

*PRELIMINARY RATE CONCEPTS
FOR POST 04 PRODUCTS AND
SERVICES*

May 14, 2003



Sierra Nevada Region

AGENDA

- Introductions/Administrative
- Informal Rates Process
- Formal Rates Process
- Synopsis of 2004 Power Marketing Plan

AGENDA

- Base Resource and Exchange Energy
- Custom Product Power
- Scheduling Coordinator Service
- Portfolio Management Service
- LUNCH 11:30-12:30

AGENDA

- Transmission Scheduling, System Control & Dispatch Service
- Reactive Power and Voltage Control from Generation Sources
- Regulation and Frequency Response
- Energy Imbalance
- Operating Reserves

AGENDA

- California-Oregon Transmission Project (COTP) Transmission Service
- Central Valley Project (CVP) Transmission Service
- Third Party Transmission Service
- Pacific AC Intertie (PACI) Transmission Service
- Control Area Management Service (CAMS)
- FERC Accepted or Approved Credits or Charges
- Customer Services
- Close – 3:30 PM

PURPOSE OF MEETING

- Provide customers and interested parties Western's initial thoughts on rate design for products and services post 04.
- Informal Rates Process under Administrative Procedures Act.
- All information is preliminary and subject to change. Available cost data in presentation.
- Handouts and notes from today's meeting will be posted on Western's website
<http://www.wapa.gov/sn/p04/rates.asp>

QUESTIONS/COMMENTS ON PRELIMINARY RATE CONCEPTS

- To ensure non-discriminatory treatment of all participants, all questions and comments must be submitted to Western in writing by COB June 3 at <http://www.wapa.gov/sn/p04/rates.asp> .
- Calls to Western with questions or comments will be directed to the e-mail address.
- Western will post responses to the questions and comments on its website by July 11.

SNR Website – Current Rates Web Page

<http://www.wapa.gov/sn/rates.asp>

Current Rates - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://www.wapa.gov/sn/rates.asp>

 **SIERRA NEVADA REGION**

 **WESTERN AREA POWER ADMINISTRATION**

[About SNR](#)
[Current Rates](#)
[Calendar](#)
[SB 1305](#)
[Power Marketing](#)
- [P04 PMP](#)
- [P04 Rates](#)
[Transmission Planning](#)
- [Path 15](#)
[Customer Links](#)
[Other Links](#)
[Contact Us](#)

[SNR Home](#) > Current Rates

Current Rates

Post 2004 rate information is located under P04 PMP

2005 Power Rates Process

- o [Letter To CVP Customers](#) (MS Word - 23K)
- o [Western's pass through of GMC](#) (MS Word - 34K)

Western's Current CVP Rates (Effective October 1, 2002):

- Composite 24.63 mills/kWh
- Capacity \$3.89/kW-month
- Energy 18.22 mills/kWh
- **NOTE:** Rates will be adjusted monthly to pass through FERC-accepted credits or charges.

Western Links
[OASIS](#)
[Western News](#)
[Business Center](#)
[Jobs](#)
[Electric Power Training Center](#)
[Freedom of Information Act](#)
[Media Center](#)
[Privacy Policy](#)

 **WESTERN AREA POWER ADMINISTRATION**

Internet

SNR Website – Post 2004 Rates Web Page (Under P04 PMP)

<http://www.wapa.gov/sn/P04/rates.asp>

Post 2004 Power Rates - Microsoft Internet Explorer

Address <http://www.wapa.gov/sn/P04/Rates.asp>

SIERRA NEVADA REGION

WESTERN AREA POWER ADMINISTRATION

[About SNR](#)
[Current Rates](#)
[Calendar](#)
[SB 1305](#)
[Power Marketing](#)
- [P04 PMP](#)
- [P04 Rates](#)
[Transmission Planning](#)
- [Path 15](#)
[Customer Links](#)
[Other Links](#)
[Contact Us](#)

[Western Links](#)
[OASIS](#)
[Western News](#)
[Business Center](#)
[Jobs](#)
[Electric Power Training Center](#)
[Freedom of Information Act](#)
[Media Center](#)
[Privacy Policy](#)

[SNR Home](#) > [Power Marketing](#) > [P04 PMP](#) > Post 2004 Power Rates

Post 2004 Power Rates

- [Schedule Of Major Steps Post 2004](#) (MS Word - 20K)
- [Submit Rate Comments](#)

Informal Power Rates Meeting

- May 14, 2003, 8:30 to 3:30
- Folsom Community Center
 - o [Meeting Letter](#) (MS Word - 26K)
 - o [Map To Folsom Community Center](#) (MS Word - 341K)
 - o [Driving Directions](#)

Post 2004 PMP

POWER MARKETING

- [Calendar](#)
- [Power Contracts](#)
- [Flowcharts](#)
- [FRNs](#)
- [Green Book](#)
- [Power Rates](#)
- [RFPs](#)
- [Customer Interface Committee](#)
- [Preference Power Customers](#)
- [Acronyms](#)
- [FAQs](#)
- [Contact Info](#)

Internet

Meeting -May 14

SNR Website – Rates Comment Form

<http://www.wapa.gov/sn/P04/RatesForm.asp>

Rates Comment Form

SNR Home > Power Marketing > P04 PMP > Power Rates > Rates Comment Form

Required Items are in **BOLD**

Name:

Company:

Email:

Phone:

Fax:

Comments:
(or attach file below)

Attach File:

Post 2004 PMP

- [Calendar](#)
- [Power Contracts](#)
- [Flowcharts](#)
- [FRNs](#)
- [Green Book](#)
- [Power Rates](#)
- [RFPs](#)
- [Customer Interface Committee](#)
- [Preference Power Customers](#)
- [Acronyms](#)
- [FAQs](#)
- [Contact Info](#)

FORMAL RATES PROCESS

- Advance Notice of Proposed Rates – early Feb 2004
- Public Information Forum – mid to late Feb 2004
- Public Comment Forum – mid Mar 2004
- Comment period closes – end of Apr 2004
- Rates effective – Jan 1, 2005

2004 Power Marketing Plan

(applies to Preference Customers only)

- Base Resource (BR) - Output of Central Valley & Washoe Projects & existing purchase power contracts, determined by Western to be available for marketing, after meeting project use and first preference requirements and any adjustments for maintenance, reserves, transformation losses, and certain ancillary services. (64 FR 34417, June 25, 1999)
- Preference Customer's BR % determines their allocation of BR.

CUSTOMER GROUPS

(applies to preference customers)

- Generally, two types of customers: Full Load Service (FLS) and Variable Resource (VR).
- A FLS Customer is a customer that has its entire load at a delivery point(s) met by Western acting as its Portfolio Manager.
- A VR Customer is a customer that is responsible for managing its own resource and load portfolio.

2004 Power Marketing Plan EXCHANGE PROGRAM

(applies to preference customers)

- Exchange Energy - Unused BR allocated to other preference customers as allowed for by the Marketing Plan and the BR contract.
- Two Exchange Programs, seasonal and hourly.

2004 Power Marketing Plan

SEASONAL EXCHANGE PROGRAM

(applies to BR customers)

- 4 Seasons:
 - Winter: Jan to Mar
 - Summer: Jul to Sep
 - Spring: Apr to Jun
 - Autumn: Oct to Dec
- A customer is eligible to contribute to the Seasonal Exchange Program for 1 to 3 months of a season if Western agrees that the customer's anticipated load during the month(s) is less than anticipated BR amount.
- Western must also determine that this power can be beneficially used by another BR customer during the same month(s).

2004 Power Marketing Plan

HOURLY EXCHANGE PROGRAM

(applies to BR customers)

- If a customer's BR amount exceeds its load in any hour, the excess goes into the Hourly Exchange Program for the customer's group for that hour.
- There will be a separate hourly exchange program for each customer group.
- Participation in the Hourly Exchange Program requires customers to accept Exchange Energy if they have load in that hour.

2004 Power Marketing Plan

OPERATING RESERVES

(applies to preference customers)

- Operating reserves provided with BR (including Exchange Energy) and first preference load.
 - Operating Reserves consist of:
 - Spinning Reserve
 - Supplemental Reserve (non-spin)

2004 Power Marketing Plan

CUSTOM PRODUCT POWER (CPP)

(applies to preference customers)

- CPP is Federal power.
- CPP can be purchased in addition to BR to meet a FLS customer's total load at delivery point(s).
- Firming of a day ahead BR schedule.
- For VR customers, individual purchases made as agreed to by Western.

Power Revenue Requirement

(applies to preference customers)

- Annual Revenue Requirement (ARR) is around \$42 million and includes:
 - 130 GWH purchase to support project use load (around \$5 million).
 - Interest and investment repayment (around \$4 million).
 - CVP Power O&M (around \$33 million).

POWER REVENUE REQUIREMENT

(applies to preference customers)

- Annual Revenue Requirement (ARR) includes the following:
 - Costs for CVP transmission service, operating reserves, scheduling, system control and dispatch service, and reactive supply and voltage control.
 - Costs for firming for active hour & the following hour.

BR FIRMINING

(applies to BR customers)

- Western intends to firm the BR schedules:
 - For the active hour and the following hour.
 - Then the BR schedules will be cut or the customer may contract for a Custom Product Power purchase.

BR FIRING

(applies to BR customers)

- Example:
- A BR generating unit is lost at 2:10 pm.
- BR is firm for hour ending 3 pm and hour ending 4 pm.
- BR is reduced for hour ending 5 pm.

Power Revenue Requirement

(applies to preference customers)

- 1st preference customers pay their % share of power revenue requirement monthly (annual power revenue requirement divided by 12).
- Remaining power revenue requirement is recovered from BR customers based on their BR %.
- BR customers pay share of MRR based on their BR %.

BR AND 1ST PREFERENCE CUSTOMER RATE DESIGN

(applies to preference customers)

- Customers BR % adjusted on a monthly basis for Hourly and Seasonal Exchange Energy (as appropriate).
- First preference customers – Pay on a % based on a ratio of each 1st preference customer's load for the previous fiscal year to the total CVP generation less project use for the previous fiscal year; % for each 1st preference customer reviewed every six months, adjusted as appropriate.

BR AND 1ST PREFERENCE CUSTOMER RATE DESIGN

(applies to preference customers)

- Example for 1st Preference % calculation:
- Customer A is a 1st preference customer with a load for the previous fiscal year of 20 MWH.
- CVP generation less project use loads for the previous fiscal year calculated on an hourly basis was 2,000 MWH.
- Customer A's % is 1%.

BR AND 1ST PREFERENCE CUSTOMER RATE DESIGN

(applies to preference customers)

- BR customers pay their % of BR MRR regardless of amount of BR delivered.
- BR and 1st preference customers will receive a dollar charge for power, not a per-unit rate.
- Example:
 - BR MRR \$2,000,000.
 - Customer BR % is 10%.
 - Customer is charged \$200,000.

