North American Energy Standards Board
801 Travis, Suite 1675, Houston, Texas 77002
Phone: (713) 356-0060, Fax: (713) 356-0067, E-mail: naesb@naesb.org
Home Page: www.naesb.org

NORTH AMERICAN ENERGY STANDARDS BOARD
RETAIL GAS & ELECTRIC QUADRANTS EXECUTIVE COMMITTEE MEETING MATERIALS

Wednesday, May 4, 2011 -- 10:00 am to 4:00 pm ET

ACES Power Marketing, Carmel, IN – Board Room

North American Energy Standards Board
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NORTH AMERICAN ENERGY STANDARDS BOARD
RETAIL QUADRANTS EXECUTIVE COMMITTEE MEETING
Wednesday, May 4, 2011 – 10:00 am to 4:00 pm E
Web Cast/Conference Call, for in person attendance – Board Room, ACES Power Marketing, Carmel, IN

TABLE OF CONTENTS

#	Agenda Item	Page
1.	Welcome	
	• Antitrust Guidelines http://www.naesb.org/misc/antitrust_guidance.doc (Guidance)	4
	• Welcome to members and attendees	
	• Quorum Establishment: Roll Call of Retail EC Members and Alternates: http://www.naesb.org/pdf4/ec_terms.pdf (EC) and http://www.naesb.org/pdf4/alt_ec_members.pdf (EC Alt)	5 11
2.	Consent Agenda (simple majority to approve)	
	• Adoption of Retail Agenda: http://www.naesb.org/pdf4/ec050411a.doc	16
	• Adoption of the Retail ECs Meeting Minutes: http://www.naesb.org/pdf4/retail_ec020211dm.doc (Draft 2-3-11 minutes)	24
	• Adoption of changes to the 2011 Retail Annual Plan to be proposed to the Board of Directors: http://www.naesb.org/misc/retail_2011_annual_plan_042911.doc	29
3.	Update on Demand Side Management/Energy Efficiency	
	• Energy Efficiency: http://www.naesb.org/pdf4/retail_ec050411w1.doc (Retail EE outline of issues), http://www.naesb.org/pdf4/retail_ec050411w2.doc (Retail EE redlined draft recommendation)	36 37
	• Demand Response: http://www.naesb.org/pdf4/dsmee_group2_032811a1.doc (Demand Response Enrollment Request R10002)	120
4.	Update on Minor Correction from the Glossary Committee: MC11012 – Minor Correction to Retail Books, Version 1.3, Business Definitions - updates reflect the most-recently approved definitions by the REQ Glossary Subcommittee as approved by the REQ and RGQ ECs by notational ballot on April 27, 2011: http://www.naesb.org/pdf4/retail_mc11012_042711.doc Request for Comments due May 12, 2011: http://www.naesb.org/pdf4/retail_mc042811reqcom.doc *(Effective date May 27, 2011)*	129 132
5.	Update on Smart Grid Activities	
	• Data Privacy	
	• Energy Service Providers Interface	
6.	Retail Quadrants Membership and Status of Retail Restructuring:	
	• Membership Report: http://www.naesb.org/misc/2011_membership_report_042911.doc	134
7.	Subcommittee Updates (meeting materials for updates will be provided by leadership as they are available):	
	• Triage Subcommittee: http://www.naesb.org/pdf4/tr011911disposition.doc (report), http://www.naesb.org/pdf4/tr042911agenda.doc (new request)	144 146
	• Business Practices Subcommittee (BPS) and Texas Task Force	
	• Technical Electronic Implementation Subcommittee (TEIS)	
	• Glossary Efforts	
	• Contracts – Reactivation? Leadership?	

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TABLE OF CONTENTS

#	Agenda Item	Page
8.	Publication Schedule Review	148
	• WGQ Publication Schedule (Version 2.1): http://www.naesb.org/misc/wgq_publication_schedule_ver2_1.doc,	151
	• WEQ Publication Schedule (Version 2.2): http://www.naesb.org/misc/weq_publication_schedule_ver2_2.doc,	156
	• Retail Publication Schedule (Version 1.4): http://www.naesb.org/misc/retail_publication_schedule_ver1_4.doc	
	(WGQ and WEQ provided for context)	
9.	Board of Directors, Board Committee and Regulatory Updates (no votes or action to be taken):	
	• Board and Board Committee Updates – Board Meeting March 24, 2011: http://www.naesb.org/pdf4/bd032411dm.doc	157
	• Wholesale Electric and Wholesale Gas key activities – WEQ Annual Plan, WGQ Annual Plan http://www.naesb.org/pdf4/bd032411a2.doc (WEQ), http://www.naesb.org/misc/wgq_2011_annual_plan_042911.doc (WGQ with redlined changes submitted by WGQ Leadership)	168 180
10.	Other Business	184
	• 2011 Schedule: http://www.naesb.org/misc/2011_schedule.pdf	
11.	Adjourn	

Attire – Business Casual

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NAESB ANTITRUST GUIDELINES STATEMENT

ANTITRUST GUIDELINES

- The following guidelines will be reviewed by counsel at the meeting. The meeting will be monitored, transcribed, and minutes will the taken. The guidelines are as follows:

Antitrust guidelines direct meeting participants to avoid discussion of topics or behavior that would result in anticompetitive behavior including: restraint of trade and conspiracies to monopolize, unfair or deceptive business acts or practices, price discriminations, division of markets, allocation of production, imposition of boycotts, and exclusive dealing arrangements.

Any views, opinions or positions presented or discussed by meeting participants are the views of the individual meeting participants and their organizations. Any such views, opinions or positions are not the views, positions or opinions of NAESB, the NAESB Board of Directors, or any NAESB Committee or Subcommittee, unless specifically noted otherwise.

As it is not the purpose of the meeting to discuss any antitrust topics, if anyone believes we are straying into improper areas, please let us know and we will redirect the conversation.

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NORTH AMERICAN ENERGY STANDARDS BOARD
2011 EXECUTIVE COMMITTEE TERMS – Wholesale Gas Quadrant

PRODUCERS SEGMENT		**TERM END:**
Rhonda Denton	Regulatory Affairs, BP Energy Company	12-31-2012
Catherine Abercrombie	Regulatory Affairs, ConocoPhillips Gas and Power Marketing	12-31-2012
Chuck Cook	Manager - Regulatory Affairs, Chevron	12-31-2011
Richard D. Smith	Regulatory & Compliance Manager, Noble Energy, Inc.	12-31-2011
Mike Shepard	General Counsel, Mewbourne Oil Company	12-31-2011
PIPELINE SEGMENT		
Bill Griffith	Consultant, El Paso Natural Gas Company	12-31-2011
Kathryn Burch	Project Manager - Standards and Regulatory, Spectra Energy Transmission	12-31-2011
Dale Davis	Industry Standards Consultant, Williams Gas Pipeline	12-31-2013
Randy Young	Vice President - Regulatory Compliance and Corporate Services, Boardwalk Pipeline Partners, LP	12-31-2012
Kim Van Pelt	Regulatory Compliance Manager, Panhandle Eastern Pipe Line	12-31-2012
LOCAL DISTRIBUTION COMPANY (LDC) SEGMENT		
Rodger Schwecke	Director – Energy Markets and Capacity Products, Sempra Energy - Southern California Gas	12-31-2011
Phil Precht	Management Consultant – Pricing & Regulatory Services Department, Baltimore Gas and Electric Company	12-31-2011
Archie Hickerson	Director - Regulatory Affairs and Planning, AGL Resources	12-31-2013
V A C A N C Y		12-31-2012
Craig Colombo	Energy Trader III, Dominion Resources	12-31-2012
END USERS SEGMENT		
Norm Spooner	Supply Chain Manager – Fuel & Term Trading Department, Arizona Public Service Company	12-31-2012
Valerie Crockett	Senior Program Manager - Energy Markets & Policy, Tennessee Valley Authority	12-31-2012
Lori-Lynn C. Pennock	Senior Fuel Supply Analyst, Salt River Project	12-31-2011
Simona Patru	Manager Contract Administration – Energy Marketing & Trading, Florida Power & Light	12-31-2011
Tina Burnett	Natural Gas Resources Administrator, The Boeing Company	12-31-2011
SERVICES SEGMENT		
Craig Fleming	Director of Credit, Sequent Energy Management	12-31-2012
Lisa Simpkins	Vice President, Energy Policy – Natural Gas, Constellation Energy Commodities Group	12-31-2012
Leigh Spangler	CEO, Latitude Technologies, Inc.	12-31-2011
Jim Buccigross	Vice President, 8760 Inc.	12-31-2011
Jeff Jarvis	Senior Counsel, EnCana Marketing (USA), Inc.	12-31-2011

EXECUTIVE COMMITTEE OFFICERS: Jim Buccigross is WGQ chairman of the Executive Committee, Dale Davis is WGQ vice chairman; Mike Novak is the RGQ chairman, Phil Precht is the REQ chairman, Jim Minneman is REQ vice chairman, Kathy York is the WEQ chairman and Jim Castle is the WEQ vice chairman.

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NORTH AMERICAN ENERGY STANDARDS BOARD
2011 EXECUTIVE COMMITTEE TERMS – Retail Electric Quadrant

SERVICE PROVIDERS/SUPPLIERS SEGMENT		**TERM END:**
Bill Barkas	Manager of Retail State Government Relations, Dominion Retail, Inc.	12-31-2011
Jim Minneman	Controller, PPL Solutions, LLC	12-31-2011
Wendell Miyaji	Vice President – Energy Sciences, Comverge, Inc.	12-31-2012
Susan Munson	ERCOT Retail Market Liaison, Electric Reliability Council of Texas (ERCOT)	12-31-2012
UTILITIES SEGMENT		
Phil Precht	Management Consultant - Pricing and Regulatory Services Department, Baltimore Gas & Electric Company	12-31-2011
Patrick Eynon	Supervisor – Retail Access, Ameren Services	12-31-2011
Judy Ray	Industrial Segment Manager – Contract Administrator, Alabama Power Company	12-31-2012
Michael J. Jesensky	Director – Demand –Side Analysis, Dominion Resources Services, Inc. (representing Dominion Virginia Power)	12-31-2012
END USERS/PUBLIC AGENCIES SEGMENT		
James Bradford Ramsay	General Counsel – Supervisor/Director – NARUC Policy Department, National Association of Regulatory Utility Commissioners (NARUC)	12-31-2011
V A C A N C Y		12-31-2011
Annunciata E. Marino	Utility Energy Policy and Technology Analyst, Pennsylvania Public Utility Commission	12-31-2012
Pam Stonier	Utilities Analyst, Vermont Public Service Board	12-31-2012

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2011 EXECUTIVE COMMITTEE TERMS – Wholesale Electric Quadrant

TRANSMISSION SEGMENT		**TERM END:**	**SUBSEGMENT:**
Patrick McGovern	Manager - System Services, Georgia Transmission Corporation	12-31-2011	Muni/Coop
V A C A N C Y		12-31-2012	Fed/State/Prov.
Corey Sellers	Transmission Service Manager, Southern Company	12-31-2012	IOU
Edward Davis	Policy Consultant, Entergy Services, Inc.	12-31-2011	IOU
Robert Bean	Transmission Services Trading Section Leader, Arizona Public Service Company	12-31-2012	at large
Bob Harshbarger	OASIS Trading Manager, Puget Sound Energy	12-31-2011	at large
Michelle Mizumori	Director of Market – Operations Interface, Western Electricity Coordinating Council (WECC)	12-31-2011	At-Large
GENERATION SEGMENT			
William J. Gallagher	Special Contracts Chief, Vermont Public Power Supply Authority	12-31-2011	Muni/Coop
Kathy York	Senior Program Manager – Energy Markets, Policy, and Compliance Reporting, Tennessee Valley Authority	12-31-2012	Fed/State/Prov.
V A C A N C Y		12-31-2012	IOU
John Ciza	Project Manager Energy Policy and Regulatory Affairs, Southern Company Services	12-31-2011	IOU
Alan Johnson	Director Regulatory Compliance – Commercial Operations & Commodities, NRG Energy, Inc.	12-31-2012	Merchant
V A C A N C Y		12-31-2011	at large
Shah Hossain	Senior Regulatory Specialist, Westar Energy, Inc.	12-31-2011	at large
MARKETERS/BROKERS SEGMENT			
Chris Norton	Director of Market Regulatory Affairs, American Municipal Power, Inc.	12-31-2012	Muni/Coop
Belinda Thornton	General Manager - Energy Origination, Tennessee Valley Authority	12-31-2011	Fed/State/Prov.
V A C A N C Y		12-31-2012	Not IOU Affiliated
Richard Lehman	Supply and Trading, Salt River Project	12-31-2011	at large
John Apperson	Director – Commercial and Trading, PacifiCorp Energy	12-31-2012	IOU
Roy True	Manager of Regulatory and Market Affairs, ACES Power Marketing	12-31-2011	at large
V A C A N C Y		12-31-2011	at large

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DISTRIBUTION/LOAD SERVING ENTITIES (LSE) SEGMENT		TERM END:	SUBSEGMENT:
Ray Phillips	Manager of Compliance and Special Projects, Alabama Municipal Electric Authority	12-31-2012	Muni/Coop
Robert (Bob) S. Beadle	Manager – Transmission Resources, North Carolina Electric Membership Corporation	12-31-2011	at large
Alan Pritchard	Senior Engineer, Duke Energy Corporation	12-31-2012	IOU
Rufus D. Gladney	Executive Manager of Energy Services West, Consumers Energy Company	12-31-2011	IOU
Robert Martinko	Consultant FERC Compliance, FirstEnergy Service Company	12-31-2012	at large
Syd Berwager	Industry Restructuring Project Manager, Bonneville Power Administration/Power Business Line	12-31-2011	Other
David Taylor	Director of Standards Regulatory Compliance, North American Electric Reliability Corporation (NERC)	12-31-2011	At-Large
END USERS SEGMENT			
Pam Stonier	Utilities Analyst, Vermont Public Service Board	12-31-2011	at large
Aaron Breidenbaugh	Senior Manager - Regulatory Affairs and Public Policy - New York, EnerNOC, Inc.	12-31-2012	at large
Lou Ann Westerfield	Policy Strategist, Idaho Public Utilities Commission, rep. National Association of Regulatory Utility Commissioners	12-31-2012	Regulator
V A C A N C Y		12-31-2011	at large
Jesse D. Hurley	Chief Executive Officer, Shift Research, LLC	12-31-2012	at large
V A C A N C Y		12-31-2011	at large
Paul Sorenson	Vice President - Central Markets Strategy, Open Access Technology International, Inc.	12-31-2011	At-Large
INDEPENDENT GRID OPERATORS/PLANNERS			
Thomas Bowe	Executive Director – Reliability Integration, PJM Interconnection, LLC	12-31-2012	
Jim Castle	Manager - Grid Operations, New York Independent System Operator, Inc.	12-31-2012	
Matt Goldberg	Director Reliability & Operations Compliance ISO New England, Inc.	12-31-2012	
Gregory Van Pelt	Operations Regional Coordination and Records, California ISO	12-31-2012	
Joel Mickey	Director of Grid Operations, Electric Reliability Council of Texas	12-31-2011	
Ed Skiba	Consulting Advisor, Standards Compliance & Strategy, Midwest ISO	12-31-2011	
Charles Yeung	Executive Director Interregional Affairs, Southwest Power Pool	12-31-2011	

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TECHNOLOGY AND SERVICES		
Jim Buccigross	Vice President Energy Industry Practice, 8760 Inc.	12-31-2012
Andy Tritch	Senior Business Analyst, SunGard	12-31-2012
V A C A N C Y		12-31-2012
V A C A N C Y		12-31-2012
V A C A N C Y		12-31-2011
V A C A N C Y		12-31-2011
V A C A N C Y		12-31-2011

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NORTH AMERICAN ENERGY STANDARDS BOARD
2011 EXECUTIVE COMMITTEE TERMS – Retail Gas Quadrant

SERVICE PROVIDERS/SUPPLIERS SEGMENT		**TERM END:**
Dwight M. Whitley, Jr.	Corporate Counsel, Sierra Southwest Cooperative Services, Inc.	12-31-2011
V A C A N C Y		12-31-2011
Richard Zollars	Director - Data and Billing, Dominion Retail, Inc.	12-31-2012
V A C A N C Y		12-31-2012
DISTRIBUTORS SEGMENT		
Dan Jones	Supervisor - Certified Supplier Business Center, Duke Energy	12-31-2011
Julie Compton Pellizzi	Project Leader, AGL Resources, Inc.	12-31-2011
Michael Novak	Assistant General Manager – Federal Regulatory Affairs, National Fuel Gas Distribution Corporation	12-31-2012
V A C A N C Y		12-31-2012
END USERS/PUBLIC AGENCIES SEGMENT		
V A C A N C Y		12-31-2012
V A C A N C Y		12-31-2012
V A C A N C Y		12-31-2011
V A C A N C Y		12-31-2011

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NORTH AMERICAN ENERGY STANDARDS BOARD
2011 EXECUTIVE COMMITTEE ALTERNATES – Wholesale Gas Quadrant

PRODUCER SEGMENT	
PIPELINE SEGMENT	
Bill Grygar	Vice President, Panhandle Eastern Pipe Line
Scott Hansen	Questar Pipeline Company
Ronald G. Tomlinson	Manager – Business Technology, Dominion Gas Transmission, Inc.
Paul Love	Director, Electronic Customer Services, Natural Gas Pipe Line Company of America
Mark Gracey	Consultant, Tennessee Gas Pipeline Company
Christopher Burden	Consultant e-Commerce & Service Delivery, Williams Gas Pipeline
Tom Gwilliam	Iroquois Gas Transmission System
LOCAL DISTRIBUTION COMPANY (LDC) SEGMENT	
Rick Ishikawa	Interconnect Account Manager in Capacity Products Group, Southern California Gas Company
Jim Blasiak	Specialist Federal Regulatory Affairs, Washington Gas Light Company
George Simmons	FERC Specialist, NiSource Inc.
Shannon Pierce	Senior Counsel – Interstate Transactions and Gas Operations, AGL Resources
Scott Butler	Project Manager, Energy Markets Policy Group, Consolidated Edison Company of New York, Inc.
END USER SEGMENT	
Paul A. Jones	Senior Marketing Representative, Salt River Project
Art Morris	Gas Originator, Florida Power & Light Company
Kathy York	Senior Program Manager – Energy Markets, Policy, and Compliance Reporting, Tennessee Valley Authority
Marisol Santillan	Contract Administrator II, Arizona Public Service Company
SERVICES SEGMENT	
Keith Sappenfield	Director, US Regulatory Affairs, Midstream and Marketing, EnCana Oil and Gas (USA), Inc.
Sylvia Munson	Director – Product Management and Regulatory Compliance, SunGard Energy and Commodities

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2011 EXECUTIVE COMMITTEE ALTERNATES – Retail Electric Quadrant

SERVICE PROVIDERS/SUPPLIERS SEGMENT	
Brandon S. Siegel	Manager – Market Management, E:SO
H. Neal Allen	Profitability & Economic Analysis Manager, Southern Company Services
UTILITIES SEGMENT	
Keith P. Hock	Director ARES Business Center, Ameren Services Company
Debbie McKeever	Market Advocate, Oncor
William J. Welzant	Principal Supplier Services Analyst, Supplier Account Management, Baltimore Gas and Electric
END USERS/PUBLIC AGENCIES SEGMENT	
Robin J. Lunt	Assistant General Counsel, National Association of Regulatory Utility Commissioners (NARUC)

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2011 EXECUTIVE COMMITTEE ALTERNATES – Wholesale Electric Quadrant

TRANSMISSION SEGMENT		SUB-SEGMENT
Abbey J. Nulph	Senior Public Utilities Specialist, Bonneville Power Administration	Fed/State/Prov.
Chuck Feagans	Tennessee Valley Authority	Fed/State/Prov.
Sarah E. Edmonds	Director of Transmission Regulation, Strategy and Policy, PacifiCorp	IOU
Jane Daly	Rate & Regulatory Advisor, Arizona Public Service Company	IOU
Lori Molotch	Transmission Services Trader Senior, Arizona Public Service Company	IOU
Narinder Saini	Policy Consultant, Entergy Services, Inc.	IOU
J.T. Wood	Southern Company Services	IOU
Joshua Jenkins	Sr. Engineer – Transmission Policy and Services, Southern Company Services	IOU
Hasnah Mat-Amin	Market Interface Manager, Western Electricity Coordinating Council	At Large
Ross Kovacs	Transmission Strategic Coordinator, Georgia Transmission Corporation	Muni/Coop
GENERATION SEGMENT		**SUB-SEGMENT**
Lou Oberski	Director – Electric Market Policy, Dominion Resources Services, Inc	IOU
Francis Halpin	Bonneville Power Administration	Fed/State/Prov.
MARKETER/BROKER SEGMENT		**SUB-SEGMENT**
Jeff Ackerman	Manager, CRSP-Energy Mgmt., Western Area Power Administration	Fed/State/Prov
Brenda Anderson	Bonneville Power Administration	Fed/State/Prov
Valerie Crockett	Senior Program Manager, Energy Markets & Policy, Tennessee Valley Authority	Fed/State/Prov
Joel Dison	Project Manager, Southern Company Generation and Energy Marketing	IOU
DISTRIBUTION/LSE SEGMENT		**SUB-SEGMENT**
Gerry Adamski	Vice President of Standards, NERC	At-Large
Andy Rodriquez	Director of Standards Development, North American Electric Reliability Corporation (NERC)	At-Large
Lee Hall	Coordination Manager – Power Services, Bonneville Power Administration	Other
James R. Manning	Senior Engineer – Transmission Resources, North Carolina Electric Membership Corporation	Muni/Coop
Ronald C. Snead	General Manager, System Planning and Business Services, Duke Energy	IOU

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END USER SEGMENT		SUB-SEGMENT
Mark W. Hackney	Regional Director – Transmission, Open Access Technology International, Inc.	At-Large
INDEPENDENT GRID OPERATORS/PLANNERS SEGMENT		**SUB-SEGMENT**
Paul Wattles	Supervisor Demand Side Programs, Electric Reliability Council of Texas (ERCOT)	
Bill Blevins	Sr. Market Support Analyst, Electric Reliability Council of Texas (ERCOT)	
Heather Sanders	Renewable Integration Support Manager, California ISO	
Robert Coughlin	Principal Scientist Reliability & Operations Compliance, ISO New England, Inc.	
Eric Winkler	Project Manager – FCM and Tariff Administration, ISO New England, Inc.	
Cheryl Mendrala	Principal Engineer, ISO New England, Inc.	
Marie Knox	Sr. Standards Compliance Analyst, Midwest ISO	
Dean Hartung	Manager Real Time Market Operations, PJM Interconnection, LLC	
Cathy Wesley	Sr. Analyst, PJM Interconnection, LLC	
Carl Monroe	Sr. Vice President Operations & Chief Operating Officer, Southwest Power Pool	
Greg Campoli	Supervisor – Reliability Compliance and Assessment, New York ISO	
Diana Pommen	Director Interjurisdictional Affairs, Alberta Electric System Operator	
Jimmy Womack	Manager-Tariff Administration, Southwest Power Pool	
Terry Bilke	Director Standards Compliance and Strategy, Midwest ISO	
TECHNOLOGY AND SERVICES		**SUB-SEGMENT**

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2011 EXECUTIVE COMMITTEE ALTERNATES – Retail Gas Quadrant

SERVICE PROVIDERS/SUPPLIERS SEGMENT	
Paul Cherevka	Project Manager Data Warehouse, Dominion Retail
DISTRIBUTORS SEGMENT	
Joe Stengel	Manager, Federal Regulatory Affairs, Philadelphia Gas Works
END USERS/PUBLIC AGENCIES SEGMENT	

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April 15, 2011

TO: NAESB Quadrant Executive Committee Members, Alternates and Interested Industry Participants

FROM: Rae McQuade, NAESB President

RE: Quadrant Executive Committee Meeting Announcements and Draft Agendas - Revised with Additional Links to Materials

NORTH AMERICAN ENERGY STANDARDS BOARD EXECUTIVE COMMITTEE MEETINGS
Hosted by Aces Power in Carmel, Indiana

First, let me thank ACES Power Marketing and Roy True for their generosity and commitment to the NAESB organization through hosting this series of meetings. Without such support, it would be very difficult to maintain the NAESB budget and provide various locations around the country to encourage NAESB in-person attendance meetings. Below are the meeting arrangements:

Where: ACES Power Marketing, 4140 West 99th Street, Carmel, Indiana 46032
Contact: Veronica Thomason, 713-356-0060
When: Wednesday, May 4 -- 10:00 a.m. to 4:00 p.m. E– Retail Gas Quadrant and Retail Electric Quadrant
Thursday, May 5 -- 10:00 a.m. to 4:00 p.m. E – Wholesale Gas Quadrant

As you can see from the above schedule the WEQ EC leadership, after notification to the WEQ EC members and alternates, has decided to postpone the WEQ EC meeting to later in June in Austin to address requests across multiple transmission systems and give the WEQ EC day scheduled for May 3 to the WEQ OASIS subcommittee.

The materials for the meeting will be emailed to the participants and posted on the web site shortly. In an effort to control costs and be more environmentally aware, we are not printing Executive Committee books any longer although they will be posted in an assembled pdf document for each quadrant meeting, in addition to the links to the native formatted documents provided in the agendas. For agenda items where materials are already available and have been sent to you in prior communications, or posted on the web site, the links to those documents are included in the agenda for your convenience, and to help you prepare for the meetings. The links are formatted in blue underlined text. As the meeting approaches, this agenda with additional links to documents will be provided, along with the pdf assembled books.

If you plan to attend any of the above EC meetings and have not already RSVPed to our office through the other announcements, please do so at your earliest convenience to the NAESB office (naesb@naesb.org) so that proper meeting arrangements can be made by NAESB and our host. If you are not attending but have a specific designated alternate that you wish to represent you and vote for you at the Executive committee meeting, please so notify the office when you RSVP that you are unable to attend.

Travel information is posted on the NAESB web site on the EC pages and can be directly accessed from the following link: http://www.naesb.org/wgq/wgq_ec.asp. If you plan to participate by conference call, the information to do so is provided in this document. The EC meetings will be web cast as well. The meeting, conference calling and web casting is open to any interested party.

Please note that in discussions with the Retail Quadrants EC chairs and vice chairs, it has been determined that all Retail EC meetings for 2011 will be conference call/web casts in recognition of the small number of in-person attendance from the 2009-2010 records, and also in recognition of the reduced travel budgets for 2011 of many of the Retail EC members. However, since NAESB staff will be on location to provide support for the retail EC meetings, any Retail EC participant may choose to join the staff and participate in-person.

As always, the chair reserves the right to extend the time of the meeting to ensure that agenda items are addressed. The times indicated on the agenda will be followed to ensure that agenda items are allotted appropriate time slots. Should an agenda item conclude earlier than its stated time slot, the remaining time could be allotted to other agenda items at the discretion of the chair.

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There are other NAESB subcommittee meetings being held in conjunction with the EC meetings. They are held in various locations, and available via conference call and web cast, and upon advance request[1] for WGQ Joint IR/Technical subcommittee meetings. The details are:

Date	Time	Meeting/Location
Mon May 2	1 pm to 1:30 pm E	Retail Glossary Subcommittee Meeting Room: Conference Room 1 Conference Call Number: 866-740-1260 Access Code: 7133562 Security Code: 5812 Web Cast: http://www.readytalk.com (please use same codes)
	1:30 pm to 5 pm E	Day 1 of Retail BPS Meeting Room: Conference Room 1 Conference Call Number: 866-740-1260 Access Code: 7133562 Security Code: 5812 Web Cast: http://www.readytalk.com (please use same codes)
Tues May 3	9 am to 3 pm E	Day 2 of Retail BPS Meeting Room: Conference Room 1 Conference Call Number: 866-740-1260 Access Code: 7133562 Security Code: 5812 Web Cast: http://www.readytalk.com (please use same codes)
	10 am to 5 pm E	Day 1 of WEQ OASIS Subcommittee Meeting Room: Board Room Conference Call Number: 866-740-1260 Access Code: 7133560 Security Code: 2695 Web Cast: http://www.readytalk.com (please use same codes)
	9 am to 4 pm E	Day 1 of WGQ Joint IR & Technical Subcommittees Meeting Room: Junior Board Room Conference Call Number: 866-740-1260 Access Code: 3560063 Security Code: 1301

[1] To set up phone call in capability for the WGQ IR/Technical meetings requires request from attendees unable to participate in person.

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Date	Time	Meeting/Location
Wed May 4	10 am to 4 pm E	Retail EC Meeting by phone/web cast Room: Board Room (for in person attendance) Conference Call Number: 866-740-1260 Access Code: 7133562 Security Code: 6862 Web Cast: http://www.readytalk.com (please use same codes)
	9 am to 4 pm E	Day 2 of WGQ Joint IR & Technical Subcommittees Meeting Room: Conference Room 1 Conference Call Number: 866-740-1260 Access Code: 3560063 Security Code: 1301
	10 am to 5 pm E	Day 2 of WEQ OASIS Subcommittee Meeting Room: Junior Board Room Conference Call Number: 866-740-1260 Access Code: 7133560 Security Code: 2695 Web Cast: http://www.readytalk.com (please use same codes)
Thu May 5	10 am to 4 pm E	WGQ EC Meeting Room: Board Room Conference Call Number: 866-740-1260 Access Code: 7133562 Security Code: 8724 Web Cast: http://www.readytalk.com (please use same codes)
	10 am to 5 pm E	Day 3 of WEQ OASIS Subcommittee Room: Junior Board Room Conference Call Number: 866-740-1260 Access Code: 7133560 Security Code: 2695 Web Cast: http://www.readytalk.com (please use same codes)

You can access the materials for this meeting from the NAESB web site, at the page specific for the subcommittee noted (WEQ: http://www.naesb.org/weq/default.asp, WGQ: http://www.naesb.org/wgq/default.asp, and Retail: http://www.naesb.org/RGQ/default.asp).

Please feel free to call the NAESB office should you have any questions or comments.

Best Regards, *Rae*

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CONFERENCE CALLING AND WEB CONFERENCING INSTRUCTIONS

FOR THE EXECUTIVE COMMITTEE AND RELATED SUBCOMMITTEE MEETINGS

This conference call, as all NAESB meetings and conference calls, is open to any interested party.

To join the conference call:

- Dial the 11-digit toll free phone number (provided in the preceding chart – specific to the meeting and date)
- An automated attendant will ask you to enter a seven-digit access code (provided in the preceding chart – specific to the meeting and date)
- The automated attendant will ask you to record your name.
- Please note, if the conference leader has not yet initiated the conference call, you will be placed on hold until the conference leader starts the conference.
- The automated attendant will then ask you for a four-digit security code (provided in the preceding chart – specific to the meeting and date)

Please place your phone on mute unless you are speaking. For those participants that do not have a mute feature on your phone, please press (*6) to mute your phone and (*7) to un-mute your phone. Putting the conference call on hold may cause music to be played over the discussion and if so, the NAESB office will contact the conference call administrator to have the line disconnected.

To join the web conference, go to www.readytalk.com and enter the same access code and security code. Please note that if the conference leader has not yet initiated the web conference, you will view a screen that states, "The Chairperson has not yet arrived. Please standby for your web conference to begin."

ReadyTalk recommends that you test your browser and network connections for compatibility prior to participating in a web conference. To do so, go to http://test.callinfo.com. If you have problems joining a conference call or need technical assistance, please contact ReadyTalk Customer Care, 1-800-843-9166. Please contact the NAESB Office (713-356-0060 or naesb@naesb.org) should you need any additional information or have questions or comments.

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NORTH AMERICAN ENERGY STANDARDS BOARD EXECUTIVE COMMITTEE MEETING
RETAIL QUADRANTS DRAFT AGENDA
Wednesday, May 4, 2011 – 10:00 am to 4:00 pm E
Web Cast/Conference Call, for in person attendance – Board Room, ACES Power Marketing, Carmel, IN

#	Agenda Item

1. Welcome
   - Antitrust Guidelines http://www.naesb.org/misc/antitrust_guidance.doc (Guidance)
   - Welcome to members and attendees
   - Quorum Establishment: Roll Call of Retail EC Members and Alternates: http://www.naesb.org/pdf4/ec_terms.pdf (EC) and http://www.naesb.org/pdf4/alt_ec_members.pdf (EC Alt)
2. Consent Agenda (simple majority to approve)
   - Adoption of Retail Agenda: http://www.naesb.org/pdf4/ec050411a.doc
   - Adoption of the Retail ECs Meeting Minutes: http://www.naesb.org/pdf4/retail_ec020211dm.doc (Draft 2-3-11 minutes)
   - Adoption of changes to the 2011 Retail Annual Plan to be proposed to the Board of Directors: http://www.naesb.org/misc/retail_2011_annual_plan_042911.doc
3. Update on Demand Side Management/Energy Efficiency
   - Energy Efficiency: http://www.naesb.org/pdf4/retail_ec050411w1.doc (Retail EE outline of issues), http://www.naesb.org/pdf4/retail_ec050411w2.doc (Retail EE redlined draft recommendation)
   - Demand Response: http://www.naesb.org/pdf4/dsmee_group2_032811a1.doc (Demand Response Enrollment Request R10002)
4. Update on Minor Correction from the Glossary Committee: MC11012 – Minor Correction to Retail Books, Version 1.3, Business Definitions - updates reflect the most-recently approved definitions by the REQ Glossary Subcommittee as approved by the REQ and RGQ ECs by notational ballot on April 27, 2011: http://www.naesb.org/pdf4/retail_mc11012_042711.doc

   Request for Comments due May 12, 2011: http://www.naesb.org/pdf4/retail_mc042811reqcom.doc *(Effective date May 27, 2011)*
5. Update on Smart Grid Activities
   - Data Privacy
   - Energy Service Providers Interface
6. Retail Quadrants Membership and Status of Retail Restructuring:
   - Membership Report: http://www.naesb.org/misc/2011_membership_report_042911.doc
7. Subcommittee Updates (meeting materials for updates will be provided by leadership as they are available):
   - Triage Subcommittee: http://www.naesb.org/pdf4/tr011911disposition.doc (report), http://www.naesb.org/pdf4/tr042911agenda.doc (new request)
   - Business Practices Subcommittee (BPS) and Texas Task Force
   - Technical Electronic Implementation Subcommittee (TEIS)
   - Glossary Efforts
   - Contracts – Reactivation? Leadership?

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NORTH AMERICAN ENERGY STANDARDS BOARD EXECUTIVE COMMITTEE MEETING
RETAIL QUADRANTS DRAFT AGENDA
Wednesday, May 4, 2011 – 10:00 am to 4:00 pm E
Web Cast/Conference Call, for in person attendance – Board Room, ACES Power Marketing, Carmel, IN

#	Agenda Item
8.	Publication Schedule Review • WGQ Publication Schedule (Version 2.1): http://www.naesb.org/misc/wgq_publication_schedule_ver2_1.doc, • WEQ Publication Schedule (Version 2.2): http://www.naesb.org/misc/weq_publication_schedule_ver2_2.doc, • Retail Publication Schedule (Version 1.4): http://www.naesb.org/misc/retail_publication_schedule_ver1_4.doc (WGQ and WEQ provided for context)
9.	Board of Directors, Board Committee and Regulatory Updates (no votes or action to be taken): • Board and Board Committee Updates – Board Meeting March 24, 2011: http://www.naesb.org/pdf4/bd032411dm.doc • Wholesale Electric and Wholesale Gas key activities – WEQ Annual Plan, WGQ Annual Plan http://www.naesb.org/pdf4/bd032411a2.doc (WEQ), http://www.naesb.org/misc/wgq_2011_annual_plan_042911.doc (WGQ with redlined changes submitted by WGQ Leadership)
10.	Other Business • 2011 Schedule: http://www.naesb.org/misc/2011_schedule.pdf
11.	Adjourn

Attire – Business Casual

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NORTH AMERICAN ENERGY STANDARDS BOARD EXECUTIVE COMMITTEE MEETING
WHOLESALE GAS QUADRANT DRAFT AGENDA
Thursday, May 5, 2011 –10:00 am to 4:00 pm E
Board Room, ACES Power Marketing, Carmel, IN

#	Agenda Item

1. Welcome
   - Antitrust Guidelines http://www.naesb.org/misc/antitrust_guidance.doc (Guidance)
   - Welcome to members and attendees
   - Quorum Establishment: Roll Call of WGQ EC Members and Alternates: http://www.naesb.org/pdf4/ec_terms.pdf (EC) and http://www.naesb.org/pdf4/alt_ec_members.pdf (EC Alt)
2. Consent Agenda (simple majority to approve)
   - Adoption of WGQ Agenda: http://www.naesb.org/pdf4/ec050411a.doc
   - Adoption of the WGQ EC Meeting Minutes: http://www.naesb.org/pdf4/wgq_ec020311dm.doc (Draft 2-3-11 minutes)
   - Adoption of changes to the 2011 WGQ Annual Plan to be proposed to the Board of Directors: http://www.naesb.org/misc/wgq_2011_annual_plan_042911.doc
3. Consideration and Vote on Minor Corrections (simple majority to approve):
   a. MC11013 – Minor Correction of usage for data element Special Terms and Miscellaneous Notes in the NAESB WGQ Standard No. 5.4.25 – Bid: http://www.naesb.org/pdf4/wgq_mc11013.doc
   b. MC11014 – Errata for miscellaneous corrections to NAESB WGQ Standards, Versions 1.9 and 2.0: http://www.naesb.org/pdf4/wgq_mc11014.doc
   c. MC11016 – Joint WEQ/WGQ Minor Correction to the NAESB WEQ/WGQ Implementation Guide for Electronic Tariff Filing to correspond to modifications made by FERC to its Implementation Guide for Electronic Filing of Parts 25, 154, 284, 300, and 241 Tariff Filings as noted in the FERC eTariff RSS Feed(s), dated April 18, 2011: http://www.naesb.org/pdf4/weq_wgq_mc11016.doc
4. Review and consider for vote on C10001 – Clarification of the word Tariff under Informational Posting. NAESB WGQ Standard No. 4.3.23 does not specify if the category Tariff under Informational Posting includes negotiated rates, non-conforming agreements, Volume 2s, and X-rate schedules within the definition. (super majority vote)
   - Interpretation: http://www.naesb.org/pdf4/10001c.doc
   - Comments due January 13, 2011 – none received
5. Review and consider for vote on R10009 - Add sender's option data element "Open Season ID" to Transactional Reporting – Firm Transportation – NAESB WGQ Standard No. 5.4.21 (super majority vote)
   - Recommendation: http://www.naesb.org/pdf4/wgq_r10009_rec.doc
   - Comments due March 11, 2011 – none received
6. Subcommittee Updates (meeting materials for updates will be provided by leadership as they are available):
   - Triage Subcommittee: : http://www.naesb.org/pdf4/tr011911disposition.doc (report), http://www.naesb.org/pdf4/tr042911agenda.doc (new request)
   - Business Practices Subcommittee (BPS) - "Common Codes Discussion"
   - Electronic Delivery Mechanisms Subcommittee (EDM)
   - Information Requirements Subcommittee (IR)/Technical Subcommittee
   - Interpretations Subcommittee
   - Contracts Subcommittee
7. Publication Schedule Review
   - WGQ Publication Schedule (Version 2.1): http://www.naesb.org/misc/wgq_publication_schedule_ver2_1.doc,
   - WEQ Publication Schedule (Version 2.2): http://www.naesb.org/misc/weq_publication_schedule_ver2_2.doc,
   - Retail Publication Schedule (Version 1.4): http://www.naesb.org/misc/retail_publication_schedule_ver1_4.doc

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NORTH AMERICAN ENERGY STANDARDS BOARD EXECUTIVE COMMITTEE MEETING
WHOLESALE GAS QUADRANT DRAFT AGENDA
Thursday, May 5, 2011 –10:00 am to 4:00 pm E
Board Room, ACES Power Marketing, Carmel, IN

#	Agenda Item (Retail and WEQ provided for context)
8.	Board of Directors, Board Committee and Regulatory Updates (no votes or action to be taken): • Board and Board Committee Updates – Board Meeting March 24, 2011: http://www.naesb.org/pdf4/bd032411dm.doc • Wholesale Electric and Retail key activities – WEQ Annual Plan, Retail Annual Plan http://www.naesb.org/pdf4/bd032411a2.doc (WEQ), http://www.naesb.org/misc/retail_2011_annual_plan_042911.doc (Retail with redlined changes submitted by Retail Leadership)
9.	Other Business • 2011 Schedule: http://www.naesb.org/misc/2011_schedule.pdf
10.	Adjourn

Attire – Business Casual

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March 17, 2011

TO: NAESB Quadrant Executive Committee Members, Alternates and Interested Industry Participants

FROM: Cory Galik Cummings, Staff Attorney

RE: Retail Executive Committee Meeting Draft Minutes

NORTH AMERICAN ENERGY STANDARDS BOARD
RETAIL EXECUTIVE COMMITTEE MEETING
FEBRUARY 2, 2011
DRAFT MINUTES

1. Welcome

Mr. Precht called the meeting to order and welcomed the Retail Electric Quadrant (REQ) and Retail Gas Quadrant (RGQ) Executive Committee (EC) members and other participants. Ms. Cummings gave the antitrust guidance and REQ and RGQ members and other participants introduced themselves. Quorum was established.

2. Consent Agenda

Ms. Marino moved to adopt the consent agenda, which included adoption of the October 22, 2010 and October 27, 2010 meeting minutes and changes to the 2011 Annual Plan to be proposed to the Board of Directors. Mr. Novak seconded the motion. The motion passed without opposition.

3. Review and consider for vote Retail 2010 Annual Plan Item 9a – Requirements Specifications for Common Electricity Product and Pricing Definition – NIST PAP03

Mr. Booe provided a review of the recommendation. He explained that the intention of the late subcommittee comments was to address the formal comments that were received and explain why some of the suggestions were not accepted. The EC would be voting on the recommendation with the late comments from the subcommittee applied. He also noted that Leonard Tillman supplied late comments after the subcommittee reviewed the formal comments. Unfortunately, he did not comment on the wholesale recommendation, which would create differences between the two documents. NAESB will suggest that Mr. Tillman submit those comments as minor corrections after the recommendation is adopted, because they were not substantive in nature. This will allow the two documents to stay in synch.

Ms. Marino moved to accept the recommendation with the late comments submitted by the subcommittee. Ms. McKeever seconded the motion. The motion passed a super majority vote.

4. Review and consider for vote on Retail 2010 Annual Plan Item 9b – Requirements Specifications for Common Scheduling Mechanism for Energy Transactions – for NIST PAP04

Mr. Precht provided a review of the recommendation, which also contained the changes submitted as late formal comments by the subcommittee. Mr. Minneman moved, seconded by Ms. Marino, to approve the recommendation. The motion passed a super majority vote.

5. Review and consider for vote on Retail 2010 Annual Plan Item 9 - Master Data Requirements List for Standards associated with NIST PAP 03 and PAP09

Mr. Precht provided a review of the recommendation, which also contained the changes submitted as late formal comments by the subcommittee. Mr. Minneman moved, seconded by Ms. Marino, to approve the recommendation. The motion passed a super majority vote.

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6. Review and consider for vote on Retail 2010 Annual Plan Item 9c – Requirements Specifications for Retail Standard DR Signals – for NIST PAP09

Mr. Precht provided a review of the recommendation, which also contained the changes submitted as late formal comments by the subcommittee. Mr. Minneman moved, seconded by Ms. Marino, to approve the recommendation. The motion passed a super majority vote.

7. Review and consider for vote on Retail 2010 Annual Plan Item 3c – Phase 2: M&V for Demand Response Programs

Mr. Precht provided a review of the recommendation. Two sets of formal comments were received for the EC to consider. First, Duke's comments were considered. During an offline discussion with Bruce Sailers the first comment was withdrawn and the second comment's change was not made to the recommendation. The change to Real Time Pricing definition was applied to the recommendation.

Next, Southern California Edison's comments were reviewed. After an email discussion with Ryn Hamilton, the commenter, the majority of her comments were withdrawn. The EC did accept her change to the definition of Telemetry.

The wholesale demand response recommendation had several changes made, which were adopted by the REQ EC in order to remain consistent with the wholesale document. Those changes include revisions to the definition of Demand Reduction Value, Recovery Period and Energy Service.

The motion to accept the recommendation as revised by the REQ EC was made by Ms. Marino and seconded by Mr. Eynon. The motion passed a super majority vote.

8. Subcommittee Updates

Triage Subcommittee: Ms. McQuade provided the review of triaged items. Several requests were assigned to the Wholesale Gas Quadrant. R10012 was a request from Reliant Energy to develop model business practices for data privacy practices. This item was linked to the Smart Grid PAP10 for energy usage information. A new task force was formed to handle this assignment and Christine Wright from the Texas PUC and Robin Lunt from NARUC have been named as the co-chairs. Their first meeting is scheduled for February 16 in Washington, DC. Mr. Novak stated that if this item were to touch the gas side, it would be important not to rubber stamp the electric work; it should be properly scaled for the type of metering technology and demands in the gas market. Ms. McQuade noted that the item was assigned to the REQ only at this time. Mr. Precht stated that the Retail BPS has an annual plan item assigned to it to create model business practices for allowing third parties access to a customer's energy usage information outside of the Smart Grid. The two assignments were closely aligned, which will likely require joint meetings between the two groups to ensure the work stays in synch.

