NEPR

Received:

Sep 13, 2021

11:39 PM

GOVERNMENT OF PUERTO RICO
PUERTO RICO PUBLIC SERVICE REGULATORY BOARD
PUERTO RICO ENERGY BUREAU

IN RE:	**CASE NO. NEPR-MI-2021-0001**
IN RE: REVIEW OF T&D OPERATOR'S SYSTEM OPERATION PRINCIPLES	**SUBJECT Motion in Attention to Resolution and Order of August 25, 2021 and Request for an Agenda for the Virtual Technical Conference Scheduled for September 17, 2021**

MOTION IN ATTENTION TO RESOLUTION AND ORDER OF AUGUST 25, 2021 AND REQUEST FOR AGENDA FOR THE VIRTUAL TECHNICAL CONFERENCE SCHEDULED FOR SEPTEMBER 17, 2021

TO THE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy, LLC[1], and **LUMA Energy ServCo, LLC**[2], (jointly referred to as "LUMA"), through the undersigned legal counsel and respectfully submit and request the following:

I. Introduction and Background

On February 25, 2021, LUMA filed before this honorable Puerto Rico Energy Bureau ("Energy Bureau") a *Petition for Approval of LUMA's System Operation Principles* ("SOP Petition") pursuant to LUMA's obligations under Section 4.1 of the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement dated as of June 22, 2021 executed by and among LUMA, the Puerto Rico Electric Power Authority ("PREPA") and the Puerto Rico Public-Private Partnerships Authority.

[1] Register No. 439372.
[2] Register No. 439373.

Subsequently, after a series of procedural events and upon the request of the Energy Bureau, LUMA submitted to this Energy Bureau a revised SOP Section 3.3 and Figure 3-1 via *Motion in Compliance with Order Submitting Additional Information and Supplement Responses to Questions Posed in Technical Conference and Submitting Clarifications* filed with this Energy Bureau on May 14, 2001 and a revised version of the System Operation Principles via *Motion in Compliance with Order Submitting Revised System Operation Principles, Phase I Draft Procedures and Additional Information*, filed with this Energy Bureau on May 19, 2021 (this revised version, the "SOP").

On May 31, 2021, this Energy Bureau issued a Resolution and Order in the instant proceeding approving the SOP subject to LUMA's compliance with the following five (5) conditions listed in paragraphs 1 to 5 of Section IV therein ("May 31st Resolution and Order") (numbered here as listed therein), requiring LUMA to: (1) file with the Energy Bureau within thirty (30) days an updated timeline for completion by LUMA of any other procedure, protocol, manual or document necessary for the operation of the system in accordance with prudent utility practices, standards and local laws and regulations, in Gantt Chart format and addressing certain specified requirements in the Resolution and Order ("Condition No. 1"); (2) file with the Energy Bureau within thirty (30) days the "enhancements to the Energy Dispatch principles included in SOP 5.1 and 5.2 that shall fully incorporate capabilities found in [Distributed Energy Resources ("DER")] into system planning and operations" ("Condition No. 2"); (3) file with the Energy Bureau within ninety (90) days "final versions of its Load Forecasting Procedures to include a description of power meter load data, load management, load forecast and DER adoption models and weather normalization and peak allocation" ("Condition No. 3"); (4) starting on July 5, 2021, file with the

Energy Bureau monthly progress reports as specified therein ("Condition No. 4"); and (5) appear with the relevant personnel and consultants at periodic compliance hearings held before the Energy Bureau "fully prepared to answer questions that the Energy Bureau Commissioner and staff may have" ("Condition No. 5"). May 31st Resolution and Order at pages 13-14.

Furthermore, in the May 31st Resolution and Order, this Energy Bureau discussed the distinction between principles and procedures as it informed the Energy Bureau's review of the SOP. In this regard, the Energy Bureau indicated that:

> The relationship between principles and procedures establishes an important functional hierarchy that helps to inform the Energy Bureau's review of LUMA's SOP Plan. Principles are statements of commitment to a fundamental goal or policy mandate and that goal that generally determines the design and intended outcome of procedures. Therefore, SOPs are not to be focused on short-term guidance but are to be used to provide aspirational principles that will govern procedures as they should evolve for the operation of Puerto Rico's electric system regardless of time span.
>
> LUMA, [sic] describes its SOPs as "guidelines . . . for the dispatch of power" and states that the SOPs together provide a "comprehensive guide for operations." It is important to note that guidelines are documents which intrinsically comprise flexibility and some subjectivity in their application. LUMA also describes its SOPs as "protocols for the dispatch of power." [sic] and later states that the SOP Plan establishes "rules and protocols". LUMA's changing nomenclature relative to the SOPs certainly creates ambiguity and confusion as to as to the clarity, purpose and scope of the SOPs.
>
> LUMA's implicit functional approach to the SOP Plan seems to focus on the need for procedures with only vague principles. More often, the relationship between a procedure required by the SOP to a principle based on public policy goals is merely suggested or must be inferred. In fact, to a certain extent, the SOPs seems to be a mix of operating principles and tasks, making it particularly challenging to discern which are in fact the specific operating principles proposed by LUMA.
>
> *Id*., at pages 8-9 (footnotes omitted).

On June 22, 2021, LUMA filed with this Energy Bureau a *Request for Clarifications and/or Reconsideration of Portions of May 31st Resolution and Order Approving LUMA's System*

Operations Principles ("June 22 Request"). In its June 22 Request, LUMA respectfully expressed disagreement with the scope/definition of the terms "principles and procedures" as it informs the review of the SOP and requested the scheduling of technical workshops to discuss the aspirational goals for the system operation (*see* June 22 Request at pages 8-9); requested clarification of certain other statements in the May 31st Resolution and Order (*see id*. at pages 5-8); and requested reconsideration or clarification of all or portions of Conditions 1 through 4 in the May 31st Resolution and Order (*see id*. at pages 9-14 and 16-17). In addition, LUMA submitted to this Energy Bureau, as Exhibit 1, an updated timeline for completion of Phase II procedures ("Timeline") which included fourteen (14) procedures identified as Phase I and fifteen (15) procedures identified as Phase II (*see* June 22 Request at page 14) and, as Exhibit 2, the revised language of SOP 5.1 and 5.2, as requested in the May 31st Resolution and Order (*see id*.).

On July 6 and August 6, 2021, LUMA submitted to this Energy Bureau updated timelines for completion of the Phase II operating procedures in compliance with Condition No. 4 of the May 31st Resolution and Order. See LUMA's filings titled *Motion Submitting Updated Timeline for Completion of Phase II Operating Procedures* dated July 6, 2021 and August 6, 2021.

On August 25, 2021, this Energy Bureau issued a Resolution and Order (the "August 25th Resolution and Order") ordering LUMA to attend a Compliance Hearing scheduled for September 17, 2021 at 9:00 a.m. (the "September 17th Compliance Hearing"), file a copy of the presentation to be made by LUMA at such Compliance Hearing on or before September 15, 2021 at 12:00 p.m., and ensure the relevant LUMA personnel and consultants are "prepared to discuss the elements and timelines proposed in the [Revised Timeline]" and to answer the questions of the Energy Bureau and its staff. *See* August 25th Resolution and Order at pages 6-7.

In the August 25th Resolution and Order, the Energy Bureau denied LUMA's request for clarification on the distinction between principles and procedures. This Energy Bureau indicated that: "LUMA's request present [sic] no substantive issue that requires a finding by the Energy Bureau and, if granted, would have no effect on the outcome of this proceeding or the Energy Bureau's conditional approval of LUMA's SOPs. The Energy Bureau DETERMINES there is no need to further consider the principle versus procedures distinction." *Id*. at page 2.]

Regarding the submittals in the June 22 Request, in the August 25th Resolution and Order, this Energy Bureau indicated that: (1) it would defer its determination on whether the revised timelines for completion of the operating procedure comply with the May 31st Resolution and Order until after the September 17th Compliance Hearing; and (2) it found that the revised SOP 5.1 and 5.2 did not satisfy the requirements of Condition No. 2 of the May 31st Resolution and Order and ordered LUMA to file, on or before September 13, 2021, a revised version of SOP 5.1 and 5.2 "to reflect that LUMA will develop grid capabilities to enable the integration of functionalities found in demand side resources integrated to the grid to support system stability and increase resilience." August 25th Resolution and Order at page 4.

