



# Ancillary Service Work Group

## Recommendations to RRG

August 2, 2000



## Overview

- List of Recommendations
- Review Recommendations in Detail
- Discuss Next Steps



## Recommendations

- Adopt recommended AS products and services
- Adopt recommended RTO West Control Area Model with self and third party provision of A/S
- Adopt recommended approach to NWPP Reserve Sharing Program



## Approach

- RTO provider of last resort
- Allow self and third party provision
- Understand starting point and end state
- Build upon Scheduling Coordinator model
- Define A/S products and market structure
- Define settlements and implementation



## End State

- RTO provider of last resort
- Self and third party provision
- RTO wide markets, deployment and settlements
- Efficient implementation
  - Regional Focus
  - Efficient Processes/Products



## Recommended A/S “Raw” Products

(see attachment for discussion of each)

- Regulation
- Load Following (Up, Down)
- Reserves (Spin, Non-Spin, Replacement)
- Supplemental Energy
- Congestion Redispatch (Forward Market)
  
- Black Start
- Voltage Support
- Area Control Center Support to RTO



## Recommended Products/Services

- Comments/Questions



## Scheduling Coordinators (SCs)

- Scheduling Coordinators are single point of contact between the RTO and SC's customers (wholesale and retail loads and generators that use the grid)
- Every eligible customer who wishes to use the RTO grid must have an SC (One and only one SC per meter)
- Any eligible customer (including a utility, a power marketer, a generator, or where retail access is allowed, an end user, an aggregator) can become a SC or can designate an SC to represent the eligible customer
- SCs must be certified by the RTO and meet technical and financial requirements



## Responsibilities of SCs

- Contract for supply-side and demand-side portfolios to meet its customers' requirements (RTO not involved)
- Self provide/acquire transmission rights and ancillary services
- Schedule supply, FTRs and ancillary service resources to meet its customers' load using balanced schedules to RTO
- 7\*24 operations, to respond to RTO operating instructions (deployment of ancillary service resources, schedule changes, redispatch, curtailments...)
- Operate (or have access to) a "Generation Control Center" (GCC) for the dispatchable resources in its portfolio.
- Participate in the RTO's settlement process.



## Certification of SCs by the RTO

- Technical Requirements:
  - Data, metering and communication system standards
  - Hardware and software requirements
  - Operational requirements
- Financial Requirements:
  - Good credit rating; or
  - Deposit, letter of credit, or parental guarantee
  - Large enough to provide adequate security to RTO against default on amounts potentially owed
  - Creditworthiness of SC's customers could also be used.



## Control Area Options

- Continue With Existing Control Areas With Future Evolution Toward End State
- Continue With Existing Control Areas, Move Toward End State Through Tiered Operation
- (3) Establish A Single RTO Wide Control Area, Move Toward End State, Include Range of Self Provision Options



## Considerations/Issues

- Implementation cost/timing
- Retaining value in the new model
- Managing exposure to price volatility
- Breadth of AS and Congestion Management Markets
- Independence



## Recommend - Single Control Area

(See attachment for more details)

- Single NERC-certified Control Area (CA)
- Existing CAs who do not participate in RTO can continue to operate as control area
- RTO will balance to meet NERC standards
- SCs are responsible for self providing or paying for A/S obtained by RTO
- RTO obtains A/S (for those not self provided) from SC's wishing to sell A/S from their portfolios



## Single Control Area cont'd

- SCs can minimize risk of imbalance energy market by balancing portfolio within settlement period(i.e. 10 minutes)
- SCs can minimize risk of A/S market through self provision or self tracking
- Self provision - generation provided to RTO for use on a communal basis
- Self tracking - generation used by SC to match its generation and load on a minute to minute or second to second basis



## Single Control Area cont'd

- RTO defines A/S requirements
- Obtains those not self provided by SCs
- Sets market prices for A/S obtained
- Deploys A/S obtained or self provided
- Sets imbalance energy price per zone
- Settles for A/S obtained for SCs who haven't self provided
- Monitors performance



## Recommended Option

- Single RTO Wide Control Area
  - Consensus recommendation
  - Cost/Timing comparable or less than other options
  - Offers range of options to manage price risk
  - Provides for independent entity to manage all Provider of Last Resort/Self-Provision activities



## Recommended Option cont'd

- Largest step toward End State
- No need to develop “throw away” systems
- Regulation savings potential equal to or larger than other options



## Control Area Model Recommendation

- Questions/Comments



## NWPP Reserve Sharing Program

### Current WSCC Criteria:

- Maintain reserves of 5%/7% of hydro/thermal generation or largest generation loss due to single contingency (MSSC)

### Current Reserve Sharing Pool:

- All control areas participate
- Each CA carries 5%/7% of hydro/thermal generation
- Each CA can call upon others if requires additional reserves
- Collective reserves assumed to be larger than MSSC
- No capacity payments/energy paid for or returned



## Recommendation

- RTO Control Area meet WSCC criteria as an entity
  - Meet minimum control area requirement
  - Achieve significant benefits of scale
- AS Work Group
  - Explore reserve sharing with non-RTO participants
  - Consider RTO sponsoring new reserve sharing pool or restructuring of existing pool



## Reserve Sharing Recommendation

- Questions/Comments



## A/S Next Steps

- Focus on developing products/services definition in more detail for use by legal
- Develop recommended cost allocation methodology
- Develop settlement/billing process and procedures
- Develop recommended implementation approach