on the Bulk Power System available resources for preparing and executing the daily dispatch plan. The Shift Engineer is responsible for executing the dispatch plan while maintaining the Bulk Power System's Frequency and Voltage within their operating limits.

DEMAND-SIDE RESOURCES (NWA)

2.3.6 Demand-Side Resource Contact (DSRC)

The Demand-Side Resource contact is the person responsible for communicating with the Transmission Operation Center personnel on operational issues related to the resource's lifecycle. A Demand-side resource contact can represent a single resource or alternatively, a group of resources that have been aggregated.

2.3.7 Supply Contracts and Administration Contact (SCAC)

The SCAC within the Regulatory department is responsible for all commercial and contractual discussions with Demand-Side Resource contacts.

3.0 Procedure

3.1 Demand-Side Resource Capability Assessment

The PD **shall** serve as spokesperson for the TOC and advocate for visibility into the capability of the Demand Response (DR) program and its impact on the daily operations of the TOC. The TOC **shall** incorporate the DR capabilities to better forecast, dispatch and plan for contingencies.

3.1.1 The PD **shall** assess the capability of a new Demand-Side Resource to integrate it into security-constrained economic dispatch considerations. The Demand-Side Resources that may be evaluated by the BTD are identified in Appendix C as those related to Reliability such as: Capacity, Reserves, Energy-Voluntary and Regulation.

3.1.2 The PD **shall** assess the quantity of response capability for the resource provided, such as:

- Load support in MW and number of hours.
- Reserves in MW and hours.
- Dispatchable energy in MW and hours.

3.1.3 The PD **shall** assess the methodology for calling on the Demand-Side Resource, the process by which the signal is acknowledged, and confirmed, and the delay between such confirmation and the resource availability. Types of signaling include methods from automatic signaling with automatic resource response, automatic signaling and delayed response, to manual signaling (phone or email) and manual response.

3.1.4 The MEM **shall** assess potential limitations for the Demand-Side Resource that impact its availability. Limitations may include such conditions as:

- Number of times the resource may be dispatched per day/week/month/year.
- Unavailability during periods (hours/days/weeks/months).

3.1.5 The MEM **shall** ensure that the Demand-Side Resource complies with LUMA's published requirements on cybersecurity and telemetry standards. It **shall** be the responsibility of the DSRC to provide such proof and maintain such compliance current during the term of the Demand-Side Resource. In general terms, the PD **shall** advocate for the automatic dispatchability of the DRs via Automated Generation Control (AGS) to the extent possible.

3.1.6 The PD **shall** identify and communicate to the MEM and TOC personnel, the active Term for the Demand-Side Resource. The MEM **shall** provide a minimum of 30-days' advance notice to the TOC personnel of the initiation or the expiration of a new Demand-Side Resource.

3.1.7 The PD **shall** obtain from the DSRC the contact information for all relevant operational matters in this procedure. The MEM **shall** ensure that the DSRC is established, and a reliable communication method is established to ensure effective dispatch.

3.1.8 The MEM **shall** implement scheduled and unscheduled capability testing protocols, as the case may be, to assess the availability and reliability of the Demand-Side Resource in accordance with the resource's technical requirements.

3.2 Dispatching the Demand-Side Resource

The PD **shall** ensure the DRs operational parameters are documented and well understood by the MCCO, MEM and SE. PD **shall** ensure that training on the DR use includes complete operational instructions and that the process is integrated into the following procedures as applicable:

3.2.1 The DSRC **shall** communicate daily the resource's availability as well as any limitations to the MEM daily. The MEM **shall** communicate with the TOC the resource's daily availability.

3.2.2 The SE **shall** identify the Demand-Side Resource availability as part of the shift turnover.

3.2.3 The SE **shall** initiate the Demand-Side Resource Signal per the desired Demand-Side Resource required.

3.2.4 DSRC **shall** acknowledge receipt of the Signal and request confirmation of the request to the SE.

3.2.5 The SE **shall** confirm the Signal.

3.2.6 During the Demand-Side Resource dispatching period, the SE may cut the demand event short and signal the DSRC to end its deployment. In this event, the SE and DSRC **shall** use 3-part communication to confirm the effective time of the period end.