Business Practice Subcommittee: Mr. Jones provided the update. The subcommittee's efforts were focused on supplier marketing practices. They were also working on an effort on supplier certification, which dealt with the certification within the utility service territory for a competitive gas or electric supplier. Also, the subcommittee was working with Ms. McKeever on additional model business practices for the registration agent marketplace.

DSM-EE Subcommittee: Ms. Cummings provided the update. The work group continued to work on R10002 for customer enrollment. The work group felt that the Distribution Companies had all the information needed to enroll a Retail Customer in a Demand Response program. Additional discussion lead to the belief that the WEQ Standards for PAP09 contained very detailed processes for enrollment in wholesale Demand Response programs. At that point, the group felt that the work was completed. Mr. Precht checked with the original requester, James Tillett, to see whether the request was satisfied. Mr. Tillett stated that it was not. The NAESB office is working to schedule another retail demand response work group conference call to continue this discussion.

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The retail energy efficiency work group continued to draft their recommendation. Mr. Precht worked to clean up the document and created a work paper of questions to help guide the development of the model business practices. The next meeting is scheduled for February 7, 2011.

Glossary Efforts: Mr. Jones provided the update. The subcommittee met in December to provide minor changes to Customer Enrollment/Drop and Account Information Change definitions.

Smart Grid Standards Development Subcommittee, Smart Grid Pap10, Smart Grid Energy Services Provider Interface Task Force: Since the last WEQ EC meeting, both the WEQ and REQ Priority Action Plan (PAP) 10 recommendations were ratified by the membership and are now final actions. These final actions were reviewed by the Smart Grid Interoperability Panel (SGIP) PAP 10 Working Group during the Grid-Interop conference in Chicago in early December and approved for submission to the SGIP Governing Board. On January 13, 2011 the SGIP Governing Board began their evaluation process of the standards, which are now being considered for inclusion in the NIST catalog of standards to be sent to FERC.

The Energy Services Provider Interface Task Force continued to meet every two weeks to continue the development of a recommendation in response to REQ AP Item 9.e (standardization of the Open ADE specification). The Task Force has a draft recommendation under review but development has taken longer than originally expected and the Task Force co-chairs have requested an extension for completion through the 2nd Quarter. Meetings are held every other Tuesday from 1:00 pm to 4:00 pm Central.

The REQ created a new Task Force of the Smart Grid Standards Development Subcommittee on PAP 10 to address request R10012. The request calls for the development of model business practices that will set forth standards for the release of consumer information to third parties and the privacy policies and practices those third parties should employ. This request was submitted by Reliant, with the support of NARUC, in response to a number of reports from various state commissions, the DoE and the NIST inter agency report on security. The task force is co-chaired by Robin Lunt, the assistant General Counsel at NAURC and Christine Wright, a Texas PUC staffer. The first meeting is scheduled for Wednesday, February 16, 2011 in Washington DC in conjunction with the Winter NARUC meeting.

9. Publication Schedule Review

Ms. Rager provided the review of the publication schedules. She noted the publication schedule for the Retail Version 1.3, which is due to be released on March 31, 2011.

10. Board of Directors, Board Committee and Regulatory Updates

Board Updates: Ms. McQuade encouraged participants to review the minutes from the December 9, 2010 Board of Directors meeting. During that meeting the Board approved the 2011 Annual Plans and the budget.

Regulatory Efforts: Mr. Booe noted that he attended the FERC Technical Conference on the first standards sent from NIST to FERC related to Smart Grid. The standards contained five suites of IEC standards. Two panels convened with 13 panelists and they were asked whether or not consensus had been reached through the NIST process; all 13 panelists said that consensus had not been properly vetted.

Wholesale Gas and Wholesale Electric Activities: The WGQ 2011 Annual Plan and the WEQ 2011 Annual Plan were reviewed.

11. Other Business

Ms. McQuade urged participants to review the 2011 schedule.

12. Adjourn

Mr. Jones moved, seconded by Ms. Marino, to adjourn the meeting. The meeting adjourned at11:49 am Mountain.

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12. Attendance and Vote Record

RETAIL GAS QUADRANT EXECUTIVE COMMITTEE		ATTENDANCE	Retail 2010 Annual Plan Item 9a	Retail 2010 Annual Plan Item 9b	Retail 2010 Annual Plan Item 9	Retail 2010 Annual Plan Item 9c	Retail 2010 Annual Plan Item 3c
SERVICE PROVIDERS/SUPPLIERS SEGMENT							
Dwight M. Whitley, Jr.	Sierra Southwest Cooperative Services, Inc.						
Richard Zollars	Dominion Retail, Inc.						
DISTRIBUTION SEGMENT							
Dan Jones	Duke Energy	In Person					
Michael Novak	National Fuel Gas Distribution Corporation	Phone					
Julie Compton Pellizzi	AGL Resources, Inc.						
END USER SEGMENT/PUBLIC AGENCIES SEGMENT							
RETAIL ELECTRIC QUADRANT EXECUTIVE COMMITTEE		**ATTENDANCE**					
SERVICE PROVIDERS/SUPPLIERS SEGMENT							
Bill Barkas	Dominion Retail, Inc.	Phone	In Favor	In Favor	In Favor	In Favor	In Favor
Jim Minneman	PPL Solutions, LLC	Phone	In Favor	In Favor	In Favor	In Favor	In Favor
Wendell Miyaji	Comverge, Inc.						
Susan Munson	Electric Reliability Council of Texas	Phone	In Favor	In Favor	In Favor	In Favor	In Favor
UTILITIES SEGMENT							
Phil Precht	Baltimore Gas and Electric Company	In Person	In Favor	In Favor	In Favor	In Favor	In Favor
Patrick Eynon	Ameren Services	Phone	In Favor	In Favor	In Favor	In Favor	In Favor
Judy Ray	Alabama Power Company	Phone	Abstain	Abstain	Abstain	Abstain	In Favor
Debbie McKeever for Michael Jesensky	Dominion Virginia Power	In Person	In Favor	In Favor	In Favor	In Favor	In Favor
END USER/PUBLIC AGENCIES SEGMENT							
James Bradford Ramsay	NARUC						
Annunciata Marino	Pennsylvania Public Utility Commission	In Person	In Favor	In Favor	In Favor	In Favor	In Favor

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VOTE	VOTES POSSIBLE	VOTES CAST SUPER MAJORITY	MOTION PASSING
2010 RETAIL ANNUAL PLAN ITEM 9A	REQ: 10	REQ: support: 7 abstention: 1 opposed: 0	REQ: Yes
2010 RETAIL ANNUAL PLAN ITEM 9B	REQ: 10	REQ: support: 7 abstention: 1 opposed: 0	REQ: Yes
2010 RETAIL ANNUAL PLAN ITEM 9	REQ: 10	REQ: support: 7 abstention: 1 opposed: 0	REQ: Yes
2010 RETAIL ANNUAL PLAN ITEM 9C	REQ: 10	REQ: support: 7 abstention: 1 opposed: 0	REQ: Yes
2010 RETAIL ANNUAL PLAN ITEM 3C	REQ: 10	REQ: support: 8 abstention: 0 opposed: 0	REQ: Yes

13. Other Participants

Other Participant Attendance

Participant	Organization	Attendance
Bruce Bartell	Xtensible Solutions	Phone
Jonathan Booe	NAESB	In Person
Cory Cummings	NAESB	In Person
Rae McQuade	NAESB	In Person
Veronica Thomason	NAESB	In Person
Jill Vaughn	Court Reporter	In Person
Kathy York	TVA	In Person

North American Energy Standards Board
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NORTH AMERICAN ENERGY STANDARDS BOARD
2011 ANNUAL PLAN for the RETAIL GAS and ELECTRIC QUADRANTS
Approved by the Board of Directors on March 24, 2011 with Redlined Changes from Retail Leadership

	Item Number & Description[1]	Completion[2]	Assignment[34]
1.	Develop Technical Electronic Implementation Standards and Data Dictionaries – Book 10: Customer Enrollment, Drop and Account Information Change		
	a.. For the Distribution Company Registration Model Registration Agent Model Status: Not Started	2011	TEIS
2.	Develop NAESB Certification checklist criteria for Retail Quadrants to be used in the NAESB Certification Program. The certification checklist may address test scripts, a checklist of items to be tested, data connectivity for test scripts and EDM testing. Status: Not Started. Dependent upon publication of Version 2.0 at a minimum, but more dependent upon completion of Customer Choice efforts, expected 1st Q 2011 at the earliest.	4th ~~2nd~~ Q, 2011	Ad Hoc EC Certification Group
3.	Review and develop business practices standards to Demand Response, Demand Side Management and Energy Efficiency Programs Review and develop needed model business practices for a standardized method for quantifying benefits, savings, cost avoidance and/or the reduction in energy demand and usage derived from the implementation of demand side management and energy efficiency programs. This effort will include demand side response, energy efficiency programs and metering, including the 'curtailment service provider' program. The wholesale and retail demand response work groups and the Smart Grid Standards Subcommittees should actively and timely communicate and coordinate work products to ensure consistency between the three work groups. Each work group should take into account the work products developed by the other.		
	a. Develop glossary for business practice standards Status: Ongoing	Ongoing	Joint WEQ/REQ DSM Subcommittee
	b. Develop business practice standards used to measure and verify reductions in energy and demand from energy efficiency in wholesale and retail markets.[5] This includes developing business practice standards to measure and verify energy reductions for energy efficiency or a stand-alone Energy Efficiency Portfolio Standard. Status: Underway	~~2nd~~ 3rd Q, 2011	Joint WEQ/REQ DSM-EE Subcommittee
	c. Develop business practice standards used to measure and verify reductions in energy and demand from energy efficiency in wholesale and retail markets.[6] This includes developing business practice standards to measure and verify energy reductions that are made to comply with a Renewable Portfolio Standard. Status: Not Started	4th Q, 2011	REQ DSM-EE Subcommittee
	d. Harmonize DSM-EE glossary with Retail Glossary Status: Ongoing	Ongoing	REQ/RGQ Glossary Subcommittee
4.	Overview of Retail Gas and Retail Electric Quadrant Procedures		
	a. Develop process flows and online navigational aids to support the procedures and to be provided as Retail orientation materials. Status: Not Started	3rd Q, 2011	BPS

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	Item Number & Description[1]	Completion[2]	Assignment[34]
5.	Additional Registration Agent Processes		
	a. Review all existing Model Business Practices to determine if there are other Registration Agent Model processes not covered, and develop a prioritized list of those processes, if any. Status: Underway	~~2nd~~ 3rd Q, 2011	BPS
	b. Develop Model Business Practices and Process Flows for those Registration Agent Model processes on the prioritized list developed in (a) above, if any. Status: Underway	4th Q, 2011	BPS
	c. Develop Technical Electronic Implementation Standards and Data Dictionaries to support Model Business Practices of Book 14 – Service Requests, Disconnections and Reconnections in the registration Agent Model Status: Underway	2011	IR/TEIS
	d. Develop Technical Electronic Implementation Standards and Data Dictionaries to support any Model Business Practices developed in (b) above Status: Underway	2011	IR/TEIS
6.	Supplier Certification Develop practices to register/certify new Suppliers. Status: Underway	3rd Q, 2011	BPS
7.	Supplier Marketing Practices Develop Model Business Practices providing for a "Consumer Disclosure Statement" to be presented to residential and small commercial customers describing the Supplier's service offering and related contract provisions. This statement would also identify how certain Supplier-Customer interactions are conducted. Amongst the topics to be considered for inclusion on the statement would be the following: • the most important terms of the Supplier agreement, such as the contract's term and termination fee provisions; • training and identification of Supplier marketing representatives; • protocols for Supplier in-person and telephone contacts with customers; • added measures for protecting non-English speaking customers; and • Processes for handling customer complaints and resolving disputes arising from Supplier marketing activities. Status: Underway	2nd Q, 2011	BPS

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	Item Number & Description[1]	Completion[2]	Assignment[34]
8	Develop Smart Grid Wholesale and Retail Electric Standards		
	a. Harmonize Smart Grid glossary with Retail Glossary Status: Underway	Ongoing	REQ/RGQ Glossary Subcommittee
	b. Develop standards to support PAP 10 – Standards Energy Usage Information		
	i. Develop Information Model and related business practices – Phase 2, Harmonization with CIM and SEP 2.0 Status: Not Started, pending discussions with CIM and SEP 2.0	2011	Joint WEQ/REQ PAP 10 SGS Subcommittee
	c. Develop standards to support inclusion of OpenADE requirements document into the NAESB Smart Grid standards (R10008), specifically to standardize the exchange of Energy Usage Information. Status: Underway	2nd Q, 2011	REQ PAP 10 SGS Subcommittee Energy Services Provider Interface Task Force
	d. Develop retail electric model business practices for third party access to consumer smart grid data with considerations for data privacy practices those third parties should employ (R10012) Status: Underway	2nd Q, 2011	REQ PAP 10 SGS Subcommittee Data Privacy Task Force
9.	Customer Information - Develop Model Business Practices and Process Flows to enable a Retail Customer, or a third party acting on behalf of the Retail Customer, to obtain the retail Customer's energy usage information on an on-going basis outside of a Smart Grid environment Status: Not Started, this development is tied to the development for item 8(d).	~~2nd~~ 3rd Q, 2011	BPS
10.	Update Existing Model Business Practices – Review and update all existing Model Business Practices, filling in any gaps that may exist and making the language consistent throughout all Books.		
	a. Book 1 – Market Participant Interactions Status: Not Started	2nd Q, 2011	BPS
	b. Book 2 – Creditworthiness Status: Not Started	3rd ~~2nd~~ Q, 2011	BPS
	c. Book 3 – Billing and Payments Status: Not Started	3rd Q, 2011	BPS
	d. Book 4 – Distribution Company – Supplier Disputes Status: Not Started	4th Q, 2011	BPS
	e. Book 8 – Customer Information Status: Not Started	4th Q, 2011	BPS
	f. Book 9 – Customer Billing and Payment Notification via Uniform Electronic Transactions Status: Not Started	2012	BPS
	g. Book 10 – Customer Enrollment, Drop, and Account Information Change Status: Not Started	2012	BPS

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Item Number & Description[1]		Completion[2]	Assignment[34]
h.	Book 11 - Customer Enrollment, Drop, and Account Information Change Using a Registration Agent Status: Not Started	2012	BPS
i.	Book 12 – Customer Inquiries Status: Not Started	2012	BPS
j.	Book 14 – Service Request, Disconnection and Reconnection in the Registration Agent Model Status: Not Started	2012	BPS

Program of Standards Maintenance & Fully Staffed Standards Work[7]

Business Practice Requests	Ongoing	Assigned by the EC
Information Requirements and Technical Mapping of Business Practices	Ongoing	Assigned by the EC
Ongoing Interpretations for Clarifying Language Ambiguities	Ongoing	Assigned by the EC
Ongoing Maintenance of Code Values and Other Technical Matters	Ongoing	Assigned by the EC
Ongoing Development and Maintenance of Definitions	Ongoing	Glossary
Ongoing Development and Maintenance of Model Business Practices	Ongoing	BPS

Provisional Activities

Joint Effort:

Modify TPA as necessary.

Review security standards as may be deemed necessary, such as Public Key Infrastructure (PKI).

Review and update the technical implementation of Book 3 – Billing and Payment.

Develop XML transactions to support customer choice programs.

Retail Electric Quadrant Effort Only:

Retail Meter Data Validation, Editing & Estimating: Develop procedures for ensuring the integrity and validity of retail customer metering data that is needed by utilities and suppliers for billing, etc. Issues related to unbundled or competitive metering are not to be considered.

Settlement Process: Reconcile energy schedules and energy delivered by suppliers within a given market. Note: will need to be coordinated with the WEQ for the REQ.

Develop business practice standards for cap and trade programs for green house gas.

Retail Gas Quadrant Effort Only:

Examine Wholesale Gas Quadrant Non-EDM Standards for applicability to retail business practices.

Settlement Process: Reconcile energy schedules and energy delivered by suppliers within a given market.

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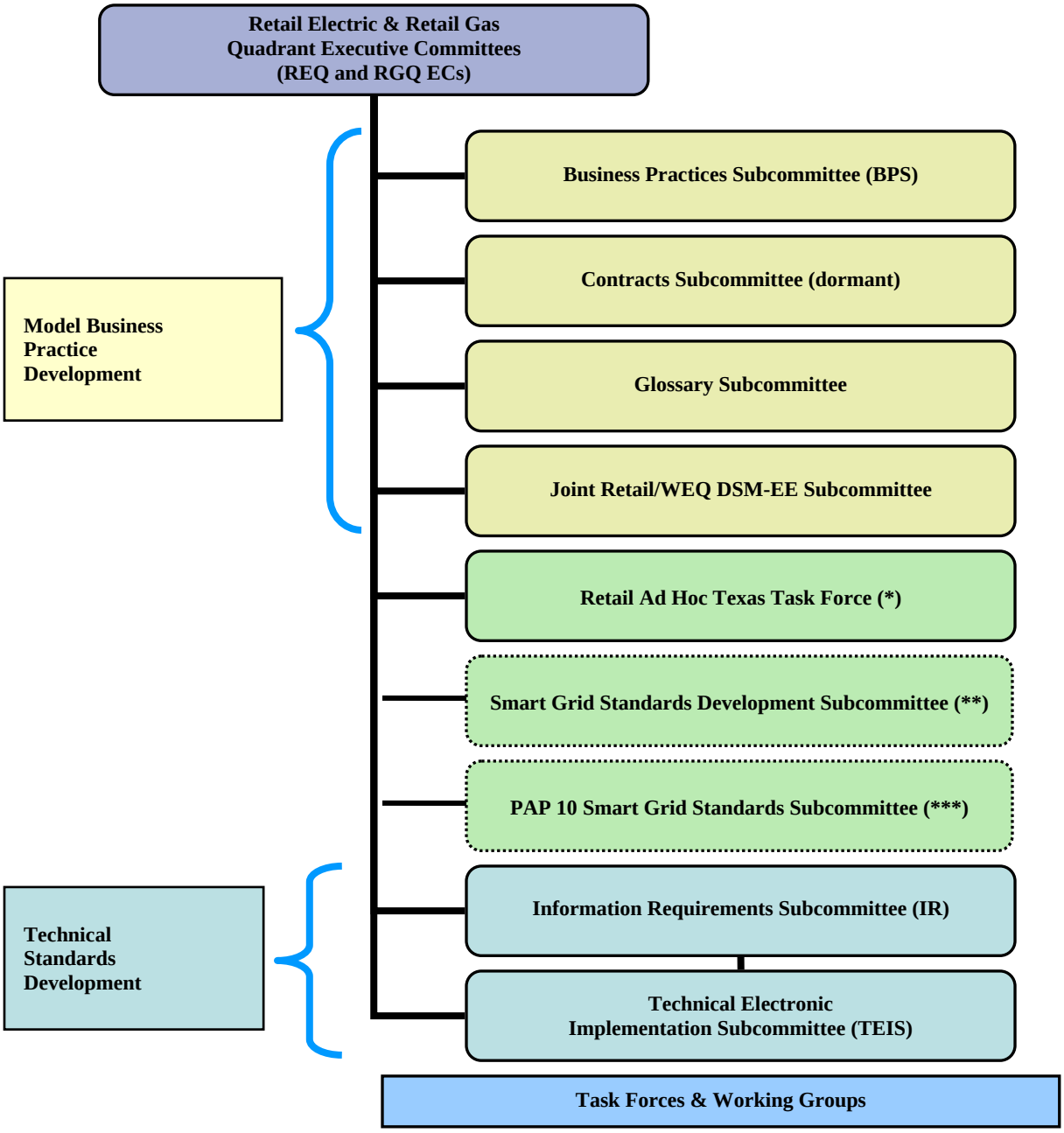

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NAESB Retail Subcommittee Leadership: [8]

Executive Committee: Mike Novak, Chair (RGQ), Phil Precht, Chair (REQ)
Business Practices Subcommittee: Phil Precht (REQ), Dan Jones (RGQ)
Information Requirements Subcommittee: Jennifer Teel (REQ)
Technical Electronic Implementation Subcommittee: Julie Compton-Pellizzi (RGQ)
Glossary Subcommittee: Patrick Eynon (REQ)
DSM-EE Subcommittee: Ruth Kiselewich, David Koogler (REQ), Roy True (WEQ), and Paul Wattles (WEQ)
Retail Ad Hoc Texas Task Force: Debbie McKeever (REQ) and Susan Munson (REQ)

(*) The Retail Ad Hoc Texas Task Force may draft MBPs, process flows, implementation guides and technical standards supportive of the Registration Agent. The group is chaired by Debbie McKeever and Susan Munson.

(**) The Smart Grid Standards Subcommittee is a joint group of the retail electric and wholesale electric quadrants with other standards development groups such as OASIS, CalConnect, FIX and UCAIug, and includes other groups. Direction may be given from NIST, DoE or FERC and the group reports jointly to the NAESB Board Smart Grid Strategic Steering Committee and the REQ EC. The group is chaired by Wayne Longcore, Joe Zhou and Robert Burke.

(***) The PAP 10 Smart Grid Standards Subcommittee is a joint group of the retail electric and wholesale electric quadrants with other standards development groups such as OASIS, UCAIug, OpenADE, ZigBee, ASHRAE, EIS Alliance, NARUC and includes other groups. Direction may be given from NIST, DoE or FERC and the group reports jointly to the NAESB Board Smart Grid Strategic Steering Committee and the REQ EC. The group is chaired by Phil Precht, Cathy Wesley, Sharon Dinges, David Kaufman, Brad Ramsay, Tobin Richardson and Ed Koch.
The PAP 10 Smart Grid Standards Subcommittee has created a Energy Services Providers Interface Task Force led by Dave Mollerstuen of Tendril, Steve Van Ausdall of Xtensible and Chad Maglaque of Xtreme Consulting Group to address the OpenADE request R10008.

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Retail 2011 Annual Plan End Notes:

1 As outlined in the NAESB Bylaws, the REQ and RGQ will also address requests submitted by members and assigned to the REQ and RGQ through the Triage Process.

[2] Dates in the completion column are by end of the quarter for completion by the assigned committee. The dates do not necessarily mean that the standards are fully staffed to be implementable by the industry, and/or ratified by membership. If one item is completed earlier than planned, another item can begin earlier and possibly complete earlier than planned. There are no begin dates on the plan.

[3] The assignments are abbreviated. The abbreviations and committee structure can be found at the end of the annual plan document.

[4] The DSM-EE subcommittee has split into several separate groups to support concurrent development of separate standards sets.

[5] Energy efficiency may be a wholesale product, such as capacity. Energy efficiency in retail markets may be from individual energy efficiency measures at the project level or a portfolio of projects that make up an energy efficiency program.

[6] Energy efficiency may be a wholesale product, such as capacity. Energy efficiency in retail markets may be from individual energy efficiency measures at the project level or a portfolio of projects that make up an energy efficiency program.

[7] This work is considered routine maintenance and thus the items are not separately numbered. The REQ and RGQ ECs will assign maintenance efforts on a request-by-request basis.

[8] The ECs and the subcommittees can create task forces and working groups to support their development activities for development of model business practices and technical standards.

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The following outlines some of the issues and options expressed by some of the Retail Energy Efficiency Work Group.

1. **Background on Scope Development:** Issues/challenges to developing scope for retail MBPs to date have included:
   a) Working Group has attempted to work from NAESB Annual Plan key items/directive: Item 4. Review and develop business practices standards to Demand Response, Demand Side Management and Energy Efficiency Programs: Review and develop needed model business practices for a standardized method for quantifying benefits, savings, cost avoidance and/or the reduction in energy demand and usage derived from the implementation of demand side management and energy efficiency programs. This effort will include demand side response, energy efficiency programs and metering, including the 'curtailment service provider' program. Item 4.G Develop business practice standards used to measure and verify reductions in energy and demand from energy efficiency in wholesale and retail markets
   b) Challenge of delineating between EM&V vs M&V - possible confusion/perceptions on use of term "Evaluation"
   c) Working Group scope outlines developed – see attached documents, which served as basis for developing draft language. Where does group have consensus, where does it not? Key issues regarding M&V vs EM&V, addressing evaluation framework/objectives, principles, EM&V planning
   d) Appropriate level of detail for MBPs (how prescriptive vs general should the MBPs be, extent deference should be given to states, referencing other EM&V guidance documents);
   e) Resource limitations of working group members
   f) Duplicative efforts to address national EM&V Protocol development - challenge of efficiency community working on 2 national development protocol fronts, including recent scoping study from US DOE/EPA lead SEE Action EM&V project: National Energy Efficiency Evaluation, Measurement, and Verification (EM&V) Standard: Scoping Study of Issues and Implementation Requirements which provides background information on EM&V protocols to date in the US, reasons for developing national protocols (either voluntary or in anticipation of federal legislation), and offers a framework/outline for what national protocols might look like (Appendix C), and next steps to proceed with protocol development - likely starting this year.
2. **Options for Retail Working Group to proceed:**
   a) Given challenge on defining scope and resource constraints, is NAESB best place to proceed on retail MPBs, or should it defer to other efforts (SEE Action)?
   b) If NAESB Retail REQ (and working group?) opts to proceed with MBPs development, what is process to revisit scope, and level of detail?
      1. Review TOC of draft MBPs (see attached clean version) and identify what can be covered by NAESB, what might be covered/reference elsewhere?
      2. Agree to what extent the retail MPBs elements build on the wholesale standards – cross reference TOC for each?
   c) If can't reach agreement within working group, what are next steps? What are risks of NAESB developing MBPs with inadequate representation on working group from retail EE evaluation industry, and confusion in marketplace if NAESB and SEE Action proceed without coordination
   d) Other?

Draft of ~~January 5~~April 15, 2011

For Quadrant:	**Retail Electric Quadrant**
Requesters:	**DSM-EE Subcommittee**
Request No.:	**2010 Retail Annual Plan Item No. 3(b)**
Request Title:	**Evaluation, Measurement & Verification of Energy Efficiency Programs**

1. RECOMMENDED ACTION:

x	**Accept as requested**
	Accept as modified below
	Decline

EFFECT OF EC VOTE TO ACCEPT RECOMMENDED ACTION:

x	**Change to Existing Practice**
	Status Quo

2. TYPE OF DEVELOPMENT/MAINTENANCE

Per Request:		**Per Recommendation:**	
x	**Initiation**	x	**Initiation**
	Modification		**Modification**
	Interpretation		**Interpretation**
	Withdrawal		**Withdrawal**
x	**Principle**	x	**Principle**
x	**Definition**	x	**Definition**
x	**Business Practice Standard**	x	**Business Practice Standard**
x	**Document**	x	**Document**
x	**Data Element**	x	**Data Element**
x	**Code Value**	x	**Code Value**
	X12 Implementation Guide		**X12 Implementation Guide**
x	**Business Process Documentation**	x	**Business Process Documentation**

3. RECOMMENDATION SUMMARY:

The Retail Electric Quadrant (REQ) DSM-EE Subcommittee submits this Recommendation for 2010 Retail Annual Plan Item No. 3(b) to develop Model Business Practices for the Evaluation, Measurement & Verification (EM&V) of Energy Efficiency programs.

DISCLAIMER: *This document contains Model Business Practices for the evaluation of annual and life cycle electrical energy and Demand impacts of Energy Efficiency programs implemented by retail electric Distribution Companies. The information contained within this document is not intended to replace applicable tariff, market rules, operating procedures, protocols or manuals, for retail Energy Efficiency ("Governing Documents"), and in the event of a conflict, the latter documents should have precedence over these Model Business Practices.*

RECOMMENDED STANDARDS:

Draft of ~~January 5~~April 15, 2011

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19 MEASUREMENT & VERFICIATION (M&V) OF ENERGY EFFICIENCY PROGRAMS

TABLE OF CONTENTS

EXECUTIVE SUMMARY

VERSION NOTES

INTRODUCTION
- A. Scope
- B. EM&V Challenges
  - (1) Diverse Programs
  - (2) Diverse and Competing Objectives
  - (3) Diverse EM&V Resources
  - (4) Data Limitations
  - (5) Counterfactual
  - (6) Energy Efficiency Program EM&V is Not Unique

Overview

REQ.19.1 Principles
- REQ.19.1.1 Process Should be Efficient
- REQ.19.1.2 Consistency
- REQ.19.1.3 Unauthorized Activity
- REQ.19.1.4 Thoroughness
- REQ.19.1.5 Cyclic Planning
- REQ.19.1.6 Adequate Budgets
- REQ.19.1.7 Standard Structure and Terms
- REQ.19.1.8 Outside References
- REQ.19.1.9 Principles
- REQ.19.1.10 Standard Topics to Address

REQ.19.2 Definitions
- REQ.19.2.A Business Definitions
- REQ.19.2.B Technical Definitions

REQ.19.3 Model Business Practices
REQ.19.3.1 Hierarchy of Documents

REQ.19.3.2 EM&V Framework

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3.2.1 Acronyms and Definitions
REQ.19.3.2.2 Executive Summary
REQ.19.3.2.3 Introduction and Background
REQ.19.3.2.4 Coverage
REQ.19.3.2.5 EM&V Principles, Objectives and Metrics
REQ.19.3.2.6 Definition of EM&V Cycle
REQ.19.3.2.7 Requirements for Uncertainty Analysis
REQ.19.3.2.8 Transparency, Reporting and Best Practices
REQ.19.3.2.9 EM&V Methods and Key Assumptions
REQ.19.3.2.10 Who Will Conduct the EM&V
REQ.19.3.2.11 Data Management Strategies
REQ.19.3.2.12 Dispute Resolution
REQ.19.3.2.13 Requires Documents

REQ.19.3.3 Annual Portfolio EM&V Plan
REQ.19.3.3.1 Acronyms and Definitions
REQ.19.3.3.2 Executive Summary
REQ.19.3.3.3 Introduction and Background
REQ.19.3.3.4 Energy Efficiency Activities Covered by the Framework
REQ.19.3.3.5 EM&V Budget
REQ.19.3.3.6 Summary of Individual EM&V
REQ.19.3.3.7 Summaries of Other EM&V Activities
REQ.19.3.3.8 Process for Selecting Program Evaluators
REQ.19.3.3.9 Schedule of EM&V and Related Activities
REQ.19.3.3.10 Set EM&V Objectives
REQ.19.3.3.11 Determine Areas of EM&V
REQ.19.3.3.12 Establish Metrics for ~~Evaluating Program~~EM&V Success
REQ.19.3.3.13 Select Program Evaluator Firms
REQ.19.3.3.14 Run Pilot of Innovative Methods
REQ.19.3.3.15 Identify Co-Benefits for EM&V
REQ.19.3.3.16 Identify Constraints to Achieving Objectives
REQ.19.3.3.17 Establish Deemed Savings ~~e~~Estimates
REQ.19.3.3.18 Define EM&V Timeframe

REQ.19.3.4 EM&V Activity Specific Detailed ~~r~~Research Plan
REQ.19.3.4.1 Program Description
REQ.19.3.4.2 Program Logic and Market Factors
REQ.19.3.4.3
REQ.19.3.4.4 Policy Context
REQ.19.3.4.5
REQ.19.3.4.6 Baselines
REQ.19.3.4.7

For Quadrant: Retail Electric Quadrant

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REQ.19.3.4.8
REQ.19.3.4.9
REQ.19.3.4.10
REQ.19.3.4.11
REQ.19.3.4.12
REQ.19.3.4.13
REQ.19.3.4.14
REQ.19.3.4.15
REQ.19.3.4.16
REQ.19.3.4.17
REQ.19.3.4.18
REQ.19.3.4.19
REQ.19.3.4.20
REQ.19.3.4.21
REQ.19.3.4.22
REQ.19.3.4.23
REQ.19.3.4.24
REQ.19.3.4.25 Data Validation Procedures
REQ.19.3.4.26 Updating of ~~Evaluation~~ EM&V Results
REQ.19.3.4.27 ~~Evaluation~~ EM&V Reporting and Communications
REQ.19.3.4.28 Management Reporting
REQ.19.3.4.29 ~~Evaluation~~ EM&V Schedule
REQ.19.3.4.30 Select Gross Savings ~~Evaluation~~ EM&V Approaches
REQ.19.3.4.31 Draw Measurement Boundary
REQ.19.3.4.32 Define Methodology and Performance Metrics
REQ.19.3.4.33 EM&V Methodologies
REQ.19.3.4.34 Deemed Savings
REQ.19.3.4.35 Comparison Groups
REQ.19.3.4.36 Statistical Significance and Other Sources of Uncertainty
REQ.19.3.4.37 Execute Program
REQ.19.3.4.38 Calculate Gross Savings
REQ.19.3.4.39 Evaluate Program Based on EM&V Findings
REQ.19.3.4.40 Report ~~Evaluation~~ EM&V Results
REQ.19.3.4.41 Evaluate and Respond to Feedback
REQ.19.3.4.42
REQ.19.3.4.43 Evaluate Savings Persistence
REQ.19.3.4.44 Net Savings

REQ.19.3.5 EM&V Site Specific Plans
REQ.19.3.5.1 Retrofit Isolation (Key Parameters)
REQ.19.3.5.2 Retrofit Isolation (All Parameters)
REQ.19.3.5.3 Whole Facility

For Quadrant: **Retail Electric Quadrant**

Requesters: **DSM-EE Subcommittee**
Request No.: **2010 Retail Annual Plan Item No. 3(b)**
Request Title: **Evaluation, Measurement & Verification of Energy Efficiency Programs**

REQ.19.3.5.4 Calibrated Simulation of Whole Facility or Sub-facility

REQ.19.4 Models

Draft of ~~January 5~~April 15, 2011

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

1. RECOMMENDED ACTION:

x	Accept as requested
	Accept as modified below
	Decline

EFFECT OF EC VOTE TO ACCEPT RECOMMENDED ACTION:

x	Change to Existing Practice
	Status Quo

2. TYPE OF DEVELOPMENT/MAINTENANCE

Per Request:		Per Recommendation:	
x	Initiation	x	Initiation
	Modification		Modification
	Interpretation		Interpretation
	Withdrawal		Withdrawal
x	Principle	x	Principle
x	Definition	x	Definition
x	Business Practice Standard	x	Business Practice Standard
x	Document	x	Document
x	Data Element	x	Data Element
x	Code Value	x	Code Value
	X12 Implementation Guide		X12 Implementation Guide
x	Business Process Documentation	x	Business Process Documentation

3. RECOMMENDATION SUMMARY:

The Retail Electric Quadrant (REQ) DSM-EE Subcommittee submits this Recommendation for 2010 Retail Annual Plan Item No. 3(b) to develop Model Business Practices for the Evaluation, Measurement & Verification (EM&V) of Energy Efficiency programs.

DISCLAIMER: *This document contains Model Business Practices for the evaluation of annual and life cycle electrical energy and Demand impacts of Energy Efficiency programs implemented by retail electric Distribution Companies. The information contained within this document is not intended to replace applicable tariff, market rules, operating procedures, protocols or manuals, for retail Energy Efficiency ("Governing Documents"), and in the event of a conflict, the latter documents should have precedence over these Model Business Practices.*

RECOMMENDED STANDARDS:

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For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
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REQ.19 MEASUREMENT & VERFICIATION (M&V) OF ENERGY EFFICIENCY PROGRAMS

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VERSION NOTES

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- REQ.19.1.6 Adequate Budgets
- REQ.19.1.7 Standard Structure and Terms
- REQ.19.1.8 Outside References
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REQ.19.3.2 EM&V Framework

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
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REQ.19.3.2.8 Transparency, Reporting and Best Practices
REQ.19.3.2.9 EM&V Methods and Key Assumptions
REQ.19.3.2.10 Who Will Conduct the EM&V
REQ.19.3.2.11 Data Management Strategies
REQ.19.3.2.12 Dispute Resolution
REQ.19.3.2.13 Requires Documents

REQ.19.3.3 Annual Portfolio EM&V Plan
REQ.19.3.3.1 Acronyms and Definitions
REQ.19.3.3.2 Executive Summary
REQ.19.3.3.3 Introduction and Background
REQ.19.3.3.4 Energy Efficiency Activities Covered by the Framework
REQ.19.3.3.5 EM&V Budget
REQ.19.3.3.6 Summary of Individual EM&V
REQ.19.3.3.7 Summaries of Other EM&V Activities
REQ.19.3.3.8 Process for Selecting Program Evaluators
REQ.19.3.3.9 Schedule of EM&V and Related Activities
REQ.19.3.3.10 Set EM&V Objectives
REQ.19.3.3.11 Determine Areas of EM&V
REQ.19.3.3.12 Establish Metrics for EM&V Success
REQ.19.3.3.13 Select Program Evaluator Firms
REQ.19.3.3.14 Run Pilot of Innovative Methods
REQ.19.3.3.15 Identify Co-Benefits for EM&V
REQ.19.3.3.16 Identify Constraints to Achieving Objectives
REQ.19.3.3.17 Establish Deemed Savings Estimates
REQ.19.3.3.18 Define EM&V Timeframe

REQ.19.3.4 EM&V Activity Specific Detailed Research Plan
REQ.19.3.4.1 Program Description
REQ.19.3.4.2 Program Logic and Market Factors
REQ.19.3.4.3
REQ.19.3.4.4 Policy Context
REQ.19.3.4.5
REQ.19.3.4.6 Baselines
REQ.19.3.4.7

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3.4.8
REQ.19.3.4.9
REQ.19.3.4.10
REQ.19.3.4.11
REQ.19.3.4.12
REQ.19.3.4.13
REQ.19.3.4.14
REQ.19.3.4.15
REQ.19.3.4.16
REQ.19.3.4.17
REQ.19.3.4.18
REQ.19.3.4.19
REQ.19.3.4.20
REQ.19.3.4.21
REQ.19.3.4.22
REQ.19.3.4.23
REQ.19.3.4.24
REQ.19.3.4.25 Data Validation Procedures
REQ.19.3.4.26 Updating of EM&V Results
REQ.19.3.4.27 EM&V Reporting and Communications
REQ.19.3.4.28 Management Reporting
REQ.19.3.4.29 EM&V Schedule
REQ.19.3.4.30 Select Gross Savings EM&V Approaches
REQ.19.3.4.31 Draw Measurement Boundary
REQ.19.3.4.32 Define Methodology and Performance Metrics
REQ.19.3.4.33 EM&V Methodologies
REQ.19.3.4.34 Deemed Savings
REQ.19.3.4.35 Comparison Groups
REQ.19.3.4.36 Statistical Significance and Other Sources of Uncertainty
REQ.19.3.4.37 Execute Program
REQ.19.3.4.38 Calculate Gross Savings
REQ.19.3.4.39 Evaluate Program Based on EM&V Findings
REQ.19.3.4.40 Report EM&V Results
REQ.19.3.4.41 Evaluate and Respond to Feedback
REQ.19.3.4.42
REQ.19.3.4.43 Evaluate Savings Persistence
REQ.19.3.4.44 Net Savings

REQ.19.3.5 EM&V Site Specific Plans
REQ.19.3.5.1 Retrofit Isolation (Key Parameters)
REQ.19.3.5.2 Retrofit Isolation (All Parameters)
REQ.19.3.5.3 Whole Facility

For Quadrant:	**Retail Electric Quadrant**
Requesters:	**DSM-EE Subcommittee**
Request No.:	**2010 Retail Annual Plan Item No. 3(b)**
Request Title:	**Evaluation, Measurement & Verification of Energy Efficiency Programs**

REQ.19.3.5.4 Calibrated Simulation of Whole Facility or Sub-facility

REQ.19.4 Models

Draft of ~~January 5~~April 15, 2011

For Quadrant:	**Retail Electric Quadrant**
Requesters:	**DSM-EE Subcommittee**
Request No.:	**2010 Retail Annual Plan Item No. 3(b)**
Request Title:	**Evaluation, Measurement & Verification of Energy Efficiency Programs**

EXECUTIVE SUMMARY

This document contains the Model Business Practices for the Evaluation, Measurement & Verification (EM&V) of Energy Efficiency programs. These Model Business Practices are applicable to the Evaluation of annual and life cycle electrical energy and Demand impacts of Energy Efficiency programs implemented by and for electric Distribution Companies.

Energy Efficiency programs encompass a variety of interactions between Distribution Companies, Retail Customers and Energy Services Providers. These Model Business Practices may be applied within the context of regulatory or other market requirements and agreements. The information contained in this document does not replace applicable tariff, market rules, operating procedures, protocols or manuals for retail Energy Efficiency ("Governing Documents"). In the event of a conflict, the Governing Documents should have precedence over these Model Business Practices.[jl1]

VERSION NOTES

(Insert publication date)

INTRODUCTION AND BACKGROUND

The North American Energy Standards Board (NAESB) is a voluntary, non-profit organization comprised of members from all aspects of the natural gas and electric industries. Within NAESB, the Retail Electric Quadrant (REQ) and the Retail Gas Quadrant (RGQ) focus on issues impacting the retail sale of energy to Retail Customers. REQ / RGQ Model Business Practices are intended to provide guidance to Distribution Companies, and other Market Participants involved in providing energy services to Retail Customers.

These Model Business Practices are voluntary and do not address many policy issues that are the subject of state legislation or regulatory decisions. These Model Business Practices have been adopted with the realization that as the industry evolves, additional and amended Model Business Practices may be necessary. Any industry participant seeking additional or amended Model Business Practices (including principles, definitions, data elements, process descriptions, and technical implementation instructions) should submit a request to the NAESB office, detailing the change, so that the appropriate process may take place to amend the Model Business Practice.

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

Energy Efficiency programs are an increasingly important component of retail electric supply, offsetting the need for new generation and distribution capacity, reducing the overall cost of energy services, and reducing greenhouse gas emissions and other pollutants associated with the generation of electricity. The accurate estimation of impacts from Energy Efficiency programs is necessary to guide investments in Energy Efficiency programs, improve program design and execution, and enable Energy Efficiency programs to be credited as resources in electric utility system planning. Consistent methods and practices within political jurisdictions can facilitate comparison of Energy Efficiency programs, help reveal best practices, and enhance credibility with some stakeholders. Consistent methods across political jurisdictions could facilitate policies such as Energy Efficiency resource standards, programmatic carbon offsets, and mechanisms intended to compensate program administrators and Distribution Companies for superior program performance.

An extensive body of Energy Efficiency program Evaluation, Measurement and Verification research and a substantial and diverse professional capacity is available to evaluate Energy Efficiency programs.

The intent of these Model Business Practices is to:

- Provide Distribution Companies, Applicable Regulatory Authorities, and other Market Participants with a greater understanding of how Energy Efficiency programs are evaluated, highlight key issues that need to be addressed as part of an Energy Efficiency program Evaluation, suggest minimum acceptable practices for addressing some of those issues, and suggest sources for additional information.
- Help Distribution Companies and Applicable Regulatory Authorities understand the various tradeoffs between Evaluation cost and uncertainty, know what to expect and ask of program evaluators, ensure Evaluations meet accepted industry standards if not best practices, and structure an Evaluation oversight process that will maximize credibility with stakeholders.
- Ensure the highest quality and integrity of Energy Efficiency program Evaluations given inevitable resource constraints.

In doing so, it is expected that these Model Business Practices for the Evaluation of retail Energy Efficiency programs will broaden the implementation and acceptance of energy reduction measures and practices.

A. Scope of These Model Business Practices

These Model Business Practices contain guidance for the Evaluation, Measurement and Verification of the impacts of retail electric Energy Efficiency programs administered and/or sponsored by Distribution Companies. They include only guidance for which consensus could

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

be generated among the NAESB Participants. They are not comprehensive in scope, nor does it contain the level of detail necessary to be a stand-alone guidance document.

Specifically:[jl2]

- These Model Business Practices do not provide guidance related to the compensation, design, operation, or use of Energy Efficiency programs.
- These Model Business Practices do not provide sufficient detail or scope to be used as EM&V standards or requirements, but only to suggest key EM&V elements that should be considered and addressed.
- These Model Business Practices do not provide guidance related to how the Impact Evaluation results are used.
- These Model Business Practices do not include guidance related to the Evaluation of program design and implementation (i.e., "process evaluation) or market assessments (market evaluations). [jl3]

[jl4]

B. EM&V Challenges

At the heart of the EM&V challenge is a counterfactual: what would have happened if not for the program? It is never known with total certainty how much energy was saved as a result of a program activity. This counterfactual question must be asked and answered for a diversity of programs that are motivated by a variety of often-competing objectives. This diversity of programs and objectives means that EM&V results must be used and interpreted with caution. The challenge is compounded by constraints on evaluation funding, which is generally limited to a small portion of overall program budgets.

(1) Diverse Programs

- Varied Program Designs – Programs may include (but are not limited to) Retail Customer and Energy Services Provider rebates, awareness campaigns, audits, training, technical assistance, direct installation, special financing, and demonstration programs. All types of programs should be evaluated. Some are easier and some harder to evaluate. Multiple methods and types of expertise are required.
- Varied Program Incubation Terms – Some types of programs (e.g., a Retail Customer awareness campaign) may be able to ramp up quickly over the course of months. Others may take years to enlist trade allies and Retail Customer participation (e.g., a

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

residential new construction program). Impact Evaluation by itself should not be used to make Portfolio or program design decisions; other information is needed.

- Varied Program Savings – Some programs achieve large savings. Some achieve small savings. This can be a function of market potential, programmatic resources, program design, or program execution. Impact Evaluation by itself should not be used to make Portfolio or program design decisions; other information is needed.

