

Loveland Area Projects & WACM Balancing Authority

Transmission & Ancillary Services Formula Rates

**Rocky Mountain Region
Informal Customer Meeting
September 29, 2010**

- Welcome and Introductions
- Why we're here
- Process
- Rate Proposals
- Next Steps
- Contact Information

- OCP Implementation
- Move toward common interpretation and implementation of Tariff provisions
- Reorganization
- Western's OATT (Open Access Transmission Tariff)
 - Originally filed 1/6/98, Revised 1/25/05
 - To comply with FERC 888
- Revised OATT filed 9/30/09 (effective 12/1/09)
 - To comply with FERC 890 and Western's statutory & regulatory requirements

- Most formula rates expire February 28, 2011 (Rate Order WAPA-106)
 - LAP Transmission Rates
 - Network
 - Point-to-Point (Firm and Non-Firm)
 - Transmission Losses
 - WACM Ancillary Service Rates
 - Scheduling, System Control and Dispatch
 - Reactive Supply and Voltage Control from Generation Sources
 - Regulation and Frequency Response (Rate Order WAPA-118 exp. May 2011)
 - Energy Imbalance
 - Operating Reserves – Spinning Reserves
 - Operating Reserves – Supplemental Reserves



- New Rates:
 - Generator Imbalance
 - Penalty Rate for Unreserved Use of Transmission

Proposed Timeline for Rate Process for Transmission & Ancillary Services

<u>Date</u>	<u>Action</u>
Sept 29, 2010	Informal Meeting with Customers in Loveland
November 2010 ?	Possible 2 nd Informal Meeting
January 2011	Publish Rate Extension for Current Rates
February 2011	Publish Federal Register Notice (FRN) for Rate Proposal
May 2011	End of Comment Period
August 2011	Publish FRN for Final Rate Formulas
October 2011	New Rate Formulas in Effect

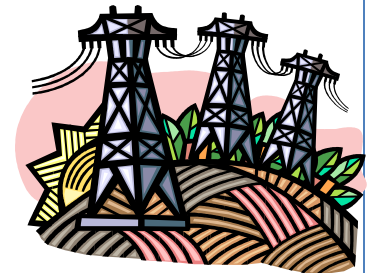
Formula for Network Transmission:

$$\text{Monthly Charge} = \text{Load Ratio Share} \times \text{Annual Transmission Revenue Requirement (ATRR)} \times 1/12$$

Formula for Point-to-Point:

$$\text{Rate} = \frac{\text{(ATRR)}}{\text{LAP Transmission System Load}}$$

No Change to Existing Formulas



$$\begin{aligned} \text{Annual Transmission Revenue Requirement (ATTRR)} = & \\ & \text{Annual Cost of Transmission System} \\ + & \text{System Augmentation Expense} \\ - & \text{Ancillary Service Revenue} \\ - & \text{Point-to-Point Transmission Revenue} \\ & \text{(including Revenues from Unreserved Use of} \\ & \text{Transmission)} \end{aligned}$$

LAP Transmission Rate Components

Annual Cost of Transmission System =

$$\frac{\text{LAP Transmission Plant}}{\text{Total LAP Plant}} \times \text{Expenses (O\&M, Depreciation, Interest)}$$

- Minor change from existing methodology
 - Moving to ‘% of Plant’ Methodology
 - Current Formula Uses an Annual Fixed Charge Rate

- Change being proposed on Data Collection:
 - Projection of costs & loads for the current year (e.g., estimated FY12 data for the FY12 rate) vs. 2-year old historical data.
 - Uses projections to estimate transmission rate components for the upcoming year.
 - Will allow Western to match cost recovery with the incurring of the cost.
 - Allows for collection of plant costs as soon as the plant is placed in service
 - Provides for a 'truing up' of costs after the year is complete.

LAP Transmission Rate Components— Example of True-Up

- Year 1 Projected Rev Requirement = \$50,000,000
- Year 1 Projected Load 2,500,000 kW

2 years later

- Year 1 Actual Rev Requirement = \$51,000,000
- Year 1 Revenue Collected
(including bundled w/FES) = \$48,000,000
- Difference \$ 3,000,000

Two components of difference:

Change in Revenue Requirement	\$ 1,000,000
Under-collection of projected revenue requirement due to over-estimation of load	\$ <u>2,000,000</u>
	\$ 3,000,000

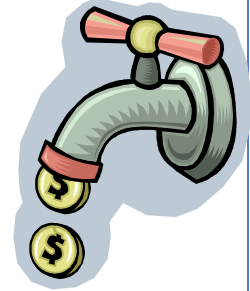
LAP Transmission Rate Components— Example of True-Up (Cont'd)

- Difference to be included with Year 3 projected revenue requirement:

Year 3 Projected Rev Requirement	\$54,000,000
Year 1 True-Up	<u>\$ 3,000,000</u>
Year 3 Adjusted Revenue Requirement	\$57,000,000

Questions?

