



Joint Initiative Update

UWIG Spring Technical Workshop

Portland, Oregon

April 15, 2010



WestConnect Membership

Arizona Public Service

El Paso Electric

Imperial Irrigation District

Nevada Power Company

Public Service Colorado

Public Service New Mexico

Sacramento Municipal Utility District

Salt River Project

Sierra Pacific Power Company

Southwest Transmission Cooperative

Transmission Agency of Northern CA

Tri-State G & T Association

Tucson Electric Power

Western Area Power Administration

- Rocky Mountain Region

- Desert Southwest Region

- Sierra Nevada Region

- CRSP Management Office



ColumbiaGrid Membership

Avista

Bonneville Power Administration

Chelan County PUD

Grant County PUD

Puget Sound Energy

Seattle City Light

Snohomish County PUD

Tacoma Public Utilities



Northern Tier Transmission Group Membership

Participating Utilities

Deseret Power Electric Cooperative

Idaho Power Company

Northwestern Energy

PacifiCorp

Portland General Electric

Utah Associated Municipal Power Systems

Participating State Regulatory Utility Commissions

Idaho Public Utility Commission

Montana Public Service Commission

Oregon Public Service Commission

Utah Public Service Commission

Wyoming Public Service Commission

State Consumer Advocacy Groups

Montana Consumer Counsel

Goal of the Joint Initiative

- Encourage and facilitate Western Interconnection parties to develop and implement high-value cost-effective regional products
- Broader scope than integration of variable generation, but immediate wind and solar integration issues provide significant motivation

Approach

- Joint Initiative Strike Teams develop business case proposal
- Interested parties move to implementation agreement when critical mass is achieved; may not involve all Joint Initiative parties

Current Focus

- Currently focused on three areas
 - Intra-Hour Transmission Purchase and Scheduling (Products and Services Strike Team)
 - Allows for intra-hour schedule changes to address unanticipated generation patterns
 - Better use of capacity within and outside of BA (bilateral transactions) by allowing shorter timeframes for scheduling

Current Focus

- Intra-Hour Transaction Accelerator Platform (I-TAP) (Products and Services Strike Team)
 - Facilitates bilateral transactions to address unanticipated generation patterns
 - Facilitates accessing flexibility both within and outside of a BA's area as opposed to relying exclusively on BA's system to support wind integration
 - Helps manage costs of integrating wind

Current Focus

- Dynamic Scheduling System (DSS)
(Infrastructure Strike Team)
 - Provides more agile delivery mechanism for dynamic energy products (currently, dynamic scheduling must be arranged manually days, weeks, or months in advance)

Intra-Hour Transmission Purchase and Scheduling – Products and Services Strike Team Recommendation

- To extent it can be accomplished within existing scheduling infrastructure and it does not negatively impact reliability, Transmission Service Providers should adopt intra-hour transmission purchase and scheduling
- Use existing transmission product (but provide more flexibility re purchasing and scheduling)
- As each system is different, fill-in-the blanks approach to intra-hour practices

Intra-Hour Transmission Purchase and Scheduling – Current Status

- PacifiCorp currently operating under intra-hour business practice
- BPA currently accepting intra-hour schedules under pilot project
- Chelan, Grant, Tacoma and Seattle (BAs) participating in processing intra-hour e-tags
- Puget Sound Energy, Portland General Electric, and Avista jointly filed request at FERC to amend their tariffs to permit intra-hour transmission scheduling with proposed a February 1, 2010 effective date
- WestConnect TSPs made policy decision to adopt a coordinated business practice and are currently finalizing specifics; NV Energy has business practice in place and will seek OATT amendment in near future
- Other TSPs are interested and coordinating

Intra-Hour Transmission Purchase and Scheduling - Scope

- PacifiCorp – exports, one an hour per PSE, new e-Tags, for any purpose
- BPA Pilot – exports for increases in wind generation on the half-hour, new e-Tags
- Puget – exports/imports/wheeling, for any purpose
- PGE – exports/imports/wheeling; one an hour per PSE, new e-Tag, for any purpose
- Avista Pilot – exports, one an hour per PSE, new e-Tags, for any purpose
- WestConnect – exports/imports/wheeling; for any purpose