- Varied Clarity of Program Impacts – The impacts from some programs are easier to see and measure than others. For example, it is easier to identify actions taken as part of a direct-install program than a Retail Customer awareness campaign. There may be little or no correlation between measurability and impacts.

- Varied Energy Efficiency Measure Lives – Programs may target short-lived measures such as compact fluorescent lamps and maintenance or long-lived measures such as the installation of building insulation or replacement of chillers. Impact Evaluation by itself should not be used to make Portfolio or program design decisions; other information is needed.

- Varied Per Unit or Participant Savings – Some programs may draw large savings from each unit measure or participant (e.g. custom industrial and commercial programs). Some programs draw small per-unit or participant savings (e.g. CFL programs). Participant and unit counts are useful, but can be misleading intermediate indicators.

(2) Diverse and Competing Program Objectives

- Multiple Program Objectives -- There are many objectives ascribed to Energy Efficiency programs and Portfolios including (but not limited to): lower Retail Customer cost of energy services, lower Retail Customer electricity bills, immediate or long term responses to electric capacity constraints, reduced carbon dioxide emissions, reduced local emissions, and job creation.

- Conflicting Program Objectives – Program objectives are sometimes in conflict with one another. Different performance metrics will be appropriate for different objectives. The required precision and level of sectoral or program detail in a program Evaluation may vary as a result.

- Multiple Stakeholders -- Different stakeholders have different perspectives, interests, knowledge and levels of influence. To be widely accepted and credible, protocols will have to address the concerns of various stakeholders.

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

(3) Diverse EM&V Resources and Expectations

- The desired level of EM&V rigor can depend on a many factors including stakeholder confidence in and familiarity with the program design and administration, the EM&V objectives, the program's share of the total Portfolio budget, and the extent to which the program (and/or similar programs) has been evaluated in the past or in other locations.

- The ability to achieve desired levels of rigor is constrained by the availability of funding, program data, the expertise of evaluators, the experience of program implementers, and clarity about program and EM&V objectives.

- Many objectives may be ascribed to EM&V efforts, including (but not limited to): measuring compliance with energy efficiency program impact goals, electric demand forecasting and system planning, estimating program cost-effectiveness, program and portfolio design, determining performance based compensation or program cost recovery.

- EM&V budgets are typically a few percent of overall program budgets. EM&V budget requirements vary widely depending on the size of the program (there may be large economies of scale and, to a lesser extent, scope), existing data resources, the desired level of rigor, and the time allowed for conducting the EM&V.

- Data needs are constantly changing along with program designs, technology, and demographics. Resources are required to collect, clean, manage and update data. EM&V plans frequently are not integrated with program and/or Portfolio design, thus pre-program Baseline data often is not available and many important EM&V policy decisions are not made in advance.

- Program Administrators may have more or less experience running Energy Efficiency programs. Inexperienced Program Administrators may require significant assistance with development of program data tracking systems, which can increase evaluation costs.

~~EXECUTIVE SUMMARY~~

~~This section document presents a summary of the Model Business Practices for the Evaluation, Measurement & Verification (EM&V) of Energy Efficiency programs. Specifically, these Model Business Practices contain information for the Evaluation of annual and life cycle electrical energy and Demand impacts of Energy Efficiency programs implemented by retail electric Distribution Companies.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~Energy Efficiency programs encompass a variety of interactions between Distribution Companies, Retail Customers and Energy Services Providers. In a business environment where best practices are voluntary, Model Business Practices such as those in this document may be applied within the context of regulatory or other market requirements and agreements. The information contained within this document is not intended to replace applicable tariff, market rules, operating procedures, protocols or manuals, for retail Energy Efficiency ("Governing Documents"), and in the event of a conflict, the latter Governing dDocuments should have precedence over these Model Business Practices.~~

~~VERSION NOTES~~

~~(Insert publication date)~~

~~INTRODUCTION~~

~~The North American Energy Standards Board (NAESB) is a voluntary, non-profit organization comprised of members from all aspects of the natural gas and electric industries. Within NAESB, the Retail Electric Quadrant (REQ) and the Retail Gas Quadrant (RGQ) focus on issues impacting the retail sale of energy to Retail Customers. REQ / RGQ Model Business Practices are intended to provide guidance to Distribution Companies, and other Market Participants involved in providing energy services to Retail Customers.~~

~~These Model Business Practices are voluntary and do not address policy issues that are the subject of state legislation or regulatory decisions. These Model Business Practices have been adopted with the realization that as the industry evolves, additional and amended Model Business Practices may be necessary. Any industry participant seeking additional or amended Model Business Practices (including principles, definitions, data elements, process descriptions, and technical implementation instructions) should submit a request to the NAESB office, detailing the change, so that the appropriate process may take place to amend the Model Business Practice.~~

~~Energy Efficiency programs are an increasingly important component of retail electric supply, offsetting the need for new generation and distribution capacity, reducing the overall cost to consumers Retail Customersof electric services, and reducing greenhouse gas emissions and other pollutants associated with the generation of electricity. The accurate estimation of impacts from Energy Efficiency programs is necessary to guide investments in Energy Efficiency programs, improve program design and execution, and enable Energy Efficiency programs to be credited as resources in Distribution Company planning. Consistent methods and practices within political jurisdictions can facilitate comparison of Energy Efficiency programs, help reveal~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~best practices, and enhance credibility with some stakeholders. Consistent methods across political jurisdictions could facilitate policies such as Energy Efficiency resource standards, programmatic carbon offsets, and performance compensation schemes.~~

~~An extensive body of Energy Efficiency program Evaluation~~, Measurement and Verification ~~research and a large number of experts has emerged over the last several decades. A substantial and diverse professional capacity is available to evaluate Energy Efficiency programs.~~

~~The intent of these Model Business Practices is to provide Distribution Companies, regulators~~Applicable Regulatory Authorities~~, and other Market Participants with a greater understanding of how Energy Efficiency programs are evaluated, highlight key issues that need to be addressed as part of an Energy Efficiency program Evaluation, suggest minimum acceptable practices for addressing some of those issues, and suggest sources for additional information. The intent of these Model Business Practices is to help Distribution Companies and regulators~~ Applicable Regulatory Authorities ~~understand tradeoffs between Evaluation cost and uncertainty, know what to expect and ask of program evaluators, ensure Evaluations meet accepted industry standards if not best practices, and structure an Evaluation oversight process that will maximize credibility with stakeholders. The intent is to help ensure the highest quality and integrity of Energy Efficiency program Evaluations given inevitable resource constraints. In doing so, it is expected that these Model Business Practices for the Evaluation of retail Energy Efficiency programs will broaden the implementation and acceptance of energy reduction measures and practices.~~

~~A. Scope~~

~~These Model Business Practices contain guidance for the Evaluation, Measurement and Verification of the impacts of retail electric Energy Efficiency programs administered and/or sponsored by Distribution Companies and/or Energy Services Companies. ALT - This document contains Model Business Practices for the e~~Evaluation of the energy impacts of retail electric ~~Energy Efficiency Programs and Portfolios administered and/or sponsored by retail electricity suppliers~~Distribution Companies and/or Energy Services Providers. ~~These Model Business Practices do not comprise a stand-alone guidance document. They include only guidance for which consensus could be generated among the Subcommittee~~ Market p~~Participants. It is not comprehensive in scope, nor does it contain the level of detail necessary to be a stand-alone guidance document.~~

~~These Model Business Practices do not provide guidance related to the compensation, design, operation, or use of Energy Efficiency programs. Likewise, these Model Business Practices do not provide guidance related to how the evaluation~~ EM&V ~~results~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~are used (except to suggest that the objectives be clearly articulated). *(NOTE: This is repeated below)*~~

- ~~These Model Business Practices do not provide guidance related to the compensation, design, operation, or use of Energy Efficiency programs.~~
- ~~These Model Business Practices do not provide guidance related to how the iImpact eEvaluation results are used.~~
- ~~These Model Business Practices do not include guidance related to the Evaluation of program design and implementation (i.e., "process evaluation). ALT – This version *(Question: Is there another version??)* of the Model Business Practices does not include guidance related to the Evaluation of program design and implementation (i.e., "process evaluation) or market assessments (market evaluations).~~
- ~~These Model Business Practices do not include guidance related to the attribution of impacts among various programs. ALT – This version *(Another??)* of the Model Business Practices Model Business Practice for the Evaluation of Retail Energy Efficiency Programs does not include specific guidance related to the attribution of impacts to specific programs.~~
- ~~Uncertainty prevails – The impacts of all Energy Efficiency programs have some degree of uUncertainty due to their counterfactual nature – Energy Efficiency programs try to get people to do things they otherwise would not have done. These Model Business Practices provide guidance related to estimating the effects of what people did compared to what they did before (i.e., the difference between pre- and post-implementation energy consumptionusage). It does not provide guidance related to what they would have done.~~

~~TBD – Disclaimer re market transformation programs?~~

~~TBD – Disclaimer re net effect and program attribution?~~

~~TBD – Disclaimer re market effects and spillover?~~

~~B. Evaluation EM&V Challenges~~

~~(1) Diverse Programs~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

- ~~Varied Designs – Programs may include (but are not limited to) Retail Customer and Energy Services Company Provider rebates, awareness campaigns, audits, training, technical assistance, direct installation, special financing, and demonstration programs. All types of programs should be evaluated. Some are easier and some harder to evaluate. Multiple methods and types of expertise are required.~~

- ~~Varied Incubation Terms – Some types of programs (e.g., a Retail Customer awareness campaign) may be able to ramp up quickly over the course of months. Others may take years to enlist trade allies and Retail Customer participation (e.g., a residential new construction program). Impact eEvaluation cannot by itself be used to make pPortfolio or program design decisions – other information is needed. Also, annual impacts can be misleading - need to look at life-cycle impacts also.~~

- ~~Varied Total Savings – Some programs achieve large savings. Some achieve small savings. This can be a function of market potential, programmatic resources, program design, or program execution. The implication is that eEvaluation of total impacts is necessary, but not sufficient.~~

- ~~Varied Clarity of Impacts – The impacts from some programs are easier to see and measure than others. For example, it is easier to identify actions taken as part of a direct-install program than a Retail Customer awareness campaign. The implication is that there may be little or no correlation between measurability and impacts.~~

- ~~Varied Energy Efficiency Measure Lives – Programs may target short-lived measures such as compact fluorescent lamps and maintenance or long-lived measures such as the installation of building insulation or replacement of chillers. Impact eEvaluation cannot by itself be used to make pPortfolio or program design decisions – other information is needed. Also, annual impacts can be misleading - need to look at life-cycle impacts also.~~

- ~~Varied Per Unit or Participant Savings – Some programs may draw large savings from each unit measure or participant (e.g. custom industrial and commercial programs). Some programs draw small per-unit or participant savings (e.g. CFL programs). The implication is that participant and unit counts are useful, but can be misleading intermediate indicators.~~

~~(2) Diverse and Competing Objectives~~

- ~~Multiple Objectives -- There are many objectives ascribed to Energy Efficiency programs and Portfolios including, but not limited to, lower Retail Customer cost of energy~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~services, lower ratepayer cost, immediate or long term responses to capacity constraints, reduced carbon dioxide emissions, reduced local emissions, and job creation.~~

- ~~Conflicting Objectives -- Objectives are sometimes in conflict with one another. The implication is how the results of an iImpact eEvaluation are used will vary depending on the objectives. The required precision and level of sectoral or program detail may vary as a result.~~

- ~~Multiple Stakeholders -- Different stakeholders have different perspectives, interests, knowledge and levels of influence. To be widely accepted and credible, protocols will have to appease these various stakeholders equally.~~

~~(3) Diverse Evaluation EM&V Resources~~

- ~~The quality of evaluation EM&V products is a function of the available funding, data and expertise. Evaluation EM&V budgets typically range from ___% to ___% of program budgets. Evaluation EM&V budget requirements vary widely depending on the size of the program (there may be large economies of scale and, to a lesser extent, scope), existing data resources, the desired level of rigor, and the time allowed for conducting the evaluation EM&V (haste makes waste).~~

- ~~The desired level of rigor can depend on a many factors including stakeholder confidence in the program design and administration (or lack of), precision required to meet policy objectives, a program's share of the total pPortfolio budget, the extent to which the program (and/or similar programs) has been evaluated in the past or in other locations.~~

- ~~Evaluation EM&V plans frequently are not integrated with program and/or pPortfolio design, thus pre-program Baseline data often is not available and many important evaluation EM&V policy decisions are not made in advance.~~

- ~~Varied Program Administrators – Energy Efficiency programs may be run by electric Distribution Companies, Distribution Company contractors, or third parties designated by regulation or law. Program Administrators may have more or less experience running Energy Efficiency programs. Inexperienced Program Administrators may require significant assistance with development of program data tracking systems, which can increase evaluation costs.~~

~~(4) Data Limitations~~ ~~- Resources are required to collect, clean, manage and update data. Data needs are constantly changing along with program designs, technology, and demographics.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~**(5) Counterfactual** -- At the heart of the evaluation EM&V challenge is a counterfactual – what would have happened if not for the program? It is never known with total certainty how much energy was saved as a result of a program activity~~

~~**(6) Energy Efficiency Program Evaluation EM&V is Not Unique** -- Evaluation EM&V of Energy Efficiency programs is not uniquely challenged. The impacts of most private and public sector activities must be estimated and include many of the same issues.~~

Draft of ~~January 5~~April 15, 2011

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~Overview~~

~~There are two key primary objectives of evaluations~~EM&V~~:~~

~~1. To document and measure the effects of a program or p~~Portfolio ~~and determine whether it met its goals with respect to being a reliable energy resource.~~

~~2. To help understand why those~~ the ~~effects of a program or Portfolio occurred and identify ways to improve or discontinue current programs (or p~~Portfolios~~), and select future programs (or p~~Portfolios~~).~~

REQ.19.1 Principles

REQ.19.1.1 VARIABLES THAT ARE MEASURED TEND TO DRIVE OUTCOMES. CONSIDER THE POSSIBLE UNINTENDED CONSEQUENCES OF REQUIRED GOALS AND RELATED PROGRESS INDICATORS OR METRICS.

~~**Process Should be Efficient:** The processes for~~ EM&V ~~of Energy Efficiency programs should be efficient to minimize the time and effort needed to accomplish these operational details~~

REQ.19.1.2 **As much as possible, plan for evaluation in conjunction with program planning and implementation, and look to evaluation to serve both program and broader organizational goals. Planning in advance for evaluation-related activities to occur at appropriate points in the cycle of program planning and implementation, rather than planning for evaluation after program launch, results in more efficient and effective evaluation expenditures.**~~CONSISTENCY: THE PROCESSES FOR~~ EM&V ~~OF ENERGY EFFICIENCY PROGRAMS SHOULD BE CONSISTENT WITH THE REQUIREMENTS SET FORTH BY THE APPLICABLE REGULATORY AUTHORITY.~~

REQ.19.1.3 **Agree on baseline considerations for measuring savings, including measurement methodology, at the beginning of program and evaluation planning. "Baseline" refers to initial measurements of energy use and other**

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

key variables that are expected to change in response to an energy efficiency program.~~**Unauthorized Activity:** The processes for EM&V of Energy Efficiency programs should minimize the occurrence of unauthorized activity in the marketplace.~~

REQ.19.1.4 TO ENSURE EM&V RESULTS ARE TIMELY, CONSIDER THE RATE OF CHANGE OF PROGRAMS, THE MARKETS THEY SERVE, OR REGULATIONS, AND TAKE THIS INTO ACCOUNT IN PLANNING FOR EVALUATION.~~**Thoroughness**: Energy Efficiency evaluations EM&V should develop retrospective estimates of energy savings attributable to a program in a manner that is defensible in proceedings that are conducted to ensure that Energy Efficiency funds are properly and effectively spent. In addition, evaluation EM&V should go beyond documenting savings to actually improving programs and providing a basis for future savings estimates.~~

REQ.19.1.5 IN PLANNING FOR EVALUATION, CONSIDER AND DISCLOSE CAUSAL FACTORS OTHER THAN THE PROGRAM ACTIVITIES BEING EVALUATED THAT COULD CONTRIBUTE TO OBSERVED OUTCOMES, AND THE POSSIBLE IMPACTS OF THESE FACTORS ON THE OUTCOMES. SUCH FACTORS CAN INCLUDE (BUT ARE NOT LIMITED TO): OTHER PROGRAMS, TAX INCENTIVES, GOVERNMENT STANDARDS, BUILDING CODES, AND CHANGES IN TECHNOLOGY OR MARKETS. ~~**Cyclic Planning:** The evaluation EM&V process should be integral to what is typically a cyclic planning-implementation-eEvaluation process. Therefore, evaluation EM&V planning should be part of the program planning process so that the evaluation EM&V effort can support program implementation, including the alignment of implementation and evaluation EM&V budgets and schedules, and can provide eEvaluation results in a timely manner to support existing and future programs.~~

REQ.19.1.6 Consider the choice of cost-effectiveness test, and inputs to the test, carefully in light of program goals. Measurement of cost-effectiveness is sensitive both to the type of cost-effectiveness test selected and to the

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

associated input assumptions, such as discount rate, avoided costs, how program administrative costs are allocated among programs, whether program start up costs are amortized over multiple years , whether externality costs and benefits are included etc.

~~**Adequate Budgets:** Evaluation EM&V budgets and resources should be adequate to support, over the entire eEvaluation time period, the evaluation EM&V goals and the level of quality (certainty) expected in the evaluation EM&V results.~~

~~**REQ.19.1.7 Standard Structure and Terms:** Evaluations EM&V should use the planning and implementation structure described in this MBPthese Model Business Practices, as well as the definitions provided for evaluation terms. ***(???)***~~

~~**REQ.19.1.8 Outside References:** Energy and Demand savings calculations should follow one or more of the approaches defined in either the:~~

- ~~National Action Plan for Energy Efficiency (2007)1~~
- ~~International Performance Measurement and Verification Protocol (IPMVP)2 ***(Spell Out)***~~

~~**REQ.19.1.9 Principles:** Evaluations EM&V should be complete, transparent, relevant, consistent, and balanced in risk management between certainty of results and costs to achieve the results. Program Eevaluators should also follow the guiding principles defined by the American Evaluation Association.~~

REQ.19.1.~~10~~7 EM&V SHOULD CONSIDER INTERACTIVE EFFECTS OF VARIOUS MEASURES, WHERE MEASURES ARE INSTALLED, AND HOW PEOPLE WILL INTERACT WITH MEASURES.

REQ.19.1.8 PROGRAMS AIMED AT ALTERING BEHAVIOR, MANUFACTURING AND STOCKING PRACTICES, AND OTHER LASTING STRUCTURAL CHANGE

~~[1] Model Energy Efficiency Program Impact Evaluation Guide. Prepared by Steven R. Schiller, Schiller Consulting, Inc. <www.epa.gov/eeactionplan~~

~~[2] reference~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

TEND TO REQUIRE A DIFFERENT EVALUATION APPROACH FROM TRADITIONAL REBATE PROGRAMS. LASTING STRUCTURAL CHANGE TAKES TIME, SO LONGER MEASUREMENT TIME HORIZONS ARE NEEDED.

REQ.19.1.9 IN DETERMINING PRECISION REQUIREMENTS, CONSIDER HOW THE RESULTS ARE TO BE USED AND WHAT IS PRACTICAL AND AFFORDABLE RELATIVE TO THE UNDERTAKING OR GOAL. THERE IS NO SINGLE RULE OR CONFIDENCE INTERVAL FOR EVALUATION ESTIMATES THAT IS ATTAINABLE OR USEFUL FOR ALL EVALUATIONS. NONE OF THE KEY ELEMENTS OF UTILITY RESOURCE PLANNING, SUCH AS OUTAGE RATES OR FOSSIL PRICE FORECASTS, ARE PRECISE, YET THE PROCESS IS DESIGNED TO MANAGE WITH REASONABLE IMPRECISION. IN THE SAME SPIRIT, A GOOD EVALUATION PLAN ALLOCATES AN APPROPRIATE LEVEL OF RESOURCES TOWARD ENOUGH PRECISION FOR THE THINGS WE NEED TO KNOW MOST.

REQ.19.1.10 DISCLOSE THE LEVEL OF PRECISION ASSOCIATED WITH REPORTED MEASUREMENTS. TO AVOID A MISLEADING IMPRESSION OF AN ESTIMATE'S PRECISION, PROVIDE EVALUATION ESTIMATES OF A PROGRAM'S IMPACTS WITH A RANGE, USUALLY INCLUDING A CENTRAL ESTIMATE, RATHER THAN JUST A SINGLE FIGURE.

REQ.19.1.11 RECOGNIZE, ADDRESS AND REPORT POTENTIAL SOURCES OF BIAS IN EVALUATION METHODS OR DATA THAT COULD PRODUCE INACCURATE RESULTS, NO MATTER WHAT THE LEVEL OF PRECISION. IDENTIFYING AND CORRECTING SOURCES OF BIAS SHOULD BE A TOP PRIORITY OF ANY EVALUATION.

REQ.19.1.12 Consider evaluation as a routine part of a continuous program improvement process. Ongoing feedback from process evaluations, market assessments and impact evaluations allows for program assumptions to be routinely tested and helps focus programs.

REQ.19.1.13 WHERE PROGRAM ADMINISTRATORS HAVE MATURE DATA TRACKING SYSTEMS AND REPORTING CAPABILITY, INTERNAL CAPABILITY FOR DATA CLEANING AND QUALITY CONTROL, AND COLLECT NECESSARY EVALUATION DATA ALONG THE WAY, EVALUATION IS MORE AFFORDABLE, TIMELY AND ACCURATE. ~~**Standard Topics to Address:** With the above characteristics in mind, individual implementers, Program eEvaluators and oversight agencies Applicable Regulatory Authorities can define their own policy-specific program evaluation EM&V requirements. These requirements are determined by the program objectives, regulatory mandates (if any), expectations for quality of the evaluation EM&V results, intended uses of the~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~evaluation EM&V results, and other factors that can vary across jurisdictions and programs. To define policy-specific program evaluation EM&V requirements the following issues should be addressed:~~

~~WHAT ARE THE EVALUATION EM&V OBJECTIVES, AND METRICS?~~
~~WHAT COST EFFECTIVENESS TEST WILL BE USED?~~
~~WHAT ARE THE EVALUATION EM&V PRINCIPLES THAT DRIVE THE EFFORT?~~
~~WHAT ARE THE BBASELINES AGAINST WHICH SAVINGS ARE DETERMINED?~~
~~IS PPERFORMANCE DETERMINED ON BASIS OF NNET SAVINGS OR GGROSS SSAVINGS?~~
~~WHAT IS INCLUDED IN NNET SSAVINGS?~~
~~WHAT IS THE REPORTING "BOUNDARY", ARE T&D CONSIDERATIONS INCLUDED, HOW 'GRANULAR' WILL BE THE RESULTS?~~
~~HOW ARE SAVINGS APPLIED – LOOKING BACK/GOING FORWARD?~~
~~WHAT IIMPACT EEVALUATION APPROACHES WILL BE USED AND HOW WILL THEY BE SELECTED?~~
~~WHAT ARE THE SCHEDULES FOR IMPLEMENTING EM&V AND REPORTING?~~
~~WHAT ARE THE DATA MANAGEMENT STRATEGIES?~~
~~WHAT ARE EXPECTATIONS FOR SAVINGS DETERMINATION CERTAINTY (CONFIDENCE AND PRECISION)?~~
~~HOW MUCH MONEY WILL BE SPENT ON EVALUATIONEM&V? WHAT IS THE BALANCE BETWEEN OR LEVEL OF IMPACT, MMARKET AND PROCESS EEVALUATIONS?~~
~~WHO WILL CONDUCT THE EVALUATIONSEM&V, HOW IS INDEPENDENT EVALUATION EM&V DEFINED, WHAT ARE THE ROLES BETWEEN IMPLEMENTERS, PROGRAM EEVALUATORS, AND REGULATORSAPPLICABLE REGULATORY AUTHORITIES?~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.1.14 The timing of data collection is important to good evaluation. Depending on the design and objectives of particular projects in a program, data may need to be collected at one or more of the following times: pre-program intervention to establish baselines, soon after an intervention to verify measure installation or other program activity while memories are fresh, and one or more later intervals to assess impacts over time. Generally, evaluations should adhere to planned data collection schedules to assure accuracy, comparability, and consistency of analyses and to provide feedback for program improvement.

REQ.19.1.15 Allow adequate time to pass before calculating cost-effectiveness. Program costs effectiveness often improves over time as programs mature, participation increases, and start up costs are spread across start up costs are spread over several years of program activity.

REQ.19.1.16 Multiple EM&V methods can be used to evaluate the same program. Combining multiple methods with lower precision may provide more accurate results at lower cost.

REQ.19.1.17 As programs and markets evolve, the evaluation methods may need to change. Ensure that the evaluation method(s) being used continue to be appropriate.

REQ.19.1.18 Evaluation results should be communicated in a manner that allows those with limited background in the subject matter to understand the key findings and conclusions.

REQ.19.1.19 Allocate evaluation resources in relation to the expected program savings, level of uncertainty of savings estimates, cost or difficulty of measurement, and the importance of the undertaking or goal.

REQ.19.2 Definitions

REQ.19.2.A Business Definitions

REQ.19.2.B Technical Definitions

(NOTE: Definitions have been moved to the end of the document for convenience during drafting. The appropriate definitions will be moved back to this location prior to submitting the Recommendation to the DSM-EE Subcommittee.)

Draft of ~~January 5~~April 15, 2011

For Quadrant:	**Retail Electric Quadrant**
Requesters:	**DSM-EE Subcommittee**
Request No.:	**2010 Retail Annual Plan Item No. 3(b)**
Request Title:	**Evaluation, Measurement & Verification of Energy Efficiency Programs**

Draft of ~~January 5~~April 15, 2011

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3 Model Business Practices

REQ.19.3.1 Hierarchy of Documents

Policy-specific program ~~e~~Evaluation requirements ~~shall~~ should be defined in four hierarchical documents: ***(PRP Comment: Note – NAESB documents do not specify policy.)***

REQ.19.3.1.1 EM&V Framework – A framework is a primary document that lays out EM&V principles, metrics, allowable approaches, ~~n~~Net Savings versus ~~g~~Gross Savings issues, reporting requirements, schedules, who does what, etc. This tends to be "fixed", but can be updated at any time. It can also be where the expectations can be set for (a)***?? (Is there a (b)?)*** the format and content of the following documents.

REQ.19.3.1.2 Annual Portfolio EM&V Plan – An ~~a~~Annual Portfolio EM&V ~~p~~Plan that indicates the major ~~evaluation~~ EM&V activities that will be conducted during the year, including budget and allocation between programs/measures/market sectors, as applicable.

REQ.19.3.1.3 EM&V Activity Specific Detailed Research Plan – Specific ~~R~~research plans are created for the major EM&V activities planned in a given cycle prior to the time each effort is launched.

REQ.19.3.1.4 EM&V Site Specific Plans – Site-specific plans may be required for custom project sites that are analyzed and/or inspected.

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3.2 EM&V Framework ~~Document~~

The overarching planning document is the EM&V Framework. The purpose of this document is to describe the process by which the Program ~~e~~Evaluator will document the energy savings and other metrics associated with the implementer's ~~d~~Demand ~~s~~Side ~~m~~Management activities and to indicate a range of methods to be used as well as the process for continuous improvement and third-party review. The following sections should be included in the EM&V Framework document:

REQ.19.3.2.1 Acronyms and Definitions ~~of Key Terms~~ - The EM&V Framework ~~D~~document ~~shall~~ should contain a section listing Acronyms and Definitions of ~~K~~key ~~T~~terms

REQ.19.3.2.2 Executive Summary ~~Definition~~ - The EM&V Framework ~~D~~document ~~shall~~ should contain an Executive Summary which includes:

- A ~~B~~brief introduction to the process used to develop the document and the actual document
- The ~~P~~purpose of the document
- A ~~Summarize~~ summarization of the key requirements

REQ.19.3.2.3 Introduction and Background - The EM&V Framework ~~D~~document should discuss the following:

- The ~~P~~purpose of the document ***(Why is this repeated??)***
- ~~Summarize~~ A summarization of the appropriate regulations and enabling legislation
- ~~Describe~~ A description of the period of time covered by ~~this~~ the EM&V ~~f~~Framework
- ~~Indicate~~ The contents of the document

[jl5]**REQ.19.3.2.4 Coverage -** The EM&V Framework ~~D~~document should define the Energy Efficiency programs~~/~~ or ~~p~~Portfolios covered

Draft of ~~January 5~~April 15, 2011

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3.2.5 **~~Evaluation~~ EM&V Principles**[jl6], **Objectives and Metrics** - The EM&V Framework ~~D~~document should define the ~~Evaluation~~ EM&V ~~P~~principles, ~~O~~objectives and ~~M~~metrics

- ~~Evaluation~~ EM&V principles that drive the effort - high level items [jl7]
- High level ~~evaluation~~ EM&V objectives[jl8]
- Key portfolio metrics [jl9]
- Energy numbers [jl10](include annual and/or life cycle, and per hour, month, year, etc.)
- kW (net/gross) (First year/Lifecycle) (recommend both)[jl11]
- kWh[jl12] (net/gross) (First year/Lifecycle) (recommend both)
- Costs and other benefit data [jl13]
- Market transformation metrics
- Other
- [jl14][jl15]Indication if energy and Demand savings will be reporting as ~~n~~Net ~~s~~Savings or ~~g~~Gross ~~s~~Savings and, if ~~n~~Net ~~s~~Savings, what are the parameters [jl16]that will be used to correct ~~g~~Gross ~~s~~Savings to ~~n~~Net ~~s~~Savings.

REQ.19.3.2.6 **Definition of ~~Evaluation~~ EM&V Cycle** - Describe the ~~evaluation~~ EM&V cycle with respect to the EM&V activities and reporting

- Hierarchy of planning steps for each cycle
- EM&V standard (this document)
- Per cycle ~~p~~Portfolio-level EM&V Plan
- Detailed research plans
- Site-Specific EM&V Plans ***(What is the difference between this and Document 3 ???)***

[jl17]

REQ.19.3.2.7 **Requirements for Uncertainty Analysis** - Expectations for savings determination certainty [jl18]

- Best practices[jl19]
- Control for systematic error via documentation and best practices, trained experts, etc. [jl20]
- Control for random ~~s~~Sampling ~~e~~Error by defining a confidence and ~~p~~Precision level for any sampling to be done.[jl21]

Draft of ~~January 5~~April 15, 2011

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3.2.8 **Transparency, Reporting and Best Practices -** High level statement about transparency and reporting of analyses subject to Retail ~~c~~Customer confidentiality[jl22]

- Overall schedule for reporting during each cycle; high level discussion [jl23]of what will be covered in the EM&V reports and when they will be delivered
- Expected contents of EM&V Report
- How are ~~impact evaluation~~EM&V savings applied – looking back/going forward[jl24]
- How best practices will be incorporated into ~~evaluation~~ EM&V activities[jl25]

REQ.19.3.2.9 **~~Evaluation~~ EM&V Methods and Key Assumptions -** What ~~impact evaluation~~EM&V approaches will be used and how will they be selected?

- Baselines ~~—~~ The EM&V Framework should define the general definitions of ~~b~~Baseline. Examples include existing conditions, code and standard requirements, and standard practice. The ~~b~~Baseline definitions should include the same or different definitions for new construction, early replacement retrofits, and/or end of life retrofits.. When developing ~~b~~Baseline guidance, ~~regulators~~ the Applicable Regulatory Authority may consider the following factors and implications: accuracy of savings estimates, ~~evaluation~~ EM&V cost, the jurisdiction's regulatory framework including performance metrics and goals, incentives, and/or penalties that may be applicable to ~~p~~Program ~~a~~Administrators.
- Deemed ~~s~~Savings and deemed calculated savings "values"
- How and when will this source of values be updated
- Performance will be reported on basis of ~~n~~Net Savings or ~~g~~Gross ~~s~~Savings? What is included in ~~n~~Net ~~s~~Savings (~~f~~Free ~~r~~Riders, ~~s~~Spillover, etc.).
- Whether (and if so, at which point in the reporting process) should T&D savings considerations be included
- How 'granular' will be the results (determined as needed in research plans)

Draft of ~~January 5~~April 15, 2011

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3.2.10 Who Will Conduct the ~~Evaluations~~EM&V

- How is independent ~~evaluation~~ EM&V defined
- Process for 3rd party consultant selection, as applicable

[jl26]

REQ.19.3.2.11 Data Management Strategies[jl27]

- Tracking system requirements to be used
- Design schema and structure of data flow
- Specification of ~~S~~standardized ~~D~~data ~~S~~sets
- How this system will be used for QA/QC ***(Need to define)*** and reporting
- [jl28]This can include program control processes; that is, when does the installation ***(???)***[jl29]

REQ.19.3.2.12 Dispute Resolution

- What is data submittal process and dispute resolution process

[jl30]

REQ.19.3.2.13 Required Documents

- High level content outlines of required documents and reports

Draft of ~~January 5~~April 15, 2011

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3.3 Annual Portfolio EM&V Plan

There should be an Annual Portfolio EM&V Plan that outlines the major ~~evaluation~~ EM&V activities that will be conducted during the year, including budget and allocation between programs/measures/market sectors, as applicable. The purpose of this document is to describe the major ~~evaluation~~ EM&V activities that will be conducted during the year, including budget and allocation between programs/measures/market sectors, ~~evaluation~~ EM&V schedules, and type, if not identify, of ~~e~~Entities that will be evaluators.

REQ.19.3.3.1 **Acronyms and Definitions ~~of Key Terms~~** - The Annual Portfolio EM&V Plan should contain a section listing Acronyms and Definitions of ~~K~~key ~~T~~terms

REQ.19.3.3.2 **Executive Summary** - The Annual Portfolio EM&V Plan should contain an Executive Summary which includes:

- Brief introduction to process used to develop document and the actual document
- Purpose of document
- Summary of key activities, budget and schedule

REQ.19.3.3.3 **Introduction and Background, containing**:

- Purpose of this document - summarize appropriate regulations and enabling legislation
- Describe the period of time covered by the annual plan – plans may be annual, two-year or even potentially three-year
- Indicate content

REQ.19.3.3.4 **Energy Efficiency Activities ~~c~~Covered by the EM&V Framework -** The Annual Portfolio EM&V Plan should define the Energy Efficiency programs/portfolios covered by the ~~evaluation~~ EM&V activities indicated.

REQ.19.3.3.5 **EM&V Budget**

REQ.19.3.3.5.1 The Annual Portfolio EM&V Plan should lay out the overall EM&V Budget and conditions under which changes might be adopted as necessary.

REQ.19.3.3.5.2 Proposed allocation of ~~Evaluation~~ EM&V resources among programs should include allocation and rationale. Trade-

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

offs between cost and certainty should be discussed and general principles that the evaluator will use to ensure maximum value for the client.

REQ.19.3.3.6 Summary of Individual ~~Evaluations~~EM&V

REQ.19.3.3.6.1 Specific Study Types should be listed with a brief explanation

REQ.19.3.3.6.2 Baselines – Annual Portfolio EM&V Plan should define any studies or other activities that will be conducted to define program and measure baselines.

REQ.19.3.3.7 Summaries of Other ~~Evaluation~~ EM&V Activities

- Technical ~~R~~reference ~~M~~manuals
- Process ~~evaluations~~EM&V
- Market Evaluations

REQ.19.3.3.8 Process for ~~s~~Selecting ~~e~~Evaluators

REQ.19.3.3.9 Schedule of ~~Evaluations~~ EM&V and Related Activities

REQ.19.3.3.10 Set ~~Evaluation~~ EM&V Objectives

REQ.19.3.3.10.1 Evaluators may also wish to consider process ~~evaluation~~ EM&V (assessing program delivery and means for improving it) and market effects ~~evaluation~~ EM&V (influence on market transformation)i

REQ.19.3.3.11 Determine Areas of ~~Evaluation, Measurement and Verification~~EM&V. EM&V could be performed for ~~A~~an entire program ~~could be evaluated~~ or for specific elements of interest ~~could be evaluated~~. Or EM&V could be performed for certain representative portions ~~could be evaluated~~ for extrapolation to a whole

REQ.19.3.3.12 Establish ~~m~~Metrics for ~~evaluating~~ EM&V ~~p~~Program ~~s~~Success

[[to be developed]]

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3.3.13 **Select Evaluator Firms -** Select evaluator(s), if applicable. Identifying appropriate certifications for evaluators may be the first course of action.

REQ.19.3.3.14 **Run Pilot of Innovative Methods** - Pilot innovative EM&V Methodologies, if planned and within project scope. Where new types or approaches of EM&V have been developed for a program, ~~p~~Program Administrators or EM&V administrators may wish to pilot these approaches with a sampling of participants. These may include both methodological and technological innovations

REQ.19.3.3.15 **Identify ~~c~~Co-~~b~~Benefits for ~~Measurement & Verification~~EM&V**, if within project scope. Co-benefits, or non-energy benefits, may include any number of categories that have been identified as desirable outcomes that are not directly related to energy use or Demand. Greenhouse gas emission reduction, energy security, air quality, and economic development are all possible co-benefits of Energy Efficiency programs. Some co-benefits may be related to power, for example reliability and power quality. Program stakeholders may identify countless other benefits that could be accounted for in determining program performance. These could be intentional targets built into program design or merely fringe bonuses identified during the EM&V process.

REQ.19.3.3.16 **Identify ~~c~~Constraints to ~~a~~Achieving ~~o~~Objectives** – For example, establishing whether necessary data is available or if there are barriers to effective ~~measurement~~EM&V

REQ.19.3.3.17 **Establish ~~d~~Deemed ~~s~~Savings ~~e~~Estimates** – Deemed savings estimates for common programmatic activities may greatly simplify EM&V activities, but may introduce systematic error. Deemed savings estimates are used to estimate certain parameters when IPMVP Option A is used. Users of deemed savings must document sources of data and assumptions including such parameters as equipment energy use (both new or retrofitted equipment and the default or replaced equipment), usage (hours), degradation of equipment performance over time, and life of equipment, among others. Deemed savings may or may not account for interactions with other energy use at a facility.

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~Users~~ Evaluators should consider possible impacts of climate, equipment market penetration, and other regional variations

REQ.19.3.3.18 **Define EM&V timeframe** - Establish whether EM&V activities will continue throughout the program or only establish an initial success rate (for instance, first year) to be used for subsequent deemed savings estimates. Longer EM&V timeframes may provide more accurate energy savings data and may provide data on persistence of savings

Draft of ~~January 5~~April 15, 2011

For Quadrant:	**Retail Electric Quadrant**
Requesters:	**DSM-EE Subcommittee**
Request No.:	**2010 Retail Annual Plan Item No. 3(b)**
Request Title:	**Evaluation, Measurement & Verification of Energy Efficiency Programs**

REQ.19.3.4 EM&V Activity Specific Detailed Research Plan~~s~~

REQ.19.3.4.1 **Program Description** ~~-~~– The EM&V Activity Specific Detailed ~~r~~Research ~~p~~Plan should include descriptions of the portfolio or program being evaluated. Portfolio and program descriptions should include savings goals, target audience, outreach strategies, incentives, and trade allies.

REQ.19.3.4.2 **Program Logic and Market Factors** - The EM&V Activity Specific Detailed ~~r~~Research ~~p~~Plan should include a clear description and understanding of the logic associated with each program. It should also include discussion of market barriers, external influences and agents (including other programs), and performance indicators. Creation of program logic diagrams is strongly encouraged.

REQ.19.3.4.3 The EM&V Activity Specific Detailed ~~r~~Research ~~p~~Plan should include forecasts of participants, measure units and estimated savings. [Implication: ~~Best guesses needed to develop sampling plans~~. Program Administrators may be reluctant to make the best guesses that are needed to develop sampling plans due to concerns about raising expectations or raising red flags about participation rates~~]~~

REQ.19.3.4.4 **Policy Context** - Policy context should demonstrate understanding of ~~evaluation~~ EM&V policy objectives and stakeholders. Potentially conflicting ~~Evaluation~~ EM&V requirements – e.g., ~~Evaluation~~ EM&V requirements for bids into forward capacity markets – should be acknowledged.

REQ.19.3.4.5 Existing Distribution Company tracking systems should include preliminary assessment of Distribution Company program data quality and transferability.

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3.4.6 Baselines should include a detailed description of underlying assumptions used for establishing Baseline and post installation energy use. Baselines should establish pre-program energy savings estimates, including metrics for projected change in program area activity that would have occurred in the absence of the program (~~viz.~~i.e. the counterfactual)

REQ.19.3.4.6.1 For programs that promote the early retirement of functioning appliances or technology, evaluators should use as the Baseline, the estimated energy use of the existing, in place equipment. This Baseline should be applied for a period not to exceed the remaining useful life of the equipment being replaced.

REQ.19.3.4.7 Where practical, data about the existing equipment should be collected by ~~p~~Program ~~implementers~~ Administrators who verify the working condition of the equipment, collect the nameplate data and provide estimates of the energy saved by replacing the old unit.

REQ.19.3.4.8 In lieu of determining useful life and energy savings on a case-by-case basis, the standard useful lives of various types of appliances and equipment may be stipulated. Stipulated useful life assumptions should be clearly documented and readily available for review by the Applicable Regulatory Authority and other stakeholders.

REQ.19.3.4.9 Evaluators should NOT assume a standard remaining life for all types (or major groups) of appliances and equipment.

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3.4.10 Evaluators should use, as the Baseline, the estimated energy use of the existing in-place equipment for the remaining useful life of the existing equipment. During this period, the energy savings would be the difference between the usage of the existing, in-place equipment, and the usage of the new high-efficiency equipment. After the remaining useful life of the existing equipment expires, the energy savings will be the difference in energy savings from new standard equipment and the new high-efficiency equipment for the remaining useful life of the new high-efficiency equipment. [Might be useful to write this out in a formula)

REQ.19.3.4.11 Establish performance, service quality, existing standards, and weather, if applicable.

REQ.19.3.4.12 Analyze extant use and demand

REQ.19.3.4.13 Estimate projected costs and energy savings, particularly if cost-effectiveness is a program criteria or requirement.

REQ.19.3.4.14 Measure efficiency should include a description of how Energy Efficiency measure eligibility is defined by each program and whether the efficiency of measures is assumed or actual.

REQ.19.3.4.15 Verification of measure installation and characteristics should include plans for verifying that measures are installed and operating as reported/assumed by Distribution Companies.

REQ.19.3.4.16 Primary data collection activities frequently include onsite metering of equipment power usage, logging hours of use, phone or in-person surveys of program participants and non-participants, interviews with trade allies and/or Program Administrators.

REQ.19.3.4.17 Primary data collection frequently involves sampling. Sampling plans should include target confidence and precision levels,

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

stratification methods, methods and assumptions (e.g., covariance) used to determine the required sample size. Plans should discuss measures taken to minimize sources of sampling bias, including (a) construct validity; (b) sampling frame versus population; (c) selection bias (for a sample and for a census attempt where not all sites within the census received usable data); (d) non-response bias; (e) error in measuring variables; (f) sample homogeneity relative to project (external validity); (g) outlier data points; and (h) missing data.

REQ.19.3.4.18 Metering plans should include a description of plans for meter/logger installation, retrievals, training, data processing and quality control.

REQ.19.3.4.19 Survey instrument design should include a discussion of existing survey instruments (if any) that will be used and how they will be adapted for the Evaluation.

REQ.19.3.4.20 In many cases, primary data specifically applicable to a jurisdiction will not be available and ex ante values and algorithms will be necessary. Where using ex ante values and algorithms, should specify technical reference manual and studies to be used and how/whether values and algorithms will be reviewed and tested for applicability to local conditions.

REQ.19.3.4.21 Modeling should include purpose, type, data availability and reference other similar modeling efforts.

REQ.19.3.4.22 Secondary data sources should include a description of types and sources of secondary data that might be used in the ~~Evaluation~~EM&V.

REQ.19.3.4.23 Potential bias should be discussed throughout the EM&V Activity Specific Detailed Research ~~p~~Plan. The EM&V Activity Specific Detailed Research Plan should also include a section that discusses~~d~~ the various sources of bias in one place and discusses~~d~~ the implications for the ~~Evaluation~~ EM&V of each program, and the Portfolio, as a whole. Plans to eliminate sources of potential bias should also be discussed.

REQ.19.3.4.24 Sources of uncertainty should be discussed throughout the EM&V Activity Specific Detailed Research ~~p~~Plan. But the EM&V Activity

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

Specific Detailed Research ~~p~~Plan should also include a section dedicated to the discussion of the various sources of uncertainty and the implications for the ~~evaluation~~ EM&V of each program, and the Portfolio, as a whole. The trade-offs between cost and uncertainty should be discussed and general principles that the evaluator is using/will use to ensure value-maximization for the client.