- No change to Rate Schedule.
 - Rate as posted on the WACM Open Access Same-Time Information System (OASIS).
 - Energy Return or Financial Settlement.
 - Energy return concurrent or 7 days later.
 - Option to include merchant transactions in imbalance calculation.
 - WACM pricing.
- Postage stamp rate is currently 4.5%, as of Oct 1, 2010



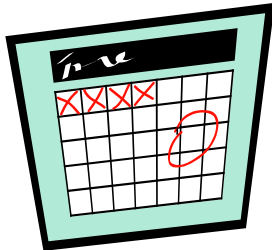
Ancillary Services—Penalty Rate for Unreserved Use of Transmission (Schedule 10)

- New Rate Schedule for Penalty Rate for Unreserved Use of Transmission (previously part of Transmission Rate schedules).
 - 200% penalty for the period of unreserved use.
 - Use FERC-defined periods (e.g., no hourly rate).
 - No distribution of penalty revenue above the base charge to non-offending customers. Revenue will be returned to customers via credits to future transmission revenue requirements.



Proposed Formula

$$\text{WACM Scheduling Rate} = \frac{\text{Total Annual Revenue Requirement for Scheduling}^*}{\text{Number of Schedules Per Year}}$$



* Changing description in numerator from
'Cost of Scheduling and Dispatch Personnel,
and Related Costs'

- Proposed Change on Data Collection
 - We're more narrowly defining the costs recovered through this rate to be costs related to tagging.
- Proposed Change on Implementation/Billing
 - The tag charge will be divided equally among all transmission providers on the tag.
 - More equitable method of cost allocation.
 - Effects each customer differently, depending on the structure of their tags.

Ancillary Services – Scheduling and Dispatch

Rate in Effect for FY 2011

\$38.30 per tag per day

Estimated Rate Calculated Using
Actual FY 2009 Financial Data
in Proposed Formula

\$21.00 per tag per day *

* Example only. Not necessarily an indicator of what the actual
FY12 rate will be.

Ancillary Services-Scheduling & Dispatch Example of Billing

Three transmission providers on the tag...

<u>Trans.Prov.</u>	<u>FY 2011 Rate</u>	Est. <u>FY 2012 Rate</u>
TP #1		\$ 7.00
TP #2		\$ 7.00
TP #3	\$ 38.30	\$ 7.00
	-----	-----
Total Collected for Tag	\$ 38.30	\$ 21.00

Ancillary Services-Scheduling & Dispatch Example of Billing

If LAPT or CRCM is a TP on the tag...

	<u>FY 2011 Rate</u>	Est <u>FY 2012 Rate</u>
TP #1		\$ 7.00
TP #2 (LAPT)		\$ 7.00
TP #3	\$ 38.30	\$ 7.00
	_____	_____
Total Collected for Tag	\$ 38.30 -0-	\$ 21.00 14.00

Charge to LAPT will be bundled in the transmission rate.

Questions?

- Also referred to as 'VAR Support'

Formula

$$\begin{array}{l} \text{WACM} \\ \text{VAR} \\ \text{Support} \\ \text{Rate} \end{array} = \frac{\text{TARRG} \times \% \text{ of Resource}}{\text{Load Requiring VAR Support}}$$

Where:

TARRG = Total Annual Revenue Requirement for Generation

**% of Resource = Percentage of Resource Capacity Used for VAR Support
= (1 minus power factor)**

Load Requiring VAR Support = Trans12-cp minus self supply/waivers

No Change to Existing Formula

- Change being proposed on Data Collection:
 - % of Resource will be based on weighted average of unit nameplate values (1-PF). Currently use actual unit performance data.

	<u>Proposed</u>	<u>Current</u>
LAP Units	5.78%	2.9%
CRSP Units	4.94%	3.6%

- Denominator will include nameplate of intermittent resources that do not meet specified requirements with regard to reactive supply.
- “Request for Waiver” may be provided to the Balancing Authority with proof that intermittent resources do not require VAR Support

Questions?

