

# NAESB Bulletin

August - December 2010

Volume 3, Issue 3

[2010 Retail Annual Plan](#)

[2010 WEQ Annual Plan](#)

[2010 WGQ Annual Plan](#)

[NAESB Board of Directors](#)

[NAESB Executive Committee Members](#)

[NAESB Members](#)

[Membership Information](#)

[Copyright Report](#)

## 2010 Calendar:

### December 2010

- 12/01 - DSM/EE Demand Side Management and Energy Efficiency Meeting (Richmond, VA)
- 12/01 - Joint WEQ BPS and NERC IDCWG Meeting (Houston, TX)
- 12/02 - WEQ BPS Meeting (Houston, TX)
- 12/02 - WGQ BPS Conf. Call
- 12/03 - Retail Glossary Conf. Call
- 12/03 - Retail BPS Conf. Call
- 12/06 - WEQ OASIS Conf. Call
- 12/07-08 - Joint WGQ IR/Technical Meeting (Houston, TX)
- 12/07 - Energy Services Provider Interface Task Force Conf. Call
- 12/08 - WGQ, WEQ, Retail Leadership Meetings (Houston, TX)
- 12/08 - NAESB Board Reception & Dinner with Guest Speaker (Houston, TX)
- 12/09 - NAESB Board Resource Meeting (Houston, TX)
- 12/09 - NAESB Board of Directors Meeting (Houston, TX)
- 12/10 - Smart Grid Standards Development Subcommittee Conf. Call
- 12/14-16 - WEQ OASIS Meeting (New Orleans, LA)
- 12/21 - WEQ SRS Conf. Call
- 12/21 - Energy Services Provider Interface Task Force Conf. Call
- 12/23-24 - Holiday - Christmas (NAESB Closed)
- 12/31 - Holiday - New Year's Day (NAESB Closed)

## 2011 Calendar:

### January 2011

- 01/05 - WEQ OASIS Conf. Call
- 01/06 - WGQ BPS Conf. Call
- 01/10 - WEQ OASIS Conf. Call
- 01/11-12 - WEQ BPS Meeting (Baltimore, MD)
- 01/11-13 - WGQ Joint IR/Technical (Salt Lake City, UT)
- 01/13 - WEQ OASIS Conf. Call
- 01/13 - Retail BPS Conf. Call
- 01/17 - Holiday - Martin Luther King Day (NAESB Closed)
- 01/18 - WEQ SRS Conf. Call
- 01/19-21 - WEQ OASIS Meeting (Houston, TX)
- 01/25 - WEQ OASIS Conf. Call
- 01/26 - NAESB Monthly Update Conf. Call
- 01/31 - Retail BPS Meeting (Phoenix, AZ)

### February 2011

- 02/01 - Retail BPS Meeting (Phoenix, AZ)
- 02/01 - WEQ Executive Committee Meeting (Phoenix, AZ)
- 02/01-02 - WGQ Joint IR/Technical (Phoenix, AZ)
- 02/02-03 - WEQ OASIS Meeting (Phoenix, AZ)
- 02/02 - Retail Executive Committee Meeting (Phoenix, AZ)
- 02/03 - WGQ Executive Committee Meeting (Phoenix, AZ)
- 02/08-09 - WEQ OASIS Conf. Call
- 02/12 - NAESB Advisory Committee Meeting (Washington, DC)
- 02/14 - WEQ OASIS Conf. Call
- 02/15 - WEQ SRS Conf. Call
- 02/16-17 - WEQ BPS Meeting (Houston, TX)
- 02/21 - Holiday - President's Day (NAESB Closed)
- 02/23 - WEQ OASIS Conf. Call

### March 2011

- 03/01-03 - WEQ OASIS Meeting (Topeka, KS)
- 03/02-03 - WGQ Joint IR/Technical (Colorado Springs, CO)
- 03/08-09 - WEQ BPS Meeting (Location TBD)
- 03/09 - NAESB Monthly Update Conf. Call
- 03/15 - WEQ SRS Conf. Call
- 03/16 - WEQ OASIS Conf. Call
- 03/17 - Retail BPS Conf. Call
- 03/22-23 - WGQ Joint IR/Technical (Houston, TX)
- 03/23 - WEQ BPS Meeting (Houston, TX)
- 03/23 - NAESB Board Reception & Dinner with Guest Speaker (Houston, TX)
- 03/24 - NAESB Board Resource Meeting (Houston, TX)
- 03/24 - NAESB Board of Directors Meeting (Houston, TX)