REQ.19.3.4.25 Data Validation Procedures

REQ.19.3.4.26 Updating of ~~Evaluation~~ EM&V Results

REQ.19.3.4.27 ~~Evaluation~~ EM&V Reporting and Communications

REQ.19.3.4.28 Management Reporting

REQ.19.3.4.29 ~~Evaluation~~ EM&V Schedule

REQ.19.3.4.30 Select Gross Savings ~~Evaluation~~ EM&V Approaches

REQ.19.3.4.31 Draw ~~m~~Measurement ~~b~~Boundary - The boundary or scope of project or program measurement must be established. Measurement may be done on discrete equipment installed or on buildings or facilities or on portions of buildings or facilities

REQ.19.3.4.32 Define ~~m~~Methodology and ~~p~~Performance ~~m~~Metrics - The metrics will be used to Measure and Verify program performance, including data collection approaches. Approaches may include direct measurement of savings, deemed savings, energy bill analysis, various types of self-reporting, surveys, or economic modeling

REQ.19.3.4.33 EM&V Methodologies - ~~Measurement and Verification~~EM&V methodologies should be appropriate to the measure type and sensitivity requirements of the

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

measurement techniques. IPMVP offers~~ii~~ four options for measuring savings; selection will be determined by what issues and metrics are of concern and of budget, personnel, and other resources available for EM&V. Multiple options and combined options can be used within the same program, on a project by project basis. The IPMVP should be consulted for more detail on the options and criteria for option selection.

REQ.19.3.4.33.1 ~~International Performance Measurement and Verification Protocol~~IPMVP Option A: Partially Measured Retrofit Isolation/Stipulated Measurement

REQ.19.3.4.33.2 ~~International Performance Measurement and Verification Protocol~~IPMVP Option B: Retrofit Isolation/Metered Equipment

REQ.19.3.4.33.3 ~~International Performance Measurement and Verification Protocol~~IPMVP Option C: Whole facility/Regression

REQ.19.3.4.33.4 ~~International Performance Measurement and Verification Protocol~~IPMVP Option D: Calibrated Simulation

REQ.19.3.4.33.5 Alternative acceptable ~~Measurement and Verification~~EM&V Methodologies

REQ.19.3.4.34 Deemed Savings

REQ.19.3.4.35 Comparison Groups

REQ.19.3.4.36 Statistical Significance and Other Sources of Uncertainty

REQ.19.3.4.36.1 General Requirements - Means for control of systematic error and uncertainty should be considered, along with determining acceptable levels of confidence and

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

precision. Both systematic (due to methodological flaws or bias) and random error should be addressed.~~iii~~ Error and uncertainty must be controlled in the modeling and measurement of savings; representative sampling must be managed in such a way as to mitigate uncertainty.~~iv~~

REQ.19.3.4.36.2 Statistical significance of sampled data involves the following considerations:

REQ.19.3.4.36.3 **Identify ~~s~~Statistical ~~c~~Confidence/~~p~~Precision ~~r~~Requirements**. – These should include key requirements (e.g. capacity market standards) and legacy objectives (e.g. 90/10 for annual energy savings in some states). The domain for applying statistical significance may vary depending on the requirement, be it the portfolio, program, state, load-zone, etc.

REQ.19.3.4.36.4 **Establish ~~u~~Unique ~~p~~Precision ~~t~~Targets and ~~d~~Dimensions**. - Regulatory and market requirements may offer ~~p~~Program ~~a~~Administrators either a threshold or a range of confidence intervals and precision. In either case, ~~p~~Program ~~a~~Administrators may make an independent assessment of the precision targets that are necessary for their particular needs relative to the domain of the ~~evaluations~~ EM&V (i.e. sector, program, end use,), their intended use and audience for the ~~evaluation~~ EM&V results, and considerations of expected variability and the financial or system impact of varying degrees of uncertainty.

REQ.19.3.4.36.5 **Pursue the ~~m~~Most ~~c~~Challenging ~~t~~Target**. - Statistical objectives are typically multi-pronged, e.g. 80/10 for summer kW, 80/10 for winter kW, and 90/10 for energy kWh. Designing a single sample to meet all objectives can be difficult and is dependent upon the unique population characteristics and expected variability for each parameter. In practice, one often can achieve all objectives by pursuing the element with the greatest variability (e.g.,

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

large C&I programs can be the winter coincident demand impact).

REQ.19.3.4.36.6 Other Sources of Uncertainty and Threats to Validity: - Confidence/precision requirements are for statistical sampling alone and do not reflect other important sources of uncertainty such as measurement error, equipment accuracy, and parameter bias. Statistical precision can be misleading if there is bias or non-statistical error in the underlying data. Bias can be hard to identify and extremely difficult to quantify, but should not be ignored or dismissed. Evaluators ~~must~~ should remain vigilant for sources of error such as response bias, hand-picked (or excluded) sample projects, and measurement error. Many manuals on statistical significance, such as the ISO New England and PJM Interconnection M&V manuals, require project sponsors to describe methods for mitigating and controlling bias in Demand estimates.

REQ.19.3.4.36.6.1 These manuals list many sources of potential bias beyond statistical precision. According to these manuals, relevant types of potential bias for estimates based upon engineering and direct measurement include but are not limited to:

- accuracy and calibration of the measurement tools;
- measurement error;
- engineering model bias;
- modeler bias;
- deemed parameter bias;
- meter bias;
- sensor placement bias; and
- sample selection bias or non-random selection of equipment and/or circuits to monitor.

REQ.19.3.4.36.6.2 For estimates based upon regression or statistical analysis, relevant types of potential bias include but are not limited to:

- model misspecification;
- statistical validity;
- error in measuring variables;
- autocorrelation;

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

- heteroscedasticity;
- collinearity;
- outlier data points; and
- missing data.

REQ.19.3.4.36.6.3 For estimates based upon survey or interview data, relevant types of potential bias include but are not limited to:

- construct validity;
- sampling frame versus population;
- selection bias (for a sample and for a census attempt where not all sites within the census received usable data);
- non-response bias;
- error in measuring variables;
- sample homogeneity relative to project (external validity);
- outlier data points; and
- missing data.

REQ.19.3.4.37 Execute Program

REQ.19.3.4.37.1 Install monitoring infrastructure, if applicable, at onset of program implementation.

REQ.19.3.4.37.2 Such infrastructure should include both physical and technological infrastructure (e.g. data loggers and other monitoring equipment) as well as the human and knowledge capital to operate and maintain a program monitoring regime.

REQ.19.3.4.37.3 Depending on the structure and type of program being implemented, monitoring infrastructure may need to be installed before the program begins, or it may simply be more efficient to do so.

REQ.19.3.4.38 Calculate Gross Savings

REQ.19.3.4.38.1 Gross savings are those directly attributable to the program itself, exclusive of co-benefits and ignoring issues of free-ridership, etc. Including, if applicable:~~v~~

- Annual average ~~d~~Demand savings

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

- Peak ~~d~~Demand reductions
- Coincident peak ~~d~~Demand reduction
- Demand ~~r~~Response ~~p~~Peak ~~d~~Demand reduction

REQ.19.3.4.38.2 Quantify and analyze co-benefits, if within project scope

REQ.19.3.4.38.3 Calculate ~~n~~Net ~~s~~Savings, if applicable (~~though out of the scope of this process document, some notes on net savings are included at the end~~see REQ.19.3.4.44)

REQ.19.3.4.38.4 Calculate uncertainty and evaluate error

REQ.19.3.4.38.4.1 Uncertainty should be reviewed in instrumentation, modeling, sampling, interactive effects, and estimation.~~vi~~

REQ.19.3.4.38.4.2 Systematic Error: the extent to which results are biased by systemic issues to over- or underreport results.

REQ.19.3.4.38.4.3 Random Error: sampling error resulting from the fact that only a portion of total participants may have been included in measurement.~~vii~~

REQ.19.3.4.39 Evaluate Program Based on EM&V Findings - Compare objectives and actual, including EM&V objectives vs. actual

REQ.19.3.4.40 Report ~~Evaluation~~ EM&V Results

REQ.19.3.4.41 Evaluate and Respond to Feedback

REQ.19.3.4.42 Identify possible program and operational improvements for future implementation, if applicable - Coordinate and collaborate with the Program ~~a~~Administrator~~s~~ to implement program improvements, if applicable

REQ.19.3.4.43 Evaluate Savings Persistence, If Within Project Scope

REQ.19.3.4.43.1 Savings persistence is determined by evaluating energy savings over a period of time after implementation, relative to savings determined initially. This would normally require repeated EM&V activities over some periodic interval, e.g.

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

annually. Methodology for persistence could mirror original project EM&V, either exactly or based on smaller representative sampling. Savings persistence is measured as a percentage of first year savings.

REQ.19.3.4.43.2 Ongoing commissioning-type activities could be undertaken to maintain program savings, adapted to evaluation of savings persistence EM&V.

REQ.19.3.4.44 Net Savings

REQ.19.3.4.44.1 Though outside the scope of these Model Business Practices, determining ~~n~~Net ~~s~~Savings and ~~n~~Net-to-~~g~~Gross ~~r~~Ratios may be desirable or required for program ~~evaluation~~EM&V. This would come into the planning process in step 3 and implemented once ~~g~~Gross ~~s~~Savings were determined in step 6.

REQ.19.3.4.44.2 Net ~~s~~Savings is the total load or Demand reduction that is attributable to the program.~~viii~~ In calculating ~~n~~Net ~~s~~Savings, consideration should be given to program externalities which may increase or reduce the attributable savings.

REQ.19.3.4.44.2.1 Freeridership – The percentage of program savings that would have occurred even if the program had not – generally as a result of actors participating in a program when they would have undertaken Energy ~~e~~Efficiency ~~or conservation~~ measures anyway.

REQ.19.3.4.44.2.2 Spillover – Energy savings that occur outside the scope of the program or program participants, but which occurs as a result of the program's existence; e.g., after participation in a program, a participant may seek out other energy saving opportunities in areas not covered by the program or a non-participant may choose to undertake such activities on their own without being directly connected to the program's activities.

For Quadrant:	**Retail Electric Quadrant**
Requesters:	**DSM-EE Subcommittee**
Request No.:	**2010 Retail Annual Plan Item No. 3(b)**
Request Title:	**Evaluation, Measurement & Verification of Energy Efficiency Programs**

REQ.19.3.4.44.2.3	Rebound – Behavioral changes in response to a program which offset the energy saving benefits of the program. E.g. a participant using an efficient product more because they know that it is more efficient. The so-called 'Jevons paradox' suggests that efficiency tends to encourage greater usage of a fuel resource.
REQ.19.3.4.44.2.4	Other externalities such as may have positive or negative impact on additionality.

Draft of ~~January 5~~April 15, 2011

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.3.5 Site Specific ~~Measurement and Verification~~EM&V Plan~~s~~

For each project selected to be in the ~~i~~Impact ~~e~~Evaluation sample, a ~~s~~Site ~~s~~Specific ~~measurement and verification~~EM&V ~~p~~Plan should be prepared.

REQ.19.3.5.1 **Retrofit isolation (key parameters)** – Measures only the effects of the retrofit itself isolated from the rest of the facility based on one or more key identified parameters; relevant parameters that are not measured are estimated (deemed) based on historical data, manufacturers' specifications, professional judgment, or other credible approaches. Selection of key parameters and bases for estimation, including data sources, of other parameters must be documented and justified

REQ.19.3.5.2 **Retrofit isolation (all parameters)** - Measures only the effects of the retrofit itself isolated from the rest of the facility, but unlike ~~option A~~REQ.19.3.5.1, measures the Baseline and reporting period energy use directly rather than calculating it from estimated parameters.

REQ.19.3.5.3 **Whole facility** – Measures all effects of a retrofit within the facility (or sub-facility), ideally capturing (1) any other changes to building energy use that may be caused by the measure and (2) any unrelated changes to building energy use over the same time period. Requires measuring the energy use of the facility for a Baseline Window (generally 12 months) and during the reporting period.

REQ.19.3.5.4 **Calibrated simulation of whole facility or sub-facility** – Compares simulated and actual energy use to generate a calibrated estimate of savings that can be applied across a facility or sub-facility. This may be useful if Baseline Window data is absent. This method requires advanced software and skill in calibration simulations.

For Quadrant:	**Retail Electric Quadrant**
Requesters:	**DSM-EE Subcommittee**
Request No.:	**2010 Retail Annual Plan Item No. 3(b)**
Request Title:	**Evaluation, Measurement & Verification of Energy Efficiency Programs**

REQ.19.4 Models

For Quadrant:	**Retail Electric Quadrant**
Requesters:	**DSM-EE Subcommittee**
Request No.:	**2010 Retail Annual Plan Item No. 3(b)**
Request Title:	**Evaluation, Measurement & Verification of Energy Efficiency Programs**

(NOTE: The applicable Definitions are to be moved back to the appropriate location when drafting is complete.)

REQ.19.2 Definitions

REQ.19.2.A Business Definitions

RXQ.0.2.x **Applicable Regulatory Authority**: The state regulatory agency or other local governing body that provides oversight, policy guidance, and direction to any parties involved in the process of providing energy to Retail Customers through regulations and orders.

RXQ.0.2.x **Baseline** - Conditions, including energy consumption and related emissions, that would have occurred without implementation of the subject measure or project. Baseline conditions are sometimes referred to as "business-as-usual" conditions and are used to calculate program related efficiency or emissions savings. Baselines can be defined as either project-specific baselines or performance standard baselines (e.g. building codes).

RXQ.0.2.x **Baselines** - Program Research Plan should define specific baselines to be assumed for particular programs' measures or the methods to be used to determine the baseline for measures included in the program.

RXQ.0.2.x **Baseline**: A method of estimating the electricity that would have been used by a Customer or a Demand Resource in the absence of a Demand Response Event. It may be calculated using interval metering and/or statistical sampling techniques. ***(NOTE: Ratified Definition)***

RXQ.0.2.x **Baseline Window**: A period of time preceding and optionally following a Demand Response Event over which the electricity usage data is collected for the purpose of establishing a Baseline. ***(NOTE: Ratified Definition)***

~~RXQ.0.2.x Baseline Period - The period of time selected as representative of the operations of the area of focus before the Energy Efficiency activity takes place.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

RXQ.0.2.x **Demand** - The time rate of energy flow. Demand usually refers to the amount of electric energy used by a customer or piece of equipment at a specific time, expressed in kilowatts (kW - equals kWh/h) but can also refer to natural gas usage at a point in time, usually as Btu/hr, kBtu/hr, therms/day or ccf/day.

RXQ.0.2.x **Demand:** The rate at which electric energy is delivered to or by a system, generally expressed in kilowatts or megawatts, at a given instant or averaged over any designated interval of time; and the rate at which energy is being used by the Retail Customer. ***(NOTE: Ratified Definition)***

RXQ.0.2.x **Demand Response (DR)** - The reduction of customer energy usage at times of peak usage in order to help system reliability, to reflect market conditions and pricing, or to support infrastructure optimization or deferral of additional infrastructure. Demand response programs may include contractually obligated or voluntary curtailment, direct load control, and pricing strategies.

RXQ.0.2.x **Demand Response:** A temporary change in electricity usage by a Demand Resource in response to market or reliability conditions. For purposes of these Model Business Practices, Demand response does not include energy efficiency or permanent Load reductions. ***(NOTE: Ratified Definition)***

RXQ.0.2.x **Distribution Company:** A regulated Entity which provides distribution services and may provide energy and/or transmission/transportation services in a given area.

RXQ.0.2.x **Evaluation** - The conduct of any of a wide range of assessment studies and other activities aimed at determining the effects of a program, understanding or documenting program performance, program or program-related markets and market operations, program-induced changes in Energy Efficiency markets, levels of demand or energy savings, or program cost-effectiveness. Market assessment, monitoring and evaluation (M&E), and measurement and verification (M&V) are aspects of evaluation.

RXQ.0.2.x **Evaluation:** The process used by the Registration Agent and other Market Participants to determine which Enriollment will be effectuated in the event that there are multiple Pending Enrollments within a defined period of time. ***(NOTE: Ratified Definition)***

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

RXQ.0.2.x **Governing Documents:** Documents that determine the interactions among parties, including, but not limited to, applicable law, regulatory documents (e.g. tariffs, rules, regulations), contractual agreements, Distribution Company Operational Manuals, and other relevant models and operational procedures.

RXQ.0.2.xx **Market Participant:** A Distribution Company, Supplier, registration Agent, settlement agent, meter reading Entity or other party engaged in the process of providing competitive retail energy or another specific energy-related program to retail Customers.

RXQ.0.2.x **Model Business Practices:** Electric and gas industry processes and procedures developed by interested parties representing he NAESB Retail Gas and Electric Quadrants' segments and ratified by the NAESB Retail Gas and Electric Quadrants' members.

RXQ.0.2.x **Program Administrator (PA)** - Those entities that oversee public benefit funds in the implementation of Energy Efficiency programs. This generally includes regulated utilities, other organizations chosen to implement such programs, and state energy offices.

RXQ.0.2.x **Program Administrator:** An investor-owned, governmental or cooperative Distribution Company with the responsibility for developing and operating specific programs. ***(NOTE: a Ratified Definition)***

RXQ.0.2.x **Retail Customer:** Any Entity that takes gas and/or electric service for its own use.

~~RXQ.0.2.39 Supplier: Persons engaged in the competitive sale of energy to end-users.~~

~~RXQ.0.2.42 Uniform Electronic Transaction: Standard data arrangements for trading information, making business requests and exchanging other information, encompassing a number of electronic media and utilizing specific transport protocols.~~

Draft of ~~January 5~~April 15, 2011

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

REQ.19.2.B Technical Definitions

~~RXQ.0.2.x Accuracy - A concept that refers to the relationship between the true value of a variable and an estimate of the value. The term can also be used in reference to a model, a set of measured data, or to describe a measuring instrument's capability.~~

~~RXQ.0.2.x Achievable Potential - The amount of energy or demand savings within a defined geographical area or population that can be achieved in response to specific Energy Efficiency program designs, delivery approaches, program funding, and measure incentive levels. Achievable potential studies are sometimes referred to as Market Potential studies. Also see Potential Studies.~~

RXQ.0.2.x Additionality - A criterion that says that avoided emissions should be recognized only for project activities or programs that would not have "happened anyway" in relation to a ~~b~~Baseline estimate of project activity and associated emissions reductions.

~~RXQ.0.2.x Advanced Meter - Also called Smart Meter. An electric meter that is capable of measuring and recording usage data in time differentiated registers, allowing electric consumers, suppliers, and service providers to participate in all types of price-based demand response programs and that provides the additional capabilities to address the electric service (e.g. energy use diagnostics, submetering, detection and documentation of power quality). Also see metering.~~

~~RXQ.0.2.x Allowances - Allowances represent the amount of an air pollutant that a source is permitted to emit during a specified time in the future under a cap and trade program. Allowances are often confused with credits earned in the context of project-based or offset programs, in which sources trade with other facilities to attain compliance with a conventional air regulatory requirement. Cap and trade program basics are discussed at the following EPA Web site: http://www.epa.gov/airmarkets/cap-trade/index.html.~~

~~RXQ.0.2.x Annualized Energy Savings - The savings associated with an energy saving measure, project, or program calculated based on a full year's installation and operation.~~

~~RXQ.0.2.x ANSI (American National Standards Institute) - The American National Standards Institute is the national organization that coordinates development and maintenance of consensus standards and sets rules for fairness in their development for the United States' federated national standards system. The ANSI federation consists of nine hundred companies, large and small, and some~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~two hundred trade, technical, professional, labor, and consumer organizations. ANSI also represents the United States in developing international standards.~~

~~RXQ.0.2.x Avoided Costs - In the context of Energy Efficiency, these are the costs that are avoided by the implementation of an Energy Efficiency measure, program, or practice. Such costs are used in benefit cost analyses of Energy Efficiency measures and programs. Because efficiency activity reduces the need for electric generation, these costs include those associated with the cost of electric generation, transmission, distribution, and reliability. Typically, costs associated with avoided energy and capacity are calculated. Other costs avoided by the efficiency activity can also be included, among them the value of avoided emissions not already embedded in the generation cost, impact of the demand reduction on the overall market price for electricity, avoided fuel or water, etc. For natural gas efficiency programs, avoided costs include components of the production, transportation, storage, and service that are variable to the amount of natural gas delivered to customers.~~

~~RXQ.0.2.x Ballast - A device required by electric-discharge light sources such as fluorescent or HID lamps to regulate voltage and current supplied to the lamp during start and throughout operation.~~

~~RXQ.0.2.x Barrier - Any factor that discourages or limits decisions or actions related to implementation of Energy Efficiency projects or strategies.~~

~~RXQ.0.2.x Baseline Data - The baseline conditions of the facilities, market segment, generating equipment, or other area of focus of the subject project or program.~~

~~RXQ.0.2.x BCF (Billion Cubic Feet) - Gas measurement approximately equal to one trillion Btus.~~

~~RXQ.0.2.x Benchmarking - A process that compares the energy, emissions, and other resource-related conditions of a facility against industry best practices.~~

~~RXQ.0.2.x Benefits - Energy - See Avoided Cost and Co-Benefits.~~

~~RXQ.0.2.x Benefits - Non-Energy - See Non-Energy Benefits.~~

~~RXQ.0.2.x Benefit-Cost Ratio - The mathematical relationship between the benefits and costs associated with the implementation of Energy Efficiency measures, programs, practices, or emissions reductions. The benefits and costs are typically expressed in dollars. Also see Benefit Cost Test and Avoided Cost.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Benefit Cost Test - Also called Cost-Effectiveness Test. The methodology used to compare the benefits of an investment with the costs. Five key benefit-cost tests have, with minor updates, been used for over 20 years as the principal approaches for Energy Efficiency program evaluation. These five cost-effectiveness tests are the participant cost test (PCT), the utility/program administrator cost test (PACT), the ratepayer impact measure test (RIM), the total resource cost test (TRC), and the societal cost test (SCT).~~

RXQ.0.2.x Bias - The extent to which a measurement or a sampling or analytic method systematically underestimates or overestimates a value. Some examples of types of bias include engineering model bias; meter bias; sensor placement bias; inadequate or inappropriate estimate of what would have happened absent a program or measure installation; a sample that is unrepresentative of a population; and selection of other variables in an analysis that are too correlated with the savings variable (or each other) in explaining the dependent variable (such as ~~consumption~~usage).

~~RXQ.0.2.x Billing Data - Data obtained from the electric or gas meter that are used to bill the customer for energy used in a particular billing period. In an evaluation context, billing data also refers to the customer billing records over time that are used to conduct analyses of energy use before and after implementation of Energy Efficiency measures.~~

~~RXQ.0.2.x Breakage - A factor representing the ratio between the number of rebate or mail-in coupons taken by participants who purchase or install an Energy Efficiency measure and the number of such coupons actually redeemed for refund.~~

~~RXQ.0.2.x British Thermal Unit (Btu) - The standard measure of heat energy. It takes one Btu to raise the temperature of one pound of water one degree Fahrenheit from 58.5 to 59.5 degrees Fahrenheit under standard pressure of 30 inches of mercury at or near its point of maximum density. For example, it takes about 1,000 Btus to make a pot of coffee.~~

~~RXQ.0.2.x Building Commissioning - Building commissioning, often abbreviated as "Cx," is a systematic quality assurance process associated with new construction that spans the entire design and construction process, helping ensure that a new building's performance meets owner expectations. Also see Retro-Commissioning.~~

~~RXQ.0.2.x Building Energy Simulation Model - Computer models based on physical engineering principals and/or standards used to estimate energy usage and/or savings. These models usually incorporate site-specific data on customers and~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~physical systems such as square footage, weather, surface orientations, elevations, space volumes, construction materials, equipment use, lighting, and building occupancy. Building simulation models can usually account for interactive effects between end uses (e.g. lighting and HVAC), part-load efficiencies, and changes in external and internal heat gains/losses. Examples of building simulation models include DOE-2, EnergyPlus, and Carrier HAP.~~

~~RXQ.0.2.x Calibration - In economic, planning, or engineering modeling, the process of adjusting the components of the model to reflect reality as best as possible, in order to prepare for the model's use in future applications. The term also applies to the process whereby metering and measurement equipment is periodically adjusted to maintain industry measurement standards.~~

~~RXQ.0.2.x California Measurement Advisory Council (CALMAC) - An informal committee made up of representatives of the California utilities, state agencies, and other interested parties. CALMAC provides a forum for the development, implementation, presentation, discussion, and review of regional and statewide market assessment and evaluation studies for California Energy Efficiency programs conducted by member organizations. See www.calmac.org.~~

~~RXQ.0.2.x California Demand-Side Management Measurement Advisory Council (CADMAC) - CADMAC is the predecessor to CALMAC. It covers market assessment and evaluation on programs conducted under the "Protocols And Procedures For The Verification Of Costs, Benefits, And Shareholder Earnings From Demand-Side Management Programs" (Protocols). Programs evaluated under the Protocols generally were fielded during 1994 through 1997, but evaluations of those programs (and carryover applications) continued to occur through 2007. See www.calmac.org/cadmac.asp.~~

~~RXQ.0.2.x Capacity - The amount of electric power for which a generating unit, generating station, or other electrical apparatus is rated either by the user or manufacturer. The term is also used for the total volume of natural gas that can flow through a pipeline over a given amount of time, considering such factors as compression and pipeline size.~~

~~RXQ.0.2.x Cap & Trade - A market-based policy tool for protecting human health and the environment. A cap and trade program first sets an aggressive cap, or maximum limit, on emissions. Sources covered by the program then receive authorizations to emit in the form of emissions allowances with the total amount of allowances limited by the cap. Each source can design its own compliance strategy to meet the overall reduction requirement including sale or purchase of allowances,~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~installation of pollution controls, implementation of efficiency measures, among other options. Individual control requirements are not specified under a cap and trade program but, each emissions source must surrender allowances equal to its actual emissions in order to comply. Sources must also completely and accurately measure and report all emissions in a timely manner to guarantee that the overall cap is achieved. A well-designed program provides:~~

~~strict limits on emissions yielding dramatic pollution reductions; high levels of compliance, transparency, and complete accountability; regulatory certainty and flexibility for sources; incentives for early pollution reduction and innovations in control technologies; compatibility with state and local programs; significant, widespread, and guaranteed human health and environmental benefits; and efficient use of government resources.~~

~~RXQ.0.2.x Capacity Factor - A percentage that indicates how much of a power plant's capacity is used over a twelve month period. The term is also used for the total volume of natural gas that can flow through a pipeline over a given amount of time, considering such factors as compression and pipeline size.~~

~~RXQ.0.2.x Central Air Conditioner (CAC) - An air conditioning system that provides cooling to an entire building through the use of a central cooling system that delivers the cooling to rooms through ducts.~~

~~RXQ.0.2.x Citygate - A location at which custody of natural gas passes from a gas pipeline company to a local distribution company.~~

RXQ.0.2.x Co-benefits - The impacts of an Energy Efficiency program other than the direct purpose for which it was designed (i.e. ~~e~~Energy and ~~d~~Demand ~~s~~Savings). Examples include savings in other resources (gas, fossil fuel, and water), emissions reductions, and hazardous waste reduction. Also see Non-electric benefits and Non-energy benefits.

~~RXQ.0.2.x Coefficient of Variation (CV) - The mean (average) of a sample, divided by its standard error.~~

~~RXQ.0.2.x Coincident Demand - The demand of a device, circuit, or building that occurs at the same time as the peak demand of a utility's system load or at the same time as some other peak of interest, such as building or facility peak demand. The peak of interest should be specified (e.g. "demand coincident with the utility system peak").~~

~~RXQ.0.2.x Coincidence Factor - The ratio, expressed as a numerical value or as a percentage, of the simultaneous maximum demand within a specified period of a~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~group of electrical appliances or consumers within a specified period, to the sum of their individual maximum demands within the same period.~~

~~RXQ.0.2.x Commissioning - A process for achieving, verifying and documenting the performance of equipment to meet the operational needs of a facility within the capabilities of the design, and to meet the design documentation and the owner's functional criteria, including preparation of operator personnel. Also see Building Commissioning.~~

~~RXQ.0.2.x Comparison group - Also called Control Group. A selected group of individuals or organizations that have not had the opportunity to receive program benefits and that has been selected because its characteristics match those of another group of individuals or organizations that have had the opportunity to receive program benefits. The characteristics used to match the two groups should be associated with the action or behavior that the evaluation is trying to examine. The comparison group is used to isolate program effects from other factors that affect energy use.~~

~~RXQ.0.2.x Computer Simulation of System Performance - The use of computer models to predict the energy use of systems. (e.g. DOE-2 for buildings). These models can be calibrated with actual performance data.~~

RXQ.0.2.x **Confidence** - An indication of how close, expressed as a probability, the true value of the quantity in question is within a specified distance to the estimate of the value. Confidence is the likelihood that the ~~e~~Evaluation has captured the true value of a variable within a certain estimated range. Also see Precision.

~~RXQ.0.2.x Control Group - See Comparison Group.~~

~~RXQ.0.2.x Cooling Degree Days - The cumulative number of degrees in a month or year by which the mean temperature is above 18.3°C/65°F. Also see Degree Days.~~

~~RXQ.0.2.x Cooling Load - The rate at which heat must be extracted from a space in order to maintain the desired temperature within the space. Measured in tons, the Cooling Load is the amount of heat removed by an air conditioning system that would melt 1 ton of ice in 24 hours. 1 refrigeration ton = 12,000 Btu/hr.~~

~~RXQ.0.2.x Correlation - for a set of observations, such as for participants in an Energy Efficiency program, the extent to which high values for one variable are associated with high values of another variable for the same participant. For example, facility size and energy consumption usually have a high positive correlation.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Cost-Benefit and Cost-Effectiveness Analysis - Analysis that compares the benefits associated with a program or measure's outputs or outcomes with the costs (resources expended) to produce them. Cost-benefit analysis is typically conducted to determine the relationship of the program's benefits and costs, as a ratio, once the decision has been made to implement or design the program; programs with benefit-cost ratios greater than 1.0 provide overall ratepayer benefits. Cost-effectiveness analysis is generally undertaken to compare one program or program approach to other approaches, or options for the use of funds, to determine the relationship among the options. The terms are often interchanged in evaluation discussions.~~

~~RXQ.0.2.x Cost-Effectiveness - An indicator of the relative performance or economic attractiveness of any Energy Efficiency investment or practice. In the Energy Efficiency field, the present value of the estimated benefits produced by an Energy Efficiency program is compared to the estimated total costs to determine if the proposed investment or measure is desirable from a variety of perspectives (e.g. whether the estimated benefits exceed the estimated costs from a societal perspective).~~

~~RXQ.0.2.x Cost-Effectiveness Test - See Benefit-Cost Test.~~

~~RXQ.0.2.x Cross-Sectional Data - Observations collected on subjects or events during a single period of time.~~

~~RXQ.0.2.x Cubic Feet per Minute (CFM) - This measurement indicates how many cubic feet of air pass by a stationary point in one minute.~~

~~RXQ.0.2.x Cubic Foot - The most common unit of measurement of natural gas volume. It equals the amount of gas required to fill a volume of one cubic foot under stated conditions of temperature, pressure and water vapor. One cubic foot of natural gas has an energy content of approximately 1,000 s. One hundred (100) cubic feet equals one therm (100 ft3 = 1 therm).~~

~~RXQ.0.2.x Cumulative Energy Savings - The summation of energy savings from multiple projects or programs over a specified period of time, incorporating the multi-year energy savings that each project or program produces.~~

~~RXQ.0.2.x Custom Program - An Energy Efficiency program intended to provide efficiency solutions to unique situations not amenable to common or prescriptive solutions. Each custom project is examined for its individual characteristics, savings opportunities, efficiency solutions, and often, customer incentives.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~See Retail Customer under Business Definitions~~

~~RXQ.0.2.x Database for Energy-Efficient Resources (DEER) – A California database designed to provide well-documented estimates of energy and peak demand savings values, measure costs, and effective useful life. See www.deeresources.com.~~

RXQ.0.2.x **Deemed Savings** - An estimate of ~~e~~Energy or ~~d~~Demand ~~s~~Savings for a single unit of an installed Energy Efficiency measure that (a) has been developed from data sources and analytical methods that are widely considered acceptable for the measure and purpose and (b) is applicable to the situation being evaluated. Individual parameters or calculation methods can also be deemed.

~~RXQ.0.2.x Defensibility – The ability of evaluation results to stand up to scientific scrutiny. Defensibility is based on assessments by experts of the evaluation's validity, reliability, and accuracy.~~

~~RXQ.0.2.x Degree Days – For any individual day, degree days indicate how far that day's average temperature departed from 65°F. Heating Degree Days measure heating energy demand. It is a measure to indicate how far the average temperature fell below 65°F. Similarly, Cooling Degree Days, which measure cooling energy demand, indicate how far the temperature averaged above 65°F. In both cases, smaller values represent less fuel demand, but values below 0 are set equal to 0, because energy demand cannot be negative. Furthermore, since energy demand is cumulative, degree day totals for periods exceeding 1 day are simply the sum of each individual day's degree day total. For example, if a location has a mean temperature of 60°F on day 1 and 80°F on day 2, there would be 5 HDD's for day 1 (65 minus 60) and 0 for day 2 (65 minus 80, set to 0). For the day 1 + day 2 period, the HDD total would be 5 + 0 = 5. In contrast, there would be 0 CDD's for day 1 (60 minus 65, reset to 0), 15 CDD's for day 2 (80 minus 65), resulting in a 2-day CDD total of 0 + 15 = 15.~~

~~RXQ.0.2.x Delta Watts – The difference in the wattage between existing or baseline equipment and its more efficient replacement or installation at a specific time, expressed in watts or kilowatts.~~

RXQ.0.2.x **Demand Savings** - The reduction in electric or gas ~~d~~Demand from the ~~b~~Baseline to the ~~d~~Demand associated with the higher efficiency equipment or installation. This term is usually applied to billing ~~d~~Demand to calculate cost savings or to peak ~~d~~Demand for equipment sizing purposes.

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

RXQ.0.2.x **Demand Side Management (DSM)** - Strategies used to manage energy ~~d~~Demand including Energy Efficiency, load management, fuel substitution and load building.

~~RXQ.0.2.x Dependent Variable - Term used in regression analysis or other analyses seeking to explain the relationship among variables to quantify the variable that is being explained by the other (independent) variables.~~

~~RXQ.0.2.x Direct Emissions - Emissions from sources within an entity's organizational boundaries that are owned or controlled by the entity, including stationary combustion emissions, mobile combustion emissions, process emissions, and fugitive emissions. Direct emissions are the source of avoided emissions for thermal Energy Efficiency measures (e.g. avoided emissions from burning natural gas in a water heater).~~

~~RXQ.0.2.x Diversity - That characteristic of a variety of electric loads whereby individual maximum demands usually occur at different times.~~

~~RXQ.0.2.x Diversity Factor - 1) The percent of maximum demand savings from Energy Efficiency measures available at the time of the company's peak demand; 2) the ratio of the sum of the demands of a group of users to their coincident maximum demand; 3) the percent of time available that a machine, piece of equipment, or facility has its maximum or nominal load or demand.~~

~~RXQ.0.2.x Economic Potential - The amount of savings opportunity that can be acquired cost-effectively.~~
~~Also see Achievable Potential, Technical Potential, and Potential Studies~~

~~RXQ.0.2.x Effective useful life (EUL) - An estimate of the median number of years that efficiency measures installed under a program are still in place and operable.~~

~~RXQ.0.2.x Efficacy, Lighting - The ratio of light from a lamp to the electrical power consumed, including ballast losses, expressed as lumens per watt.~~

~~RXQ.0.2.x End-Use - General categories of Energy Efficiency measures, usually including lighting, HVAC, motors, and refrigeration.~~

~~RXQ.0.2.x End-Use Metering - The direct measuring of energy consumption or demand by specific end-use equipment, typically as part of load research studies or to measure the impacts of DSM programs.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

RXQ.0.2.x **Energy** - The quantity characterizing the ability of a physical system to produce external activity. Energy exists in different forms transformable one into the other; examples are mechanical, electromagnetic, chemical, thermal, and nuclear energy.

~~RXQ.0.2.x Energy Adjustment Factor - Applied to gross gas and electric savings, a factor made up of one or more evaluation impact parameters applied to gross savings in the calculation of net savings.~~

~~RXQ.0.2.x Energy Audit - A review of a customer's energy usage, often including recommendations to alter the customer's demand or reduce energy usage. An audit typically involves a visit to the customer's facility.~~

~~RXQ.0.2.x Energy Conservation - Term used to reflect doing with less of a service in order to save energy. The term is often unintentionally used instead of Energy Efficiency.~~

RXQ.0.2.x **Energy Efficiency** - The use of less energy to provide the same or an improved level of service to the ~~energy consumer~~Retail Customer; or the use of less energy to perform the same function.

RXQ.0.2.x **Energy Efficiency Measure** - An installed piece of equipment or system, or modification of equipment, systems, or operations on ~~end-use~~Retail ~~c~~Customer facilities that reduce the total amount of electrical or gas energy and capacity that would otherwise have been needed to deliver an equivalent or improved level of ~~end-use~~ service.

~~RXQ.0.2.x Energy Efficiency Ratio (EER) - The ratio of cooling capacity of an air conditioning unit in Btus per hour to the total electrical input in watts under specified test conditions.~~

~~RXQ.0.2.x Energy Management System (EMS) - A control system (often computerized) designed to regulate the energy consumption of a building by controlling the operation of energy consuming systems, such as the heating, ventilation and air conditioning (HVAC), lighting, and water heating systems.~~

~~RXQ.0.2.x Energy Performance Contract - A contract between two or more parties where payment is based on achieving specified results, which are typically guaranteed reductions in energy consumption and/or operating costs. Payments are often based on the cost savings associated with the anticipated results.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

RXQ.0.2.x **Energy Savings** - Reduction in electricity use (kWh) or in fossil fuel use in thermal unit(s).

~~RXQ.0.2.x Energy Star® - A joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy designed to reduce energy use and the impact on the environment. The Energy Star label is awarded to products that meet applicable Energy Efficiency guidelines and to homes and commercial buildings that meet specified Energy Efficiency standards. The program provides a range of energy management tools, primarily computer-based, for businesses.~~

~~RXQ.0.2.x Engineering Methods - The use of standard formulas or models based on those formulas, typically accepted by ASHRAE, as the basis for calculating energy use.~~

RXQ.0.2.x **Energy Services Company (ESCO)** - A firm that provides a range of Energy Efficiency and financing services and guarantees that specified results will be achieved under an energy performance contract.

RXQ.0.2.xx Energy Services Provider:

~~RXQ.0.2.x Engineering Model - Engineering equations used to calculate energy usage and savings. These models are usually based on a quantitative description of physical processes that transform delivered energy into useful work such as heat, lighting, or motor drive. In practice, these models may be reduced to simple equations in spreadsheets that calculate energy usage or savings as a function of measurable attributes of customers, facilities, or equipment (e.g. lighting use = watts × hours of use).~~

~~RXQ.0.2.x Equipment Life - The number of years that a measure is installed and operates until failure.~~

~~RXQ.0.2.x Ex Ante Savings Estimate - Forecasted savings used for program and portfolio planning purposes.~~

~~RXQ.0.2.x Ex Post Savings Estimate - Savings estimate reported by an evaluator after the energy impact evaluation has been completed.~~

~~RXQ.0.2.x Footcandle - A unit of illuminance on a surface that is one foot from a uniform point source of light of one candle and is equal to one lumen per square foot.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Free Driver - A program non-participant who has adopted a particular efficiency measure or practice as a result of the evaluated program. Also see Spillover.~~

RXQ.0.2.x **Free Rider** - A program participant who would have implemented the program measure or practice in the absence of the program. Free riders can be 1) total, in which the participant's activity would have completely replicated the program measure; 2) partial, in which the participant's activity would have partially replicated the program measure; or 3) deferred, in which the participant's activity would have completely replicated the program measure, but at a future time than the program's timeframe.

~~RXQ.0.2.x Free Ridership Rate - The percent of savings attributable to free riders.~~

RXQ.0.2.x **Gross ~~s~~Savings** - The change in energy ~~consumption~~ usage and/or ~~d~~Demand that results directly from program-related actions taken by participants in an Energy ~~e~~Efficiency program, regardless of why they participated.

~~RXQ.0.2.x Gross kW - Expected demand reduction based on a comparison of standard or replaced equipment, and equipment installed through an Energy Efficiency program.~~

~~RXQ.0.2.x Gross kWh - Expected kWh reduction based on a comparison of standard or replaced equipment, and equipment installed through an Energy Efficiency program.~~

~~RXQ.0.2.x Heating Degree Days - The cumulative number of degrees in a month or year by which the mean temperature falls below 18.3°C/65°F. Also see Degree Days.~~

~~RXQ.0.2.x Heating Seasonal Performance Factor (HSPF) - A measure of heat pump's Energy Efficiency over one heating season. It represents the total heating output of a heat pump (including supplementary electric heat) during the normal heating season (in Btus) compared to the total electricity consumed (in watt-hours) during the same period. The higher the rating, the more efficient the heat pump.~~

~~RXQ.0.2.x Heat Pump - A heating and cooling unit that draws heat from an outdoor source and transports it to an indoor space for heating purposes; or inversely, for cooling purposes. There are various types of heat pumps defined by the content or location of the heat transfer material - air source, water source, and ground source.~~

~~RXQ.0.2.x High Electric Demand Days (HEDD) - Days of high electricity demand, which can dramatically increase ozone-forming air pollution from electric generation and~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~often result in nitrogen oxide (NOx) emissions that can be greater than two times their average levels. Days of high electrical use often coincide with days with high ozone levels.~~

~~RXQ.0.2.x Home Energy Rating System (HERS) - Associated with Energy Star, HERS is an indexing system used in residential new construction to rate the pre- and post-construction of new homes to highlight and indicate the degree of Energy Efficiency embedded in the construction. The HERS Index is a scoring system established by the Residential Energy Services Network (RESNET) in which a home built to the specifications of the HERS Reference Home (based on the 2006 International Energy Conservation Code) scores a HERS Index of 100, while a net zero energy home scores a HERS Index of 0. The lower a home's HERS Index, the more energy efficient it is in comparison to the HERS Reference Home. Each 1-point decrease in the HERS Index corresponds to a 1% reduction in energy consumption compared to the HERS Reference Home.~~

~~RXQ.0.2.x Horsepower (hp) - A unit for measuring the rate of doing work. One horsepower equals about three-fourths of a kilowatt (745.7 watts).~~

RXQ.0.2.x **Impact Evaluation** - An ~~e~~Evaluation of the program-specific directly induced quantitative changes (e.g. kWh, kW, and therms) attributable to an Energy Efficiency program.