In addition, regarding the request for submittal of load forecasting procedures, in the August 25th Resolution and Order this Energy Bureau clarified that:

> The Energy Bureau does not intend for LUMA to determine specific load projections for the system. Rather, Condition No. 3 requires LUMA to submit load forecasting **procedures** that set out the methodologies and the inputs needed to determine these projections when performing load forecasts. The load forecasting methodology is a core tool of any utility. However, utilities use different approaches when forecasting load. The Energy Bureau is seeking to examine LUMA's approach to projecting load.

Id. at page 5.

The Energy Bureau then ordered LUMA to file with the Energy Bureau, on or before September 13, 2021, "final versions of its Load Forecasting Procedures that include the methodologies used to incorporate power meter load data, load management, load forecast, DER adoption models, weather normalization and peak allocation." *Id*. at page 6.

On September 3, 2021, LUMA submitted to this Energy Bureau the most recent monthly updated timeline for completion of the Phase II operating procedures in compliance with Condition No. 4 of the May 31st Resolution and Order. *See* LUMA's filings titled *Motion Submitting Updated Timeline for Completion of Phase II Operating Procedures* dated September 3, 2021 ("September 3 Motion").

LUMA hereby submits to this honorable Energy Bureau documents/information in connection with Conditions No. 2 and 3 of the May 31st Resolution and Order, as revised by the August 25th Resolution and Order, as well as requests additional input regarding the September 17th Compliance Hearing in the form of an Agenda.

II. Submissions and Requests

A. Load Forecasting under Condition No. 3

Regarding Condition No. 3, LUMA hereby submits in Section 3.0 of the attached Exhibit 1, an explanation of the efforts towards completion of Procedure 1 pertaining to Load Forecasting. Furthermore, LUMA is submitting today, a confidential Exhibit 2, which is the draft of said load forecasting procedure as it has been developed today with work including Milestone 2. It is respectfully submitted that the draft load forecasting procedure provides the Energy Bureau context on LUMA's approach towards load forecasting as applied to short-term load forecasting. The draft procedure garners protection as sensitive commercial information because it is a work

in progress that has not been disclosed and should therefore be maintained confidentially as confidential work product. As part of its processes and commercial practices, LUMA does not disclose draft documents. Disclosure of this draft would run counter to public interests, as the public may mistakenly construe that this is a final document to be used in LUMA's operations. The public interests are best served if the Energy Bureau keeps and maintains the draft procedures confidentially as sensitive commercial information under Act 80-2011 and pursuant to the Energy Bureau's Policy on Confidential Information. See CEPR-MI-2016-0009, as amended by the Resolution of September 16, 2016, CEPR-MI-2016-0009. Within ten days, LUMA will file a separate memorandum in support of this request for confidential treatment. LUMA is filing today a public redacted version of the load forecasting proceeding and a confidential version of the same.

As further explained in Section 3.0 of Exhibit 1, LUMA has started the process to improve load forecasting and research functions, based on recommendations from its consultant Guidehouse to implement a phased improvement process that will enable LUMA to develop robust and sustainable load forecasting and load research capabilities. *See* Exhibit 1 at page 5. At pages 5 through 6 of Exhibit 1, LUMA is currently proposing an aggressive timeline for this improvement process.

B. Energy Dispatch Principles in SOPs 5.1 and 5.2

In Section 2.0 of Exhibit 1, LUMA hereby submits a developed explanation on LUMA's revised SOPs 5.1 and 5.2 and how LUMA will develop grid capabilities to enable the integration of functionalities found in demand side resources integrated to the grid to support system stability and increase resilience.

C. Request for Agenda for September 17th Compliance Hearing

As mentioned, in the August 25th Resolution and Order this Energy Bureau scheduled the September 17th Compliance Hearing and requested LUMA to submit a presentation for this hearing on or before September 15, 2021 at 12:00 p.m. to discuss the elements and timeline proposed in the Revised Timeline and answer questions from this Energy Bureau and its consultants. In order to ensure LUMA staff attending this hearing are best prepared to address any potential Energy Bureau questions or concerns, LUMA respectfully requests that this honorable Energy Bureau provide more specific input on the matters this honorable Energy Bureau is seeking to discuss during the September 17th Compliance Hearing, in the form of an Agenda for the Compliance Hearing. This Agenda will also allow LUMA to prepare a more responsive presentation that addresses this Energy Bureau's desired areas of discussion and will inure to a more effective hearing process and avoid potential additional efforts from LUMA or this honorable Energy Bureau related to addressing post-hearing any issues or questions raised during the September 17th Compliance Hearing. It is submitted that without an agenda, LUMA would not be in position to file a presentation for the technical conference as it would lack guidance on the topics that the Energy Bureau expects to discuss. At this time, LUMA is unaware of the matters and topics that should be covered in the requested presentation.

