



October 22, 2008

**Comments of the National Rural Electric Cooperative Association
on the Draft NAESB Standards for Performance Evaluation of Demand Response
Resources for Wholesale Electricity Markets-Prepared in Conjunction with
GDS Associates**

**1.0 Summary of NAESB Standards for Demand Response and DSM-EE
Programs**

These standards were developed by the Independent System Operators and Regional Transmission Organizations (Collectively, System Operators) in North America through the North American Energy Standard Board (NAESB) stakeholder process. The standards reflect business practices applicable to measurement and verification of wholesale market Demand Response (Demand Response or DR) services including the following four product categories:

Energy Service

A type of Demand Response service in which Demand Resources are compensated based solely on Demand reduction performance.

Capacity Service

A type of Demand Response service in which Demand Resources are obligated over a defined period of time to be available to provide Demand Response upon deployment by the System Operator.

Reserve Service

A type of Demand Response service in which Demand Resources are obligated to be available to provide Demand reduction upon deployment by the System Operator, based on reserve capacity requirements that are established to meet applicable reliability standards.

Regulation Service

A type of Demand Response service in which a Demand Resource increases and decreases Load in response to real-time signals from the System Operator. Demand Resources providing Regulation Service are subject to dispatch continuously during a commitment period. Provision of Regulation Service does not correlate to Demand Response Event timelines, deadlines and durations.

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Below is a breakdown of each product category and the framework within each to follow:

GENERAL				
	Energy Service	Capacity Service	Reserve Service	Regulation Service
Advance Notification	System Operator to specify	System Operator to specify	System Operator to specify	N/A unless otherwise specified by the S.O.
Deployment Time	System Operator to specify	System Operator to specify	System Operator to specify	N/A unless otherwise specified by the S.O.
Reduction Deadline	System Operator to specify	System Operator to specify	System Operator to specify	N/A unless otherwise specified by the S.O.
Release/Recall	System Operator to specify	System Operator to specify	System Operator to specify	N/A unless otherwise specified by the S.O.
Normal Operations	System Operator to specify	System Operator to specify	System Operator to specify	N/A unless otherwise specified by the S.O.
Demand Resource Availability Measurement	N/A	System Operator to specify requirements for measuring the capability of a DR to meet it's obligation	System Operator to specify requirements for measuring the capability of a DR to meet it's obligation	N/A unless otherwise specified by the S.O.
Aggregation	System Operator to specify	System Operator to specify	System Operator to specify	System Operator to specify
Transparency of Requirements	System Operator to post publicly defined requirements	System Operator to post publicly defined requirements	System Operator to post publicly defined requirements	System Operator to specify

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TELEMETRY				
	Energy Service	Capacity Service	Reserve Service	Regulation Service
Telemetry Requirement	System Operator to specify requirements	System Operator to specify requirements	System Operator to specify requirements	System Operator to specify requirements
On-Site Generation Telemetry	Real-time data required if on-site generation is present behind the primary Telemetry point unless otherwise specified by S.O.	Real-time data required if on-site generation is present behind the primary Telemetry point unless otherwise specified by S.O.	Real-time data required if on-site generation is present behind the primary Telemetry point unless otherwise specified by S.O.	Real-time data required if on-site generation is present behind the primary Telemetry point unless otherwise specified by S.O.
Telemetry Accuracy	To be represented as a % of full scale up to a max of 3.0%. Unless otherwise specified by S.O.	To be represented as a % of full scale up to a max of 3.0%. Unless otherwise specified by S.O.	To be represented as a % of full scale up to a max of 3.0%. Unless otherwise specified by S.O.	To be represented as a % of full scale up to a max of 3.0%. Unless otherwise specified by S.O.
Telemetry Reporting Interval	Shall be up to a max of 5 mins unless otherwise specified by S.O.	Shall be up to a max of 5 mins unless otherwise specified by S.O.	Shall be up to a max of 5 mins unless otherwise specified by S.O.	Shall be up to a max of 5 mins unless otherwise specified by S.O.
Other Telemetry Measurements	S.O. to specify	S.O. to specify	S.O. to specify	S.O. to specify
Communication Protocol	S.O. to specify	S.O. to specify	S.O. to specify	S.O. to specify
Governor Control Equivalent	N/A unless otherwise specified by S.O.	N/A unless otherwise specified by S.O.	N/A unless otherwise specified by S.O.	DR's providing regulation service shall auto respond to grid frequency deviations unless otherwise specified by S.O.