Formula

$$\text{WACM Regulation Rate} = \frac{\text{Total Annual Revenue Requirement for Regulation}}{\text{Load in the Balancing Authority Requiring Regulation Plus the Nameplate of Intermittent Resources}}$$

Load is a 12-cp calculation (on the LAP system peak) of loads in the balancing authority taking this service (not necessarily on the LAP system)

No Change to Existing Formula

- Three components to Regulation Rate:
 - Load-based Assessment
 - Self-provision Assessment
 - Exporting Intermittent Resource Requirement

- No change being proposed for Load-Based Assessment:
 - Revenue requirement includes:
 - Plant costs for regulation from LAP units (Amount of required regulation capacity to be re-evaluated every year).
 - Purchased regulation.
 - Power purchases needed to support the ability of the LAP units to regulate upward during on-peak periods.
 - Lost sales opportunity from having to generate in off-peak hours to support downward regulation.
 - Third-party transmission costs associated with regulating.
 - Costs for regulation from CRSP units.
 - Denominator is BA load requiring regulation, including load served by Federal allocations, plus nameplate of intermittent resources.

Example

Customer A:

12-cp Aux Load within WACM* = 150,000 kW

Wind generator serving WACM Load = 8,000 kW (nameplate)

FY 2011 Regulation Rate = \$0.339/kW-month

Monthly Invoice:

Load	150,000 x \$0.339	=	\$ 50,850
Wind	8,000 x \$0.339	=	<u>2,712</u>
	Total		\$ 53,562

* Including loads not on the LAP transmission system.

- Change being proposed to the Self-Provision Assessment:
 - Currently, self-provision can be measured by use of the customer's 1-minute average ACE or the customer's 1-minute average of the first derivative of the ACE (customer's choice).
 - Proposed assessment will be measured only by the customer's 1-minute average ACE.
 - More accurate measurement of the service being provided.

Ancillary Services-Regulation Exporting Intermittent Resource Requirement

- Change being proposed for Exporting Intermittent Resource Assessment:
 - An intermittent resource not serving load inside the balancing authority will be required to be dynamically metered out of the balancing authority.
 - Requires Metering Changes.
 - No export schedule from WACM.
 - Customer must still purchase transmission.
 - There will no longer be a Regulating Reserve Charge for mismatched capacity.



- The Rate Schedule will continue to exclude language addressing Non-Conforming Load.
- In the future, we plan to analyze load variations. If there is a need, we will include rate provisions to address non-conforming load in a future rate schedule.

Questions?

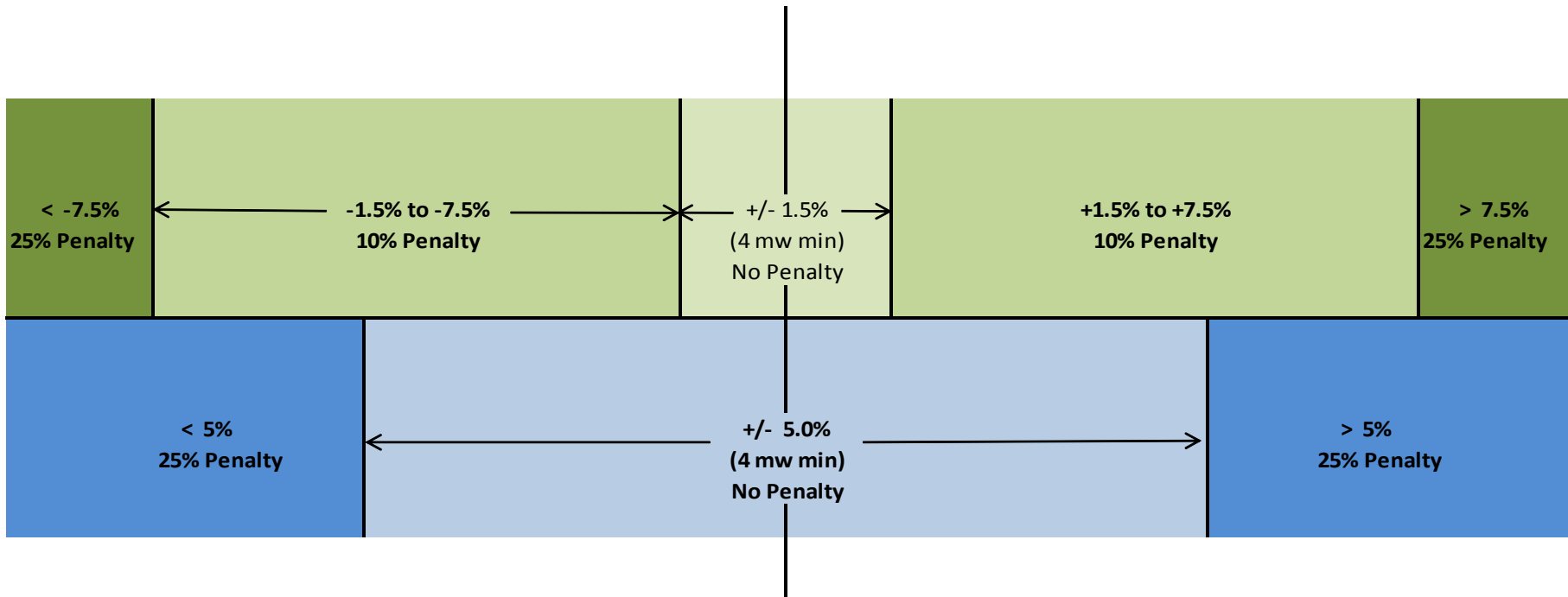
- No change to rate schedules for Spinning and Supplemental Reserves.
- No long-term Reserves are available beyond internal WACM requirements.
- At a customer's request, WACM may purchase Reserves and pass through that cost, plus an amount for administration. The customer would be responsible for providing the transmission for the reserves.