## STANDARDS DEVELOPMENT

**Parallel Flow Visualization - Transmission Loading Relief (PFV-TLR) Standards Development:** NERC and NAESB have been working closely together to create a more efficient and transparent approach for managing transmission congestion in the Eastern Interconnection. The PFV-TLR project, known as the Generation to Load (GTL) project at NERC, addresses three issues: (1) the use of static data by the Interchange Distribution Calculator (IDC) in its curtailment calculations, (2) the lack of visualization as to the source and magnitude of parallel flows during congestion periods, and (3) the lack of visualization of generation-to-load priorities during firm curtailment.

This project passed an important milestone in early November, when NAESB provided NERC with business standards that would permit the prioritization of intra-BA flows for curtailment calculation purposes. In recognition of the differing structural approaches reflected in existing tariffs throughout the Eastern Interconnection, this interim set of standards, which was ratified by NAESB membership in early December, does not prescribe a particular methodology for identifying and reporting firm and non-firm flows to the IDC. Nonetheless, as mentioned in NERC's late November press release, the interim solution is successfully working in conjunction with NERC's new requirements, which provide for the submission of data on a much more frequent and granular basis, to permit the unprecedented reporting of intra-BA priority data to the IDC. NAESB's working partnership with NERC continues to quickly and effectively respond to the industry's changing needs. NAESB is privileged to have a number of industry experts who volunteer their time and knowledge to make this coordinated effort possible, particularly in light of the project's accelerated timeline.

The standards submitted to NERC are understood by all parties to be an interim solution reached to permit NERC's test to proceed unimpeded for NERC Change Order 283, while the WEQ BPS works out a permanent set of standards to apply to the entire Eastern Interconnection. This second phase of the PFV-TLR project is well underway. Having met regularly, including a joint meeting with the NERC IDC Working Group in early December, the subcommittee has made significant progress toward this goal, as only

two options remain for consideration: the Flowgate Allocation method and the Hybrid method incorporating elements from the earlier Tag All Non-Firm and Generator Prioritization methods. It is hoped that consensus be reached on a standardized reporting methodology for firm and non-firm flows during 1Q 2011.

For more information, please go to ([WEQ 2010 Annual Plan Item 1.a.i Final Action](#), [WEQ BPS Web Page](#), [NERC Press Release](#), [NERC Change Order 283](#), [NAESB Comments to FERC](#), [Hybrid Option Work Paper](#), [Flowgate Allocation Work Paper](#)), or contact Denise Rager ([drager@naesb.org](mailto:drager@naesb.org)) to be added to the distribution list.

**Cybersecurity:** The Critical Infrastructure Committee functions as an advisory and investigative body for the NAESB Board of Directors concerning commercial and market integrity aspects of cybersecurity and critical infrastructure issues. The Committee works to examine pending legislation, provide liaison support for national security, critical infrastructure protection, intelligence, market monitoring and regulatory bodies of the US Government, and provide actionable advice to NAESB for standards development in these focus areas. During the upcoming year, the committee will be closely monitoring the progress of consolidated cybersecurity legislation that is being drafted by broadly bipartisan taskforces in Congress to address concerns of credible cyber and physical threats to critical infrastructure. This work is undertaken with the recognition that the energy sector (electric and gas) are two of the top five focus areas identified as targets for attack or risk of failure during manmade and/or natural disaster events.

According to Jesse Hurley of Shift Research, the Committee chair, in 2011 "we will be examining the issues surrounding data privacy as were recently raised during the December Board meeting," adding that "specific focus will address consumer and utility rights and data security standards recommendations to ensure that the integrity of those rights are safeguarded." Mr. Hurley also invited participation, suggesting that any "issues for review and recommendation be directed to the committee chairs or to the NAESB office."

For more information, please go to ([NAESB Board Critical Infrastructure Web Page](#), [Data Privacy Board Presentation](#)), or contact Denise Rager ([drager@naesb.org](mailto:drager@naesb.org)) for additional information.