Power Revenue Requirement

(applies to preference customers)

- Power ARR distributed equally among 12 months, estimated MRR is \$3.5 million.
- CY01 hourly CVP generation reshaped to meet project use and first preference, remainder moved to on peak hours to the extent possible. This results in 2980 GWH BR available.
- 1st preference customers' share of power ARR based on CY01 hourly CVP generation data estimated at \$2.1 million (5%).
- For illustrative purposes only, annual average BR rate using CY01 hourly CVP generation of 2980 GWH is around \$14/MWH.

BR REVENUE REQUIREMENT (applies to BR customers)

- Using CY 01 data, there were many hours in Nov and Dec when 130 GWH purchase insufficient to meet hourly project use load.
- CY01 BR available by month (GWH):

Jan - 97	May - 444	Sep - 270
Feb - 39	Jun - 541	Oct - 167
Mar - 111	Jul - 584	Nov - 36
Apr - 222	Aug - 433	Dec - 34

BR REVENUE REQUIREMENT

(applies to BR customers)

- For illustrative purposes only, using CY01 hourly data, BR ARR (around \$40 million) divided equally over 12 months results in monthly rates ranging from \$6/MWH in Jul to \$98/MWH in Dec.
- Distributing the BR ARR by putting more costs in months when there is more CVP generation (i.e. Apr to Sep) moderates the monthly per unit cost (\$/MWH) fluctuations through the year and supports participation in the exchange program.

BR REVENUE REQUIREMENT

(applies to BR customers)

- After shifting BR ARR, MRR ranges from \$1.7 to \$6.0 million.
- For illustrative purposes only, shifting BR ARR from Oct to Mar period to Apr to Sep period results in monthly rates that range from \$10/MWH in Jul to \$51/MWH in Dec.
- If more BR ARR is shifted to Apr to Sep, collections and crediting for O&M funding would need to occur during that period.

BR REVENUE REQUIREMENT

(applies to BR customers)

- Rate data for illustrative purposes only, BR customers would be charged by applying their BR % to MRR.
- The shifting of BR ARR would not affect the % of costs paid by 1st preference customers.

EXCHANGE PROGRAM

(applies to BR customers)

- If a BR customer puts power into the exchange program and another BR customer uses that power, then the customer that gave up the power will have their BR % adjusted downward based on the amount of power they gave up.
- If a BR customer takes power from the exchange program, that customer's BR % will be adjusted upward based on the amount of power they took.

EXCHANGE PROGRAM

(applies to BR customers)

- If exchange energy is available and no participating Exchange Program preference customer has load to take it, Western may sell the power. In the event that Western sells the power, Western will apply the revenue from the sale of the power to the MRR from the customer (FLS or VR) group from which this power originated.

CUSTOM PRODUCT POWER (CPP)

(applies to BR customers)

- Spot market purchases to meet a FLS customer's load will be charged to the customer for which the purchase was made.
- Firming of a day ahead BR schedule will be charged individually to each (VR or FLS) customer that contracted for the service.

CPP

(applies to BR customers)

- CPP purchases for FLS customer(s) other than spot market purchases are considered long term Federal purchases. These long term purchases will be charged to the customer that uses the power.
- If there is long term CPP that is not utilized by the FLS customer(s) for which it was purchased, then that power may be sold by Western. Revenues from the sale will offset the cost of the CPP for the FLS customer(s) for which it was purchased.

CPP

(applies to BR customers)

- The cost for CPP purchases made for a VR customer will be charged to the customer for which the purchase was made.
- An administrative fee will be charged to the VR customer for Western's cost for procuring and scheduling of the CPP .
- The administrative fee for CPP purchases for FLS customer(s) are included in Portfolio Management (PM) Service rate.

CPP FUNDING

(applies to BR customers)

- CPP will require either appropriations, advance funding by the customer requesting CPP, Use of Receipts authority or other federally approved funding mechanisms.
- If advance funding is used, advancement of funds for entire purchase is required.

SCHEDULING COORDINATOR (SC) SERVICE

(applies to some preference customers)

- A SC submits schedules to the ISO and handles ISO settlements.
- ARR has two cost components:
 - (1) Western's labor and equipment costs for submitting the ISO schedules & handling settlements.
 - (2) Costs from ISO invoices associated with SC ID.

SC SERVICE

(applies to some preference customers)

- ARR for Western's Costs estimated to be \$600,000.
- Rate Design - ARR divided by the total number final daily schedules for the year.
- The rate for Western's costs can be adjusted in two ways. Formula rate will be adjusted annually. In addition to annual adjustment, it will be reviewed periodically through the year. If a review during the year shows a rate change of 20% or more, the rate will be adjusted.

SC SERVICE

(applies to preference customers)

- Rate fluctuates depending on number of customers taking SC service.
20 customers – estimated rate is \$14 per schedule.
40 customers – estimated rate is \$7 per schedule.
- Number of schedules for each customer will vary based on number of schedules required for that customer's load. Resource schedules done by individual resource - SC to SC trades, imports, BR, etc.

SC SERVICE

(applies to some preference customers)

- Example of SC rate application:
- Western Cost:
 - Customer has 6 schedules, 1 load, 5 resource.
 - SC rate is \$7 per schedule.
 - 30 day month
 - $\$7 \times 6 \text{ daily schedules} \times 30 \text{ days} = \$1,260 \text{ SC cost for month}$

SC SERVICE

(applies to some preference customers)

- Costs from ISO invoices (even if several customers are grouped under one SC ID) are passed through as if each customer was under a separate SC ID.