Questions?

ENERGY IMBALANCE BANDWIDTHS

Undersupply

Oversupply



Proposed Methodology
 RMR's Existing Rate

Existing Rate - Imbalances settled using WACM real time pricing.

Proposed Method - Imbalances settled using WACM real time pricing.

- Features of EI implementation:
 - Continue to be calculated on metered load.
 - Continued use of 4 MW minimum on first band (vs. 2 MW).
 - Continued use of WACM real-time pricing as representative of incremental cost.
 - No redistribution of penalty revenue.
 - Adding administrative surcharge.



Ancillary Services-Energy Imbalance Example Calculation of Administrative Charge

Pool of Admin Costs to be Recovered	\$ 185,000
Absolute Value of Prior Yr Settlements	\$ 10,200,000

= Percentage of Costs to Settlement **1.81%**

- Will be re-calculated every year.
- Will be assessed against all settlements.

General Effects of Proposed Bandwidth and Penalty Structure On Invoicing for FY 2009

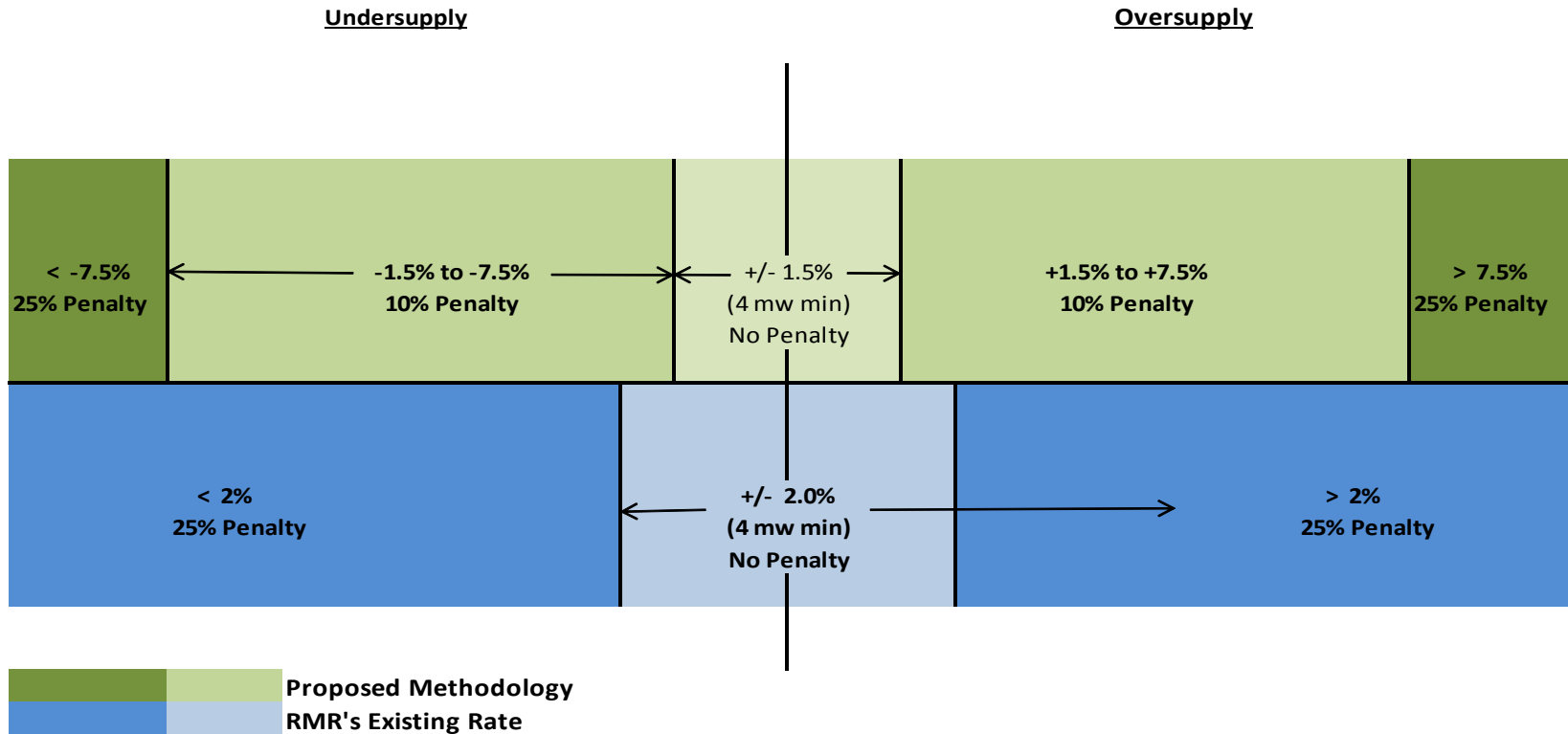
- Large Customers—Amounts billed would have increased, as there is now a penalty for deviations between 1.5% and 5%.
- Small Customers—Amounts billed would have decreased, as the penalty for excursions beyond the 4 MW minimum have decreased from 25% to 10%.
- Wind Units—Amounts billed would have increased, as there is now a band with an associated penalty.
- Multi-party Generators—Results were mixed, as the bandwidth was already at 2% and is changing to 1.5%.

These are the general trends noted by applying the proposed formula to FY09 performance and do not imply a guarantee of future results.

Questions?

Ancillary Services-Generator Imbalance Schedule 9 (new)

GENERATOR IMBALANCE BANDWIDTHS



Existing Rate - Imbalances settled using WACM real time pricing.
 Proposed Method - Imbalances settled using WACM real time pricing.

