

Demand Response & Energy Consulting, LLC



Update on NYISO DR Market
NAESB Standards Development
and NERC DR Reporting

Peak Load Management Alliance
Fall Conference

October 21, 2009



Presentation Outline

- ✔ **Overview of NYISO Demand Response Programs**
 - Current Demand Response Programs
 - Current Participation Levels
 - Program Developments

- ✔ **North American Energy Standards Board Update on Current Developments (NAESB)**
 - NAESB Definitions and Business Practices
 - Filed with FERC on April 17, 2009
 - Overview and Update
 - Wholesale M&V Standards for Demand Response
 - Retail M&V Standards for Demand Response

- ✔ **North American Electric Reliability Corporation (NERC)**
 - Demand Response Availability Data System



NYISO Demand Response Programs

- ✓ **Current Demand Response Programs**
 - Emergency Programs
 - Special Case Resource-Mandatory
 - Summer Registration level-2,065 MW
 - Emergency Demand Response Program-Voluntary
 - Last Reported Registration level-364 MW
 - Economic Program
 - Day-Ahead Demand Reduction Program
 - Last Reported Registration level-331 MW
- ✓ **Ancillary Service Products:**
 - Operating Reserves
 - 10 Minute Synchronous
 - 10 Minute Non-Synchronous
 - 30 Minute Non-Synchronous
 - Regulation Service



NYISO Program Enhancements

Ancillary Services

Small Customer Aggregation

- ✓ FERC Order 719 requires NYISO to file an assessment of the technical feasibility and value of having smaller DR resources providing Ancillary Services in New York
- ✓ NYISO assessing current rules to determine if rules that are in place will accommodate small customer aggregations
- ✓ NYSIO to present proposal for Market Participants
 - Conference call scheduled for October 23, 2009



NAESB Definitions and Business Practices

✓ Filed with FERC on April 17, 2009

– 40 Definitions & 31 Business Practices

- Address M&V for 47 Demand Response Programs
 - Wholesale ISO/RTO administered Demand Response
- M&V Establish Criteria
 - Equipment
 - Technology
 - Procedures to Quantify Demand Reduction
- Four Demand Response Products addressed
 - Energy-Economic Demand Response
 - Capacity
 - Reserves
 - Regulation



Standards Recognize Consistency

✔ General Requirements

- Advance notification, reduction deadlines, deployment time
- Demand response availability measurement, aggregation, & transparency
- Normal Operations, release/recall provisions

✔ Telemetry

- Requirements, accuracy, intervals, telemetry measurement
- Communication protocols
- On-Site generation telemetry requirements

✔ Performance Evaluation

- RTO/ISO market rules for performance evaluation

✔ After the Fact Metering

- Reporting requirements, deadlines, and intervals
- Clock/time and measurement accuracy
- On-site generation meter requirements



Matrix of ISO/RTO Demand Response Programs

- ✓ Matrix Developed to support
 - NAESB Standards Development
- ✓ ISO/RTO matrix identifies
 - Products, services, and features of programs
 - Deployment methods and event timing
 - Telemetry and performance evaluation methods
- ✓ Matrix can be located at:
 - http://www.naesb.org/misc/dsm_matrix_excel_format.xls
 - Matrix is being used to assist in Phase II development of Detailed Technical M&V Standards



Phase II-Develop Further Technical Details-M&V Standards

- ✔ **Working Group 3-Wholesale Demand Response**
 - Efforts underway to provide additional technical M&V standards
 - Meets twice monthly to develop more technical details
- ✔ **All meetings are open and accessible via teleconference**
- ✔ **Working Group 3 meeting materials posted to NAESB website at:**
 - <http://www.naesb.org/dsm-ee.asp>
- ✔ **Participation and comments are welcome**
Joining Working Group 3 is easy, send e-mail to:
 - www.naesb.org indicating your interest in participation in Working Group 3, Wholesale Demand Response Working Group



Retail Standards-Working Group 2


- ✓ **Working Group 2-Retail Demand Response Standards**
 - Utilized many standards developed by Working Group 3
 - Slight modifications to accommodate Retail sector
- ✓ **Draft of Retail Standards issues on July 29**
 - Released for industry comment
 - July 30, 2009 and ended on August 28, 2009
- ✓ **Retail Standards brought to DSM-EE Sub-committee**
 - September 30, 2009
 - Retail Demand Response standards approved by the Retail Electric Executive Committee on October 13, 2009
- ✓ **Link to Retail Standards**
 - http://www.naesb.org/pdf4/retail_2009_ap_6e_rec.doc
- ✓ **Working Group 2 meeting materials posted to NAESB website at:**
 - <http://www.naesb.org/dsm-ee.asp>



NERC-DADS

- ✓ What is DADS?
 - Demand Response Availability Data System
 - Central repository for North America Demand Response:
 - Enrollment
 - Events & Performance Data
- ✓ What will DADS provide?
 - Assist in determining DRs ability to meet operational and resource adequacy requirements
 - Event performance data identifies DRs ability to achieve their committed potential
 - Enrollment data provides DRs influence on reliability

Phase I-Voluntary

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- ✔ Approved at the September NERC Planning Committee Meeting
 - ✔ Voluntary effort commencing in 2010
 - Dispatchable/Controllable DR only
 - Training Workshop slated for December 2009
 - ✔ Link to DAD Report
 - <http://www.nerc.com/filez/drdtf.html>
 - ✔ **Responsible Reporting Entities (defined as a NERC Registered Entity that either dispatches a Demand Response Resource and/or administers a Demand Response Program, product or service)**
 - Balancing Authority Distribution
 - Distribution Provider
 - Load-Serving Entity
 - Purchasing-Selling Entity