~~RXQ.0.2.x Incremental Cost - The difference between the cost of existing or baseline equipment or service and the cost of alternative energy efficient equipment or service.~~

~~RXQ.0.2.x Incremental Energy Savings - The difference between the amount of energy savings acquired in a project or a program in one period and the amount of energy savings acquired by that project or program in a prior period.~~

~~RXQ.0.2.x Independent variables - The explanatory factors in a regression model that are assumed to affect the variable under study (e.g. energy use).~~

~~RXQ.0.2.x Indirect Emissions - Emissions that are a consequence of activities that take place within the organizational boundaries of an entity, but that occur at sources owned or controlled by another entity. For example, emissions of electricity used by a manufacturing entity that occur at a power plant represent the manufacturer's indirect emissions. Indirect emissions are the source of avoided emissions for electric Energy Efficiency measures.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Inspections - Site visits to facilities treated under an efficiency program that document the existence, characteristics, and operation of baseline or reporting period equipment and systems as well as factors that affect energy use.~~

~~RXQ.0.2.x Interactive Effects - The influence in energy use between one technology application and the energy required to operate another application. An example is the reduced heat in a facility as a result of replacing incandescent lights with CFLs, and the resulting need to increase space heating from another source, usually oil or gas fired.~~

~~RXQ.0.2.x Kilowatt (kW) - A measure of the rate of power used during a preset time period (e.g. minutes, hours, days or months) equal to 1,000 watts. In the abbreviation, the W is capitalized because the unit was named to honor one of Scotland's great inventors, James Watt, who coined the term "horsepower".~~

~~RXQ.0.2.x Kilowatt-Hour (kWh) - A common unit of electric energy; one kilowatt-hour is numerically equal to 1,000 watts used for one hour.~~

~~RXQ.0.2.x Latent Cooling Load - The load created by moisture in the air, including from outside air infiltration and that from indoor sources such as occupants, plants, cooking, and showering.~~

~~RXQ.0.2.x Leakage - In the context of a cap-and-trade program (e.g. RGGI), the concept that there could be a shift of electricity generation from sources subject to the cap-and-trade program to higher emitting sources not subject to the program that results in a net increase in carbon dioxide (CO2) emissions. More broadly, in the context of an inventory of emissions sources, the situation that occurs as a result of an emissions reduction by one source, the emission is accounted for in the inventory, which leads to an increase in emissions from another source, but no equivalent accounting in the inventory for the increasing source.~~

~~RXQ.0.2.x Lifetime kW - The expected demand savings over the lifetime of an installed measure, calculated by multiplying the annual peak kW reduction associated with a measure by the expected lifetime of that measure. It is expressed in units of kW-years.~~

~~RXQ.0.2.x Lifetime MWh - The expected electrical energy savings over the lifetime of an installed measure, calculated by multiplying the annual MWh reduction associated with a measure by the expected lifetime of that measure.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Lifetime Therms - The expected gas energy savings over the lifetime of an installed measure, calculated by multiplying the annual reduction in therms associated with a measure by the expected lifetime of that measure.~~

~~RXQ.0.2.x Light Power Density (LPD) - Sometimes referred to as power density. A measurement of the ratio of light output in an area and the electric power used to produce that light. LPD is determined by dividing the total light output by the total wattage consumed and is measured in lumens per watt.~~

~~RXQ.0.2.x Load Factor - A percentage indicating the difference between the amount of electricity or natural gas a consumer used during a given time span and the amount that would have been used if the usage had stayed at the consumer's highest demand level during the whole time. The term also is used to mean the percentage of capacity of an energy facility, such as a power plant or gas pipeline that is utilized in a given period of time.~~

~~RXQ.0.2.x Load Impact Regression Model (LIRM) - A statistical model that produces estimates of the load impacts of energy conservation programs. Depending on the particular approach and the statistical issues encountered, it may involve more than one regression model and technique: (1) the load impact estimation model typically is a linear or non-linear regression model that uses billing data to estimate gross and/or net load impacts. Data from program non-participants, in addition to participant data, can be used to derive net impacts directly or to affect other statistical control. (2) The participant/decision model typically is a discrete choice model used in conjunction with the load impact estimation model to isolate free ridership effects, generate self-selection correction terms, and/or net-to-gross ratios as needed. When this model is used to estimate a net-to-gross ratio, the resulting estimate is multiplied by an estimate of gross load impact to yield an estimate of net load impact.~~

~~RXQ.0.2.x Load Management - Steps taken to reduce power demand at peak load times or to shift some of it to off-peak times. Load management may coincide with peak hours, peak days or peak seasons. Load management may be pursued by persuading consumers to modify behavior or by using equipment that regulates some electric consumption. This may lead to complete elimination of electric use during the period of interest (load shedding) and/or to an increase in electric demand in the off-peak hours as a result of shifting electric usage to that period (load shifting).~~

~~RXQ.0.2.x Load Shapes - Representations such as graphs, tables, and databases that show the time-of-use pattern of customer or equipment energy use. These are typically shown over a 24 hour or whole year (8760 hours) period.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Logic Model - The graphical representation of a program theory showing the connection among activities, their outputs, and subsequent short-term, intermediate, and long-term outcomes. Often the logic model is displayed with these elements in boxes and the causal flow is shown by arrows from one to the others in the program logic. It can also be displayed as a table with the linear relationship presented by the rows in the table.~~

~~RXQ.0.2.x Lost Opportunity Program - A program that captures Energy Efficiency opportunities at the time of a naturally-occurring market event, such as when a customer constructs, expands, renovates, or remodels a home or a building or makes an initial purchase of equipment, or replaces failed equipment.~~

~~RXQ.0.2.x Lumen - A measure of the amount of light available from a light source equivalent to the light emitted by one candle.~~

~~RXQ.0.2.x Lumens/Watt - A measure of the efficacy of a light fixture; the number of lumens output per watt of power consumed.~~

~~RXQ.0.2.x Luminaire - A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the power supply.~~

~~RXQ.0.2.x Market Assessment - An analysis that provides an assessment of how and how well a specific market or market segment is functioning with respect to the definition of well-functioning markets or with respect to other specific policy objectives. Generally includes a characterization or description of the specific market or market segments, including a description of the types and number of buyers and sellers in the market, the key actors that influence the market, the type and number of transactions that occur on an annual basis, and the extent to which market participants consider Energy Efficiency as an important part of these transactions. This analysis may also include an assessment of whether a market has been sufficiently transformed to justify a reduction or elimination of specific program interventions. Market assessment can be blended with strategic planning analysis to produce recommended program designs or budgets. One particular kind of market assessment effort is a baseline study, or the characterization of a market before the commencement of a specific intervention in the market, for the purpose of guiding the intervention and/or assessing its effectiveness later.~~

~~RXQ.0.2.x Market effect evaluation - An evaluation of the change in the structure or functioning of a market, or the behavior of participants in a market, that results from one or more program efforts. Typically the resultant market or behavior~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~change leads to an increase in the adoption of energy-efficient products, services, or practices.~~

~~RXQ.0.2.x Market penetration rate - A measure of the diffusion of a technology, product, or practice in a defined market, as represented by the percentage of annual sales for a product or practice, or as a percentage of the existing installed stock for a product or category of products, or as the percentage of existing installed stock that uses a practice.~~

~~RXQ.0.2.x Market Saturation - A percentage indicating the proportion of a specified end-user market that contains a particular product. An example would be the percentage of all households in a given geographical area that have a certain appliance. Studies conducted to obtain this information within the residential sector are referred to as residential appliance saturation studies (RASS).~~

~~RXQ.0.2.x Market Theory - A theoretical description of how a market operates relative to a specific program or set of programs designed to influence that market. Market theories typically include the identification of key market actors, information flows, and product flows through the market, relative to a program designed to change the way the market operates. Market theories are typically grounded upon the information provided from a market assessment but can also be based on other information. Market theories often describe how a program intervention can take advantage of the structure and function of a market to transform the market. Market theories can also describe the key barriers and benefits associated with a market and describe how a program can exploit the benefits and overcome the barriers.~~

~~RXQ.0.2.x Market Transformation Program - An energy program strategy that leads to a reduction in market barriers resulting from a market intervention, as evidenced by market effects that last after the intervention has been withdrawn, reduced, or changed.~~

~~RXQ.0.2.x Mcf - The quantity of natural gas occupying a volume of one thousand cubic feet at a temperature of sixty degrees Fahrenheit and at a pressure of fourteen and seventy-three hundredths pounds per square inch absolute. One Mcf has an energy value of one million Btus.~~

~~RXQ.0.2.x Measure life - The life of an energy consuming measure, including its equipment life and measure persistence (not savings persistence).~~

RXQ.0.2.x Measurement and Verification (M&V) - A subset of program ~~i~~Impact ~~e~~Evaluation that is associated with the documentation of ~~e~~Energy ~~s~~Savings at

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

individual sites or projects using one or more methods that can involve measurements, engineering calculations, statistical analyses, and/or computer simulation modeling.

~~RXQ.0.2.x Measurement Error - In the evaluation context, a reflection of the extent to which the observations conducted in the study deviate from the true value of the variable being observed. The error can be random (equal around the mean) or systematic (indicating bias).~~

~~RXQ.0.2.x Measure persistence - The duration of an energy consuming measure, taking into account business turnover, early retirement of installed equipment, and other reasons measures might be removed or discontinued.~~

~~RXQ.0.2.x Measure Retention Study - An assessment of (a) the length of time the measure(s) installed during the program year are maintained in operating condition; and (b) the extent to which there has been a significant reduction in the effectiveness of the measure(s).~~

~~RXQ.0.2.x Megawatt (MW) - A unit for measuring electricity equal to 1,000 kilowatts or one million watts. Utility companies, power generating plants and very large users of electricity are the primary users of the term.~~

~~RXQ.0.2.x Megawatt-Hour (MWh) - A unit of electric energy; a Megawatt-hour is numerically equal to 1,000,000 watts used for one hour.~~

~~RXQ.0.2.x Metered Data - Data collected over time through a meter for a specific end use, energy-using system (e.g. lighting and HVAC), or location (e.g. floors of a building or a whole premise). Metered data may be collected over a variety of time intervals. Usually refers to electricity or gas data.~~

~~RXQ.0.2.x Metering - The collection of energy consumption data over time through the use of meters. These meters may collect information about an end-use, a circuit, a piece of equipment, or a whole building (or facility). Short-term metering generally refers to data collection for no more than a few weeks. End-use metering refers specifically to separate data collection for one or more end-uses in a facility, such as lighting, air conditioning or refrigeration. Spot metering is an instantaneous measurement (rather than over time) to determine equipment size or power draw.~~

~~RXQ.0.2.x MMBtu - A thermal unit of energy equal to 1,000,000 Btus, the equivalent of 1,000 cubic feet of gas having a heating content of 1,000 Btus per cubic foot.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Monitoring - The collection of relevant measurement data over time at a facility, including but not limited to energy consumption or emissions data (e.g. energy and water consumption, temperature, humidity, volume of emissions, hours of operation, etc.), for the purpose of savings analysis or to evaluate equipment or system performance.~~

~~RXQ.0.2.x Naturally Occurring Efficiency - The effects of energy-related decisions that would have been made in the absence of the program administrator programs by both program participants and non-participants.~~

RXQ.0.2.x **Net ~~s~~Savings** - The total change in load that is attributable to an Energy Efficiency program. This change in ~~l~~Load may include, implicitly or explicitly, the effects of free drivers, ~~f~~Free ~~r~~Riders, Energy Efficiency standards, changes in the level of energy service, and other causes of changes in energy ~~consumption~~ usage or ~~d~~Demand.

RXQ.0.2.x **Net-to-Gross Ratio (NTGR)** - A factor representing net program savings divided by gross program savings ***(Is this different from Net Savings and Gross Savings which are defined?)*** that is applied to gross program impacts to convert them into net program load impacts. The factor itself may be made up of a variety of factors that create differences between ~~g~~Gross Savings and ~~n~~Net ~~s~~Savings, commonly including ~~f~~Free ~~r~~Riders and ~~s~~Spillover. Other adjustments may include a correction factor to account for errors within the project tracking data, breakage, and other factors that may be estimated which relate the ~~g~~Gross ~~s~~Savings to the net effect of the program. Can be applied separately to either ~~e~~Energy Savings or ~~d~~Demand ~~s~~Savings.

~~RXQ.0.2.x Non-Energy Effects or Non-Energy Benefits (NEB) - Also referred to as Non-Energy Impacts (NEI). The identifiable and sometimes quantifiable non-energy results associated with program implementation or participation. Some examples of NEBs include: reduced emissions and environmental benefits, productivity improvements, jobs created, reduced program administrator debt and disconnects, and higher comfort and convenience level of participant. The effects of an Energy Efficiency or resource acquisition program that are other than energy saved. The value is most often positive, but may also be negative (e.g. the cost of additional heating required to replace the residual heat no longer available from incandescent lamps that have been replaced by CFLs).~~

RXQ.0.2.x **Non-Participant** - Any ~~consumer~~ Retail Customer who was eligible but did not participate in the subject Energy ~~e~~Efficiency program in a given program year.

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Normalized Annual Consumption (NAC) Analysis - A regression-based method that analyzes monthly energy consumption data and adjusts the consumption data to eliminate annual or other periodic fluctuations in an influencing factor (such as weather on heating and cooling needs) based on a historical normal or average pattern of the influencing factor.~~

~~RXQ.0.2.x Off-Peak Energy kWh Savings - The kWh reduction that occurs during a specified period of off-peak hours for energy savings. (e.g. Monday-Friday, 9 p.m. to 8 a.m. and all day on weekends and holidays).~~

~~RXQ.0.2.x Offset - Program mechanism that allows an entity to neutralize the amount of its greenhouse gas contribution by orchestrating or funding projects offsite that should cause an equal reduction of emissions.~~

~~RXQ.0.2.x On-Peak Energy kWh Savings - The kWh reduction that occurs during a specified period of on-peak hours for energy savings. (e.g. Monday-Friday, 8 a.m. to 9 p.m. and except holidays).~~

~~RXQ.0.2.x Other Demand Resources (ODR) - Term used by ISO-New England in its Market Rules to mean installations undertaken as part of merchant, utility, or state sponsored program, and may include Energy Efficiency, load management, and distributed generation projects that are installed after June 16, 2006, and that result in additional and verifiable reductions in end-use customer demand on the electricity network in the New England Control Area during ODR Performance Hours (which may include Critical Peak Hours), as described in Section III.8.3.6.2 of Market Rule 1.~~

~~RXQ.0.2.x Participant Cost Test (PCT) - A cost-effectiveness test that measures the economic impact to the participating customer of adopting an Energy Efficiency measure.~~

RXQ.0.2.x **Peak Demand** - The maximum level of metered ~~d~~Demand during a specified period, such as a billing month or a peak ~~d~~Demand period.

~~RXQ.0.2.x Peak Load - The highest electrical demand within a particular period of time. Daily electric peaks on weekdays typically occur in late afternoon and early evening. Annual peaks typically occur on hot summer days.~~

~~RXQ.0.2.x Performance Contracts - See Energy Performance Contracts.~~

RXQ.0.2.x **Pilot Program** - A program that is generally limited in scope or targeted to a select group of Retail ~~c~~Customers and is intended to test the program concept

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

and implementation design. Pilot programs often are evaluated to determine if they can be expanded to a full scale program and deliver savings cost-effectively, and what program adjustments may be necessary in order to do so.

RXQ.0.2.x **Portfolio** - (a) A collection of similar programs addressing the same market (e.g. a ~~p~~Portfolio of residential programs), technology (e.g. motor efficiency programs), or mechanisms (e.g. loan programs). (b) The set of all programs conducted by one or more organizations, such as a ~~p~~Program ~~a~~Administrator (and which could include programs that cover multiple markets, technologies, etc.).

~~RXQ.0.2.x Potential Studies - Studies conducted to assess market baselines and future savings that may be expected for different technologies and customer markets over a specified time horizon. Potential is typically defined in terms of 1) technical potential - savings estimate based solely on currently and anticipated available technology; 2) achievable potential - savings estimate based on market forces, codes and standards, equipment efficiency, and Energy Efficiency programs; and 3) economic potential - estimate of savings limited by only those found to be cost-effective.~~

~~RXQ.0.2.x Practice Retention Study - An assessment of the length of time a customer continues the Energy Efficiency or conservation behavioral changes after adoption of these changes.~~

RXQ.0.2.x **Precision** - The indication of the closeness of agreement among repeated measurements of the same physical quantity. It is also used to represent the degree to which an estimated result in social science (e.g. energy savings) would be replicated with repeated studies.

~~RXQ.0.2.x Prescriptive Program - An Energy Efficiency program focused on measures that are one-for-one replacements of the existing equipment and for which fixed customer incentives can be developed based on the anticipated similar savings that will accrue from their installation.~~

~~RXQ.0.2.x Primary Effects - Effects that the project or program are intended to achieve. For efficiency programs, this is predominantly a reduction in energy use per unit of output.~~

RXQ.0.2.x **Process Evaluation** - A systematic assessment of an Energy Efficiency program for the purposes of documenting program operations at the time of the examination and identifying and recommending improvements to increase the program's efficiency or effectiveness for acquiring energy resources, while maintaining high levels of participant satisfaction.

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Program Administrator Cost Test (PACT) - See Utility/Program Administrator Cost Test~~

~~RXQ.0.2.x Program Incentive - An incentive, generally monetary, that is offered to a customer through an Energy Efficiency program to encourage the customer to participate in the program. The incentive is intended to overcome one or more barriers that keep the customer from taking the Energy Efficiency activity on his own.~~

~~RXQ.0.2.x Program Manager - The individual who manages an Energy Efficiency program as it is implemented in the field.~~

RXQ.0.2.x **Program Participant** - A ~~consumer~~ Retail Customer that received a service offered through an Energy ~~e~~Efficiency program in a given program year. The term "service" can be one or more of a wide variety of services, including financial rebates, technical assistance, product installations, training, Energy Efficiency information or other services, items, or conditions.

~~RXQ.0.2.x Program Theory - A presentation of the goals of a program, incorporated with a detailed presentation of the activities that the program will use to accomplish those goals and the identification of the causal relationships between the activities and the program's effects.~~

RXQ.0.2.x **Project** - An activity or course of action involving one or multiple Energy Efficiency measures, at a single facility or site.

~~RXQ.0.2.x Proxy Variable - In program Evaluation or project modeling, a proxy variable is used to estimate energy savings, and is intended to represent a variable that is more directly related to the energy savings activity but that cannot itself be directly measured.~~

~~RXQ.0.2.x Qualitative Data - Information expressed in the form of words.~~

~~RXQ.0.2.x Quantitative Data - Information expressed in the form of numbers.~~

~~RXQ.0.2.x R-Value - A measure of thermal resistance of a material, equal to the reciprocal of the U-Value. The R-Value is expressed in terms of degrees Fahrenheit multiplied by hours, multiplied by square feet per Btu.~~

~~RXQ.0.2.x Ratepayer Impact Measure Test (RIM) - A cost-effectiveness test that measures the impact on utility operating margin and whether rates would have to increase~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~to maintain the current levels of margin if a customer installed energy efficient measures. The Ratepayer Impact Measure (RIM) test measures what happens to customer bills or rates due to changes in utility revenues and operating costs caused by the program.~~

~~RXQ.0.2.x Realization Rate - The term is used in several contexts in the development of reported program savings. The primary applications include the ratio of project tracking system savings data (e.g. initial estimates of project savings) to savings 1) adjusted for data errors, 2) that incorporate evaluated or verified results of the tracked savings, and 3) that account for free ridership and/or spillover.~~

~~RXQ.0.2.x Rebate Program - An Energy Efficiency program in which the program administrator offers a financial incentive for the installation of energy-efficient equipment.~~

~~RXQ.0.2.x Rebound Effect - Also called Snap Back. A change in energy-using behavior that yields an increased level of service that is accompanied by an increase in energy use and occurs as a result of taking an Energy Efficiency action. The result of this effect is that the savings associated with the direct Energy Efficiency action is reduced by the resulting behavioral change.~~

~~RXQ.0.2.x Re-commissioning (ReCx) - The process of commissioning a building several years after it has been commissioned to help keep it operating optimally.~~

~~RXQ.0.2.x Regression Analysis - Analysis of the relationship between a dependent variable (response variable) to specified independent variables (explanatory variables). The mathematical model of their relationship is the regression equation.~~

~~RXQ.0.2.x Regression Model - A mathematical model based on statistical analysis where the dependent variable is quantified based on its relationship to the independent variables which are said to determine its value. In so doing, the relationship between the variables is estimated statistically from the data used.~~

~~RXQ.0.2.x Reliability - The quality of a measurement process that would produce similar results on: (1) repeated observations of the same condition or event; or (2) multiple observations of the same condition or event by different observers.~~

~~RXQ.0.2.x Renewable Energy - Energy derived from resources that are naturally replenishing but flow-limited. They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. Renewable energy resources include: biomass, hydro, geothermal, solar, wind, ocean thermal, wave action, and tidal action.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Reporting Period - The time following implementation of an Energy Efficiency activity during which results are to be determined.~~

~~RXQ.0.2.x Representative Sample - A sample that has approximately the same distribution of characteristics as the population from which it was drawn.~~

~~RXQ.0.2.x Resource Acquisition Program - A program designed to achieve directly energy and or demand savings. Such a program generally involves encouraging customers to replace existing equipment with more efficient equipment. Also known as a retrofit program.~~

~~RXQ.0.2.x Retro-commissioning - The application of the commissioning process to existing buildings. Retro-commissioning is a process that seeks to improve how building equipment and systems function together. Depending on the age of the building, retro-commissioning can often resolve problems that occurred during design or construction, or address problems that have developed throughout the building's life. In all, retro-commissioning improves a building's operations and maintenance (O&M) procedures to enhance overall building performance.~~

~~RXQ.0.2.x Retrofit Program - An Energy Efficiency program that provides incentives, information and technical support to customers in an effort to encourage the replacement of existing and operating equipment with more efficient equipment that provides the same function.~~

~~RXQ.0.2.x Rigor - The level of effort expended to minimize uncertainty due to factors such as sampling error and bias. The higher the level of rigor, the more confident one is that the results of the Evaluation are both accurate and precise.~~

~~RXQ.0.2.x Sample - In program Evaluation, a portion of the population selected to represent the whole. Differing Evaluation approaches rely on simple or stratified (based on some characteristic of the population) samples.~~

~~RXQ.0.2.x Sample Design - The approach used to select the sample units.~~

RXQ.0.2.x **Sampling Error** - The error in estimating a parameter caused by the fact that in the sample at hand all the disturbances are not zero.

~~RXQ.0.2.x Savings Persistence Rate - Percentage of first year energy or demand savings expected to persist over the life of the installed Energy Efficiency equipment; developed by conducting surveys of installed equipment several years after installation to determine presence and operational capability of the equipment.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Seasonal Energy Efficiency Ratio (SEER) - The total cooling output of a central air conditioning unit in Btus during its normal usage period for cooling divided by the total electrical energy input in watt-hours during the same period, as determined using specified federal test procedures.~~

~~RXQ.0.2.x Seasonal Performance Factor (SPF) - Ratio of useful energy output of a device to the energy input, averaged over an entire heating season.~~

~~RXQ.0.2.x Sensible Cooling Load - The interior heat gain due to heat conduction, convection, and radiation from the exterior into the interior, and from occupants and appliances.~~

~~RXQ.0.2.x SIC Code (Standard Industrial Classification code) - Four digit numerical codes assigned by the U.S. government to business establishments to identify the primary business of the establishment.~~

~~RXQ.0.2.x Simple Random Sample - A method for drawing a sample from a population such that all samples of a given size have equal probability of being drawn.~~

~~RXQ.0.2.x Smart Meter - See Advanced Meter.~~

~~RXQ.0.2.x Snap Back - See Rebound Effect.~~

~~RXQ.0.2.x Simulation Model - An assembly of algorithms that calculates energy use based on engineering equations and user-defined parameters.~~

~~RXQ.0.2.x Societal Cost Test (SCT) - A cost-effectiveness test that measures the net economic benefit to the utility service territory, state, or region, as measured by the total resource cost test, plus indirect benefits such as environmental benefits.~~

RXQ.0.2.x **Spillover** - Reductions in energy ~~consumption~~ usage and/or ~~d~~Demand caused by the presence of an Energy Efficiency program, beyond the program-related ~~g~~Gross ~~s~~Savings of the participants and without financial or technical assistance from the program. There can be ~~p~~Participant and/or ~~n~~Non-~~p~~Participant ~~s~~Spillover. Participant ~~s~~Spillover is the additional energy savings that occur when a program ~~p~~Participant independently installs Energy Efficiency measures or applies energy saving practices after having participated in the Energy ~~e~~Efficiency program as a result of the program's influence. Non-~~p~~Participant ~~s~~Spillover refers to energy savings that occur when a program ~~n~~Non-~~p~~Participant installs Energy Efficiency measures or applies energy savings practices as a result as a result of a program's influence.

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Spillover rate - Estimate of energy savings attributable to spillover effects expressed as a percent of savings installed by participants through an Energy Efficiency program.~~

~~RXQ.0.2.x Split System - An HVAC system in which some components are located inside the structure of the house and some are located outside.~~

~~RXQ.0.2.x Standard error - a measure of the variability in a data sample, how far a "typical" data point is from the mean of a sample. In a large sample, about 2/3 of observations lie within one standard error of the mean, and 95 percent of observations lie within two standard errors.~~

~~RXQ.0.2.x Statistically Adjusted Engineering (SAE) models - A category of statistical analysis models that incorporates the engineering estimate of savings as a dependent variable. The regression coefficient in these models is the percentage of the engineering estimate of savings observed in changes in energy usage. For example, if the coefficient on the SAE term is 0.8, this means that the customers are on average realizing 80% of the savings from their engineering estimates.~~

~~RXQ.0.2.x Stipulated values- See Deemed Savings.~~

~~RXQ.0.2.x Stratified Random Sampling - The population is divided into X units of subpopulations, called strata, that are non-overlapping and together comprise the entire population. A simple random sample is taken of each strata to create a sample based upon stratified random sampling.~~

~~RXQ.0.2.x Stratified Ratio Estimation - A sampling method that combines a stratified sample design with a ratio estimator to reduce the coefficient of variation by using the correlation of a known measure for the unit (e.g. expected energy savings) to stratify the population and allocate sample from strata for optimal sampling.~~

~~RXQ.0.2.x Structured Interview - An interview in which the questions to be asked, their sequence, and the detailed information to be gathered are all predetermined. These are used where maximum consistency across interviews and interviewees is needed.~~

~~RXQ.0.2.x Sustainability - The ability to meet the needs of the present without compromising the ability of future generations to meet their needs. In the context of Energy Efficiency, sustainability refers to the likelihood that observed program-induced market changes would continue in the absence of the program.~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

~~RXQ.0.2.x Takeback effect - See Rebound Effect.~~

~~RXQ.0.2.x Technical Potential - An estimate of energy savings based on the assumption that all existing equipment or measures will be replaced with the most efficient equipment or measure that is technically feasible over a defined time horizon, without regard to cost or market acceptance.~~

~~RXQ.0.2.x Therm - One hundred thousand (100,000) British thermal units (1 therm = 100,000 Btus).~~

~~RXQ.0.2.x Time Series Analysis - An analysis of an ordered sequence of values of a variable at equally spaced time intervals to obtain an understanding of the underlying forces and structure that produced the observed data.~~

~~RXQ.0.2.x Ton - Unit of measure for determining cooling capacity. One ton equals 12,000 Btus heat removed per hour.~~

~~RXQ.0.2.x Total Resource Cost Test (TRC) - A cost-effectiveness test that measures the net direct economic impact to the utility service territory, state, or region~~

~~RXQ.0.2.x U-Value - The quantity of heat transmitted per hour through one square foot of a building section (wall, roof, window, etc.) for each degree Fahrenheit of temperature difference between the air on the warm side and the air on the cold side of the building section.~~

RXQ.0.2.x **Uncertainty** - The range or interval of doubt surrounding a measured or calculated value within which the true value is expected to fall with some degree of confidence.

~~RXQ.0.2.x Upstream Program - A program that provides information and/or financial assistance to entities in the delivery chain of high-efficiency products at the retail, wholesale, or manufacturing level. Such a program is intended to yield lower retail prices for the products.~~

~~RXQ.0.2.x Utility/Program Administrator Cost Test - Also called Program Administrator Cost Test (PACT) and also known as the utility cost test. A cost-effectiveness test that measures the change in the amount the utility must collect from the customers every year to meet an earnings target – e.g. a change in revenue requirement. In a number of states, this test is referred to as the program administrator cost test. In those cases, the definition of the "utility" is expanded to program administrators (utility or third party).~~

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

RXQ.0.2.x **Verification** - An independent assessment of the reliability (considering completeness and accuracy) of claimed energy savings or an emissions source inventory.

~~RXQ.0.2.x Watt - A unit of measure of electric power at a point in time, as capacity or demand. One watt of power maintained over time is equal to one joule per second. The watt is named after Scottish inventor James Watt and is capitalized when shortened to W and used with other abbreviations, as in kWh.~~

~~RXQ.0.2.x Watt-Hour - One watt of power expended for one hour. One thousandth of a kilowatt-hour.~~

~~RXQ.0.2.x Wet-Bulb Temperature - The temperature at which water, by evaporating into air, can bring the air to saturation at the same temperature. Wet-bulb temperature is measured by a wet-bulb psychrometer.~~

~~RXQ.0.2.x Whole-Building Calibrated Simulation Approach - A savings measurement approach (defined in IPMVP Option D and ASHREA Guideline 14) that involves the use of an approved computer simulation program to develop a physical model of the building in order to determine energy and demand savings. The simulation program is used to model the energy used by the facility before and after the retrofit. The pre or post-retrofit models are developed by calibration with measured energy use and demand data and weather data.~~

~~RXQ.0.2.x Whole-Building Metered Approach - A savings measurement approach (defined in the IPMVP Option C and ASHRAE Guideline 14) that determines energy and demand savings through the use of whole-facility energy (end use) data, which may be measured by utility meters or data loggers. This approach may involve the use of monthly utility billing data or data gathered more frequently from a main meter.~~

Draft of ~~January 5~~April 15, 2011

For Quadrant: Retail Electric Quadrant

Requesters: DSM-EE Subcommittee
Request No.: 2010 Retail Annual Plan Item No. 3(b)
Request Title: Evaluation, Measurement & Verification of Energy Efficiency Programs

4. SUPPORTING DOCUMENTATION

a. Description of Request:
b. Description of Recommendation:

c. Business Purpose:
d. Commentary/Rationale of Subcommittee(s)/Task Force(s):

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[i] NAPEE. *Model Energy Efficiency Program Impact Evaluation Guide*. November 2007. ES-1 – ES-2.
[ii] ~~EVO. *International Performance Measurement and Verification Protocol: Concepts and Options for Determining Energy and Water Savings Volume 1*. September 2009. 21-38. See also EVO / Cowain and Sain. *M&V Fundamentals and the International Performance Measurement and Verification Protocol (IPMVP) For Energy Managers and Emission Traders*. The Association of Energy Engineers. N.d.~~
[iii] ~~For further reference regarding error mitigation, see NAPEE. *Model Energy Efficiency Program Impact Evaluation Guide*. November 2007. D-5 – D-11. Also EVO. *International Performance Measurement and Verification Protocol: Concepts and Options for Determining Energy and Water Savings, Volume 1*. September 2009. 46-47, 85-104.~~
[iv] ~~EVO. *International Performance Measurement and Verification Protocol: Concepts and Options for Determining Energy and Water Savings Volume 1*. September 2009. 85.~~
[v] ~~NAPEE. *Model Energy Efficiency Program Impact Evaluation Guide*. November 2007. 3-6.~~
[vi] ~~EVO. *International Performance Measurement and Verification Protocol: Concepts and Options for Determining Energy and Water Savings, Volume 1*. September 2009. 46.~~
[vii] ~~NAPEE. *Model Energy Efficiency Program Impact Evaluation Guide*. November 2007. 3-11.~~
[viii] ~~NEEP Regional EM&V Forum. "Glossary of Terms and Acronyms Version 1.0." March 2009.~~

R10002

Request for Initiation of a NAESB Standard for Electronic Business Transactions or Request for Enhancement of a NAESB Standard for Electronic Business Transactions
Page 1

North American Energy Standards Board

Request for Initiation of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction
or
Enhancement of an Existing NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

Instructions:

1. **Please fill out as much of the requested information as possible. It is mandatory to provide a contact name, phone number and fax number to which questions can be directed. If you have an electronic mailing address, please make that available as well.**

2. **Attach any information you believe is related to the request. The more complete your request is, the less time is required to review it.**

3. **Once completed, send your request to:**

   Rae McQuade
   NAESB, President
   1301 Fannin, Suite 2350
   Houston, TX 77002

   Phone: 713-356-0060
   Fax: 713-356-0067

   by either mail, fax, or to NAESB's email address, naesb@naesb.org.

Once received, the request will be routed to the appropriate subcommittees for review.

Please note that submitters should provide the requests to the NAESB office in sufficient time so that the NAESB Triage Subcommittee may fully consider the request prior to taking action on it. It is preferable that the request be submitted a minimum of 3 business days prior to the Triage Subcommittee meetings. Those meeting schedules are posted on the NAESB web site at http://www.naesb.org/monthly_calendar.asp.

R10002

Request for Initiation of a NAESB Standard for Electronic Business Transactions or Request for Enhancement of a NAESB Standard for Electronic Business Transactions
Page 2

North American Energy Standards Board

Request for Initiation of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction
or
Enhancement of an Existing NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

Date of Request 03/15/2010

1. Submitting Entity & Address:

Endeavor Engineering Inc.
9900 NW Old Cornelius Pass Rd.
Hillsboro, OR 97124

2. Contact Person, Phone #, Fax #, Electronic Mailing Address:

Name : James Tillett
Title : President
Phone : 503.336.1717 x101
Mobile : 503.706.6913
Fax : 503.214.5580
E-mail : jtillett@endeavoreng.com

3. Title and Description of Proposed Standard or Enhancement:

Title:

Demand Response (DR) Program Enrollment (DRPE)

Description:

DR provides the ability to actively manage the demand side of power delivery, and it has become an essential component of current Smart Grid activities. DR is the act of not using as much power as normally consumed to increase the availability of power to consumers and to manage demand profiles. Consquently, to measure DR it is essential to understand the normal level of demand. In order to accurately measure and manage effects of the DR process, most DR sponsors such as utilities and ISOs create DR programs which provide the guidelines and rules for participation. These programs provide a stucture specifically designed to result in a desired DR action and they dictate not only the process of calling on DR capabilities, but also to get DR assets identified, configured, and financially rewarded.

R10002

DR programs are numerous and vary across a wide spectrum of objectives, but they share a common goal of positively effecting power demand by reducing consumption and managing its time of use. From this high level perspective they share commonalities that may enable standardization.

The first major part of the DR program process is to get a site enrolled in the program and to be ready for participation. The DRPE process not only registers the site for use in the DR program, but also provides a validated assessment of normal power demand and other operational parameters of the power consumer.

Since money is typically exchanged in DR and its enrollment process, it is essential that the program is structured and administered properly. Most DRPE processes share common goals, however they each vary in their specific steps and requirements. Due to these differences it can be very complicated and difficult to enroll many sites from various DR programs. For example an aggregator participating in DRPE for multiple programs must manage a separate and complicated process for each of these programs independently and that impacts their ability to extend DR within their aggregation.

In most cases the objectives of DR programs are similar, and consequently the process of enrollment is also similar. This commonality provides an optimistic expectation regarding the standarization of the DRPE process. Appropriate standardization of this process would reduce the obstacles to DRPE and would likely increase DR participation to the benefit of all participants.

This standardization request is intended to investigate the ability to appropriately standardize the DRPE process and if successful will create a DRPE standard that is applicable across the majority of DR programs.

4. **Use of Proposed Standard or Enhancement (include how the standard will be used, documentation on the description of the proposed standard, any existing documentation of the proposed standard, and required communication protocols):**

The standard will provide common interfaces and data structures necessary for enrolling DR sites into a DR program. Due to the complexity and diversity of DR programs this standard will likely provide for different interactions between enrollment actors and program objectives. It is likely that a DRPE standard will enable common functionality to normalize actor interactions and to allow for standardized and custom data components.

The objective of this standard effort will be to enable an enrollment process common to the majority of DR program sponsors. This must be balanced with the ability to enable appropriate custom capabilities and to evolve as DR programs change.

Likely activities of DRPE standardization is to first define adequate program profiles to encompass the maximum number of DR programs. To develop an adequate consensus, this will require significant stakeholder input to represent the diversity of present and future DR program structures. Next, appropriate architectures and technoligies will be defined to satisfy present and future needs in creating a draft standard. Finally additional stakeholder input will be required to ratify and finalize the standard.

This DRPE is manifested primarily in the business side of the industry and as a consequence will likely adopt an architecture and technologies best suited to business related applications.

5. Description of Any Tangible or Intangible Benefits to the Use of the Proposed Standard or Enhancement:

The primary benefit of DRPE standardization is in the reduction of complexity and cost of enrolling sites in a DR program. One of the SG objectives is to better manage the demand side of power delivery and a program is the defininig structure for DR process management. DRPE standardization is expected to make it easier to enable DR capabilities and result in increase DR program participation.

An excellent example of the benefit of DRPE standardization is in the case of DR aggregators. Some DR aggregators endeavor to include DR assets in multiple program areas and one of the major obstacles in broad participation is in DRPE. Each DR program has enough variation in their enrollment process that they can not be handled identically. If an aggregator's objective is to present a DR aggregation across multiple programs then they must be the ones responsible for finding enough commonality in the enrollment process and DR program structure to aggregate accros program boundaries. At present this objective can be daunting and expensive, and to the detriment of the grid it likely leads to reducing an aggregators ability to enable cross-program capabilities.

6. Estimate of Incremental Specific Costs to Implement Proposed Standard or Enhancement:

The short term cost of DRPE standardization will likely be attributable to the development of the standard its self and to changing current DRPE enrollment solutions to future standards.

As previously mentioned, there are many different DR programs with a diverse set of objectives. Once a DRPE standard has been created and accepted, it will take time to transition them toward the standard enrollment process.

While this large installed base of DR programs currently exists, the market and SG in-general is still undergoing constant evolution. Since change and its costs are currently common with DR programs, it is expected that the incremental cost of transitioning them to a DRPE standard in the long term will be minimal.
If done with adequate stakeholder input, the process of developing a DRPE standard will increase the efficiency of DR program management as well as create a higher availability

of DR resources. This could significantly mitigate the effects of incremental costs related to the proposed standard.

The most significant cost that can be estimated at this time is related to the development of the DRPE standard its self. While it is expected much of the standards development and stakeholder involvement will be voluntary, a core team or SBO such as NAESB should be responsible for managing the overall process. It would be a task associated with setting up a DRPE standard development process to assess the associated costs.

7. Description of Any Specific Legal or Other Considerations:

The DRPE process sets up participation within the DR process. One of the key incentives for program participation and enrollment are financial. Often during both the DRPE and DR process money is exchanged between the DR program sponsor and participants. The DR program rules are built around defining commitments by participants in all areas of interaction. A failure of meeting commitments creates liabilities that have legal ramifications, therefore the ceation of a DRPE standard must consider the legal aspects of program enrollment as well as process and operational ones. A failure to adequately consider these legalities would likely effect DRPE standard adopters in a negative manner.

8. If This Proposed Standard or Enhancement Is Not Tested Yet, List Trading Partners Willing to Test Standard or Enhancement (Corporations and contacts):

There are dozens of programs in existence around the country. If NAESB endorses this effort, Trading Partners will be found to help test the process.

9. If This Proposed Standard or Enhancement Is In Use, Who are the Trading Partners :

This DRPE standard is not currently in use, however the DRPE process has been implemented in many locations. The trading partners include utilities and other system operators across the country.

A real-world example of one implementation of the DRPE process can be found in the following diagram. While utility specifics have been removed, the process identified here has been implemented and is in use today.

This is just one example of a DRPE process. As can be seen in the diagram, the process is complex, long, and problematic. Many of the steps are manual and the information exchanges are not standardized. Most DRPE processs are variations of this general theme and thus a DRPE standard would greatly increase the efficiency, reliability, and accuracy of the DRPE process.

It is expected that with adequate stakeholder involvement a DRPE standard would be widely adopted and meet minimal resistance.

R10002

Request for Initiation of a NAESB Standard for Electronic Business Transactions or Request for Enhancement of a NAESB Standard for Electronic Business Transactions

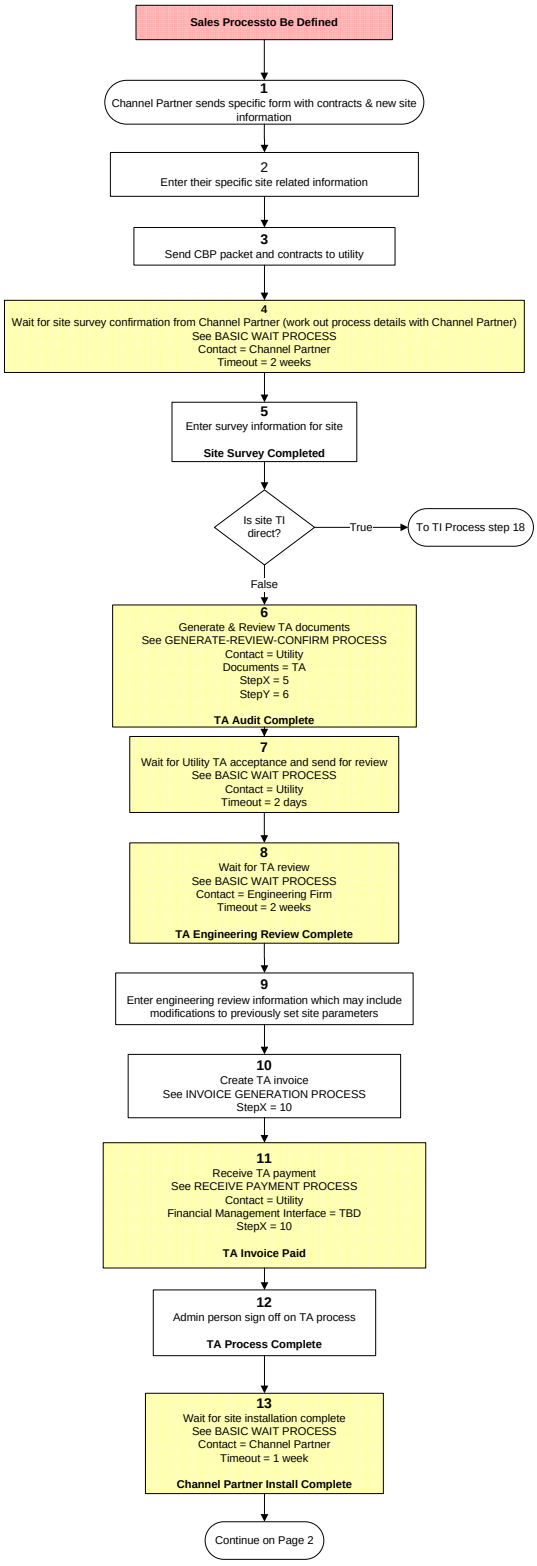
10. Attachments (such as : further detailed proposals, transaction data descriptions, information flows, implementation guides, business process descriptions, examples of ASC ANSI X12 mapped transactions):

Please refer to the following diagram for a high level view of a DRPE process. Keep in mind that this is the top level flow of this process and does not go into detail for sub-processes. The primary message is that the process is complex, hard to manage, and is a good candidate for standarization.

R10002

Request for Initiation of a NAESB Standard for Electronic Business Transactions or Request for Enhancement of a NAESB Standard for Electronic Business Transactions

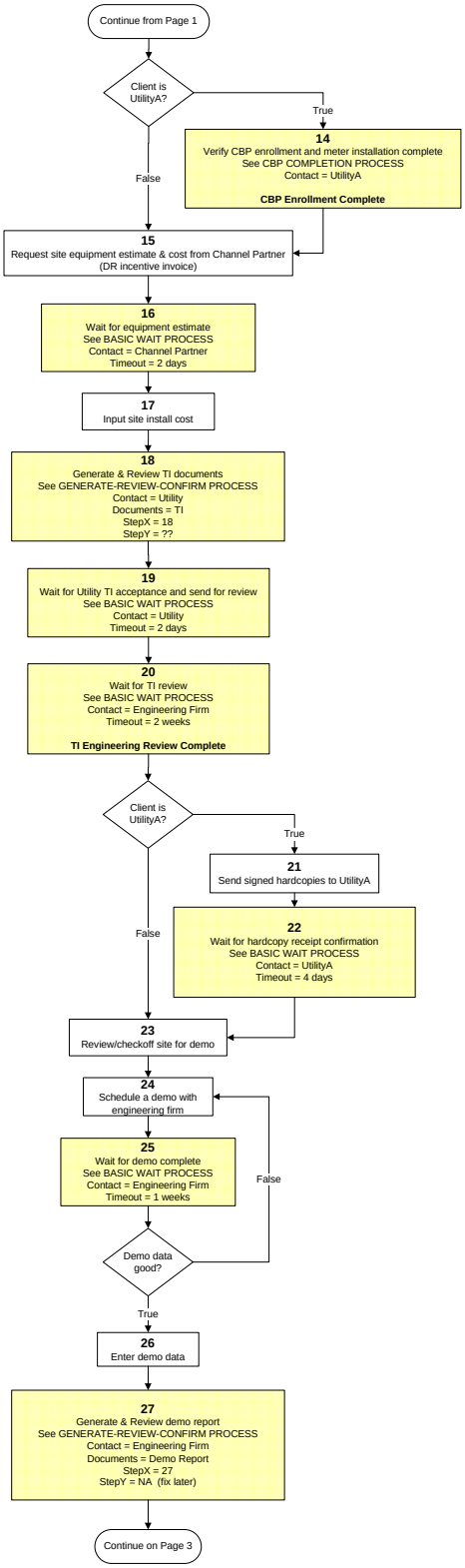
Example DRPE Process Page 1/3



R10002

Request for Initiation of a NAESB Standard for Electronic Business Transactions or Request for Enhancement of a NAESB Standard for Electronic Business Transactions

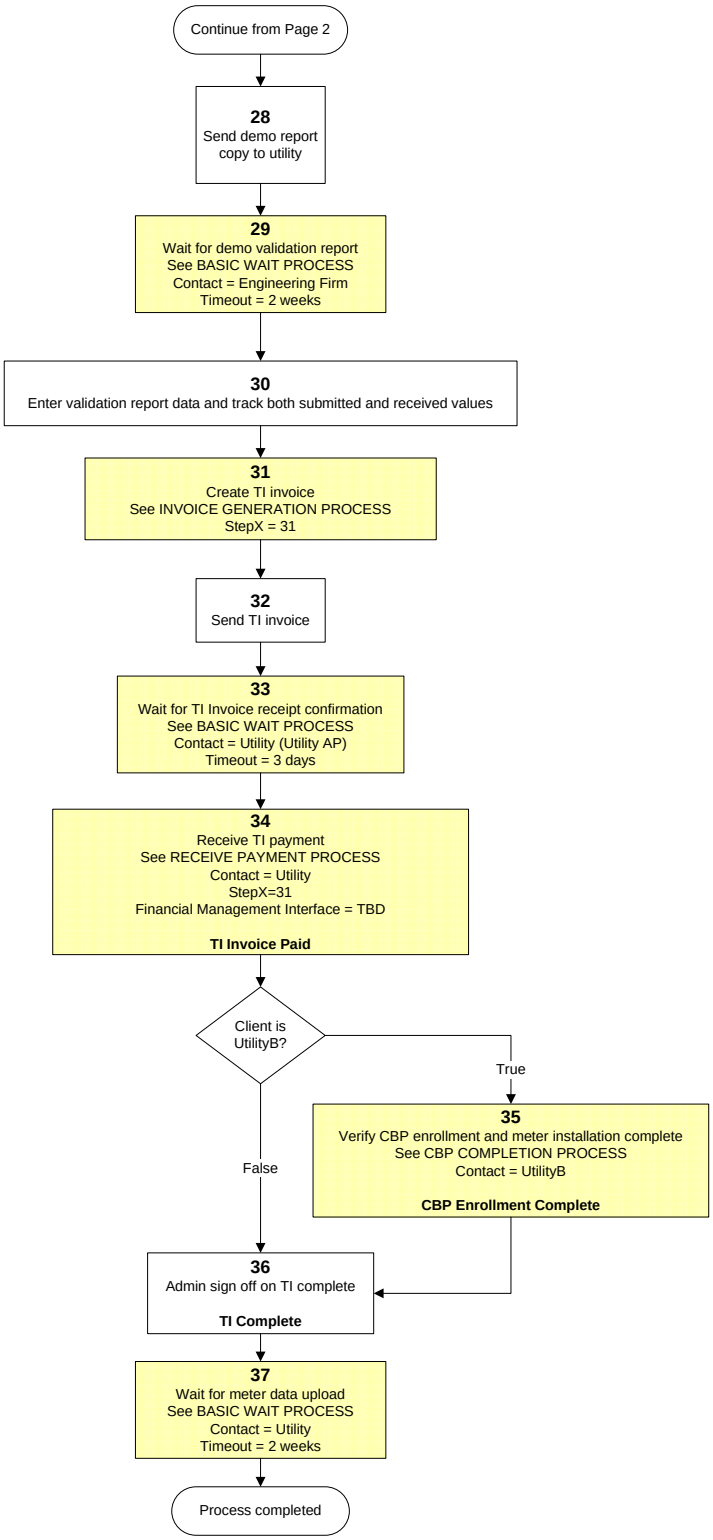
Example DRPE Process Page 2/3



R10002

Request for Initiation of a NAESB Standard for Electronic Business Transactions or Request for Enhancement of a NAESB Standard for Electronic Business Transactions

Example DRPE Process Page 3/3



North American Energy Standards Board

MC11012

Approved by the Retail Electric Quadrant and Retail Gas Quadrant Executive Committees via notational ballot on April 27, 2011

Request for Minor Correction/Clarification of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

Date of Request: April 5, 2011

1. Submitting Entity & Address:
   Patrick Eynon
   Ameren Services
   1901 Chouteau
   St. Louis, MO 63103
   Mailcode: 333

2. Contact Person, Phone #, Fax #, Electronic Mailing Address:

Name	:	Patrick Eynon
Title	:	Supervisor, Retail Access
Phone	:	314-554-4110
Fax	:	314-206-0600
E-mail	:	PEynon@ameren.com

3. Version and Standard Number(s) suggested for correction or clarification:
   Version 1.3, Retail Books as referenced in item 4 – description of minor correction/clarification.