Intra-Hour Transmission Purchase and Scheduling - Challenges

- Different perspectives on whether OATT amendment is required; some TSPs plan to make joint tariff amendment filing with FERC in the next few weeks
- Timing
- Varying practices among adjacent systems; however, all participating TSPs are coordinating

I-TAP

- Facilitate intra-hour bilateral transactions within and outside of BA's area through electronic platform that provides information, communications links, and user interfaces
 - Not limited to intra-hour, but anticipate that this is where it will provide greatest benefit

I-TAP

- Automated Information Exchange
 - Information regarding state of participating systems, including individual generator's ability and prices to move up (inc) or down (dec)
 - Leads to greater visibility regarding needs, opportunities, and costs
- Automated Mechanisms to access system flexibility swiftly and efficiently
 - Communications links
 - Links to OASIS
 - Links to e-TAG author and approval

I-TAP

- 16 Parties signed Agreement of Interest
 - Bonneville Power Administration
 - Columbia Energy Partners
 - Grays Harbor PUD
 - NaturEner
 - PacifiCorp
 - Puget Sound Energy
 - Snohomish County
 - WAPA - CRSP-EMMO
 - Chelan County PUD
 - Grant County PUD
 - Idaho Power
 - NorthWestern Energy
 - Portland General Electric
 - Seattle City Light
 - Tri-State
 - Xcel Energy

I-TAP

- RFP was issued November 11, 2009
- RFP responses received February 3, 2010
- Vendor interviews held late February, 2010
- Pursuing Agreement(s) with OATI, Inc.
- Go live implementation as early as December, 2010

Dynamic Scheduling System (DSS)

- A more efficient way to implement dynamic schedules
 - Participants can establish dynamic schedules between any number of BAs at any scheduling granularity, depending upon need and capability
 - Minimal changes to existing processes and procedures
 - a *one-time* DSS implementation replaces the month's it takes today to negotiate and make system changes and accommodates all future dynamic schedules

DSS Process Overview

- The DSS is a communications infrastructure that exchanges dynamic signals via e-Tag and ICCP links
 - Before the scheduling period, participants will create DYNAMIC type e-Tags reflecting their dynamic schedules.
 - During the operating hour, webDynamic will use the composite e-Tag provided data to distribute MW requests to BAs with obligations to requesting participants.
 - After the scheduling period, webDynamic will update the e-Tag with the correct integrated quantity.

Advantages of DSS

- DSS facilitates
 - Development of intermittent resources
 - More efficient use of generating resources
 - Potential reduction in imbalance charges
 - Potential market opportunities that may result in lower portfolio costs
 - NERC and WECC standards and business practices

DSS Status Update

- 19 parties have executed participant and vendor contracts
 - Arizona Public Service Company
 - BCTC
 - BPA
 - Grant County PUD
 - Idaho Power
 - Imperial Irrigation District
 - NaturEner, USA
 - Northwestern Energy
 - NV Energy
 - PacifiCorp
 - Portland General
 - PowerEx
 - Public Service of New Mexico
 - Puget Sound Energy
 - Seattle City Light
 - Salt River Project
 - Tri-State G&T
 - WAPA
 - Xcel Energy

DSS Draft Implementation Timeline

ID	Task Name	Start	Finish	Q4 09		Q1 10		Q2 10		Q3 10		
				Oct	Dec	Jan	Mar	Apr	Jun	Jul	Aug	Sep
1	Contract Signing/Project Initiation	9/1/2009	1/18/2010									
2	Functional & Detailed SW Design	12/21/2009	2/2/2010									
3	DSS HW SW Development	12/30/2009	4/28/2010									
4	WIST: Initial DS limits for BPA BA flowgates	9/1/2009	5/13/2010									
5	DSS Set Up at Participant Site	3/1/2010	3/31/2010									
6	Factory Acceptance Testing @ OATI	5/19/2010	6/18/2010									
7	DSS Training	6/22/2010	7/21/2010									
8	DSS Prod Set Up and Testing	6/9/2010	8/31/2010									
9	DSS Production Cut Over	9/2/2010	9/2/2010									

Other Joint Initiative Activities

- Next steps:
 - Participants exploring opportunities associated with aspects of a virtual balancing system
 - Assessing associated timing and resource impacts, including review and consideration of WECC activities

For More Information

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Questions