Phase II-Mandatory

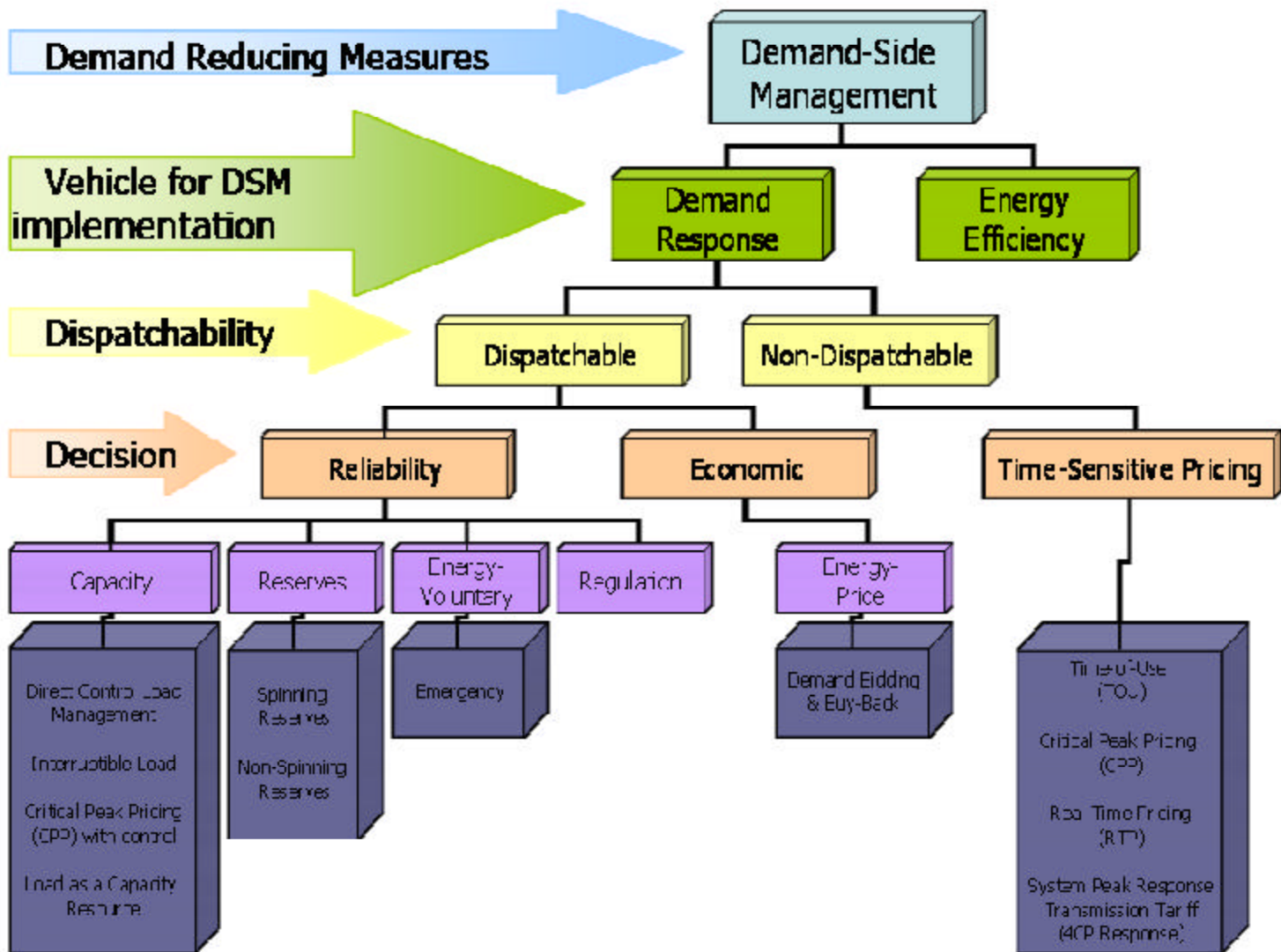
▼ **Beginning with Phase II**

- Results from DADS analysis will be issued
 - Quarterly summary reports
 - Annual report

▼ **Phases III and IV**

- Introduces reporting requirements for non-dispatchable Demand Response
- Initially voluntary
- Followed by mandatory reporting

Demand Side Management Categories





DADS PHASE I & II Implementation

Table C: DRDTF and DADS Phase I & II Milestones for Implementation

Date	Action
September 2009	PC approval of Final Report (Phase I & II) in September 2009
September 2009	Submit preliminary request for mandatory data collection through a <i>Section 1600</i> (in Draft Report): <i>Request for Information or Data</i>
September 17 th - October 8 th , 2009	File Section 1600 with FERC: 21 Day Comment Period **
October 9 th - November 23 rd , 2009	Post data request for a 45-day public comment period
November – December, 2009	Incorporate comments received, and include comment matrix with responses in the Final Report
November	Formal announcement to industry commencing DADS Phase I

**NERC will submit to FERC in next few days



DADS PHASE I & II Implementation

November	DADS Phase I Data Reporting Instruction Manual
November 2009	Send data request letter to Responsible Entities for Phase I
November 2009	DADS Technical Workshop for Phase I
March 2010	PC for final approval (Contingent on any changes to the report received from comments)
April 2010	Submit Final DADS Report: Phase I & II for Board approval
April 2010	Issue RFP for DADS system
May 2010	Implement the DADS Phase I with voluntary data submittals
June 1 st , 2010	DADS Phase I Q1 2010 data due to NERC
March - April 2010	Evaluate DADS proposals and contract with vendor
November 2010	DADS Technical Workshop for Phase II
December 2010	Beta version of DADS for market trials
March 2011	Market trials review and updates
June 2011	DADS system goes live (DADS Phase II begins)
September 2011	DADS Phase II Q2 2011 data due to NERC



Thank you

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