4. Description of Minor Correction/Clarification including redlined standards corrections:

1. The definition of the term **Retail Customer Information** needs to be added as a Business Definition in Books 0, 1 and 8. It should read as follows: Retail Customer-specific identifiers and usage data associated with a specific Retail Customer's account number or Service Delivery Point used by Market Participants for the purposes authorized and/or specified by the Applicable Regulatory Authority.

2. The definition of the term **Pending Drop** needs to be added as a Business Definition to Books 0 and 10. It should read as follows: A Drop Request that has been responded to with a Drop Confirmation, but has not reached its Drop Effective Date.

3. The definition of the term **Reinstatement Effective Date** needs to be added as a Business Definition to Books 0 and 10. It should read as follows: The date on which the cancellation of a Pending Drop becomes effective.

4. The definition of the term **Slamming** needs to be added as a Business Definition to Books 0 and 6. It should read as follows: Enrollment without authorization of the Retail Customer. Note: the term "Slamming" should be capitalized in Book 6.

5. The definition of the term **Demand Response Provider** needs to be modified/updated as a Business Definition to reflect the most recently-approved definition by the REQ Glossary Subcommittee in Books 0, 13, 15 and 17. The definition should read as follows: The Entity that is responsible for delivering Demand Response. Note: the term "Demand Response Provider" should be capitalized in Section 15.3.1.1 of Book 15.

North American Energy Standards Board

MC11012

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Request for Minor Correction/Clarification of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

6. The definition of the term **Drop** needs to be modified/updated as a Business Definition to reflect the most recently-approved definition by the REQ Glossary Subcommittee in Books 0, 1, 10, 11 and 12. The definition should read as follows: The process of discontinuing a Retail Customer's participation in specific energy-related products and services offered by a Market Participant. In competitive energy markets it includes discontinuing a Market Participant's responsibility for providing energy to a Retail Customer.

7. The definition of the term **Drop Effective Date** needs to be modified/updated as a Business Definition to reflect the most recently-approved definition by the REQ Glossary Subcommittee in Books 0, 8, 10 and 11. The definition should read as follows: The date on which a Retail Customer's participation in specific energy-related products and services offered by a Market Participant ends. In competitive energy markets it includes the date on which the current Market Participant ceases to be responsible for providing energy to a Retail Customer.

8. The definition of the term **Enrollment** needs to be modified/updated as a Business Definition to reflect the most recently-approved definition by the REQ Glossary Subcommittee in Books 0, 1, 3, 5, 7, 8, 10, 11, 12, and 17. The definition should read as follows: The process of initiating a Retail Customer's participation in specific energy-related products and services offered by a Market Participant. In competitive energy markets it includes designating a Market Participant that has the responsibility for providing energy to a Retail Customer. Note: the term "Enrollment" should be capitalized in Books 3, 7, 5, 8, and 17.

9. The definition of the term **Enrollment Effective Date** needs to be modified/updated as a Business Definition to reflect the most recently-approved definition by the REQ Glossary Subcommittee in Books 0, 8, 10, 11 and 17. The definition should read as follows: The date on which a Retail Customer's participation in specific energy-related products and services offered by a Market Participant begins. In competitive energy markets it includes the date on which a Market Participant becomes responsible for providing energy to a Retail Customer. Note: the term is phrased as "Effective Enrollment Date" within Book 17. This needs to be changed to "Enrollment Effective Date".

10. The definition of the term **ESI ID Information Change Request** needs to be modified/updated as a Business Definition to reflect the most recently-approved definition by the REQ Glossary Subcommittee in Books 0 and 11. The definition should read as follows: The Uniform Electronic Transaction used to initiate an ESI ID Information Change.

11. The definition of the term **Market Participant** needs to be modified/updated as a Business Definition to reflect the most recently-approved definition by the REQ Glossary Subcommittee in Books 0, 1, 2, 5, 8, 10, 11, 12, 14, 16, 17 and 18. The definition should read as follows: A Distribution Company, Supplier, Registration Agent, settlement agent, meter reading Entity or other party engaged in the process of providing competitive retail energy or other specific energy-related products and services to Retail Customers.

12. The definition of the term **Supplier** needs to be modified/updated as a Business Definition to reflect the most recently-approved definition by the REQ Glossary Subcommittee in Books 0, 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 14 and 18. The definition should read as follows: An Entity engaged in the competitive sale of energy to Retail Customers.

North American Energy Standards Board

MC11012

Approved by the Retail Electric Quadrant and Retail Gas Quadrant Executive Committees via notational ballot on April 27, 2011

Request for Minor Correction/Clarification of a NAESB Business Practice Standard, Model Business Practice or Electronic Transaction

13. The definition of the term **Telemetry** needs to be modified/updated as a Business Definition to reflect the most recently-approved definition by the REQ Glossary Subcommittee in Books 0, 13 and 17. The definition should read as follows: Equipment for measuring a quantity and transmitting the result to a remote location for measurement, monitoring, display or recording. Note: the term "Telemetry" should be capitalized in Book 17.

5. Reason for of Minor Correction/Clarification:

These updates reflect the most-recently approved definitions by the REQ Glossary Subcommittee.

North American Energy Standards Board
801 Travis, Suite 1675, Houston, Texas 77002
Phone: (713) 356-0060, Fax: (713) 356-0067, E-mail: naesb@naesb.org
Home Page: www.naesb.org

via email and posting

TO: NAESB Retail Electric Quadrant (REQ) and Retail Gas Quadrant (RGQ) Members and Interested Industry Participants

FROM: Denise Rager, Standards and Membership Administrator

RE: Minor Correction to NAESB Retail Model Business Practices, Version 1.3 Business Definitions, as approved by the REQ and RGQ Executive Committees via Notational Ballot on April 27, 2011

DATE: April 28, 2011

Dear Retail Electric Quadrant and Retail Gas Quadrant Members:

The REQ and RGQ Executive Committees voted to adopt the following minor correction to apply to Version 1.3:

MC11012 Minor Correction to Retail Books, Version 1.3, Business Definitions - updates reflect the most-recently approved definitions by the REQ Glossary Subcommittee.

Link: http://www.naesb.org/pdf4/retail_mc11012_042711.doc

The minor correction received the simple majority votes needed for adoption by the REQ and RGQ EC's via notational ballot on April 27, 2011.

Pursuant to NAESB's procedures for adopting minor corrections (found at pp. 18-19 of the NAESB Operating Procedures (NAESBOPs) and shown below), the public comment period for the minor correction will begin today, April 28 and end on May 12, 2011. If no comments are received, the correction will be applied to NAESB Retail Model Business Practices, Version 1.3. The minor correction will also be posted separately on the Retail Minor Corrections page of the NAESB web site at http://www.naesb.org/retail_minor_corrections.asp . For further information on the REQ and RGQ minor correction as submitted, please contact the NAESB Office (713-356-0060) or Patrick Eynon, (314) 554-4110.

Should you have any concerns or issues with the minor correction, please notify the NAESB office by May 12, 2011 (email: naesb@naesb.org, fax 713-356-0067).

Best Regards,

Denise Rager
NAESB Office

cc: Rae McQuade, President

Procedures for Minor Corrections as excerpted from the NAESB Operating Procedures

D. Minor Clarifications and Corrections to Standards

Minor clarifications and corrections to existing standards include: (a) clarifications or corrections made by a regulatory agency to standards that are of a jurisdictional nature, or by the American National Standards Institute or its successor; (b) clarifications or corrections to the format, appearance, or descriptions of standards in standards documentation; (c) clarifications or corrections to add code values to tables; and (d) clarifications and corrections that do not materially change a standard.

Any request for a minor clarification or correction to an existing standard should be submitted in writing to the executive director. This request shall include a description of the minor clarification or correction and the reason the clarification or correction should be implemented.

North American Energy Standards Board
801 Travis, Suite 1675, Houston, Texas 77002
Phone: (713) 356-0060, Fax: (713) 356-0067, E-mail: naesb@naesb.org
Home Page: www.naesb.org

1. Processing of Requests

The executive director shall promptly notify the EC and any appropriate subcommittee(s) of the receipt of the request. The members of the applicable quadrant's EC shall promptly determine whether the request meets the definition of a minor clarification or correction. Through the decision of the vice chair of the applicable quadrant, this determination may be delegated to one of the quadrant's subcommittees, with the concurrence of the subcommittee chair, in which case the subcommittee shall make a prompt decision.

If the request is determined to meet the definition of minor clarification or correction, the applicable quadrant's EC, with input from any subcommittee(s) to which the request has been forwarded, shall act on the request within one month of its receipt. A meeting to discuss the request is not required; the decision may be made by notational vote. A simple majority of the votes received shall determine the outcome. The members of the applicable quadrant's EC shall be given at least three working days to consider and vote on the request.

2. Public Notice

The results of the vote on the request for a minor clarification or correction shall be posted on the NAESB website and the members of the applicable quadrant shall be notified of the request by e-mail. If the request has been approved by the applicable quadrant's EC, the notification shall include a brief description of the request, the contact name and number of the requester so that further information can be obtained, and the proposed effective date of the clarification or correction. The proposed effective date of the minor clarification or correction shall normally be one month from the date of the public notice.

Any interested party shall have an opportunity to comment on the request, and the comments shall be posted on the NAESB website. The comment period is two weeks.

3. Final Disposition of Approved Requests

If no comments are received on an approved request, the standard shall be clarified or corrected as specified in the approved request on the effective date proposed. If comments are received, they shall be forwarded to the members of the applicable quadrant's EC for consideration. Each comment requires a public written response from the applicable quadrant's EC. The applicable quadrant's EC shall determine whether changes are necessary as a result of the comments.

Members of the applicable quadrant's EC shall be given three working days to consider the comments and determine the outcome, which shall be decided by a simple majority of the votes received. A meeting to discuss the request is not required; the decision may be made by notational vote. The standard shall be clarified or corrected in accordance with the outcome of the vote, effective with the completion of voting, and notice thereof shall be posted on the NAESB website.

North American Energy Standards Board Membership List
As of April 29, 2011

NAESB Membership Statistics – Changes by Quadrant for 2011 as of April 29, 2011

NAESB Membership Report - Quadrant/Segment Membership Analysis		Number of Members
WGQ Segments	**TOTAL**	**120**
	End Users	16
	Distributors	18
	Pipelines	42
	Producers	11
	Services	33
REQ Segments	**TOTAL**	**24**
	End Users/Public Agencies	9
	Utilities	7
	Service Providers/Suppliers	8
RGQ Segments	**TOTAL**	**19**
	End Users/Public Agencies	1
	Distributors	6
	Service Providers/Suppliers	12
WEQ Segments	**TOTAL**	**137**
	End Users	9
	Distributors	20
	Transmission	46
	Generation	22
	Marketers	25
	None Specified	1
	Independent Grid Operators/Planners	9
	Technology /Services	5

North American Energy Standards Board Membership List
As of April 29, 2011

WEQ	New Members: 1-Nalcor Energy (Marketers/Brokers, Fed/State/Prov), 2- Vermont Public Service Board (End Users/Regulator)	**2**
	Member Resignations: 1-Modesto Irrigation District (Transmission, Muni/Coop); 2-American Wind Energy Association (Generation, Muni/Coop); 3-Electric Power Supply Association (Marketers/Brokers, At Large)	3
WGQ	New Members: 1-PAA Natural Gas Storage, LLC (Services); 2-Caerus Energy, LLC (Services)	**2**
	Member Resignations: 1-National Fuel Gas Distribution (LDC); 2-HighMount Exploration & Production, LLC (Producer); 3-Southern Natural Gas Co. (Pipeline), 4-Reliance Gas Transportation Infrastructure Limited (Pipeline)	4
REQ	New Members: 1-Honeywell International Inc. (End Users/Public Agencies), 2-Vermont Public Service Board (End Users/Regulator)	**2**
	Member Resignations:	0
RGQ	New Members:	**0**
	Member Resignations:	0
TOTAL	New Members:	**6**
	Member Resignations:	7

North American Energy Standards Board Membership List
As of April 29, 2011

	Organization	Seg[1]	Contact	Sub-Seg[2]
Retail Electric Quadrant Members:				
1	Alabama Power	u	Judy W. Ray	
2	Ameren Services Company	u	Patrick Eynon	
3	Baltimore Gas & Electric Co.	u	Ruth Kiselewich, Phil Precht	
4	City of Houston	e	James P. Cargas	
5	Comverge, Inc.	s	Wendell Miyaji	
6	Dominion Retail	s	William Barkas, Richard Zelenko	
7	Dominion Virginia Power	u	Brandon Stites	
8	Electric Reliability Council of Texas (ERCOT)	s	Susan Munson	
9	Exelon Energy Delivery	u	David Geraghty	
10	Honeywell International, Inc.	e	Steve Gabel	
11	ista	s	Judy Bailey, J. Cade Burks, Jennifer Teel	
12	Maryland Public Service Commission	e	Dan Norfolk	
13	National Association of Regulatory Utility Commissioners	e	James Bradford Ramsay	
14	Navigant Consulting, Inc.	e	Kevin Cooney	
15	Oncor	u	Larry Williford, Debbie McKeever	
16	Pennsylvania Office Of Consumer Advocate	e	Tanya J. McCloskey, Sonny A. Popowsky	
17	Pennsylvania Public Utility Commission	e	Robert F. Wilson, Annunciata E. Marino	
18	PPL Solutions, LLC	s	James M. Minneman, Kim Wall	
19	Public Utilities Commission of Ohio	e	Christopher Kotting	
20	Southern Company Services	s	Barbara Hingst	
21	SunGard Consulting Services, LLC	s	Austin Morris	
22	Ventyx, Inc.	s	Nathan Chang	
23	Vermont Public Service Board	e	Pam Stonier	
24	Wisconsin Public Service Corporation	u	Dennis Derricks, Ken Thiry	
Wholesale Gas Quadrant Members:				
1	8760, Inc.	s	Jim Buccigross	
2	Accenture, LLP	s	Jeff Miers	
3	AGL Resources Inc	l	Ralph Cleveland	
4	Alliance Pipeline LP	pl	Cathie Legge, Brian Troicuk	
5	Ameren Corporation	l	Scott Glaeser, Ken Dothage, Jim Massmann	
6	American Midstream Partners, LP	s	Marty Patterson	

[1] The segment abbreviations are: **REQ**: u – utilities, e – end users/public agencies, s – service providers/suppliers. **RGQ**: d – distributors, e – end users/public agencies, s – service providers/suppliers. **WEQ**: m – marketer/broker, d – distribution, i – independent grid operators/planners, t – transmission owner, e – end user, g – generator, ts – technology/services. **WGQ**: s – services, pl – pipeline, l – LDC, pr – producer, e – end user.

[2] The sub-segment apply only to the WEQ and the abbreviations are – muni – municipal/cooperative, iou – investor owned utility, itc – independent transmission company, fed – federal/state/provincial facility/agency, lind – large industrial, sgen – self generation, end use – end user that may be represented in other segments, merc – merchant, N – no designation, reg – regulatory agency, niou – not investor owned utility. To get a full description of the subsegment, please reference the WEQ Procedures: http://www.naesb.org/pdf/weq_quadrant_procedures.doc

North American Energy Standards Board Membership List
As of April 29, 2011

	Organization	Seg[1]	Contact	Sub-Seg[2]
7	ANR Pipeline Company	s	Sandy Meyers, Joseph E. Polland, Rene Staeb, Debbie Forth, Carol Wehlmann, Radha Raman	
8	Arizona Public Service Company	e	Tom Carlson, Kelly Daly	
9	Atmos Energy	pl	Steve Easley	
10	Ballard Natural Gas, LLC	s	Susan Thibodeaux	
11	Baltimore Gas & Electric Co.	l	Phil Precht	
12	Barclays Bank PLC	s	Guy Kern-Martin	
13	Bentek Energy, LLC	s	E. Russell Braziel	
14	BG Energy Merchants, LLC	s	Martha Braddy, Susan Bailey, David Buckley, Victoria Versen	
15	Boardwalk Pipelines, LP	pl	Randy Young	
16	Boeing Co., The	e	Tina Burnett	
17	BP Energy	pr	Mark Stultz, Rhonda Denton	
18	Caerus Energy, LLC	s	Doug Deaton	
19	Calpine Energy Services, LP	e	Shonnie Daniel, Jay Dibble	
20	Cargill Incorporated	s	Lester Welch	
21	Carolina Gas Transmission Corporation	pl	Rae Davis, Dana B. Randall	
22	Cenovus Energy, Inc.	s	Paul Kahler	
23	CenterPoint Energy Gas Services, Inc.	s	James G. Beste, Larry Kunkle	
24	CenterPoint Energy Gas Transmission Company	pl	Cindy Suarez, Larry Thomas	
25	CenterPoint Energy Mississippi River Transmission Corporation	pl	Cindy Suarez, Robert Trost	
26	Cheniere Pipeline Company	pl	Whit Scott	
27	Chevron Natural Gas	pr	Charles (Chuck) Cook	
28	Chevron Pipe Line Company	pl	Mary Anne Collins, Deborah Plattsmier, Jeff Kirk	
29	Cimarex Energy Co.	pr	Charlotte Baker	
30	Citigroup Energy Inc.	s	Carrie Southard, Angela Davis	
31	Colorado Springs Utilities	l	Joe M. Holmes	
32	Columbia Gas Transmission	pl	Claire Burum	
33	Comprehensive Energy Services	e	Jim Templeton	
34	ConocoPhillips Gas and Power	pr	Peter Frost	
35	Consolidated Edison Company of NY	l	Scott Butler, Paul Olmsted	
36	Constellation Energy Commodities Group Inc.	s	Lisa Simpkins, Joseph Kirwan, Andrea Kullman, Jennifer Scott, Stephen C. Knapp	
37	Dauphin Island Gathering Partners	pl	Katie Rice	
38	DB Energy Trading	s	William Donnelly, Travis McCullough	
39	Defense Logistics Agency Energy	e	Veronica Jones, Kevin Ahern	
40	Department of Energy	e	Christopher Freitas	
41	Devon Energy Corporation	pr	Bill Green, Dianne Dunbar	
42	Dominion Resources	l	Craig Columbo	
43	Dominion Transmission, Inc.	pl	Gary Sypolt, Ron Tomlinson	
44	DTE Energy Trading, Inc.	s	Gregory V. Staton, James Buck, Dena Crawford, Marcia L. Hissong, Ann Marie Jambor, Cynthia Klots, Shelley Greene	

North American Energy Standards Board Membership List
As of April 29, 2011

	Organization	Seg[1]	Contact	Sub-Seg[2]
45	Eastern Shore Natural Gas Company	pl	Elaine B. Bittner	
46	El Paso Exploration & Production Company	pr	Stephanie Karm	
47	El Paso Natural Gas	pl	William Griffith	
48	Enbridge (U.S.) Inc.	pl	Brad Petzold	
49	Encana Marketing (USA) Inc.	s	Keith Sappenfield, Jeff Jarvis	
50	Encana Oil & Gas (USA) Inc.	pr	Keith Sappenfield, Jeff Jarvis	
51	Energy Transfer Partners, L.P.	pl	Josie Castrejana, Miki Kolobara	
52	Entergy Services, Inc.	e	Laura Berryman, Terry Shields	
53	Enterprise Products Partners L.P.	pl	Jeff Molinaro	
54	Equitrans, LP	pl	Joseph M. Dawley	
55	ExxonMobil Gas & Power Marketing Company a division of Exxon Mobil Corporation	pr	Randy E. Parker, John W. Poe	
56	Florida Power & Light Company	e	Tim Gerrish, Art Morris	
57	Gas Transmission Northwest Corp.	pl	Joseph Pollard	
58	Golden Pass Pipeline, LLC	pl	Vickie Long	
59	Great Lakes Gas Transmission	pl	Joseph Pollard	
60	Iberdrola USA Management Corporation	l	Mark Marini	
61	Imperial Irrigation District	e	Susie Carrillo	
62	Integrys Energy Group, Inc.	l	David E. Wear	
63	Iroquois Gas Transmission System	pl	Tom Gwilliam	
64	JP Morgan Ventures Energy Corp	S	Paul Tramonte	
65	Kern River Gas Transmission Co	pl	Brenda Horton	
66	Laclede Gas Co.	l	Kenneth Neises	
67	Latitude Technologies	s	Leigh Spangler	
68	Louis Dreyfus Energy Services	s	Jennifer Farris, W. Scott Harwood	
69	Lower Colorado River Authority	e	Mickey Bell	
70	Macquarie Cook Energy, LLC	s	Angela Jones	
71	Marathon Oil Company	pr	Robin Perrine	
72	Mewbourne Oil Company	pr	Michael F. Shepard	
73	National Fuel Gas Supply Corp.	pl	Deborah Kupczyk	
74	National Grid Gas Distribution Companies	l	Bob Superty	
75	Natural Gas Pipeline Co of America	pl	Paul Love, Stan Thomas, Mike Schisler, Paul Haas	
76	Nexen Marketing	s	Deb Strang, Sharron Roberts	
77	NextEra Energy Power Marketing, LLC	e	Marty Jo Rogers	
78	NiSource, Inc.	l	George Simmons, Michael D. Watson	
79	Noble Americas Corp	pl	Joseph Limone	
80	Noble Energy, Inc.	pr	Richard Smith, Tammy M. Stevens	
81	Northern Border Pipeline Company	pl	Joseph Pollard	
82	Northern Natural Gas	pl	Nancy A. Hetrick	
83	Northwest Natural Gas Company	l	Randolph Friedman	
84	NOVA Gas Transmission Ltd.	pl	Doug Miller	
85	OGE Energy Resources, Inc.	s	Cary Metz	

North American Energy Standards Board Membership List
As of April 29, 2011

	Organization	Seg[1]	Contact	Sub-Seg[2]
86	ONEOK	l	Richard Tangeman	
87	ONEOK Partners GP, LLC	pl	Teri Tingler, Lisa Nishimuta	
88	PAA Natural Gas Storage, LLC	s	Eileen W. Kisluk	
89	Panhandle Eastern Pipe Line	pl	William Grygar, Kim Van Pelt	
90	PECO Energy Co.	l	Carlos Thillet	
91	Pemex Gas Y Petroquimica Basica	s	Juan Enrique Gonzalez Azuara	
92	Peoples Gas System (A division of Tampa Electric Co)	l	Wraye Grimard	
93	Portland Natural Gas Transmission System	pl	David Haag	
94	PPL EnergyPlus, LLC	e	Anne Lovett	
95	Questar Pipeline Co.	pl	Jerry H. Gross	
96	Quorum Business Solutions Inc.	s	Anne Golenternek, Michael Lewis	
97	Salt River Project Agricultural Improvement & Power District	e	Lori-Lynn C. Pennock	
98	Sempra Energy - Southern California Gas Co.	l	Lee Stewart, Rodger Schwecke	
99	Sempra Pipelines & Storage Corp.	pl	Martine Blair	
100	Sequent Energy Management, L.P.	s	Pat Metteauer	
101	Shell Energy North America (US), L.P.	s	Eric Gillaspie	
102	SNL Financial	s	Katrina Sumey	
103	SolArc, Inc.	s	Tom Brune	
104	Southern California Edison Company	e	Roman Bakke, Rob Grimm	
105	Southern Company Services, Inc.	e	Alan Kilpatrick, Bronco Kilgore	
106	Southern Star Central Gas Pipeline	pl	Philip Rullman, Tim L. Thompson	
107	Southwest Gas Corporation	l	Larry Black, Mark Anderson, Mark Litwin, John Olenick	
108	Spectra Energy Transmission	pl	Richard Kruse, Kathryn Burch	
109	SunGard	s	Sylvia Munson	
110	Tennessee Gas Pipeline Company	pl	Sue Barry, Mark Gracey	
111	Tennessee Valley Authority	e	Valerie Crockett	
112	Tiger Natural Gas	s	Tracy Phillips	
113	TransCanada Pipelines	pl	Doug Miller	
114	Transwestern Pipeline Company, LLC	pl	Blair V. Lichtenwalter, Mary Draemer, David Mendoza	
115	Vector Pipeline L.P.	pl	Amy Bruhn	
116	Vega Energy Partners, Ltd	s	Julie Pincus, Lori Leeder	
117	Washington Gas Light Co.	l	Mark Lowe	
118	Williams Gas Marketing, Inc.	s	Rich Ficken	
119	Williams Gas Pipeline	pl	Dale Davis, Christopher Burden	
120	Williston Basin Interstate Pipeline	pl	Keith Tiggelaar, Gwen Schoepp, Kelly Brooks, Lori Myerchin	
Wholesale Electric Quadrant Members:				
1	8760, Inc.	ts	Jim Buccigross	
2	ACES Power Marketing LLC	m	Roy J. True, Amadou Fall	muni
3	Alabama Municipal Electric Authority	d	Ray Phillips	muni

North American Energy Standards Board Membership List
As of April 29, 2011

	Organization	Seg[1]	Contact	Sub-Seg[2]
4	Alberta Electric System Operator	i	Diana Pommen	
5	American Electric Power Service Corp.	d	Barbara Radous, Joseph Hartsoe, Phil Cox	iou
6	American Municipal Power, Inc.	m	Chris Norton, Alice Walker	muni
7	American Public Power Association	d	Allen Mosher	muni
8	Arizona Public Service Company	t	Robert Bean	iou
9	Arkansas Electric Cooperative Corporation	g	Ricky Bittle	muni
10	Avista Corporation	t	Jeff Schlect, Kenneth Dillon	iou
11	Basin Electric Power Cooperative	t	Dan Klempel	muni
12	Basin Electric Power Cooperative	m	David Raatz	muni
13	Basin Electric Power Cooperative	g	Jason Doerr	muni
14	BC Hydro	t	Al Woodruff, Brenda Ambrosi	fed
15	Black Hills Corporation	t	Larry D. Williamson, Kenna Hagan	iou
16	Bonneville Power Administration	d	Sydney D. Berwager	other
17	Bonneville Power Administration	g	Francis Halpin, Erika Doot	fed
18	Bonneville Power Administration	m	Brenda Anderson, Ann Shintani	fed
19	Bonneville Power Administration	t	Abbey J. Nulph	fed
20	BP America Inc.	e	Rhonda Denton	lind
21	Brookfield Energy Marketing, Inc.	m	Nicolas Bosse	niou
22	California Department of Water Resources	g	Glenn Solberg, Chi Doan	fed
23	California ISO	i	Yakout Mansour	
24	Central Electric Power Cooperative	d	Arthur Fusco	muni
25	Cleco Power, LLC	t	Cindy Guillot	iou
26	Comprehensive Energy Services	e	Jim Templeton	enduse
27	Consolidated Edison Company of New York, Inc.	t	Scott Butler, Chris Fan	iou
28	Consumers Energy Company	d	Andrew C. Dotterweich, Rufus Gladney	iou
29	Dairyland Power Cooperative	t	Chuck Callies	muni
30	Deseret Power Electric Co-op	g	Curt Winterfeld	muni
31	Dominion Energy Marketing, Inc.	g	Lou Oberski	iou
32	Duke Energy Americas, LLC (DEA)	g	Walt Yeager	iou
33	Duke Energy Corp.	d	Alan Pritchard	iou
34	Dynegy Power Marketing, Inc.	g	Ben Trammell	merc
35	Edison Electric Institute	n	David Owens, Dave Dworzak, James P. Fama	n
36	Electric Reliability Council of Texas (ERCOT)	i	Bill Blevins, Paul Wattles, Joel Mickey	
37	Empire District Electric Company, The	t	Bary K. Warren	iou
38	Energy Curtailment Specialists, Inc. (ECS)	e	Marie Pieniazek	enduse
39	EnerNOC, Inc.	e	Aaron Breidenbaugh	enduse
40	Entergy Services, Inc.	t	Edward J. Davis, Narinder Saini	iou
41	Exelon Generation - Power Team	m	Jack Crowley	iou
42	First Energy Service Company	d	Robert M. Martinko, Thomas C. Burgess	iou
43	FirstEnergy Solutions Corp.	m	Mark Travaglianti	iou
44	Florida Municipal Power Agency	g	Frank Gaffney, Dan O'Hagan	muni

North American Energy Standards Board Membership List
As of April 29, 2011

	Organization	Seg[1]	Contact	Sub-Seg[2]
45	Florida Municipal Power Agency	d	Frank Gaffney, Dan O'Hagan	muni
46	Florida Power & Light Company	m	Jim Drake, Tom Hartman	iou
47	Florida Power & Light Company	t	Marty Mennes, Bob Birch	iou
48	Georgia Transmission Corporation	t	Patrick McGovern	muni
49	Hydro – Quebec Transenergie	t	Glenn Sylvain	fed
50	Iberdrola USA Management Corporation	t	Mark Marini	iou
51	Idaho Power Company	t	Kathy Anderson	iou
52	Independent Electricity System Operator (IESO)	i	Cristian Dragnea, Biju Gopi	
53	Indiana Municipal Power Agency	g	Scott Berry	muni
54	ISO New England, Inc.	i	Matthew F. Goldberg	
55	LG&E and KU Services Company	t	Derek A. Rahn, Larry Monday	IOU
56	Lincoln Electric System	g	Douglas Bantam	muni
57	Los Angeles Department of Water and Power	t	Mohammed Johar Beshir	muni
58	Los Angeles Department of Water and Power	m	Bradford L. Packer, Joel F. Cordero	muni
59	Manitoba Hydro	t	Blaine Poff	fed
60	Manitoba Hydro	m	Blaine Poff	fed
61	Michigan Public Power Agency	d	James R. Nickel, Peter J. Schimpke	muni
62	MidAmerican Energy Company	m	Dennis Kimm	iou
63	Midwest Independent Transmission System Operator	i	William (Bill) Phillips, Ed Skiba	
64	Midwest Reliability Organization	t	Dan Schoenecker	at large
65	Missouri River Energy Services	d	Brian Zavesky	muni
66	Nalcor Energy	m	Brad Coady	fed
67	National Association of Regulatory Utility Commissioners	e	Lou Ann Westerfield	reg
68	National Grid	t	Edward M. Kremzier	iou
69	National Institute of Standards and Technology	ts	David A. Wollman	
70	National Rural Electric Cooperative Assoc.	d	Paul McCurley	muni
71	Nebraska Public Power District	t	Don Schmit	muni
72	New York Independent System Operator (NYISO)	i	Rana Mukerji, Donna Pratt	
73	New York State Reliability Council	d	P. Donald Raymond	at large
74	North American Electric Reliability Corporation	d	David Taylor, Andy Rodriquez	at large
75	North Carolina Electric Membership Corporation	d	David Beam, Diane Huis	muni
76	Northeast Utilities Service Company	t	David Boguslawski, Calvin A. Bowie	iou
77	Northwestern Corporation	t	Mike Cashell	iou
78	NRG Energy, Inc.	g	Alan Johnson, Jennifer J. Vosburg, Elizabeth Killinger	merc
79	NV Energy	m	Sheryl Torrey	iou
80	NV Energy, Inc.	t	Patricia Englin	iou
81	Open Access Technology International, Inc.	e	Michehl Gent	at large
82	Open Access Technology International, Inc.	t	Paul R. Sorenson	at large
83	Organization for the Advancement of Structured Information Standards (OASIS)	ts	Laurent M. Liscia	

North American Energy Standards Board Membership List
As of April 29, 2011

	Organization	Seg[1]	Contact	Sub-Seg[2]
84	PacifiCorp	m	John Apperson	iou
85	PacifiCorp	t	Sarah E. Edmonds	iou
86	PHI Power Delivery	t	Scott Razze	iou
87	PJM Interconnection	i	Patrick Brown, Cathy Wesley	
88	Portland General Electric	t	Frank Afranji, John Walker. Johnny Useldinger	iou
89	Powerex Corp	m	Michael L McWilliams, Sharole Tylor	fed
90	PowerSouth Energy Cooperative	d	William Ronald Graham	muni
91	PPL Electric Utilities Corporation	t	Randy Kreider	iou
92	Progress Energy	m	John Sturgeon	iou
93	Progress Energy	t	Phillip W. Lewis, Michael Anthony, Lee Schuster	iou
94	Public Service Company of New Mexico	m	Steven Maestas, Darren Wilkins, Patricia Merville, Roger Vaughn	iou
95	Public Utilities Commission of Ohio	e	Christopher Kotting	reg
96	Puget Sound Energy, Inc.	t	George Marshall, Bob Harshbarger	iou
97	RRI Energy Services, Inc.	g	Trent Carlson	merc
98	Sacramento Municipal Utility District	d	Steve Sorey	muni
99	Salt River Project Agricultural Improvement and Power District	t	Luke O'Dwyer, Michael J. Pfeister	fed
100	Salt River Project Agricultural improvement and Power District	m	Richard Lehman	fed
101	San Diego Gas & Electric Company	t	Patricia vanMidde	iou
102	Santee Cooper	t	Tom Abrams	fed
103	Seattle City Light	d	Marilynn Semro, Thomas P. Rowan	muni
104	Seminole Electric Cooperative, Inc.	m	Steve Wallace	muni
105	Shell Energy America (US), L.P.	m	Robert Reilley, Paul Kerr	niou
106	Shift Research, LLC	e	Jesse D. Hurley	at large
107	South Carolina Electric & Gas Company	t	S. Porcher Stoney, James T. Starling, Jr.	iou
108	South Carolina Electric & Gas Company	m	Kevin Spitzform	iou
109	Southern California Edison	t	Weston Williams, Sonya Green-Sumpter	iou
110	Southern California Edison Co.	g	T. J. (Timothy) Ferreira	iou
111	Southern Company Services, Inc.	g	John Ciza	iou
112	Southern Company Services, Inc.	m	Joel Dison	iou
113	Southern Company Services, Inc.	t	Joshua Jenkins, Terry Coggins, JT Wood, James Y. Busbin, Corey Sellers	iou
114	Southwest Power Pool	i	Carl Monroe, Michael Desselle, Charles Yeung	
115	Southwest Transmission Cooperative, Inc.	t	Larry D. Huff	muni
116	Southwestern Power Administration	t	Tracey Stewart	fed
117	SunGard	ts	Andrew Tritch, Rick Lentz	
118	Tenaska, Inc.	g	Scott Helyer, William Simpson	merc
119	Tennessee Valley Authority	g	Kathy York	fed
120	Tennessee Valley Authority	m	Belinda Thornton, Valerie Crockett	fed
121	Tennessee Valley Authority	t	Chuck Feagans	fed
122	Tri-State Generation and Transmission Association,	t	Carla Javornik, Doug Reese	muni

North American Energy Standards Board Membership List
As of April 29, 2011

	Organization	Seg[1]	Contact	Sub-Seg[2]
	Inc.			
123	Tri-State G&T Association, Inc.	g	Janelle Marriott	muni
124	Tucson Electric Power Company	t	Raquel Aguilar, Judy Fregoso, Ed Beck, Amy Welander	iou
125	United Illuminating Company, The	t	Rose Pysh	iou
126	Utility Integration Solutions, Inc.	ts	Scott Coe	
127	Vermont Public Power Supply Authority	g	William J. Gallagher	muni
128	Vermont Public Service Board	e	Pam Stonier	reg
129	We Energies (Wisconsin Electric)	d	Linda Horn	iou
130	We Energies (Wisconsin Electric)	g	James R. Keller	iou
131	Westar Energy, Inc.	g	Shah Hossain, Grant Wilkerson	iou
132	Western Area Power Administration	t	JB Hite	fed
133	Western Area Power Administration	m	Jeffrey Ackerman	fed
134	Western Electricity Coordinating Council	t	Michelle Mizumori, Louise McCarren	at large
135	Wisconsin Public Service Corporation	g	Christopher Plante, Charles W. Severance, Neal Balu	iou
136	WPPI Energy	d	Mike Stuart	muni
137	Xcel Energy Inc.	m	David Lemmons	iou
Retail Gas Quadrant Members:				
1	AGL Resources Inc.	d	Gregory Becker	
2	Allegro Development	s	Kimberly Page	
3	American Public Gas Association (APGA)	d	Alonzo Weaver, Joe Stengel	
4	Asgard Energy, LLC	s	Rhett C. Shumway	
5	Capacity Center	s	Greg Lander	
6	Dominion Retail, Inc.	s	Richard A. Zollars	
7	Duke Energy Corp	d	Dan Jones	
8	Exelon Energy	s	Sheree M. Petrone	
9	Integrys Energy Group, Inc.	d	Tom Aridas, Ken Thiry	
10	International LNG Alliance	s	David Sweet	
11	Latitude Technologies	s	Leigh Spangler	
12	National Fuel Gas Distribution Corporation	d	Mike Novak	
13	Pennsylvania Office of Consumer Advocate	e	Tanya J. McCloskey	
14	Sierra Southwest Cooperative Services, Inc.	s	Rick Vogel	
15	SouthStar Energy Corp	s	Michael Braswell, Joseph C. Monroe	
16	Sprague Energy Corp.	s	Paul Scoff	
17	Systrends USA	s	Dave Darnell	
18	UGI Utilities, Inc.	d	Paul Szykman	
19	Vectren Retail, LLC	s	Tami Wilson	

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April 29, 2011
Via email and posting

TO:	**NAESB Executive Committee (EC) Members, posting for interested parties**
FROM:	NAESB Office
cc:	EC Alternates, Submitters, Subcommittee Chairs of Subcommittees noted in text below
RE:	NAESB Triage Disposition for R10012, R11001-R11006

Dear Triage Subcommittee and EC members,

Seven requests were triaged on February 2, 2011 – R10012, R11001- R11006 -- provided below as hyperlinks. There were no requests for conference call for discussion. The requests were triaged as follows:

For R10012, submitted by Mary Zientara on behalf of Reliant Energy:

> This request is (1) found within scope; (2) to be assigned to the Retail Electric Quadrant (REQ); and (3) because it is a request to develop retail electric model business practices for third party access to consumer smart grid data with considerations for data privacy practices those third parties should employ, it should be assigned to a REQ task force of the REQ portion of the Smart Grid PAP 10 subcommittee. While there was nothing in the request indicating that it should be assigned a high priority, therefore, it should be addressed in the normal course of business of the task force.

For R11001, submitted by Brian Troicuk on behalf of Alliance Pipeline L.P.:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to add a Reservation and AOS Charge code value to the data element "Rate Form/Type Code" under NAESB WGQ Standard Nos. 5.4.24 Offer, 5.4.25 Bids and 5.4.26 Award Download, it will be reviewed by the Business Practices Subcommittee for determination that the standards support the code value changes requested, and if so, it will then processed as a minor correction by the Information Requirements Subcommittee. There is nothing in the request that indicates a high priority, so if business practice changes are needed, the BPS will process in the normal course of business of the subcommittee. *[The request was reviewed by the BPS and determined to be a minor correction.]*

For R11002, submitted by Brian Troicuk on behalf of Alliance Pipeline L.P.:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to add several non-indexed based release code values to the data element Bidder Designation of Bidding Basis for NAESB WGQ Standard No. 5.4.25 Bid, it will be reviewed by the Business Practices Subcommittee for determination that the standards support the code value changes requested, and if so, it will then processed as a minor correction by the Information Requirements Subcommittee. There is nothing in the request that indicates a high priority, so if business practice changes are needed, the BPS will process in the normal course of business of the subcommittee. *[The request was reviewed by the BPS and determined to be a minor correction.]*

For R11003, submitted by Brian Troicuk on behalf of Alliance Pipeline L.P.:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to add several non-indexed based release code values to the data element "Bidder Designation of Bidding Basis for Standard 5.4.26 Award Download, it will be reviewed by the Business Practices Subcommittee for determination that the standards support the code value changes requested, and if so, it will then processed as a minor correction by the Information Requirements Subcommittee. There is nothing in the request that indicates a high priority, so if business practice changes are needed, the BPS will process in the normal course of business of the subcommittee. *[The request was reviewed by the BPS and determined to be a minor correction.]*

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For R11004, submitted by Brian Troicuk on behalf of Alliance Pipeline L.P.:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to add Negotiated Non-Renewal Charge and AOS Charge data elements to the transactional reports including Firm Transportation, Capacity Release, and IT, it is assigned to the WGQ Business Practices Subcommittee. While there was nothing in the request indicating that it should be assigned a high priority, therefore, it should be addressed in the normal course of business of the subcommittee.

For R11005, submitted by Brian Troicuk on behalf of Alliance Pipeline L.P.:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to add a code value for the Affiliate Indicator for NAESB WGQ Standard Nos. 5.4.20 Capacity Release, 5.4.24 Offer, 5.4.25 Bid and 5.4.26 Award Download, it will be processed as a minor correction. The office will forward the request as a minor correction to the Information Requirements Subcommittee. *[The request was subsequently withdrawn by the submitter.]*

For R11006, submitted by Brian Troicuk on behalf of Alliance Pipeline L.P.:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to add non-negotiated based release code values to the data element "Releaser Designation of Acceptable Bidding Basis" for NAESB WGQ Standard No. 5.4.24 - Offer, it will be reviewed by the Business Practices Subcommittee for determination that the standards support the code value changes requested, and if so, it will then processed as a minor correction by the Information Requirements Subcommittee. There is nothing in the request that indicates a high priority, so if business practice changes are needed, the BPS will process in the normal course of business of the subcommittee. *[The request was reviewed by the BPS and determined to be a minor correction.]*

If you have any questions on a specific request, please contact the requestor directly -- the email address is provided as a link with the request. The noted disposition for the requests, including the requests, was forwarded to the Triage Subcommittee and the EC members on January 19, 2011. For additional information, the R10012 request was discussed at the December 2010 Board meeting in a presentation given by Ms. Zientara. There were no dissenting comments received. As such, the requests are considered in scope and assigned to the indicated subcommittees for development. Please note that this communication also serves as notice to the subcommittee chairs of the subcommittees to which the requests are assigned. *[Subsequent actions on the requests are noted in brackets and italics.]*

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April 29, 2011
Via email and posting

TO:	**NAESB Executive Committee (EC) Members, posting for interested parties**
FROM:	NAESB Office
cc:	EC Alternates, Submitters, Subcommittee Chairs of Subcommittees noted in text below
RE:	NAESB Triage Actions Pending for Requests No. R11007 – R11012

Dear Triage Subcommittee and EC members,

We have six requests to triage –R11007 through R11012 -- provided below as hyperlinks. The NAESB office recommends the following actions:

For R11007, submitted by Kelly Brooks on behalf of Williston Basin Interstate Pipeline Company:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to modify the discount indicator code value description regarding negotiated rates, it should be assigned the WGQ Business Practices Subcommittee. While there was nothing in the request indicating that it should be assigned a high priority, therefore, it should be addressed in the normal course of business of the subcommittee. Please note that this request was originally submitted as a minor correction but upon review by WGQ leadership it was determined to be a request for standards modification.

For R11008, submitted by Amy Burden and Kathy Thornton on behalf of Enbridge (U.S.) Inc.:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to add a "Life of Reserves Indicator" data element" under NAESB WGQ Standard Nos. 5.4.21 Transactional Reporting – Firm Transportation, it should be assigned the WGQ Business Practices Subcommittee. While there was nothing in the request indicating that it should be assigned a high priority, therefore, it should be addressed in the normal course of business of the subcommittee.

For R11009, submitted by Kelly Brooks on behalf of Williston Basin Interstate Pipeline Company:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to modify the data element "Minimum Volumetric Commitment Quantity" and add a new data element for "Minimum Volumetric Commitment Quantity-Location" for the WGQ Standard Nos. 5.4.24 (Offer), 5.4.25 (Bid), 5.4.26 (Award) and 5.4.20 (Transactional Reporting- Capacity Release), itshould be assigned the WGQ Business Practices Subcommittee. While there was nothing in the request indicating that it should be assigned a high priority, therefore, it should be addressed in the normal course of business of the subcommittee.