3.2.7 The SE **shall** record the initiation and finalization of the Demand-Side Resource usage in the SE Log and **shall** send a communication to the MEM detailing the event.

3.3 Supply Contracts and Administration

MEM **shall** update the Demand-Side Resource availability after each dispatch event to ensure the SE shift personnel are aware of updates to the availability of Demand-Side Resources on a per-shift basis.

3.3.1 The weekday following the event, MEM **shall** communicate to the LUMA Supply Contracts and Administration Contact the details of each Demand-Side Resource event for billing purposes.

Appendix A: Glossary

Term	Definition
On-Call Resource	A demand side resource that is available for dispatch by the TSO.
Aggregator	A third-party entity that handles the demand response participation of multiple organizations to ensure effective curtailment takes place when the grid is stressed.

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 (NWA)														
System Operator Training														
Scheduling Planned T&G Outages														
Forced Outage														
Outage Execution and Closeout														
Emergency Response Execution														
Emergency Response Drills														

DEMAND-SIDE RESOURCES (NWA)

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															
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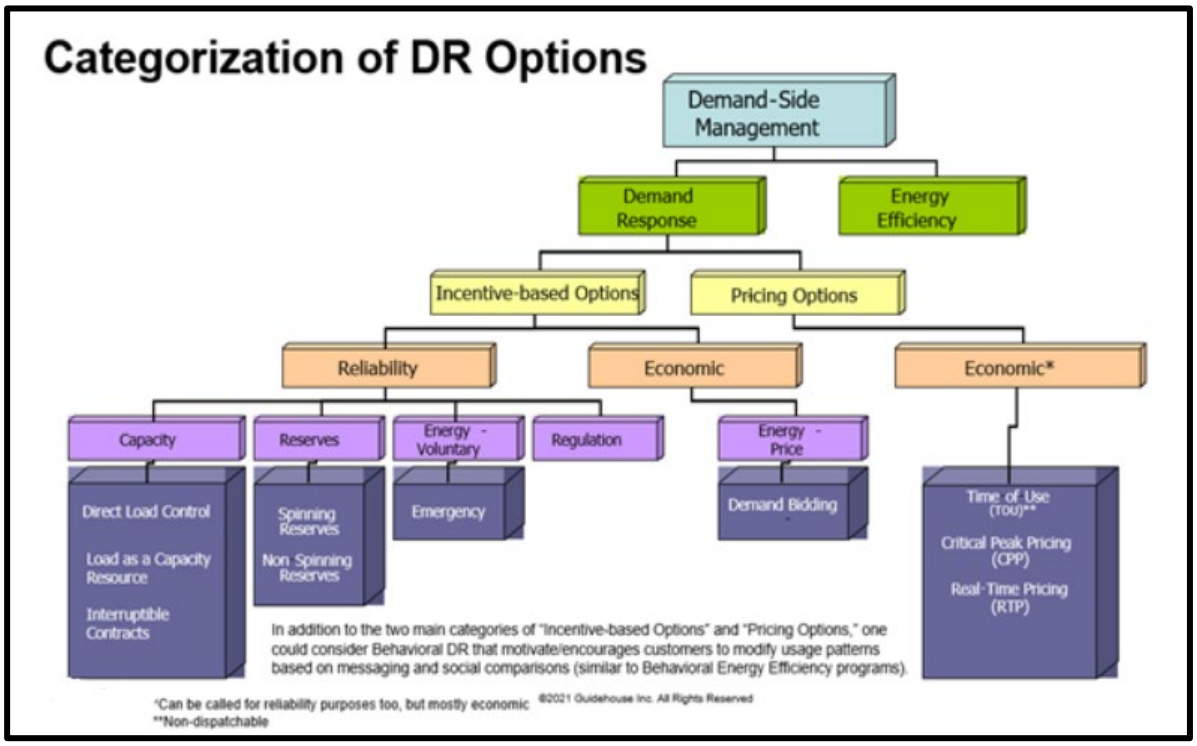
Forced Outage															
Outage Execution and Closeout															
Emergency Response Execution															
Emergency Response Drills															

Appendix C: Categorization of DRs



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