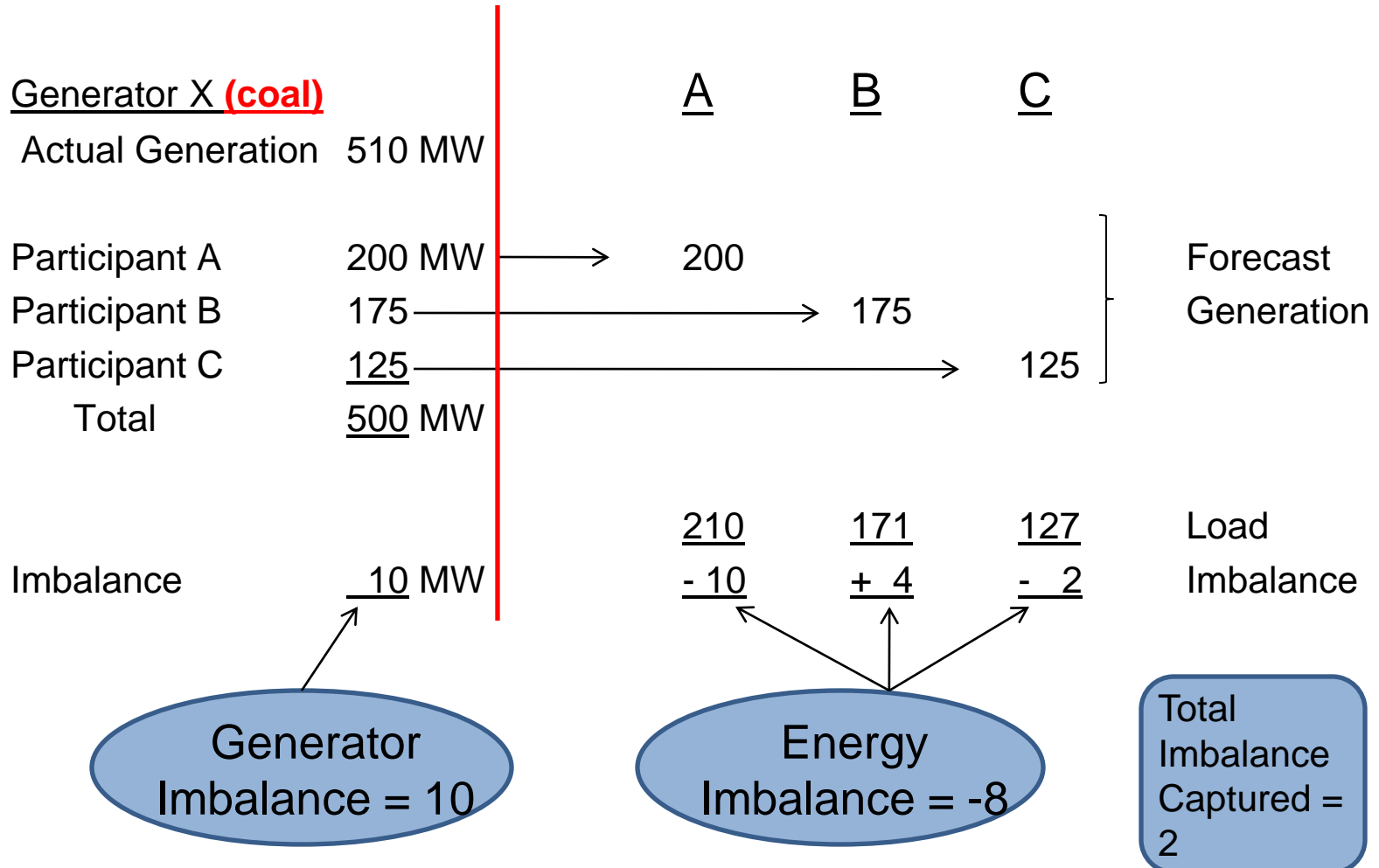
Ancillary Services-Generator Imbalance

- Features of GI Implementation:
 - Same bandwidth and penalty structure as with Energy Imbalance calculations.
 - Calculated on metered generation (vs. load).
 - No 7.5% bandwidth for intermittent resources.
 - Will apply to:
 - Multi-party generation facilities.
 - Intermittent generation facilities serving load in the WACM balancing authority.
- 4 MW minimum, WACM pricing, admin fee.
- No redistribution of penalty revenue.