For R11010, submitted by Kelly Brooks on behalf of Williston Basin Interstate Pipeline Company:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to modify the data element "Minimum Acceptable Volumetric Commitment Quantity" and add a new data element for "Minimum Acceptable Volumetric Commitment Quantity-Location" for the WGQ Standard Nos. 5.4.24 (Offer), 5.4.25 (Bid), 5.4.26 (Award) and 5.4.20 (Transactional Reporting- Capacity Release), it should be assigned the WGQ Business Practices Subcommittee. While there was nothing in the request indicating that it should be assigned a high priority, therefore, it should be addressed in the normal course of business of the subcommittee.

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For R11011, submitted by Kelly Brooks on behalf of Williston Basin Interstate Pipeline Company:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to add code value "Primary Through Storage" to WGQ Standard No. 5.4.24 (Offer) and a data element and code values "Primary Through Storage", "Combination of In Path and Out of Path Capacity", "In-Path Capacity", "Out-of-Path Capacity", "Primary", "Secondary", and "Tertiary" for the for the WGQ Standard Nos. 5.4.25 (Bid), 5.4.26 (Award) and 5.4.20 (Transactional Reporting- Capacity Release), it should be assigned the WGQ Business Practices Subcommittee. While there was nothing in the request indicating that it should be assigned a high priority, therefore, it should be addressed in the normal course of business of the subcommittee. *Please note that this request was originally submitted as a minor correction MC11008, but upon review by WGQ leadership, the minor correction was reclassified as a request.*

For R11012, submitted by Kathryn Burch on behalf of Spectra Energy:

> This request is (1) found within scope; (2) to be assigned to the Wholesale Gas Quadrant (WGQ); and (3) because it is a request to add the data elements "Up Activity Code", "Down Activity Code", "Up Transaction Type", "Down Transaction Type" to the Nominations (WGQ Standard No. 1.4.1) and Scheduled Quantity (WGQ Standard No. 1.4.5), it should be assigned the WGQ Business Practices Subcommittee. While there was nothing in the request indicating that it should be assigned a high priority, therefore, it should be addressed in the normal course of business of the subcommittee.

If you have any questions on a specific request, please contact the requestor directly -- the email address is provided as a link with the request. If you have any concerns on the above actions, please respond via email with your concern stated, and we will convene a conference call for its resolution. Comments may certainly be provided and will be posted on the Triage Subcommittee page of the NAESB web site. If no concerns are raised, then on Monday, May 16, the dispositions as noted above will be considered approved.

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NAESB UPDATE: VERSION 2.1 – WHOLESALE GAS QUADRANT (WGQ)
APRIL 27, 2011

ACTIONS TO BE APPLIED TO WGQ VERSION 2.0 TO CREATE WGQ VERSION 2.1:

Version 2.0 was published on November 30, 2010.

2011-12:

Final Actions:

R10003 – This request proposes the addition of two new data elements "Discount Begin Date" and "Discount End Date" in the following Transaction Datasets: Transactional Reporting – Capacity Release, NAESB WGQ Standard No. 5.4.20 and Transactional Reporting – Firm Transportation, NAESB WGQ Standard No. 5.4.21. – approved by the WGQ EC via Notational Ballot on December 20, 2010
Final Action: http://www.naesb.org/member_login_form.asp?doc=fa_wgq_r10003.doc – *Ratified April 18, 2011*

R09016 – Add Rate Schedule data element to the Bid Upload and Bid Download datasets and change conditionality of Location data for Offer Upload/Download datasets or add code values to allow a dummy agenda – approved by the WGQ EC via Notational Ballot on December 20, 2010
Final Action: http://www.naesb.org/member_login_form.asp?doc=fa_wgq_r09016.doc – *Ratified April 18, 2011*

R09018 - Add MA data element Path Rank in the Nominations data set and corresponding error message in the Nom QR as approved by the WGQ Executive Committee on February 3, 2011.
Final Action: http://www.naesb.org/member_login_check.asp?doc=fa_wgq_r09018.doc - *Ratified March 17, 2011*

R10007 - Change the Offer, Bid and Award downloads to have the ability to communicate multiple indexed rates for a given offer.
Final Action: (**no changes necessary**) http://www.naesb.org/pdf4/wgq_r10007_rec_123010.doc - Approved by the WGQ EC on February 3, 2011 ***(No further action needed)***

Recommendations:

C10001 - Clarification of the word Tariff under Informational Posting. NAESB WGQ Standard No. 4.3.23 does not specify if the category Tariff under Informational Posting includes negotiated rates, non-conforming agreements, Volume 2s, and X-rate schedules within the definition.
Recommendation: http://www.naesb.org/pdf4/10001c.doc
Request for Formal Comments - http://www.naesb.org/pdf4/wgq_121310_reqcom.doc - *comment period ended January 13, 2011 – (No comments received)* Recommended for WGQ EC consideration in May 2011

R10009 - Add sender's option data element "Open Season ID" to Transactional Reporting – Firm Transportation – NAESB WGQ Standard No. 5.4.21
Recommendation: http://www.naesb.org/pdf4/wgq_r10009_rec.doc
Request for Formal Comments - http://naesb.org/pdf4/wgq_020911reqcom.doc - *comment period ended March 11, 2011 – (No comments received)* Recommended for WGQ EC consideration in May 2011

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NAESB UPDATE: VERSION 2.1 – WHOLESALE GAS QUADRANT (WGQ)
APRIL 27, 2011

Minor Corrections:

MC10038 - For NAESB WGQ Version 2.1, additional code values for the data elements Transaction Type and Reduction Reason Code in the following data sets as appropriate: Nomination (1.4.1), Confirmation Response (1.4.4), Scheduled Quantity (1.4.5), Scheduled Quantity for Operators (1.4.6), and Confirmation Response data sets as needed to support these requirements. – approved by the WGQ EC via Notational Ballot on January 18, 2011
Recommendation: http://www.naesb.org/pdf4/wgq_mc10038_rec_011811.doc - approved by the WGQ EC via notational ballot on January 18, 2011 *(Effective Date, April 25, 2011)*

MC10040 - For NAESB WGQ Version 2.1, NAESB WGQ Standard No. 0.4.2 – Operational Capacity, NAESB WGQ Standard No. 1.4.1 – Nomination, NAESB WGQ Standard No. 1.4.3 – Request for Confirmation, NAESB WGQ Standard No. 1.4.4 – Confirmation Response, NAESB WGQ Standard No. 1.4.5 – Scheduled Quantity, NAESB WGQ Standard No. 1.4.6 – Scheduled Quantity for Operator, NAESB WGQ Standard No. 5.4.20 – Transactional Reporting – Capacity Release, NAESB WGQ Standard No. 5.4.21 – Transactional Reporting – Firm Transportation, NAESB WGQ Standard No. 5.4.24 – Offer, NAESB WGQ Standard No. 5.4.25 – Bid, and NAESB WGQ Standard No. 5.4.26 – Award Download. – approved by the WGQ EC via Notational Ballot on January 18, 2011
Recommendation: http://www.naesb.org/pdf4/wgq_mc10040_rec_011811.doc - approved by the WGQ EC via notational ballot on January 18, 2011 *(Effective Date, April 25, 2011)*

MC11005 – For NAESB WGQ Version 2.0, This request proposes the addition of 4 code values for the data element "Rate Identification Code" in the following datasets for the NAESB WGQ Version 2.0 release: NAESB WGQ Standard 5.4.20 – Transactional Reporting – Capacity Release and NAESB WGQ Standard 5.4.21 – Transactional Reporting – Firm Transportation. – approved by the WGQ EC via Notational Ballot on April 8, 2011
Recommendation: http://www.naesb.org/pdf4/wgq_mc11005_rec_040811.doc
Request for Comments: http://www.naesb.org/pdf4/wgq_mc041411reqcom.doc - *comments due April 28, 2011 (Effective Date, May 12, 2011)*

MC10004/MC10013 - Add additional Charge Type and Service Requestor Level Charge/Allowance Amount Descriptor code values to NAESB WGQ Standard No. 3.4.1.
Recommendation: http://www.naesb.org/pdf4/wgq_mc10004_mc10013_rec_033011.doc - *for review and consideration by the WGQ EC via notational ballot – due April 29, 2011*

MC11013 - Minor Correction of usage for data element Special Terms and Miscellaneous Notes in the NAESB WGQ Standard No. 5.4.25 – Bid: http://www.naesb.org/pdf4/wgq_mc11013.doc - *for review and consideration by the WGQ EC in May 2011*

MC11016 - Joint WEQ/WGQ Minor Correction to the NAESB WEQ/WGQ Implementation Guide for Electronic Tariff Filing to correspond to modifications made by FERC to its Implementation Guide for Electronic Filing of Parts 25, 154, 284, 300, and 241 Tariff Filings as noted in the FERC eTariff RSS Feed(s), dated April 18, 2011.
Minor Correction: http://www.naesb.org/pdf4/weq_wgq_mc11016.doc - *for review and consideration by the WGQ EC in May 2011*

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NAESB UPDATE: VERSION 2.1 – WHOLESALE GAS QUADRANT (WGQ)
APRIL 27, 2011

TIMELINE:

- Version 2.1 is scheduled for publication in July 2012.
- To back into this date – all standards should be ratified by date of publication, and EC actions should be taken one month prior, to publication, all subcommittee actions should be taken three months prior to publication.

Month - 4	Subcommittee Recommendations Completed and sent out for comment
Month - 3	EC Actions taken
Month - 2	Ratifications sent out and completes, minor corrections applied
Month - 1	Review of draft publication
Month - 0	Date of Publication.

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NAESB UPDATE: VERSION 002.2 – WHOLESALE ELECTRIC QUADRANT (WEQ)
APRIL 27, 2011

ACTIONS TO BE APPLIED TO WEQ VERSION 002.1 TO CREATE WEQ VERSION 002.2:

Version 002.1 was published on March 11, 2009.

2009-10:

Final Actions:

2008 WEQ Annual Plan Item 5(a) – Review and develop business practice standards to support DR and DSM-EE programs – Ratified March 16, 2009 - http://naesb.org/member_login_check.asp?doc=fa_weq_2008_api5a.doc *(New WEQ-015)*

2009 WEQ Annual Plan Item 3(d) – Order 717, Standards of Conduct – Ratified June 15, 2009 - http://naesb.org/member_login_check.asp?doc=fa_weq_2009_api_3d.doc *(WEQ-001. WEQ-002, WEQ-003)*

2009 WEQ Annual Plan Item 2(a)(ii)(3) – Rollover Rights on Redirect on a Firm Basis – Ratified July 27, 2009 - http://naesb.org/member_login_check.asp?doc=fa_weq_2009_ap_2aii3.doc (*WEQ-001, WEQ-002, WEQ-003, WEQ-013)*

2009 WEQ Annual Plan Item 1(a), 3(a)(vii)/R05020 – Modifications to WEQ-004 Coordinate Interchange as approved by the WEQ EC on October 27, 2009 – Ratified December 14, 2009 - http://naesb.org/member_login_form.asp?doc=fa_weq_2009_api_1a_3avii_r05020.doc *(WEQ-001, WEQ-002, WEQ-003, WEQ-004, WEQ-013)*
Attachment: http://naesb.org/member_login_form.asp?doc=fa_weq_2009_api_1a_3avii_r05020_attach.doc

2009 WEQ Annual Plan Item 5(b) – Modify NAESB definition to address internal inconsistencies and inconsistencies with the NERC glossary – approved by the WEQ EC on February 2, 2010 – Ratified March 24, 2010 - http://naesb.org/member_login_check.asp?doc=fa_weq_2009_api5b.doc

2009 WEQ Annual Plan Items 5(a)(2), 5(i)/R08004/R09011 – Multiple Annual Plan Items affecting WEQ-011 Gas/Electric Coordination – Approved by the WEQ EC on June 11, 2010 via Notational Ballot. – Ratified July 15, 2010 - http://www.naesb.org/member_login_form.asp?doc=fa_weq_2009_api_5a2_5i_r08004_r09011.doc
Attachments:
http://www.naesb.org/member_login_form.asp?doc=fa_weq_2009_api_5a2_5i_r08004_r09011_attach1.doc

2009 WEQ Annual Plan Items 3(a)(ii)(1)/R07013 - Develop a Confidentiality Agreement - http://www.naesb.org/pdf4/weq_2009_api_3aii1_r07013_rec.doc - Approved by the WEQ EC on May 4, 2010 ***(No further action needed)***

2010 WEQ Annual Plan Item No. 6.a - Requirements Specifications for Common Electricity Product and Pricing Definition – for NIST PAP03 as revised by the WEQ EC on July 7, 2010 – Ratified August 21, 2010 - http://www.naesb.org/member_login_form.asp?doc=fa_weq_2010_api_6a.doc

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NAESB UPDATE: VERSION 002.2 – WHOLESALE ELECTRIC QUADRANT (WEQ)
APRIL 27, 2011

2010 WEQ Annual Plan Item No. 6.b - Requirements Specifications for Common Scheduling Mechanism for Energy Transactions – for NIST PAP04 as revised by the WEQ EC on July 7, 2010 – Ratified August 21, 2010 - http://www.naesb.org/member_login_form.asp?doc=fa_weq_2010_api_6b.doc

2010 WEQ Annual Plan Item No. 6.c - Requirements Specifications for Wholesale Standard DR Signals - for NIST PAP09 as revised by the WEQ EC on July 7, 2010 – Ratified August 21, 2010 - http://www.naesb.org/member_login_form.asp?doc=fa_weq_2010_api_6c.doc

2010 WEQ Annual Plan Item 6d – Business Practices and Information Models to Support Priority Action Plan 10 – Standardized Energy Usage Information as approved by the WEQ EC on October 29, 2010 – Ratified November 29, 2010 - http://www.naesb.org/member_login_form.asp?doc=fa_weq_2010_ap_6d.doc

2010 WEQ Annual Plan Item 1.a.i – Interim Solution for Parallel Flow Visualization as revised by the WEQ EC on October 26, 2010 and approved via notational ballot on November 3, 2010 – Ratified December 6, 2010 - http://www.naesb.org/member_login_form.asp?doc=fa_weq_2010_api_1ai.doc

2010 WEQ Annual Plan Item 6 (a-c) – Master Data Requirements List for Standards associated with NIST PAP03 and PAP09 as reviewed, revised and subsequently approved via notational ballot on February 18, 2011 by the WEQ EC – Ratified March 21, 2011: http://www.naesb.org/member_login_form.asp?doc=fa_2010_weq_api_6_a-c.doc

2010 WEQ Annual Plan Item 6a(ii) – Phase 2: Requirements Specifications for Common Electricity Product and Pricing Definition for NIST PAP03 as reviewed, revised and subsequently approved via notational ballot on February 18, 2011 by the WEQ EC – Ratified March 21, 2011: http://www.naesb.org/member_login_form.asp?doc=fa_2010_weq_api_6_a_ii.doc

2010 WEQ Annual Plan Item 6b – Phase 2: Requirements Specifications for Common Scheduling Mechanism for Energy Transactions for NIST PAP04 as reviewed, revised and subsequently approved via notational ballot on February 18, 2011 by the WEQ EC – Ratified March 21, 2011: http://www.naesb.org/member_login_form.asp?doc=fa_2010_weq_api_6_b_ii.doc

2010 WEQ Annual Plan Item 6c – Phase 2: Requirements Specifications for Wholesale Standard DR Signals for NIST PAP09 as reviewed, revised and subsequently approved via notational ballot on February 18, 2011 by the WEQ EC – Ratified March 21, 2011: http://www.naesb.org/member_login_form.asp?doc=fa_2010_weq_api_6_c_ii.doc

2010 WEQ Annual Plan Items 4a and 4b - Review and develop business practice standards to support DR and DSM-EE programs (DR Phase 2) as reviewed, revised and subsequently approved via notational ballot on February 18, 2011 by the WEQ EC – Ratified March 21, 2011: http://www.naesb.org/member_login_form.asp?doc=fa_2010_weq_api_4a_4b.doc

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NAESB UPDATE: VERSION 002.2 – WHOLESALE ELECTRIC QUADRANT (WEQ)
APRIL 27, 2011

Recommendations:

2009 WEQ Annual Plan Item 2(a)(i)(1-8) – Develop business practice standards to better coordinate the use of the transmission system among neighboring transmission providers. Such business practice standards would be based on recommendations from NERC's Long Term ATC/AFC Task Force and would involve revised procedures for the ATC calculation and/or revised protocols as determined by the final order. Development is using joint standards development process with NERC. Request R050004 was expanded to include the Order No. 890 (Docket Nos. RM05-25-000 and RM05-17-000) and Order No. 890-A (Docket Nos. RM05-17-001, 002 and RM05-25-001, 002), "Preventing Undue Discrimination and Preference in Transmission Services," issued April 11, 2007). Group 3: Network Service on OASIS – Recommendation currently under development by the WEQ OASIS Subcommittee http://naesb.org/weq/weq_oasis.asp

2009 Annual Plan Item 2.a.i.1 through 2.a.i.8 and 3.a.i - Network Service on OASIS – Recommendation currently under development by the WEQ OASIS Subcommittee.
Draft Recommendation: http://www.naesb.org/pdf4/weq_oasis062110reqcom_a1.doc
Request for Informal Comments - http://www.naesb.org/pdf4/weq_oasis062110reqcom.doc - comment period *ended July 12, 2010*

2010 WEQ Annual Plan Item 1.d – Monitor and develop NAESB business practices as needed to complement NERC reliability standards for FAC-012 and FAC-013
Recommendation: http://www.naesb.org/pdf4/weq_2010_api_1d_rec.doc
Request for Formal Comments - http://www.naesb.org/pdf4/weq_092410_reqcom.doc - *comment period ended October 25, 2010*

2010 WEQ Annual Plan Item 4d - Business Practice Standards for Measurement Verification of Energy Efficiency Products as approved by the WEQ EC via notational ballot on April 8, 2011.
Recommendation: http://www.naesb.org/member_login_form.asp?doc=weq_rat041311_2010_weq_api_4d_rec.doc – *WEQ member ratification period ends May 13, 2011*

Minor Corrections:

Minor Correction MC11016, Submitted by D. Rager, NAESB – Joint WEQ/WGQ Minor Correction to the NAESB WEQ/WGQ Implementation Guide for Electronic Tariff Filing to correspond to modifications made by FERC to its Implementation Guide for Electronic Filing of Parts 25, 154, 284, 300, and 241 Tariff Filings as noted in the FERC eTariff RSS Feed(s), dated April 18, 2011: http://www.naesb.org/pdf4/weq_wgq_mc11016.doc - *for review and consideration by the WEQ EC in May 2011*

Minor Correction MC11015, Submitted by Bob Harshbarger, Puget Sound Energy – Minor Correction to NAESB WEQ Electronic Tagging – Functional Specifications, Version 1.8.1 - Correct links to e-Tag 1.8.1 XML Schema and WECC web site in NAESB WEQ Electronic Tagging – Functional Specifications, Version 1.8.1: http://www.naesb.org/pdf4/weq_mc11015.doc - *for review and consideration by the WEQ EC in May 2011*

Minor Correction MC11009, Submitted by Ed Skiba, Midwest ISO – Minor Correction to Diagram for Meter Before/Meter After Definition (WEQ-000): http://www.naesb.org/pdf4/weq_mc11009_rec_040811.doc - approved by the WEQ EC via Notational Ballot on April 8, 2011
Request for Comments: http://www.naesb.org/pdf4/weq_mc041411reqcom.doc - *request for comments due April 28, 2011*

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NAESB UPDATE: VERSION 002.2 – WHOLESALE ELECTRIC QUADRANT (WEQ)
APRIL 27, 2011

Minor Correction MC11011, Submitted by Kathy York, Jim Castle and Ed Skiba – Minor Correction to Manual Time Error Correction (WEQ-006) - to suspend the NAESB Business Practice Standards for WEQ 006-1 through WEQ 006-12 based on the motion approved by the NERC Operating Committee at their March 9, 2011 meeting: http://www.naesb.org/pdf4/weq_mc11011_rec_040811.doc - approved by the WEQ EC via Notational Ballot on April 8, 2011
Request for Comments: http://www.naesb.org/pdf4/weq_mc041411reqcom.doc - *request for comments due April 28, 2011*

Minor Correction MC10041, Submitted by D. Rager, NAESB - Joint WEQ/WGQ Minor Correction to the NAESB WEQ/WGQ Implementation Guide for Electronic Tariff Filing to correspond to modifications made by FERC to its Implementation Guide for Electronic Filing of Parts 25, 154, 284, 300, and 241 Tariff Filings as noted in the FERC eTariff RSS Feed(s), dated October 8, 2010: http://www.naesb.org/pdf4/weq_wgq_mc10041_122010.doc - approved by the WEQ and WGQ ECs via Notational Ballot on December 20, 2010 *(Effective date February 3, 2011)*

Minor Correction MC10033, Submitted by Y. Coleman, Bonneville Power Administration – Book 2.1, WEQ-003 Data Dictionary and WEQ-013 Implementation Guide: http://www.naesb.org/pdf4/weq_mc10033_102610.doc - approved by the WEQ EC on October 26, 2010 *(Effective date January 3, 2011)*

Minor Correction MC10032, Submitted by E. Skiba, JT. Wood, N. Saini, M.Otondo – WEQ 2010 AP Item 1.a.i – Interim Solution for Parallel Flow Visualization: http://www.naesb.org/pdf4/weq_mc10032_102610.doc - revised/approved by the WEQ EC on October 26, 2010 *(Effective date January 3, 2011)*

Minor Correction MC10019, Submitted by D. Davis, Williams Gas Pipeline for NAESB WGQ Version 1.9: Joint NAESB WEQ Version 002.1 Standard WEQ-014-A and WGQ Version 1.0 Standard No. 11.4.1 (Implementation Guide for Electronic Tariff Filing): http://www.naesb.org/pdf4/wgq_weq_mc10019_revised.doc - revised/approved by the WEQ EC on August 17, 2010 and the WGQ EC on August 19, 2010 – *(Effective date October 7, 2010)*

Minor Correction MC10031, WEQ-001 Minor Correction to be applied to Version 002.2, Submitted by M. Goldberg, ISO New England Inc.: http://www.naesb.org/pdf4/weq_mc10031_revised.doc - revised/approved by the WEQ EC on August 17, 2010 - *(Effective date October 7, 2010)*

Minor Correction for WEQ-001 to be applied to versions 002.1 and 002.2 submitted by JT Wood, Southern Company: http://www.naesb.org/pdf4/weq_mc111209_attach1_revised.doc - approved by the WEQ Executive Committee on October 27, 2009 - *(Effective date December 14, 2009)*

TIMELINE:

- Version 002.2 is scheduled for publication end of third quarter 2011.
- To back into this date – all standards should be ratified by date of publication, and EC actions should be taken one month prior, to publication, all subcommittee actions should be taken three months prior to publication.

Month - 4	Subcommittee Recommendations Completed and sent out for comment
Month - 3	EC Actions taken
Month - 2	Ratifications sent out and completes, minor corrections applied
Month - 1	Review of draft publication

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NAESB UPDATE: VERSION 002.2 – WHOLESALE ELECTRIC QUADRANT (WEQ)
APRIL 27, 2011

Month - 0	Date of Publication.

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NAESB UPDATE: VERSION 1.4 – RETAIL ELECTRIC AND RETAIL GAS QUADRANT (REQ/RGQ)
APRIL 28, 2011

ACTIONS TO BE APPLIED TO RETAIL VERSION 1.3 TO CREATE RETAIL VERSION 1.4:

Version 1.3 was published on March 31, 2011.

2011-12:

Final Actions:

Recommendations:

Minor Corrections:

MC11012 **–** Minor Correction to Retail Books, Version 1.3 Business Definitions – updates reflect the most-recently approved definitions by the REQ Glossary Subcommittee as approved by the REQ and RGQ ECs via notation ballot on April 27, 2011: http://www.naesb.org/pdf4/retail_mc11012_042711.doc
Request for Comments due May 12, 2011: http://www.naesb.org/pdf4/retail_mc042811reqcom.doc *(Effective date May 27, 2011)*

TIMELINE:

- Version 1.4 is scheduled for publication in 2012.
- To back into this date – all standards should be ratified by date of publication, and EC actions should be taken one month prior, to publication, all subcommittee actions should be taken three months prior to publication.

Month - 4	Subcommittee Recommendations Completed and sent out for comment
Month - 3	EC Actions taken
Month - 2	Ratifications sent out and completes, minor corrections applied
Month - 1	Review of draft publication
Month - 0	Date of Publication.

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April 15, 2011

TO: NAESB Board of Directors, Executive Committee (EC) Members, EC Alternates, and Invited Guests

FROM: Cory Galik Cummings, NAESB Staff Attorney

RE: Draft Minutes of the NAESB Board Meeting –March 24, 2011

NAESB BOARD OF DIRECTORS MEETING
Marriott IAH Airport Hotel, Houston, Texas
Thursday, March 24, 2011 – 9:00 a.m. to 1:00 pm Central
DRAFT MINUTES

1. Administration and Welcome

Ms. Crockett welcomed the Board members and guests in the room and on the phone. Ms. Cummings provided the antitrust guidance and called the roll of the NAESB Board members. Quorum was established.

2. Adoption of the Agenda and Minutes

Mr. Lander moved, seconded by Mr. Desselle, to approve the consent agenda. The motion passed unanimously.

3. Membership and Financial Report

Membership Report: Ms. McQuade reviewed the membership report. She noted that the organization tended to lose members at the beginning of the year and increase as the year progresses. Energy efficiency and Smart Grid continued to attract interest and new members.

Financial Report: Ms. McQuade provided the financial report. She provided a comparison between the 2009 and 2010 financials. There was a 17% increase in meetings while expenses remained the same. She credited the staff with working more efficiently to support the committee work. 2010 ended with a net positive income of $130,000, which will be applied to the negative retained earnings. She overviewed the 2011 finanical report through January 2011 accrual – as there is not much data at this time to examine not many conclusions can be drawn for analysis of budget to actuals.

4. Reports from Board Committees

Resources: Mr. True provided the report of the Resources Committee. He stated that NAESB lost five members since the last Board meeting. The Resources Committee planned to use the open Board and EC seats as an incentive to gain new members. Ms. McQuade noted that the Vermont Commission joined recently and she anticipated more state commissions would take an active interest in NAESB's Smart Grid and energy efficiency efforts.

Critical Infrastructure Committee: Mr. Hurley provided an update of the activities of the Critical Infrastructure Committee. He reviewed the February 17 Critical Infrastructure Committee meeting, where the committee reviewed NAESB standards in light of critical vulnerabilities for cyber security issues. First, they reviewed the PKI standards and Domain Name System Security Extensions (DNSSEC), which is an encryption of DNS countries and domain name systems. They also reviewed some of the recent reports by the federal government related to Operation Night Dragon, which was an attempt to penetrate petrochemical companies in the United States to determine whether or not they were producing oil at certain times and to gather intelligence of their actions. He also noted that the STUXNET issue has reemerged and remains a threat against the U.S. critical infrastructure. Ms. McQuade noted that NAESB was reviewing the PKI standards to determine if they should be updated to support smart meters, which will require significantly more key pairs for protection.

Retail Restructuring Update: Ms. McKeever provided the update for the Retail Restructuring Committee. Membership has increased in the Retail Electric Quadrant (REQ) due to the energy efficiency and Smart Grid efforts, but remained below the required amount. She moved to extend the membership requirements waiver for the

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Retail quadrants with quarterly reporting at each Board meeting. Mr. Lander seconded the motion. The motion unanimously passed a simple majority vote.

Parliamentary Committee: Ms. Crockett provided the review of the Parliamentary Committee. At the Board meeting in December, some questions were raised regarding processes. Ms. Crockett reactivated the Parliamentary Committee to review these issues. In early January, the committee developed language to strengthen and clarify the existing NAESB operating procedures regarding notational ballots and the standards appeal process. The committee also developed language to create a formal process for an appeal to a process, rather than a standard. Mr. Lander moved to accept the work product that was approved by the Parliamentary Committee and Managing Committee. Mr. Oberski seconded the motion. The motion unanimously passed a simple majority vote.

Managing Committee: Ms. Crockett provided a review of the Managing Committee, which mirrored the Parliamentary Committee update.

5. Update on Advisory Council Meeting and discussion of possible development efforts highlighted in the Advisory Council meeting

Mr. Ellsworth provided the update. The Advisory Council met on February 12 in Washington, DC in conjunction with the winter NARUC meetings. The committee reviewed the annual plans of each quadrant. Ms. McQuade noted that the committee expressed interest in gas/electric coordination, which has been gaining attention. Ms. Crockett will be reactivating the Board Gas/Electric Committee to discuss this topic in more detail.

6. Discussion on Data Privacy Model Business Practices for the Retail Electric Market

Ms. Wright presented a power point presentation on NAESB's efforts in the Data Privacy Task Force. The request focused on the REQ, but wholesale participants were encouraged to pay attention to the work because it may have broader applicability in the future. If a request was submitted to develop a similar recommendation on in the WEQ, the two groups would work to stay in synch. Mr. Hurley discussed some of the dangers related to gathering information in the aggregate. Mr. Lander noted four issues related to this topic: privacy, security access to data, security access to control and granting of permission. He added that while a perfectly secured life does not exist, if the task force continued to focus on those four items, there was a high likelihood of success. Ms. Zientara noted that security must be balanced with costs to implement and impacts on innovation and emergence of new technologies. Overall it was recognized that if no third party access is allowed, customers will not receive the full benefits of the Smart Grid

7. Updates on Specific Efforts

Publications: Ms. Rager provided an update of the NAESB publication schedule. The next WGQ publication, Version 2.1, will occur in July of 2012. The WEQ Version 2.2 is scheduled to be published at the end of the second quarter, 2011. The REQ Version 1.3 will be published at the end of March, 2011.

WEQ, Update on FERC Order No. 890 efforts: Ms. York provided an update on the Order No. 890 efforts. The OASIS subcommittee continued to work diligently on FERC Order No. 890 issues and more specifically on the Network Integrated Transmission Service (NITS) and the Standards for Scheduling of Transmission Service Across Multiple Transmission Systems (SAMTS). While they continue to work diligently, they underestimated the complexity of the application of NITS standards to the OASIS suite of standards, including WEQ-001, WEQ-002, WEQ-003, and WEQ-013. As such, they have moved their completion dates out to the second quarter of this year. On March 9, NAESB staff filed another progress report with the FERC on NITS and SAMTS which reflects these timelines and stated that while NAESB expected to develop these two sets of standards concurrently, the subcommittee found it unsuitable given the need for robust set of standards. The NITS volume of data will include up to thousands of pieces of data and is painstakingly detailed. The subcommittee determined not to pursue the new state of Provisionally Denied, but rather expanded the initial scope to include customer concerns about loss of queue position for requests that are queued after the linked requests. Including Provisionally Denied would have extended the project, and the concept would have required a more complex implementation. The subcommittee's next steps include sending the NITS and SAMTS recommendations out for an informal comment period in mid-April in order to vote the recommendations out of the subcommittee during the meeting scheduled for May 4 and 5 in Carmel,

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Indiana. Once the subcommittee has approved the recommendations they will go out for a 30-day formal comment period, after which the WEQ EC will review and vote on the recommendations. After the WEQ EC approves the recommendations, they will be sent out for a 30-day WEQ ratification period. As those steps are nearing completion, NAESB will file the completed standards with FERC in late 2nd quarter (while the standards are considered for ratification) and then a supplemental filing will be provided with the ratification results.

WEQ/Retail Electric, Update on Demand Response and Demand Side Management: Mr. True provided an update of the DR and DSM activities. The phase 2 Wholesale Electric Demand Response Standards were reviewed and voted on by the WEQ Executive Committee on February 1, 2011. An insufficient number of votes were cast to determine the outcome of the vote, so the recommendation was sent out for notational ballot to the WEQ EC members that did not vote. The notational ballot period ended on February 18, 2011 and the standards passed the required super majority vote. The standards were then sent out for membership ratification on February 18, 2011 and ballots were due on March 21, 2011. The standards passed ratification and are now final actions. Ms. Cummings is working on the DSM-EE filing that will be submitted to the FERC once the standards have passed ratification. In that filing, NAESB will be informing the Commission that the standards went as far as possible without impacting the ISO/RTO stakeholder process. Any further detail will require a directive from the FERC to do so.

The WEQ Energy Efficiency recommendation was sent out for formal comments, which were due on January 14, 2011. The WEQ Energy Efficiency Work Group met on February 15, 2011 to review the formal comments and submit late formal comments to the EC, incorporating any comments the work group agreed with. During that conference call, the Northeast Energy Efficiency Programs (NEEP) brought up a comment they made during the informal comment period back in November of 2010 to delete WEQ.020-3.11.1.9 which related to the measurement of proxy variables. The comment was previously discussed by the work group on November 15 and 18 during a review of the informal comments, and while changes were made to the recommendation, the 2% requirement was not deleted. It was also discussed during the December 1 DSM-EE subcommittee meeting and, again, after consideration, the deletion was not made. After the February 15 WEQ EE work group conference call, NEEP submitted late formal comments, again asking for the deletion of the standard. All other formal comments on the recommendation were non-controversial. Prior to NEEP's submittal of late comments it was anticipated that these standards would be non-controversial. There was a conference call scheduled for Monday, March 21 for the WEQ Executive Committee to review all of the formal comments and vote on the recommendation. This comment was discussed at length at the meeting and the change was not made to the recommendation. There were an insufficient number of votes to determine an outcome on the motion so the recommendation will be sent out for notational ballots for those that did not vote on the conference call. The notational ballot will be due April 8, 2011 and will be sent out for a 30-day ratification period shortly thereafter assuming that the requisite positive notational ballots are submitted.

Model Business Practices for Phase 2 of M&V for retail demand response programs were voted out of the Retail Executive Committee on February 2, 2011 and were ratified on Monday, March 21, 2011. The current work effort is on R10002 which is a request to develop "Model Business Practices for Enrollment in Demand Response Programs". The Retail DR work group had previously worked on this and determined that the distribution companies had all the information needed to enroll a retail customer in a demand response program. Additional discussion led to the understanding that the WEQ standards for PAP 09 contained very detailed processes for enrollment in wholesale demand response programs. At that point, the group felt that the work was completed. However, Mr. Precht checked with the original requester, and also received input from other areas, to see whether the request was satisfied. The answer was no. The retail DR work group has scheduled a conference call for March 28 to discuss the problem as seen by the requester and others, and to begin discussions on the processes needed to resolve the issue. Initial indications are that the problem is when a third party acts as either an agent for the retail customer or as an aggregator of several retail customers.

The Retail EE work group has compiled a large document with a lot of information for potential model business practices. A reorganization has been completed, but the work group is still not satisfied with the structure of the document. A second reorganization is currently underway and should be ready for our next conference call in early

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April. At that time, the retail EE work group hopes to begin work on finalizing the language of the model business Practices. At this point, the work group is still targeting the end of June 2011 for completion.

RFP Status for the Electric Industry Registry: Ms. Cummings provided the update. On September 30, 2010, NAESB and OATI signed the contracting naming OATI as the administrator of the Electric Industry Registry (EIR). The new registry will provide a replacement to the existing NERC TSIN Registry. Since signing the contract, OATI has worked to develop the functional specifications for the application and submitted a draft version for NERC and NAESB to review. The co-chairs of the Joint Electric Scheduling Subcommittee, Bob Harshbarger and Clint Aymond, reviewed the functional specifications and provided feedback on behalf of NAESB. A meeting was held on April 16, 2011 at OATI headquarters in Minneapolis to review and revise the functional specifications. Once the functional specification is approved, it is anticipated that it will take three months to build the application. After completion and testing, NAESB and OATI will be holding training sessions, both in person and on via the web, to train and register the registry users. It anticipated that a full turnover of the registry from NERC to NAESB will occur in January, 2012.

Smart Grid Activities: Mr. Booe provided the update. During the February 1 and 2 WEQ and REQ Executive Committee meetings, the ECs reviewed and voted on the 8 phase two recommendations (4 wholesale and 4 retail) to support NIST priority action plans 3, 4 and 9. The REQ recommendations were approved with no votes in opposition and the WEQ recommendations were distributed for a notational ballot period and subsequently approved without opposition on February 18, 2011. All eight recommendations were ratified by the REQ and WEQ membership on Monday of this week and are now final actions.

In December, after the last board meeting the subcommittee held a special meeting with the chairs of the OASIS (Organization for the Advancement of Structured Information Standards) Technical Committees responsible for taking the use cases and data requirements NAESB developed and creating the resulting schemas and specifications. During this meeting, NAESB's recommendations were reviewed against their draft specifications and they identified how the data requirements were incorporated into their work products.

The Energy Usage Information Model that was ratified just prior to the last meeting to support Priority Action Plan 10, has been fully vetted through the NIST/Smart Grid Interoperability Panel process and has been added to the catalog of standards endorsed by that group. If and when this standard will be sent to the FERC has still not been explained by NIST but Mr. Booe will be attending the SGIP meeting in Nashville next week and to get some more information on that process. These final actions will be filed with the FERC in April and made available to NARUC and state commissions in the same manner as all other NAESB standards.

The Energy Services Provider Interface Task Force has continued to meet every two weeks to develop a recommendation in response to REQ AP Item 9.e (the standardization of the Open ADE specification – which is a specification that describes communications between utilities, customers and third party service providers). The task force has a draft recommendation under review but development is taking longer than originally expected and the task force co-chairs have requested an extension for completion through the 2nd quarter.

The REQ has created a new task force of the Smart Grid Standards Development Subcommittee on PAP 10 to address request R10012 – data privacy. The request calls for the development of model business practices that will set forth standards for the release of consumer information to third parties and the privacy policies and practices those third parties should employ. This request was submitted by Reliant, with the support of NARUC, and has garnered significant attention by state utility commissions. The task force is co-chaired by Robin Lunt, the assistant General Counsel at NARUC and Christine Wright, a Texas PUC staffer. The first meeting was held in conjunction with the Winter NARUC meeting in Washington DC on February 16th and the task force has continued to meet every Thursday from 1:00 pm to 3:00 pm since the kickoff meeting. Currently the task force is in the process of reviewing the many reports that have been published on the subject by state commissions, the Department of Energy, the Department of Commerce, NIST and the FCC among others and to identify some common themes and ideas that can be used to develop model business practices. The group is working hard and is on tight timeline to have recommendation complete within the next few months.

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Update on Parallel Flow Visualization: Ms. York provided the update. The Business Practice Subcommittee continued to work hard on developing a long-term solution for the Parallel Flow Visualization Project. As reported last board meeting, this long-term solution will replace an interim solution that was vetted last October in order to meet a field test deadline with NERC. The idea behind this project is to help alleviate curtailment issues by improving the data that is sent to the NERC Interchange Distribution Calculator. Since the last board meeting, the subcommittee has increased the number of meetings allotted for the project and continues to do so. The NERC field test began in November but due to the limited number of parties participating in the test over the last few months, the decision was made by the NERC Operating and Reliability SC during its February meeting to actually move the field test to when NAESB completes the long-term solution. The WEQ BPS will continue to work on building consensus for a long-term solution with plans for that final product to be voted out of SC for a 30-day formal comment period by end of 2nd quarter.

Update on Common Codes: Mr. Buccigross provided the review. The WEQ BPS began work on WGQ Annual Plan Item 7 addressing Common Location Codes in late November. The issue was brought forth to discuss the idea that the common location codes were potentially redundant, since this information is already being accurately provided through requirements to provide an entity's proprietary code and fill out a lengthy location data field. The WGQ BPS discussed whether the common location codes currently in the NAESB standards added value. Although formal consensus has not been reached, the subcommittee is proceeding under the anticipated unopposed understanding that consensus may form in favor of eliminating the common location codes. Discussion with FERC staff to explain the direction of the subcommittee, and ascertain FERC requirements and expectations regarding common codes will occur before any decisions are made.

8. Old and New Business

Ms. McQuade stated that NAESB had made several filings in recent weeks. The NAESB office filed the WGQ Version 2.0 and the status report to FERC regarding prorgess on the remaining FERC Order No. 890 deadline related development work. NAESB also filed comments with the National Science and Technology Council regarding how standards and regulatory agencies work together. The Smart Grid standards and the Demand Response and Energy Efficiency standards will be filed in the upcoming month.

Mr. Sappenfield noted that a WGQ Contract Committee meeting was held on March 21 and participation was lower than anticipated. He expressed concern because more participation is necessary to ensure that any changes made to the NAESB gas contract have industry-wide support. The committee's work would incorporate some of the more commonly used provisions into the base contract.

Ms. McQuade reviewed the Board meeting schedule for the remainder of 2011.

9. Adjourn

The meeting adjourned at 11.:43 pm Central.