SC SERVICE

(applies to some preference customers)

- An example of a pass through of one cost from an ISO invoice - 3 customers under one SC ID.
- MCP = \$1/MWH

Customer	Scheduled MWH	Actual MWH	Deviation MWH	Applied MCP
A	200	150	-50	-\$50
B	100	150	50	+\$50
C	50	25	-25	-\$25

- Western's settlement system would net this charge against all other costs from ISO invoices to determine the amount to be billed to each customer.
- Customer will be billed each time Western receives an ISO invoice, currently at least 5 times per month.

SC SERVICE

(applies to some preference customers)

- Costs from ISO invoices will require either appropriations, advance funding by the customer, use of receipts authority or other federally approved funding mechanisms.
- For advance funding, a minimum of 3 months advancement of funds is required. Two months can be put into an escrow account that Western has access to and one month must be deposited into a trust account.

PORTFOLIO MANAGEMENT (PM) SERVICE

(applies to some preference customers)

- This service balances a customer's portfolio of resources to meet the customer's load. FLS customers purchasing CPP from Western must also take PM service.
- ARR estimated to be \$1 million for Western's labor and equipment costs.

PM SERVICE

(applies to some preference customers)

- Rate Design - ARR divided by the total number final daily schedules for the year.
- The rate can be adjusted in two ways. Formula rate will be adjusted annually. In addition to annual adjustment, it will be reviewed periodically through the year. If a review during the year shows a rate change of 20% or more, the rate will be adjusted.

PM SERVICE

(applies to some preference customers)

- Rate fluctuates depending on number of customers taking PM service.
20 customers – estimated rate is \$28 per schedule.
40 customers – estimated rate is \$14 per schedule.
- Number of schedules for each customer will vary based on number of schedules required for that customer's load. Resource schedules done by individual resource - CPP, BR, existing contracts, etc.

PM SERVICE

(applies to some preference customers)

- Example of PM rate application:
 - Customer has 5 schedules, 1 load, 4 resource.
 - PM rate is \$14 per schedule.
 - 30 day month.
 - $\$14 \times 5 \text{ daily schedules} \times 30 \text{ days} = \$2,100$ PM cost for month.

ANCILLARY SERVICES

- Six ancillary services will be offered in accordance with Western's Open Access Transmission Tariff (OATT).
- Scheduling, System Control & Dispatch Service.
- Reactive Supply & Voltage Control from Generation Sources Service.
- Regulation & Frequency Response Service.
- Energy Imbalance Service.
- Operating Reserve – Spinning Reserve Service.
- Operating Reserve – Supplemental Reserve Service (non-spin).

SCHEDULING, SYSTEM CONTROL AND DISPATCH (SSC&D) SERVICE (applies to transmission customers)

- Schedule movement of power through, out of, within, or into a Control Area.
- ARR is estimated to be \$3.6 million.
- Major cost components are: Transmission Switching and Dispatch (TS&D) Desk (around \$1.2 million) and Transmission Scheduling & Security (TSS) Desk (around \$1.5 million).

SSC&D SERVICE

(applies to transmission customers)

- Primary functions of the TS&D Desk: coordination with maintenance personnel for repairs, issue clearances, etc.
- Primary functions of the TSS Desk: monitors transmission system for congestion and over-loading, responsible for E-tag validation, etc.

SSC&D SERVICE

(applies to transmission customers)

- Rate Design – ARR divided by number of e-tags validated by the TSS desk for the year.
- The rate can be adjusted in two ways. Formula rate will be adjusted annually. In addition to annual adjustment, it will be reviewed periodically through the year. If a review during the year shows a rate change of 20% or more, the rate will be adjusted.

SSC&D SERVICE

(applies to transmission customers)

- Estimated rate \$60 per validated e-tag (adjustments are considered separate e-tags).
- SSC&D costs will be calculated for each customer taking transmission service, including Western's merchant function, and will be included as a component of the Transmission Service rate.
- SSC&D Service costs for BR will be included in BR ARR.

SSC&D SERVICE

(applies to transmission customers)

- Sample calculation of SSC&D component of transmission service rate.
- 4 e-tags validated every day by TSS desk for a customer.
- 30 day month.
- Estimated \$60 per e-tag.
- $\$60 \text{ per e-tag} \times 4 \text{ e-tags} \times 30 \text{ days} = \$7,200 \text{ SSC\&D monthly cost.}$
- Customer contracted for 10 MW of transmission capacity.
- $\$7,200 / 10,000 \text{ kW-mo} = \$0.72 / \text{kW-mo SSC\&D component for transmission service rate.}$

REACTIVE SUPPLY & VOLTAGE CONTROL FROM GENERATION SOURCES SERVICE (applies to transmission customers)

- Maintenance of transmission voltages through generating facilities absorption or production of reactive power.
- ARR is estimated to be \$2 million.

REACTIVE SUPPLY & VOLTAGE CONTROL FROM GENERATION SOURCES SERVICE (applies to transmission customers)

- Major cost components of ARR:
 - cost of generation capability used to provide service (around \$1.1 million).
 - Western's labor and equipment used to provide service (around \$800,000).
- Western's costs are primarily for the TS&D desk which monitors voltage support.

REACTIVE SUPPLY & VOLTAGE CONTROL FROM GENERATION SOURCES SERVICE (applies to transmission customers)

- Rate Design – ARR divided by amount of transmission capacity (kW) provided during the year.
- The rate can be adjusted in two ways. Formula rate will be adjusted annually. In addition to annual adjustment, it will be reviewed periodically through the year. If a review during the year shows a rate change of 20% or more, the rate will be adjusted.

