

Resource Adequacy Construct Enhancements

Supply Adequacy Working Group

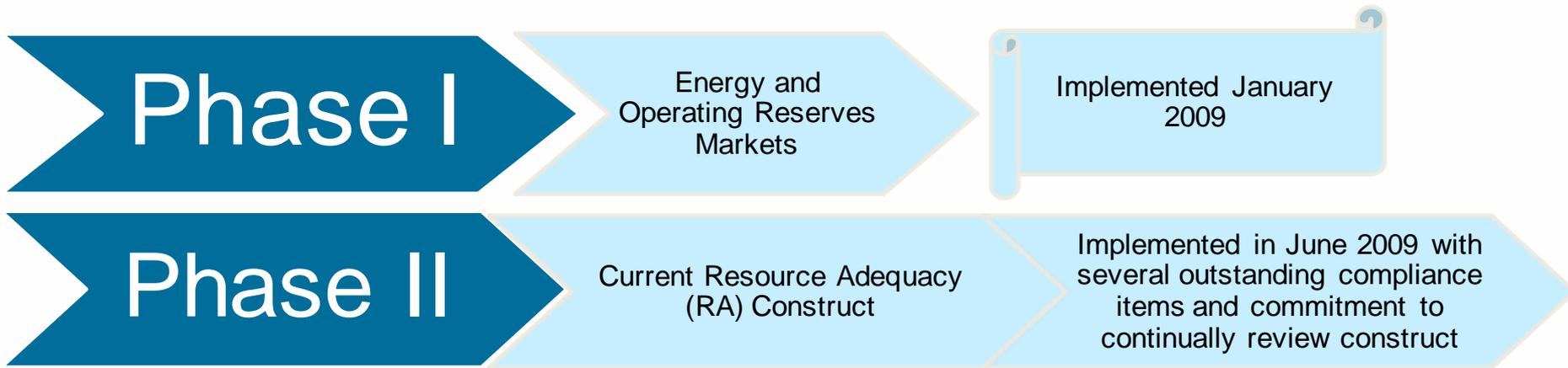
Agenda item 2

September 2, 2010

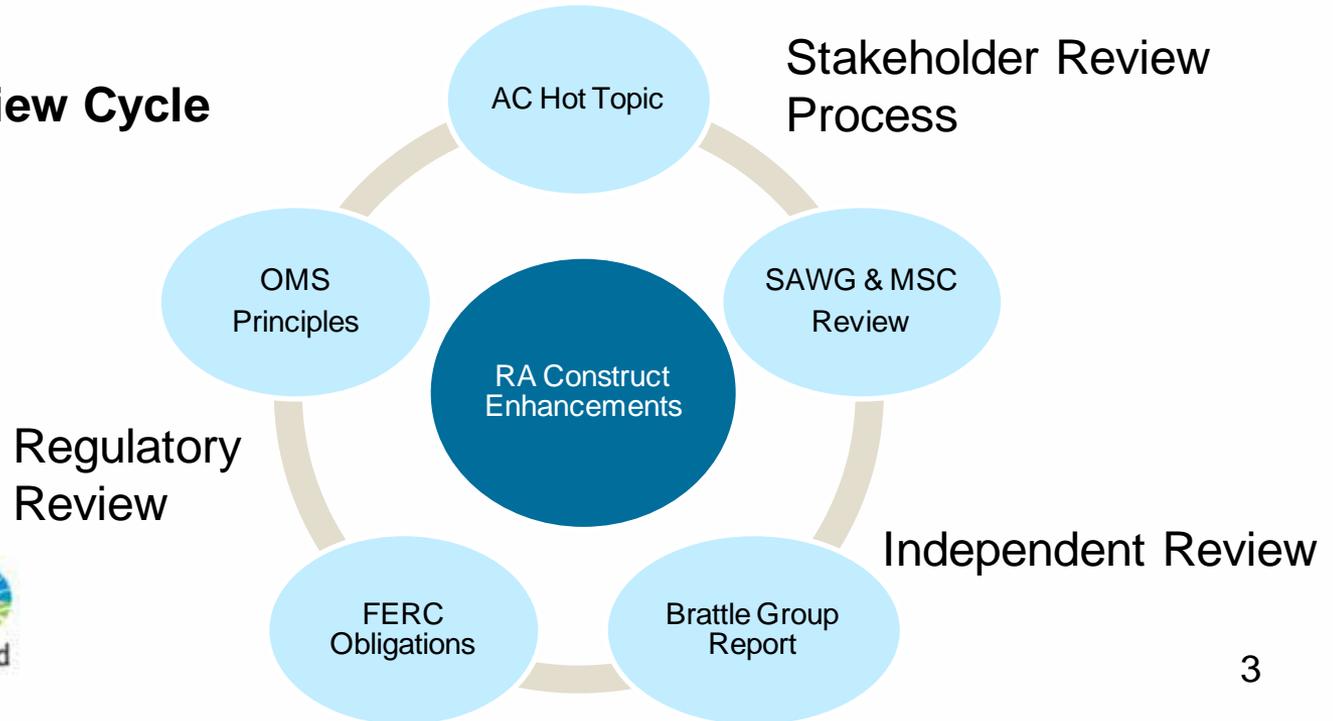
Outline

- Resource Adequacy Evolution
- Key Drivers and Enhancements
- Key RA Enhancements
- Value Creation
- Timeline

Midwest ISO Resource Adequacy Evolution



RAR Construct Review Cycle



Key Drivers

- **Midwest ISO Strategic Plan** – “Drive Value Creation Through Efficient Reliability / Market Operations, Planning, and Innovation”
- **Cornerstones** – Customer Service, Effective Communication, and Operational Excellence
- **Foundational Focus** – Product Portfolio and Market Design
- **Strategic Element** – Sustain and Grow the Membership
- **FERC Compliance Orders** – LMR Deliverability and Address congestions that may limit aggregate deliverability

Current RA Design Elements

- These existing RA elements will be leveraged under enhanced proposal:
 - Recognition of state's rights to set PRM
 - Capacity Resources and Load Modifying Resources (LMR)
 - Planning Resource Credits (PRC)
 - Unforced Capacity (UCAP) based on Generator Availability Data (GADS)
 - Reliability Standard (1 day in 10 years LOLE)
 - Generator Testing Requirements

RA Enhancements Summary

1. Foundational Principles/ Focus

2. Forward Planning Period: 3 to 5 years

3. Flexible Participation Capacity Auction

4. Load Forecasting: EDC/RTO to provide forecasts in retail choice states

5. Retail Choice Participation

6. Cross-Border Deliverability is Critical Component to work with all seams

7. Implementation Timing: 2012-2013 Planning Year

1. Foundational Focus

- Product Portfolio –
 - *The Midwest ISO is working to complete its portfolio of core products and services – defined as FERC Orders 2000 and 890. Additions to the portfolio include the Ancillary Services Market, mechanism(s) for resource adequacy, improved opportunities for demand response participation, and continuation of our transmission planning activities.*