STANDARDS DEVELOPMENT *(continued)*

**Smart Grid Activities:** The Smart Grid Interoperability Panel (SGIP), formed under the auspices of the National Institute of Standards and Technology (NIST), asked for NAESB's assistance in developing four of the existing 17 priority action plans, or PAPs. The Board formed a Smart Grid Standards Development Subcommittee to address the first three: PAP03 (Common Price Communication Model); PAP04 (Common Scheduling Mechanism); and, PAP09 (Standard Demand Response and Distributed Energy Resources Signals). The group, which reports to both the Board and the REQ and WEQ Executive Committees, agreed to develop the work in two phases: Phase I would develop use cases and initial data requirement standards, and Phase II would create expanded data requirement standards.

Phase I was completed in July 2010; these seed standards have since been submitted to other standards development organizations, as identified by the SGIP, for further refinement. The subcommittee completed its Phase II effort in mid-October 2010, voting out four wholesale recommendations and four retail recommendations for a formal comment period. Once comments received are incorporated, the WEQ EC and REQ EC will hold a single topic conference call to review the recommendation and comments, followed by a face-to-face meeting to vote on all eight of the recommendations after the first of the year.

The Smart Grid Standards PAP10 Subcommittee has produced standards that have been adopted by the WEQ and REQ ECs and ratified without opposition by the membership. In early December, the SGIP PAP 10 working group adopted the NAESB final action. With this project completed, it is expected that the Smart Grid Standards PAP10 Subcommittee will begin work on a pending project, specifically, the harmonization of the IEC Common Information Model (CIM) and the Smart Energy Profile (SEP) 2.0.

In a separate but related development activity, the Open ADE Task Force, operating within the UCA International User's Group, submitted a standards request to NAESB for the standardization of the exchange of energy usage information that is intended to facilitate the transfer of information between designated parties. This request will build upon the OpenADE 1.0 Requirements document. The request was triaged and assigned to the Smart Grid Standards PAP10 Subcommittee, which in turn formed the Energy Services Provider Interface Task Force. This task force has continued to meet every two weeks to continue the development of a recommendation. It is anticipated that a complete draft will be prepared for the full subcommittee by mid-January 2011. This draft will then go out for an informal comment period in early February and is

expected to be finalized by the end of 1Q 2011.

For more information, please go to ([PAP03](#), [PAP04](#), [PAP09](#), [PAP10](#), [WEQ PAP03 and PAP09](#), [WEQ PAP03 Phase II](#), [WEQ PAP04 Phase II](#), [WEQ PAP09 Phase 2](#), [WEQ PAP10](#), [REQ PAP03 and PAP09](#), [REQ PAP03 Phase II](#), [REQ PAP04 Phase II](#), [REQ PAP09 Phase II](#)), or contact Denise Rager ([drager@naesb.org](mailto:drager@naesb.org)) to be added to the relevant distribution lists.

Update your membership - NAESB Mail  
Subscription Services [Click Here](#)

**Wholesale Electric Service Across Multiple Transmission Systems:** Currently, a transmission customer hoping to move energy across multiple transmission provider systems could be left with a financial obligation to pay for committed capacity on one system without a guarantee that the energy will be able to reach its intended destination. This is partly due to the fact that transmission providers make capacity allocations independently of one another (and often according to different decision-making timelines), partly due to strict confirmation deadlines, and partly due to the fact that such a point-to-point reservation may not be rescinded or modified once confirmed.

A task force assigned to provide scope to the project put forth a recommendation that was approved by the WEQ EC in mid-August. This recommendation proposed that each affected transmission provider independently evaluate its portion of the linked request, with the opportunity for a true-up by the transmission customer once all evaluations are completed. Thus, the transmission customer, after submitting and monitoring requests on multiple systems, would communicate true-up information to each of the affected transmission providers.

A task force responsible to the WEQ OASIS subcommittee has begun preliminary work on this project aimed at recommending whether a state of Provisionally Denied should be incorporated into the process. As the balance of the scope of work has already been defined by the WEQ EC, the full subcommittee's work will focus primarily on developing standards which comport with that scope. According to Alan Pritchard of Duke Energy, who is leading the subcommittee task force, "having the scope defined upon taking up this project will likely reduce development time by at least three months." The full subcommittee will begin working on SAMTS immediately after completing the NITS on OASIS effort, with a targeted completion date of late 1Q 2011.

For more information, please go to ([SAMTS Progress Report filed with FERC](#), [SAMTS Scope Recommendation](#), [SAMTS White Paper](#), [SAMTS Presentation](#)), or contact Denise Rager ([drager@naesb.org](mailto:drager@naesb.org)) for additional information.