REACTIVE SUPPLY & VOLTAGE CONTROL FROM GENERATION SOURCES

(applies to transmission customers)

- Rate will be charged based on amount of transmission capacity under contract (sum of rolling 12 kW-mo).
- Rate estimated to be on average \$.07/kW-mo.
- Rate will be included as a component of the transmission service rate.
- Reactive Supply & Voltage Control costs for BR will be included in BR charge.

REGULATION & FREQUENCY RESPONSE SERVICE

- Continuous balancing of resources, generation and interchange, with load and for maintaining schedule interconnection frequency.

REGULATION & FREQUENCY RESPONSE SERVICE

- ARR is estimated to be \$2.3 million.
- Major cost components:
 - Cost of generation capability used to provide service (around \$1 million).
 - Western's labor and equipment used to provide service (around \$1.2 million).
 - Power purchases to support regulation & frequency response service (no cost estimate at this time).

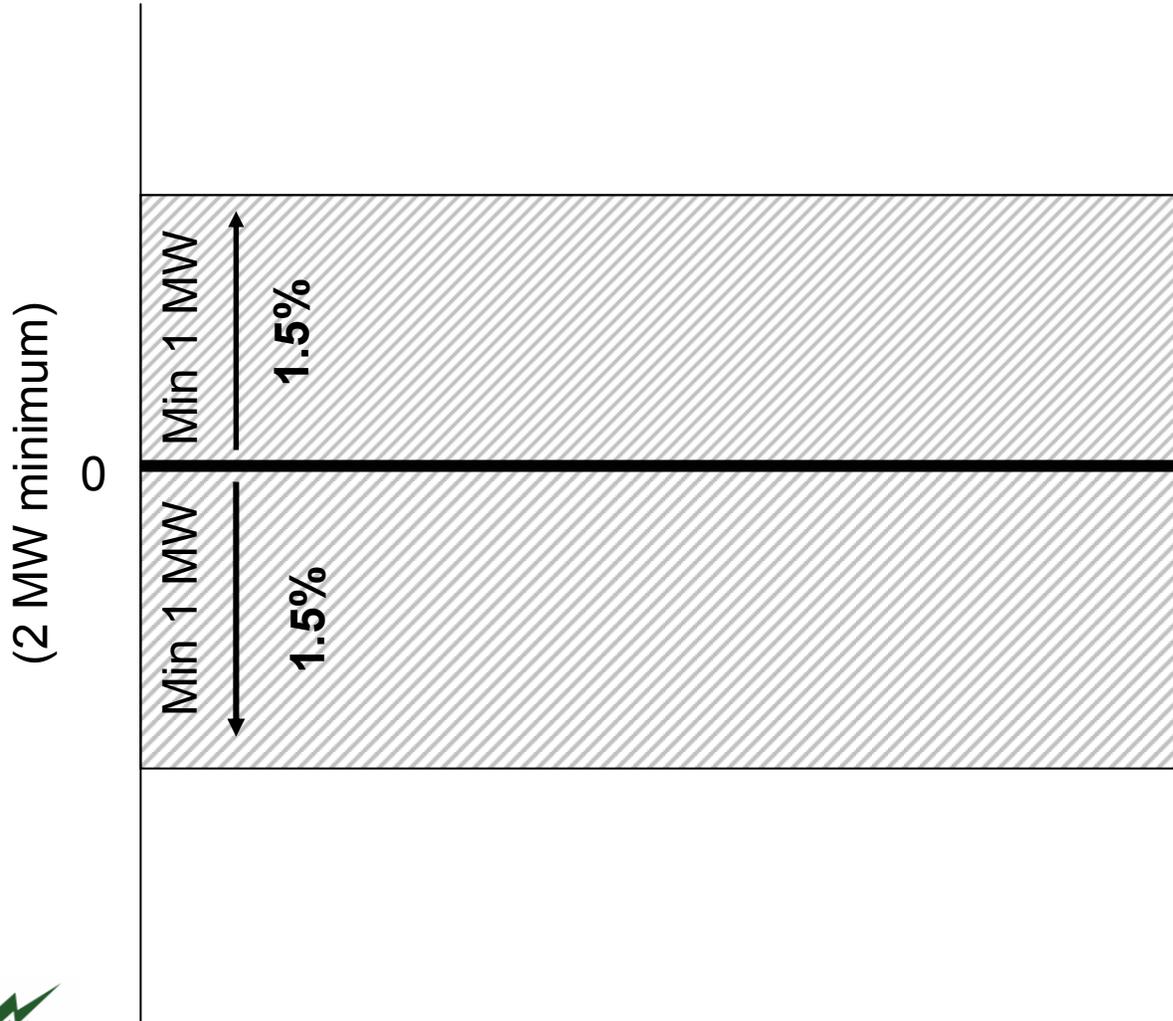
REGULATION AND FREQUENCY RESPONSE SERVICE

- Western's costs include for Automatic Generation Control (AGC) Desk (about \$600,000).
- Primary functions of AGC desk include monitoring frequency Area Control Error, balances loads and resources, etc.

REGULATION & FREQUENCY RESPONSE SERVICE

- Rate Design – ARR divided by amount of regulation capacity (kW) provided during the year.
- The rate can be adjusted in two ways. Formula rate will be adjusted annually. In addition to annual adjustment, it will be reviewed periodically through the year. If a review during the year shows a rate change of 20% or more, the rate will be adjusted.