- Market Design / Model - the Midwest ISO must provide a market characterized by the following attributes:
 - Reliable, efficient unit commitment and dispatch
 - Controlled by equitable rules including limits on market power
 - Provides appropriate price signals
 - Efficient transaction platform
 - Wide participation
 - Transparent operation
 - Accurate settlements

2. Forward Planning Period

Straw Proposal:

- 3 – 5 years forward looking resource planning
- All LSEs must demonstrate resource adequacy through Planning Resource Auctions
 - Retail Suppliers will be resource adequate at least 3-5 years forward
 - Traditionally regulated utilities can leverage existing resource plans to self supply and net out of planning resource auctions
- Qualification and quantification of Planning Resources looking forward
 - Facilitate PRC transactions in forward years
 - Inclusion of performance measures and incentive mechanisms

2. Forward Planning Period

Open Design Decisions:

- Exact duration of forward planning (3 to 5 years)
- Annual requirement vs. seasonal requirements
 - Diversity Contracts
 - Resource with variable capability dependent on temperature
 - Firm Transmission requirements
 - Firm fuel requirements
 - Must offer requirements
- Resource performance requirements and incentives

3. Flexible Participation in Planning Resource Auctions

Straw Proposal:

- To ensure system reliability to LOLE standard all LSEs must supply information to the Planning Resource Auctions
 - LSEs can self supply to net out of the auctions
- Provides forward transparent capacity price signals
- Model and enforce zonal import and export constraints

3. Flexible Participation in Planning Resource Auctions

Open Design Decisions:

- IMM Roles and Responsibilities
- What type and quantity of reconfiguration auctions would be required to maintain resource adequacy
 - Allow for LSEs and suppliers to true up positions
- How will demand response participate
 - Price Responsive Demand to be addressed in parallel as a separate effort
- Additional details needed for zonal definitions
 - LOLEWG is currently working on this issue

4. Load Forecasting

Straw Proposal:

- LSEs in regulated states continue to provide load forecasts
- Electric Distribution Companies (EDC) provide forecasts in retail choice states
 - Midwest ISO acts as final arbiter
- Midwest ISO determines transmission losses contribution for all LSEs
- All forecast entities provide coincident peak forecasts
 - Move accounting for load diversity from PRM calculation to forecasting process
 - Recognizes LSEs individual contribution to system peak and provides an incentive to move demand away from system peak
- Midwest ISO develop process to review forecasting methodologies to ensure consistency
 - Standard Deviation
 - Weather normalization

4. Load Forecasting

Open Design Decisions:

- Process for providing coincident forecasts
- Process for determining LSE's transmission losses

5. Retail Choice Participation

Straw Proposal:

- Load forecast will be conducted by EDC
 - Helps to address who should forecast for customers that will be switching
 - Eliminates a potential gap in forecast information as a result of customer switching
- Implement Peak Load Contribution (PLC) tracking system
 - Allocate planning reserve margin requirements
 - True up planning reserve margin requirements and revenues
 - Provides a platform to true up ARR revenues

5. Retail Choice Participation

Open Design Decisions:

- Details on PLC process
- Process for review and arbitration of EDC/LBA forecast

6. Capacity Portability

- Cross Border Deliverability efforts are currently underway
- Work with neighboring areas to improve capacity portability
- Capacity price differences should primarily be driven by physical transmission limitations

7. Implementation Timing

- Target implementation of RA enhancements for 2012-2013 planning year
- Transitional Period to get out 3-5 years
- Recognize state specific issues as part of transition planning

Value Creation

- Forward transparent capacity price signals
 - Facilitates efficient generation and demand response additions and retirements and transmission facility expansions
 - Recognizes existing transmission limitations
 - Compliments existing planning processes
- Workable construct for both regulated and retail choice states
 - Retail choice states
 - Promotes Planning and creates additional procurement options
 - Implements load tracking mechanism
 - Allocates capacity obligations based on who serves customers
 - Regulated states
 - Recognize existing state planning requirement (LSEs can self supply)
 - Creates additional procurement options and price signals for all LSEs
- Consistent market development , mitigation and oversight
 - Similar to energy, ASM and FTR development fundamentals

RA Enhancements Summary

1. Foundational Principles / Focus

- Provide appropriate price signals
- Efficient transaction platform
- Universal participation
- Transparent operation

2. Forward Planning Period: 3 to 5 years

- LSE can self-supply (like Energy, ASM & FTR)
- Information needed from all LSE to ensure reliability throughout the footprint
- Forward transparent capacity price
- Zonal import and export constraints
- Market Monitoring and Mitigation rules to be developed

3. Flexible Participation Capacity Auction

4. Load Forecasting: EDC/RTO to provide forecasts in retail choice states

- RTO determines transmission losses obligations
- Account for load diversity in forecast process instead of in PRM

5. Retail Choice Participation

- Load Forecasting Obligation
- “Leaning on the system”
- Tracking Load Shifting, including ARR

6. Cross-Border Deliverability is Critical Component to work with all seams

- Capacity Portability
- Work to limit barriers to capacity portability across seam to physical transmission limits

7. Implementation Timing: 2012-2013 Planning Year

- Transitional period to accommodate any modifications for each Midwest ISO state

Timeline

Date	Activity
Ongoing	Midwest ISO and Organization of MISO States collaboration
September 2, 2010	Present Resource Adequacy construct straw proposal to the SAWG
September 23, 2010	Stakeholder feedback due on straw proposal
October 15, 2010 – Advisory Committee October 20, 2010 – Board of Directors	Finalize proposal and provide update
November 15, 2010	Prepare draft Tariff changes
November 30, 2010	Complete stakeholder review of Tariff changes
December 8, 2010	File required Tariff changes and Compliance Filings
June 1, 2012	Begin with 2012-2013 Planning Year