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10. Board Attendance and Voting Record (Vacancies Omitted)

WGQ PRODUCERS SEGMENT		**ATTENDANCE**
Richard D. Smith	Regulatory & Compliance Manager, Noble Energy Inc.	In Person
Mark Stultz	Vice President – Policy and Regulatory Affairs, US America Gas and Power, BP Energy Company	
Keith Sappenfield	Regional Director – US Regulatory Affairs, EnCana Oil & Gas (USA), Inc.	In Person
Randy E. Parker	Global Regulatory Advisor, ExxonMobil Gas and Power Marketing Company	In Person
Catherine Abercrombie	Regulatory Affairs, ConocoPhillips Gas and Power Marketing	In Person
WGQ PIPELINE SEGMENT		
Douglas Field	Manager – Compliance, Southern Star Ventral Gas Pipeline	In Person
Bill Grygar	Vice President, Panhandle Eastern Pipe Line	In Person
Susanna B. Barry	Vice President – Commercial Operations, Tennessee Gas Pipeline Company	In Person
Randy Young	Vice President – Regulatory Compliance and Corporate Services, Boardwalk Pipeline Partners, LP	In Person
Richard Kruse	Senior Vice President, Spectra Energy Transmission	In Person
WGQ LOCAL DISTRIBUTION COMPANY (LDC) SEGMENT		
Craig Colombo	Energy Trader III, Dominion Resources	Phone
Tim Sherwood	Managing Director of Gas Operations and Capacity Planning, AGL Resources	In Person
Mike Novak	Asst. General Manager, National Fuel Gas Distribution Corporation	
WGQ END USERS SEGMENT		
Valerie Crockett	Senior Program Manager – Energy Markets & Policy, Tennessee Valley Authority	In Person
Timothy W. Gerrish	Director of Origination-Energy Marketing and Trading, Florida Power & Light	
Tina Burnett	Natural Gas Resources Administrator, The Boeing Company	In Person
Lori-Lynn C. Pennock	Senior Fuel Supply Analyst, Salt River Project	In Person
Jim Templeton	Principal, Comprehensive Energy Services	
WGQ SERVICES SEGMENT		
Darilyn Jones	Senior Vice President – Risk Control, Sequent Energy Management	In Person
Rusty Braziel	Managing Director, Bentek Energy, LLC	
Marty Patterson	Senior Vice President Commercial Services, American Midstream Partners, LP	
Paul Kahler	Midstream Regulatory Advisor, Cenovus Energy Inc.	
Jeff Miers	Senior Executive (Partner), Accenture LLP	

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REQ SERVICE PROVIDERS/SUPPLIERS SEGMENT			
Wendell Miyaji	Senior Director – Systems, Comverge, Inc.		In Person
Jim Minneman	Controller, PPL Solutions LLC		
J Cade Burks	Executive Vice President of ista		Phone
Austin Morris	Managing Partner – Energy, SunGard Consulting Services, LLC		
REQ UTILITIES SEGMENT			
Brandon Stites	Director – Energy Conservation & Advanced Metering, Dominion Virginia Power		
Dennis Derricks	Director Regulatory Policy and Analysis, Wisconsin Public Service Corporation		
Ruth Kiselewich	Director – Demand Side Management Programs, Baltimore Gas & Electric Company		
Debbie McKeever	Market Advocate, Oncor		In Person
REQ END USERS/PUBLIC AGENCIES SEGMENT			
Kevin Cooney	Managing Director – Energy, Navigant Consulting, Inc.		
James P. Cargas	Senior Assistant City Attorney, City of Houston		
WEQ TRANSMISSION SEGMENT		**SUBSEGMENT**	
Dan Klempel	Director Transmission Regulatory Compliance, Basin Electric Power Cooperative	Muni/Coop	
Chuck Feagans	Senior Manager, Reliability Policy, Tennessee Valley Authority	Fed/State/Prov.	Phone
Terry Coggins	Manager – Transmission Policy, Southern Company Transmission	IOU	In Person
Mike Montoya	Director of Grid Advancement, Southern California Edison	at large	
Edward J. Davis	Policy Consultant, Entergy Services, Inc.	at large	In Person
WEQ GENERATION SEGMENT			
Douglas L. Curry	Administrator and CEO, Lincoln Electric System	Muni/Coop	
Kathy York	Senior Program Manager – Energy Markets, Policy and Compliance Reporting, Tennessee Valley Authority	Fed/State/Prov.	In Person
Lou Oberski	Director – Electric Market Policy, Dominion Resources Services, Inc.	IOU	In Person
Wayne Moore	Regulatory Affairs & Energy Policy Director and Compliance Officer – Generation, Southern Company Services, Inc.	IOU	In Person
Elizabeth Killinger	Senior Vice President – Customer Operations, NRG Energy, Inc.	at large	In Person
Shah Hossain	Senior Regulatory Specialist, Westar Energy, Inc.	at large	In Person

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WEQ MARKETERS/BROKERS SEGMENT			
Roy True	Manager of Regulatory and Market Affairs, ACES Power Marketing	Muni/Coop	In Person
Jeff Ackerman	Manager – Colorado River Storage Project Energy Management and Marketing Office, Western Area Power Administration	Fed/State/Prov.	Phone
Gavin Cunningham	Manager – FirstEnergy Solutions Corp.	at large	Phone
Jim Drake	Trading Desk Head – Power, Florida Power & Light	IOU	
R. Scott Brown	Vice President and Director, Exelon Generation Power Team	IOU	
WEQ DISTRIBUTION/LOAD SERVING ENTITIES (LSE) SEGMENT			
Arthur G. Fusco	Vice President and General Counsel, Central Electric Power Cooperative Inc.	Muni/Coop	Phone
Paul McCurley	Manager – Power Supply, National Rural Electric Cooperative Association	Muni/Coop	
Andrew Rodriquez	Director of Standards Development, North American Electric reliability Corporation (NERC	IOU	Phone
Nelson Peeler	Vice President System Operations, Duke Energy	IOU	Phone
Joe Hartsoe	Managing Director – Federal Policy, American Electric Power Service Corp.	at large	
Bruce Ellsworth	New York State Reliability Council	At-Large	In Person
WEQ END USERS SEGMENT			
Jesse D. Hurley	Chief Executive Officer, Shift Research, LLC	at large	In Person
Aaron Breidenbaugh	Senior Manager – Regulatory Affairs and Public Policy – New York, EnerNOC, Inc.	at large	
Thomas G. Dvorsky	Director of the Office of Electricity, Gas, and Water at the New York State Department of Public Service, rep. National Association of Regulatory Utility Commissioners	Regulator	
Marie Pieniazek	Consultant, Rep: Energy Curtailment Specialists, Inc.	at large	
Michehl Gent	Open Access Technology International, Inc.	At-Large	In Person
WEQ INDEPENDENT GRID OPERATORS/PLANNERS			
Michael Desselle	Vice President Process Integrity, Southwest Power Pool		In Person
Michael Cleary	Senior Vice President and COO, ERCOT		In Person
Kevin Kirby	Vice President Market Operations, ISO New England, Inc.		In Person
Rana Mukerji	Vice President Market Structures, New York Independent System Operator, Inc. (NYISO)		In Person
Andy Ott	Senior Vice President Marketing, PJM Interconnection, LLC		Phone
Bill Phillips	Vice President Standards Compliance & Strategy, Midwest ISO (MISO)		In Person

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10. Board Attendance and Voting Record (Vacancies Omitted)

Mark Wilson	Director of Corporate Planning, Independent Electricity System Operator (IESO)	Phone
WEQ TECHNOLOGY AND SERVICES		
Jim Buccigross	Vice President Energy Industry Practice, 8760 Inc.	In Person
Laurent M. Liscia	Executive Director, Organization for the Advancement of Structured Information Standards (OASIS)	
David A. Wollman	Leader, Smart Grid Team – Standards and Electrical Metrology Groups, National Institute of Standards and Technology (NIST)	
Sylvia Munson	Director – Product Management and Regulatory Compliance, SunGard Energy and Commodities	In Person
Dr. Scott Coe	Vice President, Utility Integration Solutions, Inc. (UISOL)	Phone
RGQ SERVICE PROVIDERS/SUPPLIERS SEGMENT		
Leigh Spangler	President, Latitude Technologies Inc.	Phone
Joseph Monroe	Vice President – External Affairs, SouthStar Energy Services, LLC	
Dave Darnell	President & CEO, Systrends USA	
Greg Lander	President, Capacity Center	In Person
RGQ DISTRIBUTORS SEGMENT		
Alonzo Weaver	Vice President of Engineering and Operations, Memphis Light, Gas & Water Division (APGA)	Phone
Ralph Cleveland	Senior Vice President – Engineering and Operations, AGL Resources, Inc.	
Mike Novak	Assistant General Manager – Federal Regulatory Affairs, National Fuel Gas Distribution	Phone
RGQ END USERS/PUBLIC AGENCIES SEGMENT		

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13. Other Attendance

Name	Organization	Attendance
Jim Blackman	Quanta Technology	In Person
Jonathan Booe	NAESB	In Person
Bill Boswell	NAESB	In Person
Kathryn Burch	Spectra Energy Transmission	In Person
Christopher Burden	Williams Gas Pipeline	Phone
Jim Castle		In Person
Cory Cummings	NAESB	In Person
Kelly Daly		In Person
Dale Davis	Williams Gas Pipeline	In Person
Megan Doss	Spectra	In Person
Peter Esposito		In Person
Bob Gee	Gee Strategies Group, LLC	Phone
Mark Gracey	El Paso Gas Pipeline Company	In Person
Bill Griffith	El Paso Natural Gas	In Person
Susan Munson	ERCOT	Phone
Mary Martinez	Oncor	In Person
Rae McQuade	NAESB	In Person
Brett Perlman		In Person
Phil Precht	BGE	Phone
Denise Rager	NAESB	In Person
Lisa Simpkins	Constellation Energy Resources	Phone
Ed Skiba	Midwest ISO	In Person
Rick Smead		In Person
Jim Stanton	Quanta Technology	In Person
Veronica Thomason	NAESB	In Person
Ron Tomlinson		In Person
Kim Van Pelt	Panhandle Eastern Pipeline	In Person
Jill Vaughn	Preferred Legal Services	In Person
Christine Wright	Texas PUC	In Person
Charles Yeung	SPP	In Person

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Mary Zientara	Reliant Energy	In Person

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NORTH AMERICAN ENERGY STANDARDS BOARD
2011 ANNUAL PLAN for the WHOLESALE ELECTRIC QUADRANT
Approved by the Board of Directors on March 24, 2011

	Item Description	Completion[1]	Assignment[2]
1	**Develop business practices standards as needed to complement reliability standards**		
	Develop business practice standards to support and complement NERC reliability standards, NERC policies and NERC standards authorization requests (SARs) using the NERC/NAESB Coordination Joint Standards Development Process as appropriate. Current NAESB activities underway to develop business practice standards that are supportive of this annual plan item are:		
a)	Parallel Flow Visualization/Mitigation for Reliability Coordinators in the Eastern Interconnection – Permanent Solution Note: Consideration should be given to provisional item 4. Work is being coordinated with the NERC IDC Working Group. Status: Started	2nd Q, 2011	BPS
b)	Perform consistency review of WEQ-008 Transmission Loading Relief Business Practice Standards and develop recommendation.[1]	4th Q, 2011	BPS
c)	DCS and AGC (BAL-002 and BAL-005) Coordination with NERC Status: Monitor. (Will require coordination with Balancing Authority Reliability Based Controls Group created in July 2010 NERC Project 2010-14)	TBD[2]	TIMTF
d)	Coordinate with NERC on the functional model glossary revisions NERC Project 2010-08	TBD	SRS
e)	Coordinate with NERC on changes to the definition of Bulk Electric System NERC Project 2010-17	TBD	SRS
2	**Develop business practice standards in support of the FERC RM05-25-000 and RM05-17-000 (OATT Reform)[2]**		
a)	Develop version 2 business practice standards to better coordinate the use of the transmission system among neighboring transmission providers. Status: Underway Request R050004 was expanded to include the Order No. 890 (Docket Nos.RM05-17-000 and RM02-25-000), (Order No. 890-A (Docket Nos. RM05-17-001, 002 and RM05-25-001, 002), and Order No. 890-B (Docket Nos. RM05-17-03 and RM05-25-03) "Preventing Undue Discrimination and Preference in Transmission Services"		
i)	Group 3: Network Service On OASIS[3]		
1)	Use of OASIS to Make Electronic Requests to Designate and Terminate Network Resource Status: Underway	2nd Q, 2011	OASIS

[1] In some sections of WEQ 008 it appears that the standards are applicable to all of the Interconnections and other it appears that the standards are only applicable to the Eastern Interconnection. The title indicates the standards are applicable to the Eastern Interconnection.

[2] FERC Order No. 890, issued February 16, 2007 can be accessed from the following link - http://www.naesb.org/doc_view4.asp?doc=ferc021607.doc

[3] Several group 3 items may be removed from this plan if the 4th quarter completion dates are met.

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	Item Description	Completion[1]	Assignment[2]
	2) Ability to Query Requests to Designate and Terminate Network Resources and Allow for Queries of All Information Provided with Designation Requests	2nd Q, 2011	OASIS
	Status: Underway		
	3) Masking of Designated Network Resource Operating Restrictions and Generating Cost Information	2nd Q, 2011	OASIS
	Status: Underway		
	4) Procedural Requirements for Submitting Designations over new OASIS Functionality	2nd Q, 2011	OASIS
	Status: Underway		
	5) Specify How Designated Network Service Informational Postings are Posted on OASIS	2nd Q, 2011	OASIS
	Status: Underway		
	6) Develop standards for the treatment of OASIS Requests when the Customer Fails to Provide the Necessary Attestation	2nd Q, 2011	OASIS
	Status: Underway		
	7) Procedural Requirements for Submitting Both Temporary and Indefinite Terminations of Network Resources	2nd Q, 2011	OASIS
	Status: Underway		
	8) Procedures for Submitting and Processing Requests for Concomitant Evaluations of Transmission Requests and Temporary Terminations	2nd Q, 2011	OASIS
	Status: Underway		
ii)	Group 4: Pre-Emption; Request No. R05019		
	1) Pre-Emption	3rd Q, 2011	OASIS
	Status: Not Started		
	2) Request No. R05019	3rd Q, 2011	OASIS
	Status: Not Started		

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	Item Description	Completion[1]	Assignment[2]
iii)	Group 5: Paragraph 1377[4] – Group 5 work should precede group 4 work[3]		
	1) Paragraph 1377-Coordination of Requests Across Multiple Transmission Systems	2nd Q, 2011	OASIS
	Status: Underway, Scoping Group work product approved by the WEQ EC and sent to the OASIS Subcommittee.		
	2) Re-Bid Of Partial Service across Multiple Transmission Providers' Systems	2nd Q, 2011	OASIS
	Status: Underway, Scoping Group work product approved by the WEQ EC and sent to the OASIS Subcommittee		
	3) Group DNR requests from a system with point-to-point requests on other systems for synchronization	2nd Q, 2011	OASIS
	Status: Underway, Scoping Group work product approved by the WEQ EC and sent to the OASIS Subcommittee		

[4] Paragraph 1377 of FERC Order No. 890, issued February 16, 2007: The Commission agrees that transmission requests across multiple transmission systems should be coordinated by the relevant transmission providers. We will not, however, amend the pro forma OATT to require such coordination. Rather, we require transmission providers working through NAESB to develop business practice standards related to coordination of requests across multiple transmission systems. In order to provide guidance to NAESB, we will articulate the principles that should govern processing across multiple systems. All the transmission providers involved in a request across multiple systems should consider a request that requires studies across multiple systems to be a single application for purposes of establishing the deadlines for rendering an agreement for service, revising queue status, eliciting deposits and commencing service. In order to preserve the rights of other transmission customers with studies in the queue, the priority for the single application should be based on the latest priority across the transmission providers involved in the multiple system request. We note that regional entities like wesTTrans are already coordinating requests across multiple transmission systems and we believe such coordination is an acceptable solution to this issue.

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	Item Description	Completion[1]	Assignment[2]
iv)	Group 6: Miscellaneous (Paragraphs 1390[5] and 1627[6] of FERC Order No. 890)		
	1) Paragraph 1390 of Order 890 – Terminations related to: deficient requests, customer failure to pay required annual reservation fee, and customer modifications to applications which are meaningfully different.	4th Q, 2011	OASIS
	Status: Not Started		
	2) Paragraphs 1627 of Order 890 – Posting of additional information on OASIS regarding firm transmission curtailments	4th Q, 2011	OASIS
	Status: Not Started		
	3) Redispatch Cost Posting to allow for posting of third party offers of planning redispatch services.	4th Q, 2011	OASIS
	Status: Not Started		

[5] Paragraph 1390 of FERC Order No. 890, issued February 16, 2007: We will not modify the pro forma OATT to address requests to allow the transmission provider to terminate idle transmission service requests. NAESB's business practice 001-4.11 allows the transmission provider to retract a request if the transmission customer does not respond to an acceptance within the time established in NAESB business practice standard 001-4.13. Therefore, we interpret TDU Systems comments to refer to circumstances when a transmission customer fails to respond to the transmission provider's request for additional information during the course of a request study. As discussed above, by the time the transmission provider offers a system impact study agreement, it should have all of the information that it needs to complete the study. Pursuant to section 17.4 of the pro forma OATT, the transmission provider can deem a transmission service request deficient if the transmission customer does not provide all of the information the transmission provider needs to evaluate the request for service. We will revise section 17.7 of the pro forma OATT so that the transmission provider is able to terminate a request for transmission service if a transmission customer that is extending the commencement of service does not pay the required annual reservation fee within 15 days of notifying the transmission provider that it would like to extend the commencement of service. We will not change the pro forma OATT to allow the transmission provider to terminate a transmission service request if the transmission customer changes its application for service. We believe the existing pro forma OATT is sufficient to allow a transmission provider to manage situations where the transmission customer modifies its application for service to the point that the customer is requesting transmission service that is meaningfully different than its initial request.

[6] Paragraph 1627 of FERC Order No. 890, issued February 16, 2007: We agree with suggestions for the posting of additional curtailment information on OASIS and, therefore, require transmission providers, working through NAESB, to develop a detailed template for the posting of additional information on OASIS regarding firm transmission curtailments. Transmission providers need not implement this new OASIS functionality and any related business practices until NAESB develops appropriate standards. These postings must include all circumstances and events contributing to the need for a firm service curtailment, specific services and customers curtailed (including the transmission provider's own retail loads), and the duration of the curtailment. This information is in addition to the Commission's existing requirements: (1) when any transmission is curtailed or interrupted, the transmission provider must post notice of the curtailment or interruption on OASIS, and the transmission provider must state on OASIS the reason why the transaction could not be continued or completed; (2) information to support any such curtailment or interruption, including the operating status of facilities involved in the constraint or interruption, must be maintained for three years and made available upon request to the curtailed or interrupted customer, the Commission's Staff, and any other person who requests it; and, (3) any offer to adjust the operation of the transmission provider's system to restore a curtailed or interrupted transaction must be posted and made available to all curtailed and interrupted transmission customers at the same time.

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NORTH AMERICAN ENERGY STANDARDS BOARD
2011 ANNUAL PLAN for the WHOLESALE ELECTRIC QUADRANT
Approved by the Board of Directors on March 24, 2011

	Item Description	Completion[1]	Assignment[2]
b)	Develop the needed business practices to support existing Request No. R05004: The processing of transmission service requests, which use TTC/ATC/AFC, in coordination with NERC changes to MOD 001 where the allocation of flowgate capability based on historical Network Native Load impacts the evaluation of transmission service requests, requiring the posting of those allocation values in conjunction with queries of service offerings on OASIS Status: Underway	2nd Q, 2011	OASIS
3	**Develop business practices standards to improve the current operation of the wholesale electric market and develop and maintain business practice and communication standards for OASIS and Electronic Scheduling**		
a)	Develop and/or maintain business practice standards as needed for OASIS and electronic scheduling. Specific items to address include:		
i)	Network Services: Determine and develop needed business practice standards or other support is needed to support use of OASIS for Network Service transactions (R04006E). (Related to AP 2(a)(iii))[3] – to discuss at the WEQ EC meeting on whether this item can be closed out. Status: Underway	2nd Q, 2011	OASIS
ii)	Registry (TSIN): Determine and develop needed business practice standards to support the registry functions currently supported by NERC (R04037, R06027) and transition the TSIN Registry from NERC to NAESB as the enhanced Electric Industry Registry (EIR). Status: Underway.	2nd Q, 2011	NAESB/NERC Administration, JESS
iii)	Make remaining incremental enhancements to OASIS as an outgrowth of the NAESB March 29, 2005 conference on the future of OASIS (R05026). Scoping statement completed by SRS. There were a number of assignments from the Standards Request. The outstanding items are included below:		
1)	Eliminate Masking of TSR tag source and sink when requested status is denied, withdrawn refused, displaced, invalid, declined, annulled or retracted Status: Not Started	2012	OASIS
2)	Initiate standard that eliminates the disparity of posting "sensitive" information. This standard should also include procedures of user certification that allows access to this class of information. Status: Underway (upon further development of this item by NAESB, a completion date will be determined)	2012	OASIS
3)	Enhance the TSR result postings to allow showing of (i) limiting transmission elements and (ii) available generation dispatch options that would allow acceptance of reservation request. Status: Not Started (upon initiation of this item by NAESB, a completion date will be determined)	2012	OASIS

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	Item Description	Completion[1]	Assignment[2]
iv)	Review and correct WEQ-004 Coordinate Interchange Business Practice Standard as needed based on activities in NERC Project 2008-12, Coordinate Interchange Standards Revisions and supporting EOP-002-2 R4 and R6. Status: Underway. Completion date dependent upon coordination activities with NERC, and Project 2008-12 is likely delayed by NERC due to other higher priority development	2012	JESS
b)	Develop and/or maintain standard communication protocols and cyber-security business practices as needed.		
i)	Develop PKI certification program for e-Tag and OASIS Status: Underway	3rd Q, 2011	Board Certification Program Committee
ii)	Develop PKI standards for OASIS. Status: Not Started (upon initiation of this item by NAESB, a completion date will be determined)	2012	OASIS
iii)	Develop Industry Implementation Plan for meeting PKI Standard requirements for e-tagging. Status: Underway. Full e-Tag implementation (server & client side) is linked to the transition of the Registry from NERC to NAESB and NAESB implementation.	TBD – dependent on item above (i) and EIR	JESS

4 Review and develop business practices standards to Demand Response, Demand Side Management and Energy Efficiency Programs

Review and develop needed model business practices for a standardized method for quantifying benefits, savings, cost avoidance and/or the reduction in energy demand and usage derived from the implementation of demand side management and energy efficiency programs. This effort will include demand side response, energy efficiency programs and metering, including the 'curtailment service provider' program.

a)	Review the NAESB Business Practices for Measurement and Verification of Wholesale Electricity Demand Response (WEQ-015) in conjunction with the IRC developed Demand Response Matrix and identify business practice requirements that could be improved or made clearer through the addition of specific technical detail. The wholesale and retail demand response work groups and the Smart Grid Standards Subcommittees should actively and timely communicate and coordinate work products to ensure consistency between the three work groups. Each work group should take into account the work products developed by the other. Status: Completed	Phase 2 – 4th Q 2010	WEQ Section of the Joint WEQ/REQ DSM-EE Subcommittee
b)	For each performance evaluation type/service type combination identified in WEQ-015, using the IRC matrix as a starting point, assess and determine what standards or guidelines, if any, should be developed to aid all participants in the use of measurement and verification methods for demand response programs in organized wholesale electric markets. If the determination is made that standards or guidelines will be developed, those items will be added as sub-items to 4(b). Status: Completed	Phase 2 – 4th Q 2010	WEQ Section of the Joint WEQ/REQ DSM-EE Subcommittee

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2011 ANNUAL PLAN for the WHOLESALE ELECTRIC QUADRANT
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	Item Description	Completion[1]	Assignment[2]
c)	Coordinate glossary updates for business practice standards with the Retail Electric Quadrant Status: Ongoing	Ongoing	Joint WEQ/REQ DSM Subcommittee and WEQ SRS and Retail Glossary
d)	Develop business practice standards used to measure and verify reductions in energy and demand from energy efficiency in wholesale and retail markets.[3] This includes developing business practice standards to measure and verify energy reductions that are made to comply with a Renewable Portfolio Standard that included energy efficiency or a stand-alone Energy Efficiency Portfolio Standard Status: The WEQ EE standards are completed.	4th Q, 2010	Joint WEQ/REQ DSM-EE Subcommittee
5	**Maintain existing body of Version 2.x standards**		
a)	Make consistency changes to Version 2.2 standards as directed by the WEQ Leadership Committee on December 12, 2007 OASIS Consistency Changes (R08001, R08002, R08003, R08005) Status: Not Started (upon initiation of this item by NAESB, a completion date will be determined)	TBD	OASIS
b)	Consistent with ¶51 of FERC Order No. 890-A, add AFC and TFC values to the "System_Attribute" data element of the NAESB Standard WEQ-003: OASIS S&CP Data Dictionaries. (R08011) Status: Not Started. This Standards Request was assigned to the OASIS in May 2008.	TBD	OASIS
c)	Correct WEQ 013-2.6.7.2. – Resale off OASIS (R08027) Status: Not Started	TBD	OASIS
d)	Add language to WEQ-001-4 Online Negotiation and Confirmation process to clarify Table 4-3 (R09003) Status: Not Started	TBD	OASIS
e)	Create a new OASIS mechanism that allows for the merger of like reservations without the use of the resale mechanism (R09015) Status: Not Started	TBD	OASIS
6.	**Develop Smart Grid Wholesale and Retail Electric Standards -** The wholesale and retail demand response work groups and the Smart Grid task force should actively and timely communicate and coordinate work products to ensure consistency between the three work groups. Each work group should take into account the work products developed by the other.		
a)	Develop requirements and use cases for PAP 03 – Pricing Model Phase 2 Status: Completed	4th Q, 2010	Joint WEQ/REQ SGS Subcommittee
b)	Develop requirements and use cases for PAP 04 – Scheduling Model Phase 2 Status: Completed	4th Q, 2010	Joint WEQ/REQ SGS Subcommittee
c)	Develop requirements and use cases for PAP 09 – Demand Response/Distributed Energy Resources Phase 2 Status: Completed	4th Q, 2010	WEQ Section of the Joint WEQ/REQ SGS Subcommittee

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2011 ANNUAL PLAN for the WHOLESALE ELECTRIC QUADRANT
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	Item Description	Completion[1]	Assignment[2]
d)	Develop standards to support PAP 10 – Standards Energy Usage Information		
i)	Develop Information Model and related business practices Status: Complete	4th Q, 2010	Joint WEQ/REQ PAP 10 SGS Subcommittee
ii)	Develop standards to support PAP 10 – Standards Energy Usage Information, Phase 2, Harmonization with CIM and SEP 2.0 Status: Not Started, pending discussions with CIM and SEP 2.0	2011	Joint WEQ/REQ PAP 10 SGS Subcommittee
7.	**Develop or modify standards to Support FERC Order No. 676-E, (Docket No. RM 05-5-013)**		
a)	Review standards 001-14.1.3 and 001-15.1.2 based on FERC Order No. 676-E (See ¶ 39[7]) Status: Not Started	3rd Q, 2011	OASIS
b)	Develop standards to support the Transmission Provider right to reassess the availability of conditional firm (See ¶ 72[8]) Status: Not Started	3rd Q, 2011	OASIS
c)	Prepare status reports every six months regarding the development of standards for the coordination of transmission service requests across multiple transmission systems (See ¶ 105[9]). This annual plan item is tied to Annual Plan Item 2(a)(iii) Status: Underway – first report filed.	Ongoing	NAESB Office

[7] 39. In regards to Entergy's question of whether the transmission provider's calculated and posted available flowgate capability values should be used to fulfill the posting requirements set forth in Standard 001-14 and 001-15 in instances where there is no requirement to convert this calculation to available transfer capability values, we agree with Entergy that this requirement can be met by the transmission provider posting its available flowgate capability values. As to EPSA's argument that Standard 001-15 falls short of the goals of Order No. 890, we find that, with the exception of Standard 001-15.1.2, compliance with Standard 001-15 provides all of the information required by Order No. 890. However, Standards 001-14.1.3 and 001-15.1.2 permit transmission providers to post an available transfer capability change narrative within five business days of meeting the criteria under which a narrative is required to be posted. In Order No. 890, the Commission rejected calls for delays prior to posting data and required posting as soon as possible. We do not find the NAESB standard meets this criterion and therefore decline to incorporate Standards 001-14.1.3 and 001-15.1.2 by reference. Transmission providers must post their narratives as soon as feasibly possible. Posting within one day would appear in most cases to be reasonable.

[8] 72. However, we reiterate here the Commission's finding in Order No. 890 that a transmission provider is permitted to extend its right to reassess the availability of conditional firm service. Since the Version 002.1 Standards do not specifically address this issue, we would ask the industry, working through NAESB, to continue to look at additional business practice standards facilitating a transmission provider's extension of its right to perform a reassessment

[9] 105. We agree that insufficient progress has been made on this issue. While we acknowledge that development of standards addressing this issue is included in NAESB's 2009 WEQ Annual Plan, we nevertheless urge NAESB to address this issue as soon as possible. Accordingly, we request that NAESB provide the Commission with a status report concerning its progress on this issue every six months, counting from the date this final rule is published in the Federal Register, until NAESB's adoption of the applicable standard(s).

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2011 ANNUAL PLAN for the WHOLESALE ELECTRIC QUADRANT
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PROVISIONAL ITEMS

1 Develop and or modify business practices related to support of NERC effort on the NERC Resources and Transmission Adequacy (Project 2009-05 Resource Adequacy Assessment).

2 Develop business practices for allocating capacity among requests received during a submittal window Order 890-A (Docket Nos. RM05-17-001, 002 and RM05-25-001, 002 - Paragraph 805)[10].

3 Determine any needed NAESB action in support of the Interchange Distribution Calculator (IDC) and develop any necessary standards.

4 Prepare recommendations for future path for TLR[11] (Phase 2) in concert with NERC, which may include alternative congestion management procedures[4]. Work on this activity is dependent on completing 2010 WEQ Annual Plan 1.a (Parallel Flow Visualization/Mitigation for Reliability Coordinators in the Eastern Interconnection - Phase 1).

5 Develop complementary standards that align with NERC Project 2008-01 Voltage and Reactive Control, for which a white paper is expected after the SAR is authorized to proceed by the NERC Standards Committee.

6 Determine NAESB action needed to support FERC Action Plan for Smart Grid Technology.

7 Develop business practice standards for cap and trade programs for green house gas

8 Conduct assessment to determine if Electric Industry Requirements documented in WEQ-011 Gas / Electric Coordination should be considered reliability requirements and transition to NERC.

9 Develop needed business practice standards for organization/company codes for NAESB standards – and address current issues on the use of DUNs numbers. Common code usage is linked to the transition of the Registry from NERC to NAESB.

10 Review the need for, and develop standards where appropriate, in response to issues raised by FERC's National Action Plan on Demand Response.

11 Develop, modify or delete business practices to support Time Error and Inadvertent (BAL-004 and BAL-006) resulting from the NERC field test under NERC project (NERC Project 2010-14).

12. Coordinate standards development with the NERC Balancing Authority Reliability Based Controls Standards Drafting Team (BARCSDT- created in July 2010) regarding DCS and AGC (BAL-002 and BAL-005) which may require changes to NAESB WEQ standards.

[10] 805. The Commission recognizes that developing methods to allocate capacity among requests received during a submittal window may require detailed procedures, particularly when transmission requests received simultaneously exceed available capacity. As the Commission explained in Order No. 890, however, we believe that each transmission provider is in the best position to develop allocation procedures that are suitable for its system. This does not preclude transmission providers from working through NAESB to develop standardized practices, as suggested by Southern. For example, as we pointed out in Order No. 890, allocation methods such as that used by PJM to allocate monthly firm point-to-point transmission service could provide useful guidance in developing general allocation procedures.

[11] Phase 2 of the Parallel Flow Visualization looks at developing options for and reporting of the most cost effective alternatives to achieve curtail obligations assigned during Phase 1."

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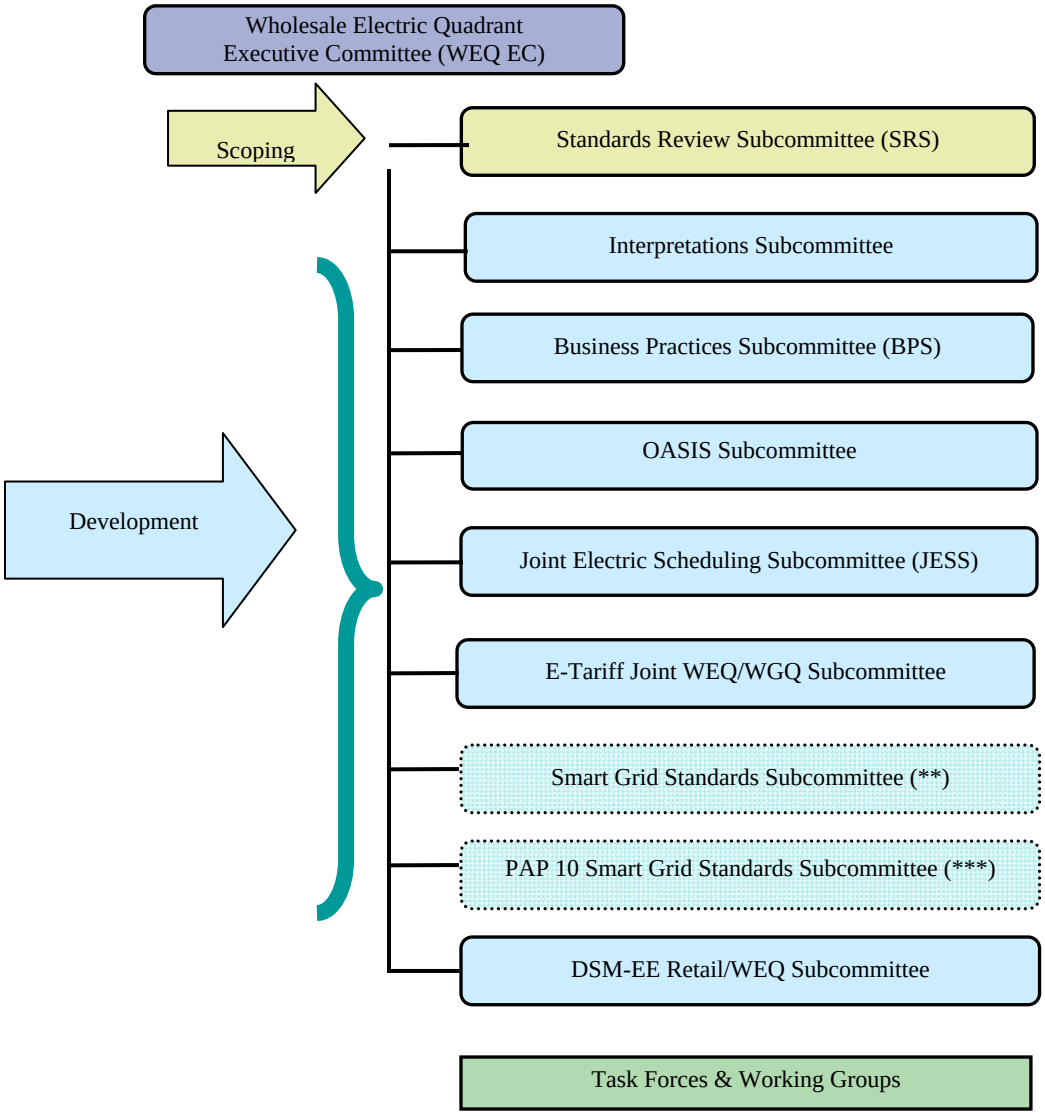
WHOLESALE ELECTRIC QUADRANT EXECUTIVE COMMITTEE AND SUBCOMMITTEE STRUCTURE



NAESB WEQ EC and Subcommittee Leadership:
Executive Committee (EC): Kathy York (Chair) and James Castle (Vice Chair)
Standards Review Subcommittee (SRS): Narinder Saini, Ed Skiba
Interpretations Subcommittee: Ed Skiba
Business Practices Subcommittee (BPS) & Time and Inadvertent Management Task Force (TIMTF): Ed Skiba , Narinder Saini
Open Access Same Time Information System (OASIS) Subcommittee (OS): Paul Sorenson, J.T. Wood, Alan Pritchard
Joint Electric Scheduling Subcommittee (JESS): Bob Harshbarger (NAESB), Clint Aymond (NERC)
e-Tariff Joint WEQ/WGQ Subcommittee (e-Tariff): Jane Daly (WEQ), Keith Sappenfield (WGQ)
Demand Side Management-Energy Efficiency (DSM-EE) REQ/WEQ Subcommittee: Ruth Kiselewich and David Koogler (REQ), Roy True and Paul Wattles (WEQ)

(**) The Smart Grid Standards Subcommittee is a joint group of the retail electric and wholesale electric quadrants with other standards development groups such as OASIS (Organization for the Advancement of Structured Information Standards, not Open

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Access Same Time Information Systems related to NAESB standards and FERC actions), CalConnect, FIX and UCAIug, among others. Direction may be given from NIST, DoE or FERC and the group reports jointly to the NAESB Board Smart Grid Strategic Steering Committee and the WEQ and REQ ECs. The group is chaired by Joe Zhou, Wayne Longcore and Robert Burke.

(***) The PAP 10 Smart Grid Standards Subcommittee is a joint group of the retail electric and wholesale electric quadrants with other standards development groups such as OASIS, UCAIug, OpenADE, ZigBee, ASHRAE, EIS Alliance, NARUC and includes other groups. Direction may be given from NIST, DoE or FERC and the group reports jointly to the NAESB Board Smart Grid Strategic Steering Committee and the WEQ and REQECs. The group is chaired by Phil Precht, Cathy Wesley, Sharon Dinges, David Kaufman, Brad Ramsay, Tobin Richardson and Ed Koch.

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End Notes WEQ 2011 Annual Plan:

[1] Dates in the completion column are by end of the quarter for completion by the assigned committee, sub-committee or task force. The dates do not necessarily mean that the standards are fully staffed to be implementable by the industry, and/or ratified by membership. If one item is completed earlier than planned, another item can begin earlier and possibly complete earlier than planned. There are no begin dates on the plan.

[2] The assignments are abbreviated. The abbreviations and sub-committee structure can be found at the end of the annual plan document.

[3] Energy efficiency may be a wholesale product, such as capacity. Energy efficiency in retail markets may be from individual energy efficiency measures at the project level or a portfolio of projects that make up an energy efficiency program.

[4] For additional information, please see comments submitted by PJM and Midwest ISO for this Annual Plan Item: http://www.naesb.org/pdf3/weq_aplan102907w1.pdf.

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NORTH AMERICAN ENERGY STANDARDS BOARD
2011 Annual Plan for the Wholesale Gas Quadrant Executive Committee
As Approved by the Board of Directors on March 24, 2011 With Suggested Redlines from WGQ Leadership

Item Description	Completion[1]	Assignment[2]
1. Reorganize Standards Manuals for Ease of Use[3]		
a. Develop a separate WGQ manual specifically for Informational Postings standards or, alternatively, add the Informational Postings standards to the Additional Standards manual to provide ease in implementation. (Reorganize Standards Request) Status: ~~Not Started~~Underway	3rd Q, 2011	IR/Technical
b. Continue reordering of standards by topic and as future standards are added, standards continue to be ordered in topic format. Status: Not Started	2012	IR/Technical
2. Sample Paper Review [3]		
a. Plan for the Review and Update Sample Papers and ASc X12 Samples for all data sets with the exception of the Offer – Standard No. 5.4.z1, Bid - Standard No. 5.4.z2, Award Download - Standard No. 5.4.z3 and the Operational Capacity - Standard No. 0.4.z1 and Unsubscribed Capacity - Standard No. 0.4.z2 data sets in Capacity Release to ensure consistency with the related data dictionaries. (Sample Paper Review Request) Status: ~~Not Started~~Underway	~~1st~~-2nd Q, 2011	IR/Technical
b. Execute Plan to Review and Update Sample Papers and ASC X12 Samples for all data sets with the exception of the Offer – Standard No. 5.4.z1, Bid - Standard No. 5.4.z2, Award Download - Standard No. 5.4.z3 and the Operational Capacity - Standard No. 0.4.z1 and Unsubscribed Capacity - Standard No. 0.4.z2 data sets in Capacity Release to ensure consistency with the related data dictionaries. Status: Not Started	Dependent on 2a	IR/Technical
3. Development of EBB Code Values[3]		
a. Plan for the review of code values and code value descriptions in all data sets to make them easier to understand on the TSPs' EBB web sites. (EBB Code Request) Status: ~~Not Started~~Underway	2nd Q, 2011	IR/Technical
b. Execute the plan for the review code values and code value descriptions in all data sets to make them easier to understand on the TSPs' EBB web sites. Status: Not Started	Dependent on 3a	IR/Technical
4. Development of Error Code Standards[3]		
a. Plan for the development of meaningful error code values in all data sets to make them easier to understand on the TSPs' EBB web sites as compared to the X12 DISA error codes. (Error Code Request) Status: ~~Not Started~~Underway	3rd Q, 2011	IR/Technical
b. Execute the plan for the development of meaningful error code values in all data sets to make them easier to understand on the TSPs' EBB web sites as compared to the X12 DISA error codes. Status: Not Started	Dependent on 4a	IR/Technical

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2011 Annual Plan for the Wholesale Gas Quadrant Executive Committee
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Item Description		Completion[1]	Assignment[2]
5. Electronic Delivery Mechanisms			
Review minimum technical characteristics in Appendices B, C, and D of the WGQ QEDM Manual, and make changes as appropriate. Status: Not Started		3rd Q, 2011	EDM
6. NAESB Base Contract Review and Update			
Review typical industry Special Provisions to the NAESB Base Contract for consideration to be integrated into the NAESB Base Contract. Review is to include corresponding updates to other related documents (e.g. Canadian Addendum, ISDA Amendment and Model Credit Support Addendum and Frequently Asked Questions)			
a.	NAESB Base Contract review and update Status: ~~Pending start February 2011~~Underway	3rd Q, 2011	Contracts Subcommittee
b.	Canadian Addendum, ISDA Amendment, Model Credit Support Addendum and Frequently Ask Questions review and update Status: ~~Pending start April 2011~~ Not Started	3rd Q, 2011	Contract Subcommittee
7. Common Codes			
a.	Determine if location common codes as formulated are needed. Status: Underway	~~1st~~ 2nd Q, 2011	BPS
b.	If location common codes are needed, then determine if existing specifications are sufficient, or conversely, if not needed, develop plan for modifications to support removal of location common code from NAESB WGQ standards. Status: Not Started	Date dependent on annual plan item 7a	BPS
Program of Standards Maintenance & Fully Staffed Standards Work			
Business Practice Requests		Ongoing	Assigned by the EC[4]
Continue review against plan for migration to ANSI ASC X12 new versions as needed and coordinate such activities with DISA.		Ongoing	ANSI X12 Subcommittee
Information Requirements and Technical Mapping of Business Practices		Ongoing	Assigned by the EC[3]
Interpretations for Clarifying Language Ambiguities		Ongoing	Assigned by the EC[3]
Maintenance of Code Values and Other Technical Matters		Ongoing	Assigned by the EC[3]
Maintenance of eTariff Standards		As Requested	Assigned by the EC[3]
Provisional Activities			
1.	Review and develop standards as needed related to Docket No. RM11-1-000, Capacity Transfers on Intrastate Natural Gas Pipelines (Notice of Inquiry issued on October 21, 2010).		

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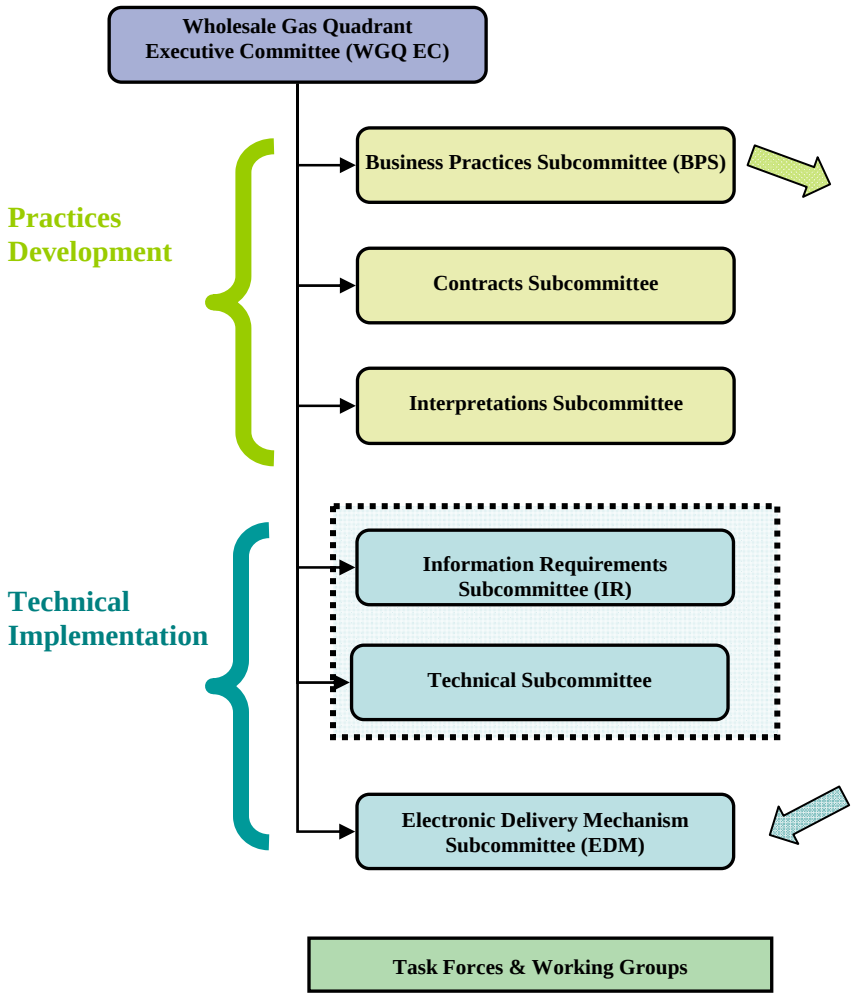

The translation of business practices to usable uniform business transactions is accomplished through the definition of information requirements for the data, and mapping of that data into specific electronic transactions. This translation is performed by IR and Technical subcommittees and completes the standards development process, often referred to as "full staffing." Both IR and Technical work in tandem to complete this crucial technical implementation activity. Until these steps have been completed, the process is incomplete, and in many cases, the business practices cannot be used.

NAESB 2011 WGQ EC and Subcommittee Leadership:

Executive Committee: Jim Buccigross, Chair and Dale Davis, Vice-Chair
Business Practices Subcommittee: Kim Van Pelt, Lori Lynn Pennock, ~~Mike Novak~~ and Richard Smith
Information Requirements Subcommittee: Dale Davis
Technical Subcommittee: Mike Stender, Kim Van Pelt
Contracts Subcommittee: Keith Sappenfield
Electronic Delivery Mechanism Subcommittee: Leigh Spangler, Christopher Burden
Interpretations Subcommittee: Paul Love

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End Notes, WGQ 2011 Annual Plan:

[1] Dates in the completion column are by end of the quarter for completion by the assigned committee. The dates do not necessarily mean that the standards are fully staffed to be implementable by the industry, and/or ratified by membership. If one item is completed earlier than planned, another item can begin earlier and possibly complete earlier than planned. There are no begin dates on the plan.

[2] The assignments are abbreviated. The abbreviations and committee structure can be found at the end of the annual plan document.

[3] [3] As business issues are presented to the Information Requirements Subcommittee and Technical Subcommittee, those business issues will be given precedence over WGQ 2011 Annual Plan Item Nos. 1, 2, 3 and 4.

[4] The EC assigns maintenance of existing standards on a request-by-request basis.

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November 30, 2010

TO: NAESB Board of Directors and Executive Committee
FROM: Rae McQuade
RE: Schedule of 2011 Meetings

Below is the schedule of 2011 meetings for the Board of Directors, Advisory Council and Executive Committee.

2011 Calendar of Board and Advisory Council Meetings

Date	Meeting	Location
February 12	Advisory Council Meeting	Washington D.C. – Renaissance Washington Hotel (in conjunction with NARUC Winter Meeting)
March 24	Board of Directors	Houston Marriott North at Greenspoint, 255 North Sam Houston Parkway East, Houston, Tx 77060 Phone: 281-875-4000 8 miles from IAH Intercontinental Airport, airport shuttle provided every 30 minutes
June 23	Board of Directors	Houston Marriott North at Greenspoint
September 22	Board of Directors, Meeting of the Members and Strategic Session	Houston Marriott North at Greenspoint
December 8	Board of Directors	Houston Marriott North at Greenspoint

2011 Calendar of Executive Committee Meetings

Date	Meeting	Location
February 1-3	Executive Committee (WEQ, Retail, WGQ)	Host Salt River Project, Phoenix, AZ
February 24-25	Leadership Seminar (WEQ, Retail, WGQ)	Mirage Hotel, Las Vegas
May 3-5	Executive Committee (WEQ, Retail, WGQ)	Host Aces Power, Carmel, IN
August 16-18	Executive Committee (WEQ, Retail, WGQ)	Host El Paso Western Pipeline, Colorado Springs, CO
October 25-27	Executive Committee (WEQ, Retail, WGQ)	Host Dominion, Richmond, VA

Notes:

1. The Retail Executive Committee meetings will be held by conference call and web cast unless otherwise determined by the retail leadership.
2. For each of the Board meetings, a dinner will be held the night before at the Petroleum Club in the Exxon Building, 800 Bell Street, 43rd Floor.
3. Board members are encouraged to attend the leadership seminar as well.