REGULATION & FREQUENCY RESPONSE SERVICE



Rate will be charged based on the maximum amount of regulating capacity for each customer for the month (\$/kW-mo).

REGULATION AND FREQUENCY RESPONSE SERVICE

- Rate will be charged based on the maximum amount of regulating capacity for each customer for the month (\$/kW-mo).
- Estimated rate of \$0.40/kW-mo.
- Example:
 - Customer's maximum regulating capacity for month was 4 MW.
 - $4,000 \text{ kW} \times \$0.40/\text{kW-mo} = \$1,600$ monthly cost.

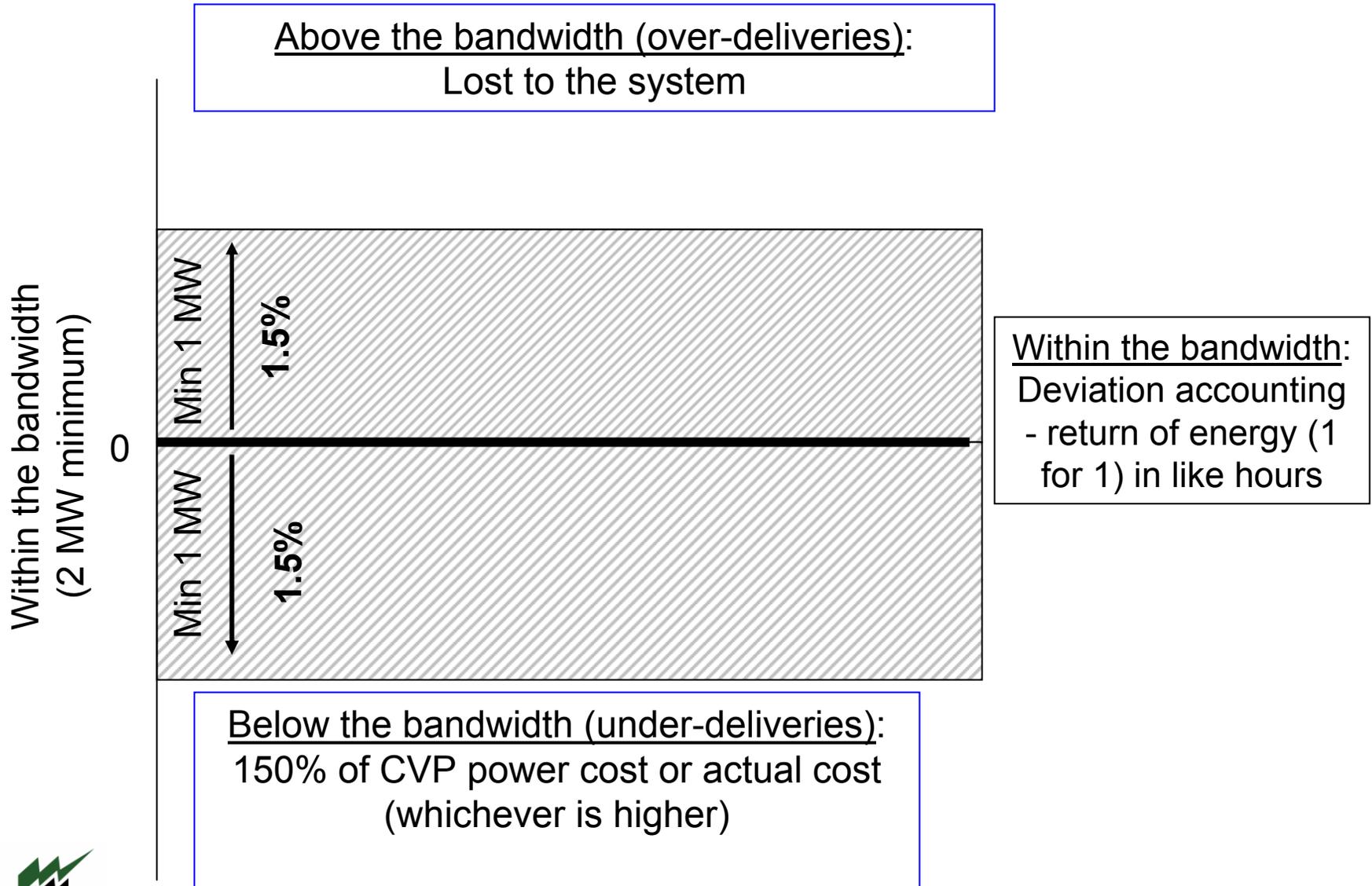
ENERGY IMBALANCE SERVICE

- Provided when a difference occurs between the scheduled and the actual delivery of energy over a single hour.

ENERGY IMBALANCE SERVICE

- Deviation band shall be +/- 1.5% (with a minimum of 2 MW) of scheduled transaction to be applied hourly.
- Accumulated deviations within bandwidth are corrected or eliminated within 7 days. Any net deviations at the end of 7 days (positive or negative) exchanged with like hours of energy.

Energy Imbalance Service



OPERATING RESERVE – SPINNING RESERVE SERVICE

- Reserves available to serve load immediately in the event of a system contingency.
- ARR is estimated to be \$3.5 million.

OPERATING RESERVE – SPINNING RESERVE SERVICE

- Cost components of ARR:
 - cost of generation capability used to provide service (around \$1.8 million)
 - cost for motoring unit/loss of energy due to efficiency of unit (around \$1.1 million)
 - cost for purchasing additional reserves to support BR if reserves are not available from CVP (no cost estimate at this time).
 - Western's labor & equipment costs (around \$600,000) includes an AGC desk cost of around \$300,000. A function of the AGC desk is monitoring reserves balance.