WHEREFORE, LUMA respectfully requests that the Energy Bureau **take notice** of the aforementioned and: (i) accept the attached Exhibit 1 discussing, in its Section 3.0, LUMA's approach to Load Forecasting and Confidential Exhibit 2, which is the current draft of the load forecasting procedure, in connection with Condition No. 3 of the May 31st Resolution and Order; (ii) accept Section 2.0 of Exhibit 2 as further explanation on LUMA's submittal of the revised

Energy Dispatch Principles in SOPs 5.1 and 5.1; and (iii) issue an Agenda for the Virtual Technical Conference Scheduled for September 17, 2021 on September 14, 2021.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 13th day of September, 2021.

I hereby certify that I filed this motion using the electronic filing system of this Energy Bureau and that I will send an electronic copy of this motion to the attorneys for PREPA, Joannely Marrero-Cruz, jmarrero@diazvaz.law and Katiuska Bolaños-Lugo, kbolanos@diazvaz.law.

DLA Piper (Puerto Rico) LLC
500 Calle de la Tanca, Suite 401
San Juan, PR 00901-1969
Tel. 787-945-9107
Fax 939-697-6147y

/s/ Margarita Mercado Echegaray
Margarita Mercado Echegaray
RUA NÚM. 16,266

Exhibit 1

LUMA's Response

SOP Exhibit 1: LUMA's Response to August 25th Resolution and Order

NEPR-MI-2021-0001

September 13, 2021

1.0 Principle and Procedure Definitions

On August 25th within its Resolution and Order in Case No. NEPR-MI-2021-0001, the Energy Bureau found that "there is no need to further consider the principle versus procedure distinction. As such, the Energy Bureau denies LUMA's request for clarifications."

Precise and consistent use of the appropriate definition of principles and procedures for a utility is important for its day-to-day operations, for communication between different units within LUMA and with external stakeholders. Going forward, LUMA will adopt the meanings for principle and procedure as defined by the International Organization for Standardization (ISO 9001). LUMA has provided examples from the SOP Section 2.1, Table 2.1 to further clarify usage of the two terms.

Term	Definitions from ISO 9001 (International Organization for Standardization)	Example from the SOP Section 2.1 Table 2.1
Principle	A principle is a basic belief, theory or rule that has a major influence on the way in which something is done.	Document that reflects policy and objectives including: • Safety and Reliability • Cost Effective Operations • Non-Discriminatory Behavior
Procedure	A procedure is a specified way to carry out an activity or a process	• Defines how SOP are implemented to ensure consistency across System • Provides basis to assess potential process improvements, and after-event lessons learned

Respectfully, LUMA must differentiate between a principle and a procedure, consistent with international standards. Not doing so would make adherence to utility practice extremely difficult. Establishment of general principles, and subsequently drafting and implementation of specific procedures that support the principles is a fundamental method of improving utility operations.

2.0 Request for Revised Section 5.1 and 5.2

On May 31, 2021 within its Resolution and Order in Case No. NEPR-MI-2021-0001, the Energy Bureau approved the System Operation Principles with conditions, specifically requiring LUMA to:

> *"3. On or before thirty (30) days from the notification of this Resolution and Order, LUMA shall file with the Energy Bureau enhancements to the Energy Dispatch Principles included in SOP 5.1 and 5.2 that shall fully incorporate capabilities found in DERs into system planning and operations."*

LUMA filed revised language for SOP 5.1 and 5.2 as Exhibit 2 to the June 22 filing.

On August 25th the Energy Bureau found that the revised SOP 5.1 and 5.2 do not satisfy the requirements of Condition 2 of the May 31 Resolution. The Energy Bureau orders LUMA to:

> *"file on or before September 13, 2021 a revised version of SOP Sections 5.1 and 5.2 to reflect that LUMA will develop grid capabilities to enable the integration of functionalities found in demand side resources integrated to the grid to support system stability and increase resilience."*

LUMA confirms that the requested revisions by the Energy Bureau are included in the entirety of Section 5.0 Energy Dispatch in the SOP. Section 5.1 describes developing the building blocks that will enable the System Operator to develop, over time, the capability to implement security constrained economic dispatch and to adequately incorporate technologies such as Distributed Energy Resources (DERs), storage, and non-wires alternatives when those technologies are deployed in Puerto Rico. The following is specified in Section 5.1, the "System Operator will be able to effectively incorporate new technologies such as DERs, battery storage, and non-wires alternatives. These new technologies provide other bulk power systems in the mainland with valuable tools to address peak demands more efficiently than relying in the less efficient peaking generation capacity in the system."