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AFTER-THE-FACT-METERING				
	Energy Service	Capacity Service	Reserve Service	Regulation Service
After-the-fact Metering Requirement	Required unless otherwise specified by S.O.	Required unless otherwise specified by S.O.	Required unless otherwise specified by S.O.	Required unless otherwise specified by S.O.
Meter Accuracy	To be represented as a % of full scale up to a max of 3.0%. Unless otherwise specified by S.O.	To be represented as a % of full scale up to a max of 3.0%. Unless otherwise specified by S.O.	To be represented as a % of full scale up to a max of 3.0%. Unless otherwise specified by S.O.	To be represented as a % of full scale up to a max of 3.0%. Unless otherwise specified by S.O.
Details of Meter/Equipment Standards	Standards shall meet or exceed industry standards equivalent to ANSI C12 unless otherwise specified by the S.O.	Standards shall meet or exceed industry standards equivalent to ANSI C12 unless otherwise specified by the S.O.	Standards shall meet or exceed industry standards equivalent to ANSI C12 unless otherwise specified by the S.O.	Standards shall meet or exceed industry standards equivalent to ANSI C12 unless otherwise specified by the S.O.
Meter Data Reporting Deadline	System Operator shall specify	System Operator shall specify	System Operator shall specify	System Operator shall specify
Meter Data Reporting Interval	Shall be a maximum of 1 hour unless otherwise specified by the S.O.	Shall be a maximum of 1 hour unless otherwise specified by the S.O.	Shall be a maximum of 1 hour unless otherwise specified by the S.O.	Shall be a maximum of 1 hour unless otherwise specified by the S.O.
Clock/Time Accuracy	Standards shall meet or exceed industry standards equivalent to ANSI C12 unless otherwise specified by the S.O.	Standards shall meet or exceed industry standards equivalent to ANSI C12 unless otherwise specified by the S.O.	Standards shall meet or exceed industry standards equivalent to ANSI C12 unless otherwise specified by the S.O.	Standards shall meet or exceed industry standards equivalent to ANSI C12 unless otherwise specified by the S.O.
Validating, Editing and Estimating (VEE) Method	System Operator shall specify	System Operator shall specify	System Operator shall specify	System Operator shall specify
On-Site Generation Meter Requirement	System Operator shall specify additional metering requirements if on-site generation is present behind the primary metering point	System Operator shall specify additional metering requirements if on-site generation is present behind the primary metering point	System Operator shall specify additional metering requirements if on-site generation is present behind the primary metering point	System Operator shall specify additional metering requirements if on-site generation is present behind the primary metering point

PERFORMANCE EVALUATION				
	Energy Service	Capacity Service	Reserve Service	Regulation Service
Rules for Performance Evaluation	Shall be evaluated through the use of one of the following methods unless otherwise specified by the S.O. • Maximum Base Load • Meter Before / Meter After • Baseline Type-I • Baseline Type-II • Metering Generator Output	Shall be evaluated through the use of one of the following methods unless otherwise specified by the S.O. • Maximum Base Load • Meter Before / Meter After • Baseline Type-I • Baseline Type-II • Metering Generator Output	Shall be evaluated through the use of one of the following methods unless otherwise specified by the S.O. • Maximum Base Load • Meter Before / Meter After • Baseline Type-I • Baseline Type-II • Metering Generator Output	Shall be evaluated using telemetry data and additionally through use of one of the following methods unless otherwise specified by the S.O. • Meter Before / Meter After • Metering Generator Output

2.0 Comments from NRECA

2.1 Overview

The purpose of this draft proposal is to create compatibility between markets. The National Rural Electric Cooperative Association (NRECA) generally is supportive of these proposed standards as they currently are written. However, after comparing these standards to other M&V standards (IPMVP in particular), NRECA notes that there are few specific details provided in the definitions and guidelines for each step in the performance evaluation process. This lack of specificity can provide sufficient flexibility to support the current programs already underway in the markets which have been designed to support multiple DR programs for varying industry and operational structures. Nonetheless, only providing general guidance on reaching compatibility across markets, in some cases, may lead to confusion. For example, without further guidance in the recommended standards, as the level of experience in the industry declines in the coming years, confusion eventually could develop as new and inexperienced staff becomes more involved in these programs. To help minimize potential confusion, NRECA agrees with the suggestion made at the October 3rd NAESB meeting to provide examples of proposed performance evaluation methodologies superimposed on products within each category as an appendix to the document.