**NAESB Calendar of Action Items:** For an update on current action items please reference the [Calendar of Action Items](#).

STANDARDS DEVELOPMENT *(continued)*

**Demand-Side Management and Energy Efficiency:** The Demand-Side Management efforts at NAESB are divided into two areas: Demand Response (DR) and Energy Efficiency (EE), each with a wholesale and retail component. DR efforts have been focused on creating a uniform methodology to measure reduction in energy usage during a demand response event. On April 15, 2010, FERC issued its final rule adopting the WEQ Phase 1 DR Measurement and Verification (M&V) standards. In the final rule, the Commission noted that NAESB was best suited to develop the Phase II standards, noting that “additional substantive standards would appear beneficial in creating transparent and consistent measurement and verification of demand response products and services in wholesale electric markets. The measurement and verification standards needed to accomplish this goal should be a focus of NAESB’s Phase II M&V Standards development efforts.” The Commission also set a one-year deadline to either complete the Phase II standards, or report the progress made in the Phase II efforts; thanks to the tireless efforts of dedicated members, NAESB is pleased to report that this effort is nearly complete.

The Wholesale DR work group created three task forces (glossary, model business practices and performance evaluation methods) to accomplish the Phase II work. The entire DR M&V recommendation is complete; after the close of a formal comment period, the recommendation will be ripe for WEQ EC consideration in mid-January 2011.

The Retail DR work group has also completed its own Phase II efforts. In addition, the Retail and Wholesale DR groups completed work to harmonize Glossary terms so that a given term has the same definition in WEQ as it does in the Retail Quadrants. There are some slight differences in a few cases, however, which relate to differences between the two industries. It is anticipated that this recommendation will be voted on by the REQ EC in early February 2011.

The EE efforts at NAESB develop standards to measure and verify reductions in energy and demand from energy efficiency in both wholesale and retail markets, including standards to measure and verify energy reductions that are made to comply with either a Renewable Portfolio Standard that included energy efficiency, or a stand-alone Energy Efficiency Portfolio Standard.

The Wholesale EE work group completed its EE M&V recommendation and sent the draft standards out for formal industry comment in mid-December 2010; it is anticipated that the WEQ EC will consider the draft and any comments received by early February 2011.

The Retail EE group has completed its draft Glossary and has begun to draft wording for the model business practices, including sections on baseline estimates for measurement burn-out vs. early retirement, energy efficiency programs, general evaluation plan requirements and select gross savings approaches. It is anticipated that this effort will be finished in 2Q 2011.

*For more information, please go to ([FERC Final Rule - Order No. 676-E](#), [NAESB Report to FERC](#), [Retail EE Scope Document](#), [Retail DR Phase 2 Draft Recommendation](#), [Wholesale EE Recommendation](#), [Wholesale DR Recommendation](#)), or contact Denise Rager ([drager@naesb.org](mailto:drager@naesb.org)) to be added to the relevant distribution lists.*

**Network Integration Transmission Services (NITS) Standards Development:** The OASIS systems that manage the electronic scheduling of wholesale electricity were initially designed to support point-to-point transmission services. For several years, the WEQ OASIS subcommittee has been working diligently to establish standards permitting OASIS to accommodate network integration transmission service, or NITS, as mandated by FERC in Order No. 890. This effort has required a significant time investment and has placed a premium on creative solutions. Once this project is complete, it is hoped that the marketplace will benefit greatly from increased uniformity and transparency for transmission services.

Currently, the subcommittee has completed its draft of WEQ 001, containing the network transmission service business standards. These draft standards have already been vetted through several informal industry comment periods. In addition, a technical team is currently nearing completion of draft supporting technical standards to permit the seamless implementation of the new standards. No significant conceptual issues remain unresolved, but the effort to efficiently and accurately connect the business standards to data fields and templates is ongoing.

Once the technical standards are approved by the full subcommittee, the final draft version of WEQ 001, 002, 003, and 013 will be sent out for a final round of informal industry comments. Although several rounds of comments have already occurred, the industry has never had an opportunity to comment on the entire set of proposed standards as a unit. After any comments received are incorporated in early 1Q 2011, the subcommittee will send its final draft standards out for a formal industry comment period prior to consideration by the WEQ EC.