Section 5.2 includes clarification on dispatching of DERs: "The System Operator will also incorporate economic parameters of new DERs, storage, and non-wires alternatives after ongoing PREB proceedings (including rulemaking) and future contracts which will contain pricing and dispatching requirements define how these resources will be used. For example, the results of the Tranche 1 solicitation for new renewable capacity is expected to provide several Virtual Power Plant (VPP) proposals which will provide valuable insight. In addition, the Demand Response (DR) pilot proposed in NEPR-MI-2021-0006 which is expected to launch at the end of 2021 will be designed to allows LUMA to obtain information necessary to incorporate DR into dispatching decisions."

LUMA is supportive of increased utilization of demand-side resources to support system stability and to increase resilience. LUMA believes that development of capabilities to enable the integration of these functionalities is a significantly important requirement and will be instrumental in developing least cost solutions for customers. LUMA is now developing procedure 23 "Demand Side Resources (Non-Wires Alternatives) for how these DSM resources will be dispatched by the control center and incorporating these insights into the emerging design of initial pilot programs that will be developed to build DSM capabilities. LUMA is uncertain how the modifications made on June 22, 2021 and the entirety of Section 5.0 do not satisfy the requirements in the May 31, 2021 Resolution and Order and would like to learn more regarding what additional language and terminology within the System Operation Principles for the Bulk Power System would satisfy the Energy Bureau.

3.0 Load Forecasting Procedure

On May 31, 2021 within its Resolution and Order in Case No. NEPR-MI-2021-0001, the Energy Bureau approved the System Operation Principles ("SOP") with conditions, specifically requiring LUMA to:

> *"3. On or before ninety (90) days from the notification of this Resolution and Order, LUMA shall file with the Energy Bureau final versions of its Load Forecasting Procedures to include a description of power meter load data, load management, load forecast and DER adoption models and weather normalization and peak allocation."*

On August 25th, the Energy Bureau ordered LUMA to file on or before September 13, 2021 with the Energy Bureau final versions of its load forecasting procedures that include methodologies used to incorporate power meter load data, load management, load forecast, DER adoption models, weather normalization and peak allocation.

As part of this docket, NEPR-MI-2021-0001, System Operation Principles, one of the SOP procedures is a Load Forecasting procedure. As indicated by LUMA's Phase II Procedures Gantt Chart and Status within Exhibit I filed on September 3, 2021, Procedure 1 – Load Forecasting is completed through Milestone 2. Milestone 3 was briefly delayed in July due to an emergency health event for one of the subject matter experts, but the individual has largely recovered, and Milestone 3 is now on track to be completed by September 30, 2021. LUMA is confidentially providing with this filing, Exhibit 2, the Load Forecasting Procedure draft completed through Milestone 2 for the Energy Bureau's status update.

The Load Forecasting procedure being completed as part of the SOP Procedures development effort has focused initially on the day ahead, and seven-day time frame. This is the primary area of focus of Systems Operations and has been among the more critical areas of attention since LUMA began operations. The multiple, repeated and unexpected forced outages at the existing generation fleet have forced LUMA to focus on trying to solve the immediate crisis to minimize outages due to generation shortfalls. These forced outages have a significant impact on cost to customers, since higher cost peaking generation units must be deployed to meet system demand, and load shed events can also occur when there is insufficient generation available for dispatch. The Load Forecasting Procedure utilizes a "Similar Day" methodology for forecasting day-ahead and week-ahead loads. The Forecast is used for planning of generation unit dispatching and analyzing potential alternatives to outage schedules in order to mitigate inadequate reserve margins.

