

ACE Diversity Interchange “ADI”

*West Connect Stakeholder Meeting
Phoenix, AZ*

November 17, 2011



ADI – What is it?

- **ACE Diversity Interchange (ADI) is a sharing of Area Control Error (ACE) among participating Balancing Authority Areas. Sharing ACEs enables the relaxation of generator movement when compared with isolated Balancing Authority Area operations.**
- **Reductions in regulation burdens in real-time reduces “wear and tear” on generating facilities and help BAAs to gain an improvement in NERC Control Performance Standard compliance (CPS2)**

ADI in the Western Interconnection

- **ADI Tool: Participants provide ACEs to the Host which checks for diversity and then calculates, allocates, and sends ADI corrections. Process takes 10 seconds or less.**
- **30 MW cap to ADI correction for each participant**
- **As of September 2011, there are eleven (11) participating BAs**
 - **APS, Bonneville Power Administration, British Columbia Hydro, GWA (NaturEner Power Watch, LLC), Idaho Power, NW Energy, PacifiCorp-East, PacifiCorp-West, PNM, Puget Sound Energy, and SRP.**

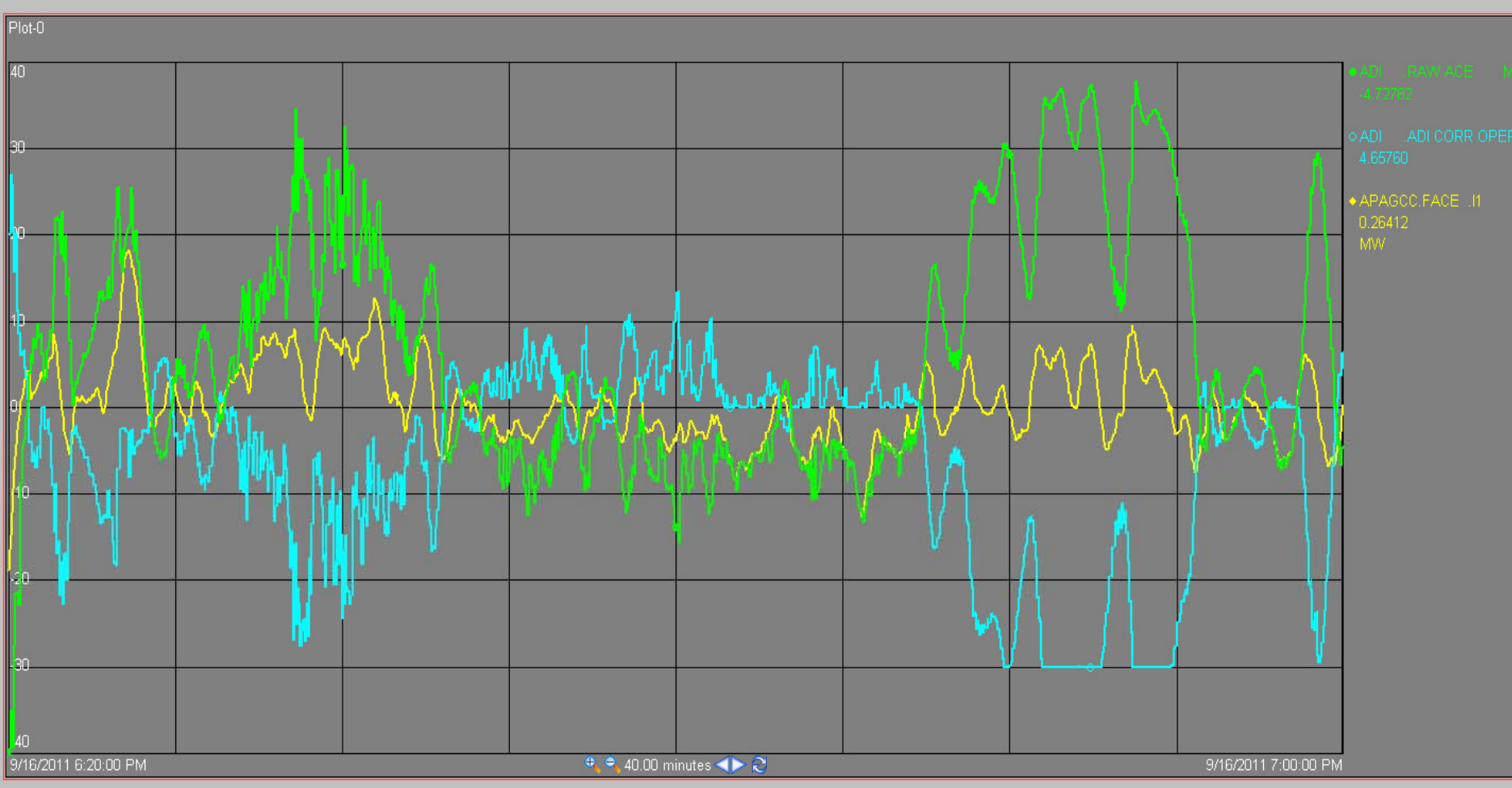
ADI – September 2011 Data

- Reviewed data from 7 participants in September
- Results:
 - Each participant received an 8 MW - 12 MW correction (1 minute avg of corrections applied)
 - Improved ACE between 25%-67%

ADI – September 2011 Data

	% Participation	Avg. Correction	Avg. Ace	% Improvement
BA1	73%	10.0	19	52%
BA2	89%	8.3	24	34%
BA3	85%	10.0	20	50%
BA4	92%	7.0	11	65%
BA5	44%	8.3	26	32%
BA6	70%	11.8	47	25%
SRP	69%	9.9	15	67%

ADI Corrections Improving ACE



Intra-hour Scheduling

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History

- **Joint Initiative (West Connect, Columbia Grid, & Northern Tier) created a roadmap and target date of July 1, 2011**
- **West Connect Guidelines for Intra-Hour Reservations and Scheduling approved January 19, 2011**
 - **Establishes minimum criteria to standardize intra-hour BPs**
 - **Permits intra-hour schedules that begin 30 minutes into the operating hour and have a duration of 30 minutes.**
- **West Connect members are in various stages. The actual number of transactions is low and there does not appear to be an overwhelming need at this time.**

Tracking Sheet

Company Name	Intra-hour Requests	On Peak	Off Peak	Energy Type - Conventional	Energy Type - Renewable	Comments
Imports						
Exports						
Wheels						
Denials						
Total	0	0	0	0	0	n/a

Dynamic Scheduling Service “DSS”

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WC DSS Participates

- **Arizona Public Service Company**
- **Imperial Irrigation District**
- **Public Service of New Mexico**
- **Salt River Project**
- **Tri-State G&T**
- **WAPA**
- **Xcel Energy**
- **Available from Two West Connect Member**

• **Two additional members within the next few months**