*For more information, please go to ([WEQ NITS on OASIS Draft Standards](#) or [WEQ OASIS Web Page](#)) or contact Denise Rager ([drager@naesb.org](mailto:drager@naesb.org)) to be added to the distribution list.*

**NAESB Primers and Training Courses:**

Please monitor the [NAESB Primers and Training Courses](#) web page for scheduling of upcoming courses.



[LDC Gas Forums](#)



**2011 Annual Plans:** In early December, Board members approved the Annual Plans that will guide each quadrant's subcommittee work throughout 2011.

Kathy York of the Tennessee Valley Authority, the WEQ Chair, offered the following statement regarding the WEQ 2011 Annual Plan: "as in the last few years, the 2011 Annual Plan for the Wholesale Electric Quadrant is full of major tasks that will keep our subcommittee volunteers extremely busy. From completing complex work products related to FERC Order 890 and Parallel Flow Visualization standards needed to improve congestion management to the ongoing coordination between NERC and NAESB on complimentary business practices and reliability standards, this quadrant continues to work diligently to deliver products that will enhance the efficiency of the electric industry. I continue to be proud of our subcommittee leadership and all the volunteers who deliver countless hours to ensure NAESB's electric standards meet industry's needs."

According to Jim Buccigross of 8760, Inc., the WGQ chair, "one main focus of the 2011 WGQ plan involves clarifying and streamlining the Informational Postings requirements, along with the related implementation manuals." He added that "this effort should make it easier to implement the posting requirements, while not in any way diminishing the level and content of the posted data." Mr. Buccigross further noted that "the quadrant will also review both the Base Contract, and the Internet standards for posting and communications to determine what, if any, updates are appropriate."

Mike Novak of National Fuel Gas Distribution, chair of the RGQ, stated that he was "pleased to see that the work on Supplier Certification and Supplier Marketing Practices will be completed early in 2011." He added that he hoped that "we are able to make some serious progress on the remaining technical work associated with customer choice oriented business practices this coming year."

Phil Precht of Baltimore Gas and Electric, chair of the REQ, stated that he was "looking forward to continuing to work alongside the RGQ on the Customer Choice project, including the timely subject of Supplier Marketing Practices." He added that "we are especially happy to be able to respond to a request from the Pennsylvania PUC Staff to develop model business practices allowing customers to access their energy usage information outside the Smart Grid environment." Mr. Precht noted that "development will also continue in the areas of Demand Response, Energy Efficiency, and Smart Grid," calling attention to the fact that "this work also gives us the opportunity to work closely with the WEQ and coordinate our model business practices with their standards."

*For more information, please go to ([2011 WEQ Annual Plan](#), [2011 WGQ Annual Plan](#), [2011 Retail Annual Plan](#)), or contact Denise Rager ([drager@naesb.org](mailto:drager@naesb.org)).*

**NAESB Certification Program**  
For information [Click Here](#)

**WGQ Version 2.0 Publication:** The NAESB WGQ Standards Version 2.0 was released in late November 2010. This publication includes the re-design of the capacity release data sets and corresponding standards, primarily to streamline the capacity release process and the applicable data dictionaries. Since the creation (Upload) functionality of the capacity release transactions via ANSI ASCX12 EDI is no longer used in the industry, 14 data sets were consolidated into 4 new data sets. All capacity release creation functionality still remains on Transportation Service Provider (TSP) websites. Additionally, the Operationally Available and Unsubscribed Capacity data set was deleted from the capacity release manual, split into 2 separate data sets and moved to the general standards book along with new standards. This change was designed to coincide with the regulatory reporting requirements for TSPs. Other changes include the addition of new standards regarding customer security administration, display/use of data elements on the TSP website, ability for TSPs to provide increased granularity on notices, and the update of technical characteristics. Lastly, in a joint effort with the WEQ, the 10 standards involving operational communications were modified to more clearly identify the parties involved in said communications. Dale Davis, the vice-chair of the WGQ EC, stated that this publication reflected the "maturity of the standards process," adding that "the modifications represent an ongoing effort to keep up with the market trends as well as provide increased clarity." She also expressed her thanks to the "members of the subcommittees involved because without their dedicated attention to detail, this massive amount of work could not have been accomplished this past year."