The Load Forecasting Procedure developed to support the System Operating Principles addresses short-term load forecasting performed within the System Operations team. The broader, holistic and company-wide load forecasting process within LUMA are a separate effort. These long-term and companywide load forecasting and research processes and procedures, which would incorporate power meter load data, load management, DER adoption models and weather normalization and peak allocation, are broad in scope, complex in nature, and require collaboration across several key stakeholders and organizational teams. To **complete this exercise correctly and enable quality future regulatory filings, including an IRP and future rate case, this will take years, and not days or months.**

It should be noted that load research and study activities have not been performed at PREPA since 2014. Further, PREPA did not have documented processes or procedures for load forecasting. Given the aforementioned, in conjunction with the maturity level of the overall PREPA organization and the

disaggregated and internally inconsistent forecasting activities observed within PREPA and as noted in the Gap Assessment, this improvement process must start at a very basic level.

LUMA has commenced the improvement process, which is in line with best practice and based on recommendations provided by its external consultant, Guidehouse. Guidehouse has extensive experience advising utilities and system operators to improve their load forecast and load research and study functions.

LUMA expects the improvement of its Load Forecasting and Research functions to include the following phased key efforts:

1. **Internal Governance and Organizational Design** – Formed with key internal stakeholders, providing a governance body to initiate and provide input to ongoing development of Load Forecasting methodologies and practices and to ensure internal buy in across the organization. This phase has already commenced with a governance planning team schedule meeting regularly.

2. **Review Current and Future Methodologies** – This phase involves both a detailed "As-Is" process documentation that identifies current data collection and forecasting processes and methodologies and a "To Be" process design that includes determination of future forecasting needs including methodologies and data required to meet those future forecasting needs. This phase has already commenced and is anticipated to take until the end of Fiscal Year 2022.

3. **Establish Data Needs** – Identify data that are required to meet the future forecasting needs determined in Phase 2 and establish plans and timelines to start collecting such data.

4. **Process Design** – Short-term and long-term initiatives, providing impacts to current processes, where possible using existing systems and data and developing long-term aligned processes across stakeholder needs, using new systems and processes. Long-term initiatives include establishing load forecasting and research capabilities and dedicated functions within the organization.

5. **Build Capabilities** – This involved establishing and training a centralized load forecasting function that will be tasked with developing the central long-term load forecast and enabling the practice of load study or research.

Following this phased Load Forecasting and Research approach will enable the development of best in practice functions to develop load forecasts and establish load research capabilities to aid in design of rates, programs and cost allocation. LUMA recognizes that developing a robust and sustainable load forecasting and load research capability is important. LUMA also recognizes that it takes significant investment in time and resources including strong governance.

As such LUMA has proposed an aggressive timeline for the proposed five phase approach.

- **Phase 1 – Internal Governance and Organizational Design** – In progress
- **Phase 2 – Review Current and Future Methodologies** – Complete by June 2022
- **Phase 3 – Establish Data Needs** – Complete by December 2022

- **Phase 4 & 5 – Process Design & Build Capabilities** – Completion date to be determined during Phase 2

LUMA is focused on executing this approach systematically and including key stakeholders within the organization so that all teams support the results of the improvement process. Independent and robust governance also provides a sound and consistent base for the load forecasting design and quality control process.

Exhibit 2

Public Redacted Version of Draft Load Forecasting Procedures up to Milestone 2

LUMA

LOAD FORECASTING

LOAD FORECASTING

Redacted

Procedure Title: Redacted

Procedure # 1 Redacted

Security Classification : Redacted Redacted

APPROVED BY:

Name / Title Redacted

Signature Redacted

REVIEWED BY:

Title Redacted

Signature Redacted

Title Redacted

Signature Redacted

PROCEDURE DEVELOPMENT HISTORY:

Revision Approved Date Redacted

Authored by Redacted

Reason for Revision Redacted

Revision Approved Date Redacted

Authored by Redacted

Reason for Revision Redacted

Contents

LOAD FORECASTING

Redacted

Redacted Redacted .

LOAD FORECASTING

Redacted

Redacted

Redacted

LOAD FORECASTING

Redacted

Redacted

Redacted

Redacted			Redacted
Redacted			
Redacted			
Redacted			
	Redacted		

Redacted

Redacted	Redacted
Redacted	Redacted
Redacted	Redacted
Redacted	Redacted
Redacted	Redacted
Redacted	Redacted

LOAD FORECASTING

Redacted

Term	Definition
Redacted	Redacted Redacted

Redacted
Redacted

LOAD FORECASTING

Redacted

Redacted

LOAD FORECASTING