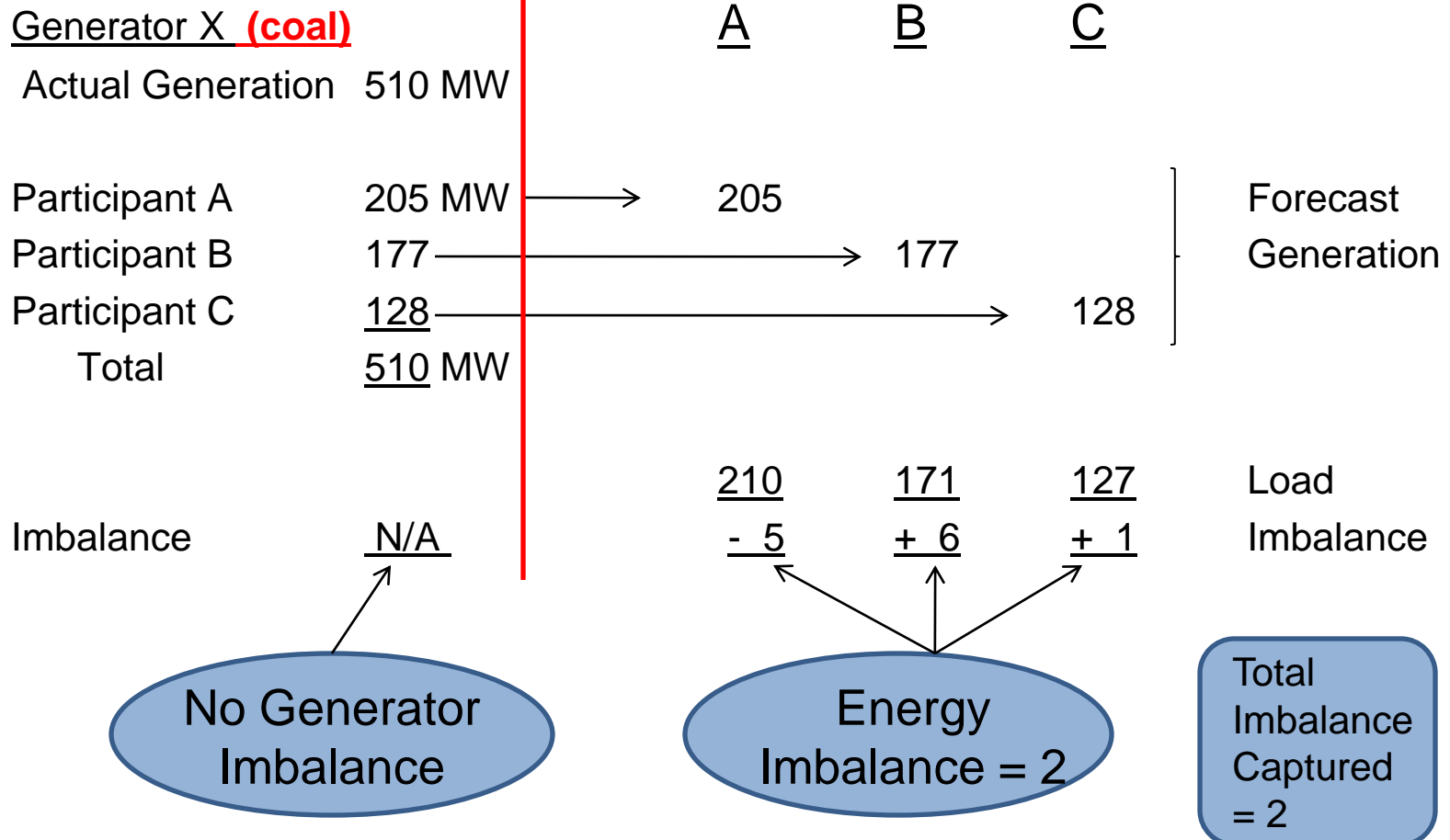
Ancillary Services-Energy & Generator Imbalance Examples

How Multi-Party Generators Work-Method A (Participant Schedules)