*For more information, please go to ([WGQ Publication Schedule](#), [WGQ Version 2.0](#)) or contact Denise Rager ([drager@naesb.org](mailto:drager@naesb.org)).*

**Announcements:** It is with great pleasure that NAESB announces that Valerie Crockett has assumed the chairmanship of the NAESB Board of Directors. Over the decade that she has served the industry at NAESB and its predecessor the Gas Industry Standards Board (GISB), Ms. Crockett has consistently displayed the leadership qualities that are essential to her new position. Asked to comment on her new role, Ms. Crockett stated that "at NAESB we continually face challenges due to the ever-changing nature of the energy industry. How we view these challenges defines us. Do we choose to see the challenges as opportunities or as obstacles? I choose to see opportunities and will strive to serve as your Chairman with the sincerity, integrity and respect the position deserves."

We would like also like to thank Ralph Cleveland of AGL Resources, the outgoing Board Chairman, for his gracious service and exemplary leadership over the past year. We are fortunate that Mr. Cleveland will continue to provide guidance to help further our Board efforts.

It is with regret that we share that Lee Stewart has announced his imminent retirement from Southern California Gas. Mr. Stewart has provided Board leadership to NAESB and its predecessor organization, the Gas Industry Standards Board, for many years, and he will be missed.

**Membership:** As a result of the outreach made by the Board Resources Committee, chaired by Mr. R. Scott Brown of Exelon Corporation, NAESB has gained six new members. We would like to welcome the following new members:

- . LG&E and KU Services Company  
(WEQ, Transmission, IOU)
- . AGL Resources, Inc.  
(WGQ, LDC)
- . Accenture, LLP  
(WGQ, Services)
- . Navigant Consulting, Inc.  
(REQ, End Users/Public Agencies)
- . National Association of Regulatory Utility Commissioners  
(REQ, End Users/Public Agencies)
- . SouthStar Energy Corp.  
(RGQ, Service Providers/Suppliers)

We want to thank the board members for their continued outreach to companies involved in demand side management (DSM), smart grid, wind and solar projects, as well as their colleagues who may not be NAESB members. Board members can forward contact information for prospective members to the NAESB office (Denise Rager at [drager@naesb.org](mailto:drager@naesb.org) or 713-356-0060) for the distribution of membership information packets.

For more information, please go to ([NAESB Members](#), [Membership Information](#), or [Membership Report](#)) or contact Denise Rager ([drager@naesb.org](mailto:drager@naesb.org)) for additional information.



**Copyright/NAESB Standards Access:** As everyone should be aware, NAESB copyrights its work products – a practice used by most standards organizations. The copyrights are considered a subset of intellectual property law, and NAESB retains the rights to publication, reproduction, display and distribution. NAESB members may obtain materials free of charge as part of their benefits, but these benefits do not extend to their agents, affiliates or subsidiaries without prior approval from the NAESB office. Damages for copyright infringement can be significant, including penalties of \$100,000+, injunction, impounding of materials, seizure of property, and award of punitive damages. At the same time, NAESB is very liberal in its policies towards sharing information, and has granted waivers to regulators and educational institutions depending on the intended use. There is also a process by which anyone can request a three day waiver to review the work products, as they consider whether they should purchase them. NAESB’s control of copyrighted material provides a small revenue stream which offsets some of its standards development expenses and thus those of its members in the creation of the work products. More importantly, as entities must come to NAESB for its standards material, it assures that they will have access to the most current version.

For more information, please go to ([Copyright](#), [NAESB Material Order Form](#)) or contact Denise Rager ([drager@naesb.org](mailto:drager@naesb.org)) for additional information.

<i>NAESB Quadrant/Segment Membership Analysis:</i>	
<u>Wholesale Gas Quadrant</u>	122 Members
End Users Segment	16
Distributors Segment	19
Pipelines Segment	44
Producers Segment	12
Services Segment	31
<u>Retail Electric Quadrant</u>	22 Members
End Users/Public Agencies Segment	7
Utilities Segment	7
Service Providers/Suppliers Segment	8
<u>Retail Gas Quadrant</u>	19 Members
End Users/Public Agencies Segment	1
Distributors Segment	6
Service Providers/Suppliers Segment	12
<u>Wholesale Electric Quadrant</u>	138 Members
End Users Segment	8
Distributors Segment	20
Transmission Segment	47
Generation Segment	23
Marketers/Brokers Segment	25
Non Specified	1
Independent Grid Operators/Planners Segment	9
Technology & Services Segment	5
<b>Total Membership</b>	<b>301 Members</b>