OPERATING RESERVE – SPINNING RESERVE SERVICE

- Rate Design – ARR divided by amount of spinning reserve (kW-mo) provided during the year.
- The rate can be adjusted in two ways. Formula rate will be adjusted annually. In addition to annual adjustment, it will be reviewed periodically through the year. If a review during the year shows a rate change of 20% or more, the rate will be adjusted.

OPERATING RESERVE – SPINNING RESERVE SERVICE

- Spinning reserve from the CVP in excess of BR reserve requirements, project use and 1st preference needs may be sold at CVP rate or market rate whichever is greater.
- Spinning reserve rate will be charged based on the amount of spinning reserve (kW) contracted for, whether used or not.
- Estimated rate of \$0.31/kW-mo.
- Cost for spinning and supplemental reserves (non-spin) for BR will be included in the BR charge.

OPERATING RESERVE – SUPPLEMENTAL RESERVE SERVICE (non-spin)

- Reserves available to serve load within a short period of time in the event of a system contingency.
- ARR is estimated to be \$2.4 million.

OPERATING RESERVE – SUPPLEMENTAL RESERVE SERVICE (non-spin)

- Major cost components are:
 - cost of generation capability used to provide service (around \$1.8 million).
 - Western's labor and equipment used to provide service (around \$600,000).
- Western's costs include AGC desk cost (around \$300,000). Functions of the AGC desk include monitoring reserves balance.

OPERATING RESERVE – SUPPLEMENTAL RESERVE SERVICE (non-spin)

- Rate Design – ARR divided by amount of supplemental reserve (kW-mo) provided during the year.
- The rate can be adjusted in two ways. Formula rate will be adjusted annually. In addition to annual adjustment, it will be reviewed periodically through the year. If a review during the year shows a rate change of 20% or more, the rate will be adjusted

OPERATING RESERVE – SUPPLEMENTAL RESERVE SERVICE (non-spin)

- Supplemental reserve from the CVP in excess of BR reserve requirements, project use and 1st preference needs may be sold at CVP rate or market rate, whichever is greater.
- Supplemental reserve rate will be charged based on the amount of supplemental reserve (kW) contracted for, whether used or not.
- Estimated rate of \$0.19/kW-mo.

COTP TRANSMISSION SERVICE

- Point to Point service under the OATT.
- Western anticipates the 6.25 % of COTP rights (100 MW) reserved for DOE and USF&WS will be utilized by those agencies post 04.
- Western's estimated capacity available for sale – 77 MW.
- ARR for transmission facilities component is estimated to be \$1.2 million, which includes Western's costs for COTP facilities and related O&M.

COTP TRANSMISSION SERVICE

- Formula rate with 3 components:
 - Transmission facilities component
 - Formula rate estimated at \$1.30/kW-mo that will be adjusted seasonally based on COI rating.
 - SSC&D Service component.
 - Reactive Supply & Voltage Control Service component.

COTP TRANSMISSION SERVICE

- Example of rate application:
- Customer reserves 25 MW of transmission.
- Customer validates 2 e-tags each day for COTP transmission.
- 30 day month
- SSC&D component rate calculation:
 - 2 e-tags x 30 days x \$60 per tag = \$3,600
 - \$3,600/25,000 kW= \$0.144/kW-mo

COTP TRANSMISSION SERVICE

- Example of rate application (cont'd):
- Transmission rate:
 $\$1.30/\text{kW-mo} + \$0.144/\text{kW-mo} + \$0.07/\text{kW-mo} = \$1.514/\text{kW-mo}$
- $\$1.514/\text{kW-mo} \times 25,000 \text{ kW} = \$37,850$

CVP TRANSMISSION SERVICE

- New transmission service on CVP provided under the OATT.
- ARR for transmission facilities component is estimated to be \$25.6 million. ARR based on plant costs that support the transmission function and related O&M costs.
- O&M Costs are around \$21.6 million. This includes costs directly charged to facilities that support the transmission function. O&M that is not directly charged to a facility is allocated based on the plant allocation between transmission and generation.

CVP TRANSMISSION SERVICE

- Rate design for transmission facilities component – ARR divided by the amount of transmission capacity (kW-mo) provided during the year.
- Estimated rate for transmission facilities component of \$0.95/kW-mo.
- Costs for CVP transmission service for BR included in BR charge.

CVP TRANSMISSION SERVICE

- CVP transmission facilities component is greater than current CVP transmission rate due to:
 - Network service for CVP generation, which is based on coincident peaks of CVP generation connected to CVP transmission system.
 - Direct charging of O&M to facilities has increased O&M charged to transmission function.
 - Western's overall O&M costs have increased.
 - Any short-term transmission sales will offset CVP revenue requirement for transmission.

CVP TRANSMISSION SERVICE

- Formula rate with 3 components:
 - Transmission facilities component
 - The rate can be adjusted in two ways. Formula rate will be adjusted annually. In addition to annual adjustment, it will be reviewed periodically through the year. If a review during the year shows a rate change of \$0.05/kW-mo or more, the rate will be adjusted.
 - SSC&D service component.
 - Reactive Power & Voltage Support component.

THIRD PARTY TRANSMISSION COSTS

- If Western is charged for delivery of Western power (BR, Exchange, and/or CPP) on transmission systems other than Western's, PG&E's or the ISO grid, Western will pass through the transmission charges incurred for the power delivery.