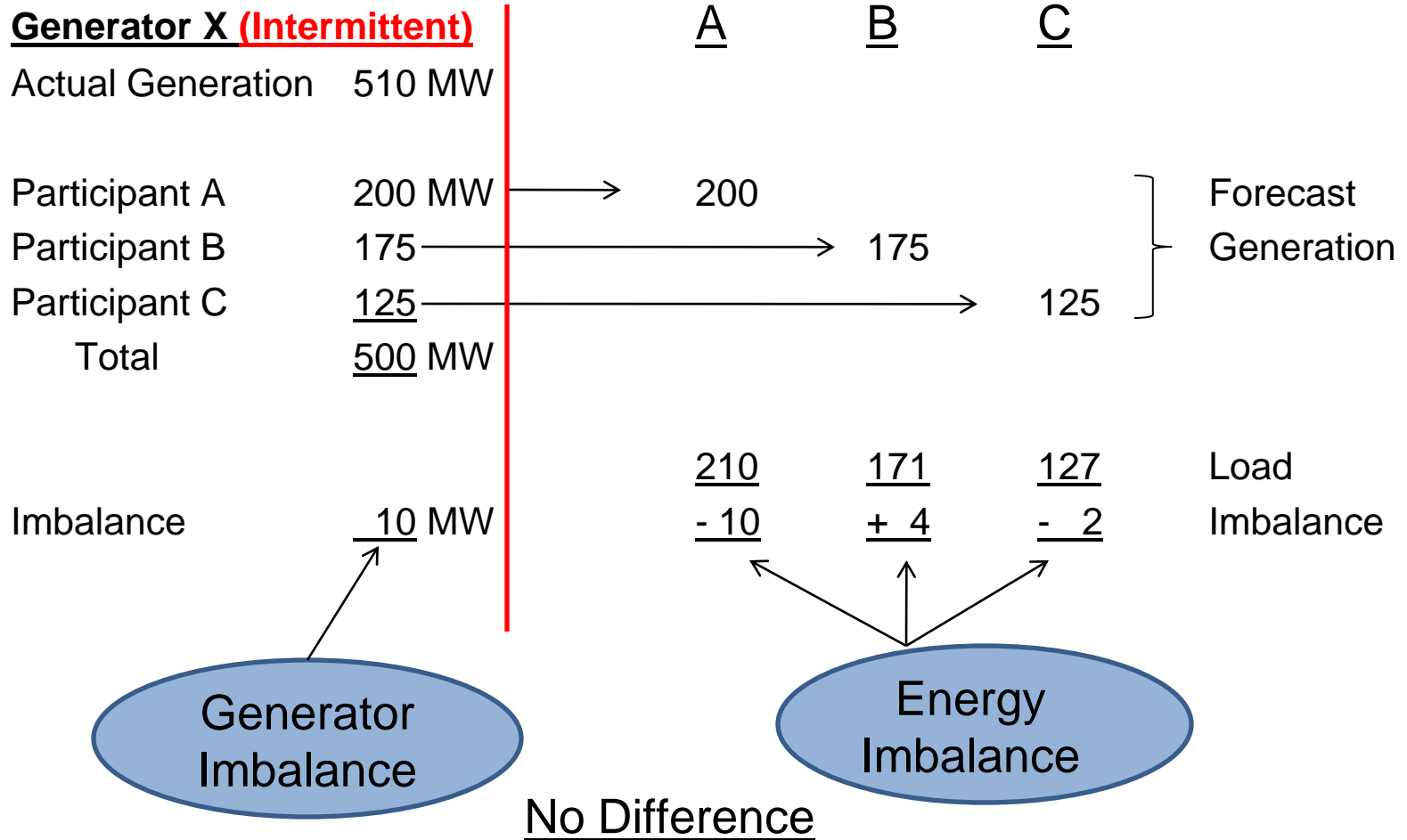
Ancillary Services-Energy & Generator Imbalance Examples

How Multi-Party Generators Work-Method B (Generation is Allocated)



Ancillary Services-Energy & Generator Imbalance Examples

How Multi-Party Generators Work-Method A (Participant Schedules)



Ancillary Services-Energy & Generator Imbalance Examples

How Multi-Party Generators Work-Method B (Generation is Allocated)

Generator X (Intermittent)

Actual Generation 510 MW

Participant A 205 MW

Participant B 177

Participant C 128

Total 510 MW

Imbalance N/A

No Generator Imbalance

A

205

Forecast
Gen

200

+ 5

Generator Imbalance

A

200

Forecast
Generation

210

-10

Load
Imbalance

Energy Imbalance

- Transmission
 - Projecting Cost and Load
- Scheduling and Dispatch
 - Tagging Costs Only
 - Tag cost allocated to each transmission provider on tag
- Reactive Supply
 - % of resource based on generator nameplate
 - Intermittent subject to service pending waiver
- Regulation
 - Exporting Intermittent—requirement to dynamic out
- Energy Imbalance
 - New Bandwidth and penalty structure
 - Administrative Charge
- New Penalty Rate for Unreserved Use of Transmission
- New Generator Imbalance Rate

Questions??



Next Steps

- Western will evaluate comments/feedback received today.
- If necessary, we will hold a 2nd informal meeting tentatively in early November.
- Extend current rates to allow for public process.
- Formal process expected to begin in Feb 2011 with the publication of a Federal Register Notice with the Final rate proposals, and to be complete by May 2011.
- Rates become effective October 1, 2011.

Contact Information:



Sheila Cook, Rates Manager

(970) 461-7211

scook@wapa.gov

Steve Cochran, Rates Analyst

(970) 461-7312

scochran@wapa.gov

General e-mail: laptransadj@wapa.gov

For further information relating to these rate proposals, visit our website at <http://www.wapa.gov/rm/ratesRM/2012/default.htm>

Contact Information:



Ron Moulton

Transmission Services Manager

(602) 605-2668

moulton@wapa.gov

Ed Hulls

Operations Manager

(970) 461-7566

hulls@wapa.gov

For further information relating to these rate proposals, visit our website at <http://www.wapa.gov/rm/ratesRM/2012/default.htm>

Thank you for you interest in this process!

**Please feel free to contact us with any questions or
comments.**