So long as these examples are provided, are reasonable and do not change the draft proposal, NRECA concludes that the draft proposal offers a framework in which smaller entities, such as electric cooperatives, may be able to participate. However, NRECA is concerned that the draft standards may be amended

through the NAESB process in ways that would produce unnecessary and unproductive requirements for cooperatives participating in these markets. NRECA is also concerned that System Operators could use the flexibility offered by the draft proposal to implement M&V methodologies that may be overly and unnecessarily burdensome on participating cooperatives, or that would prove overly prescriptive with respect to the types of Demand Response programs that cooperatives could implement. The oft-repeated phrase “unless otherwise specified by the system operator” should not be read as a blank check for System Operators to impose, through applicable tariff language, new M&V requirements on market participants. System operators should consider the impact that those requirements might have on cooperatives and other smaller market participants, or on the broad range of potential Demand Response programs that cooperatives tend to offer their member-consumers.

As currently drafted, the proposed wholesale standards appropriately treat each DR product category and evaluation mechanisms the same. NRECA recommends that any wholesale standards NAESB submits to the Federal Energy Regulatory Commission retain that impartiality and do not favor one product, mechanism or industry structure over another.

2.2 Detailed Comments from NRECA

1. On page 7 of the standards, it is stated that “For purposes of these Measurement and Verification standards, Demand Response does not include Measurement and Verification of energy efficiency or permanent Load reduction.” NRECA supports this approach and suggests that an example be provided here to clarify what is and what is not covered by these standards. For example, non-permanent demand reduction from an interruptible rate tariff is covered by these standards, but permanent demand reduction from a compact fluorescent lighting program would not be covered by these standards.

2. Page 6 of the standards lists four product categories of Demand Response services. After consulting with GDS, who has experience working with these four product categories with the ISO New England, PJM, MISO, ERCOT and other independent System Operators, NRECA recommends that concrete examples of each of these product categories be provided in the appendices of the standards. These examples are needed because users of the standards will have varying degrees of knowledge and experience with these four product categories. Having such examples will be very important for electric cooperative staff as they become familiar with the various types of DR resources used in wholesale electric markets. In addition, many of the experienced and knowledgeable electric cooperative staff in the baby boomer generation will be retiring over the next decade, and it will be critical to have examples of the four product categories in order to train the generation of new employees who will just be graduating from college and entering the electric cooperative work force over the next decade. The draft M&V standards as currently written assume that the reader is already very familiar with the four product categories, and this certainly will not be the case over the next decade.

3. Pages 9 and 10 of the standards list five acceptable performance evaluations methodologies for assessing the performance of Demand Response resources. After consulting with GDS, who has experience working with these performance evaluation methodologies across North America, NRECA recommends that concrete examples of each of these evaluation methodologies be provided in the appendices of the standards. These performance evaluation examples are needed because users of the standards, including cooperatives, will have varying degrees of knowledge and experience with these evaluation techniques. As with the product categories, having such examples of performance evaluation methodologies will be very important for electric cooperative staff as they become familiar with the various types of Demand Response resources used in wholesale electric markets and the evaluation methodologies.

As noted above, many of the experienced and knowledgeable electric cooperative staff in the baby boomer generation will be retiring over the next decade, and it will be critical to have examples of the five performance evaluation methodologies in order to train the generation of new employees who will just be graduating from college and entering the electric cooperative force over the next decade. The draft M&V standards as currently written assume that the reader is already very familiar with the five performance evaluation methodologies, and this certainly will not be the case over the next decade. Thus, having concrete examples of how these methodologies are actually developed and used, including research designs and algorithms is essential.

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