COSTS FOR DELIVERY OF WESTERN POWER ON ISO/PG&E FACILITIES- PG&E'S POSITION

- For customers that own a distribution system and act as a utility:
 - Taking delivery from the ISO grid pay the ISO TAC.
 - Taking delivery from PG&E's system pay PG&E's wholesale distribution tariff.
 - No exit fees charged for delivery of Western power (BR, Exchange, and/or CPP).

COSTS FOR DELIVERY OF WESTERN POWER ON ISO/PG&E FACILITIES- PG&E'S POSITION

- For End Use Customers that were Western customers prior to 1993, PG&E will deliver Western power to existing delivery point(s).
 - PG&E won't be supplemental supplier.
 - No exit fee for BR & Exchange Energy.
 - Pay PG&E costs & the costs associated with ISO.
 - Exit fee applies to non-CVP generation (e.g. Custom Product Power).

COSTS FOR DELIVERY OF WESTERN POWER ON ISO/PG&E FACILITIES- PG&E'S POSITION

End Use Customers (cont'd):

- For Western customer(s) whose delivery points for Western power were established from 1993 to 2004, PG&E will deliver Western power to existing delivery point(s).
 - PG&E won't be supplemental supplier.
 - Exit fees applies to all Western power.
 - Pay PG&E costs & costs associated with ISO.
- New allottees and new project use loads: PG&E will not deliver Western power.

COSTS FOR DELIVERY OF WESTERN POWER ON ISO/PG&E FACILITIES

- Currently, customers on PG&E's system pay transmission costs under 2948A based on a subfunctionalized rate methodology.
- This methodology is based on the cost of PG&E transmission and distribution facilities used to deliver Western power and a credit for Western's facilities (called embedded cost).

COSTS FOR DELIVERY OF WESTERN POWER ON ISO/PG&E FACILITIES

- Starting 1/1/05, Customers who have Western Power delivered from the ISO grid or PG&E's system would continue to pay Western's estimate of embedded costs.
- The remaining costs for use of ISO grid and PG&E transmission and distribution (T&D) facilities to deliver Western power (ISO/PG&E facilities cost) will be included in the ARR for Western's PACI rights.

COSTS FOR DELIVERY OF WESTERN POWER ON ISO/PG&E FACILITIES

- The PACI was constructed to ensure that Western would be able to serve its customers at a cost not to exceed the cost of Federal construction. As a result, certain Western power delivery costs are included in the PACI ARR.
- The costs included in the PACI ARR would be limited to ISO/PG&E (T&D) facility related costs only.
- As applicable, other costs associated with the ISO or PG&E, such as GMC, exit fee, etc. would be the responsibility of the customer.

PACI TRANSMISSION SERVICE

- Point to Point Service under the OATT
- ARR consists of:
 - Western's costs for its facilities estimated to be \$1.4 million.
 - The ISO/PG&E (T&D) facilities cost for deliveries of Western power (less embedded costs).

PACI TRANSMISSION SERVICE

- A formula rate will be used to recover the ARR for the transmission facilities component.
- Western's costs will be divided by 12 to determine a MRR.
- The monthly ISO/PG&E (T&D) facilities costs for delivery of Western power will be added to Western's cost to determine a MRR.

PACI TRANSMISSION SERVICE

- The MRR will be divided by Western's PACI rights (kW) to determine a monthly rate (\$/kW-mo) for the transmission facilities component.
- Formula rate with 3 components (rate will be adjusted every month):
 - Transmission facilities component.
 - SSC&D Service component.
 - Reactive Supply & Voltage Control Service component.

CONTROL AREA MANAGEMENT SERVICE (CAMS)

- If Western is a control area, Western will charge for CAMS to control area load for managing the control area.
- ARR is estimated to be \$2.5 million.
- Major cost component is TSS Desk (about \$1.5 million) which monitors interchange schedules and conducts hourly checks with adjacent control area operators.

FERC Accepted or Approved Credits or Charges

- The following language applies to all of Western's rates:

Any charges or credits associated with the creation, termination, or modification to any tariff, contract, or schedule accepted or approved by FERC, under which Western takes service, will be passed on to each appropriate customer.

FLS CUSTOMER PRODUCTS & SERVICES

- A FLS customer not in Western's Control Area would contract for the following:
 - BR (includes CVP Transmission service, SSC&D service, reactive power and voltage control, and operating reserves)
 - CPP (FLS must also take PM)
 - SC (required in ISO Control Area)
 - Third party transmission arrangements

FLS CUSTOMER PRODUCTS & SERVICES

- Western will provide the following to a FLS customer in Western's control area:
 - BR (includes CVP Transmission service, SSC&D service, reactive power and voltage control, and operating reserves)
 - CPP (FLS must also take PM)
 - CAMS
 - Energy imbalance
 - Regulation
 - Operating reserves (above BR amount)
 - Transmission for load above BR (SSC&D and reactive power and voltage control)

VR CUSTOMER PRODUCTS & SERVICES

- Western will provide the following to a VR customer in Western's control area:
 - BR (includes CVP Transmission service, SSC&D service, reactive power and voltage control, and operating reserves)
 - CAMS
 - Energy imbalance
 - Regulation
 - Operating reserves (above BR amount)
 - Transmission for load above BR (SSC&D and reactive power)
- A VR customer in Western's control area could contract for the following:
 - CPP

VR Customer Product & Services

- VR Customer not in Western's Control Area would take:
 - BR (includes CVP Transmission service, SSC&D service, reactive power and voltage control, and operating reserves)
- VR Customer not in Western's Control Area could take:
 - CPP
 - SC (required in ISO Control Area)
 - Third party transmission arrangements