Desert Southwest Region
Multiple System Transmission Rate
Power Marketing Rates

April 23, 2003

Meeting Purpose
Jack Murray

- To provide history—steps taken to date to design **Multiple System Transmission Rate** (MSTR)
- To discuss status of MSTR process
- To illustrate/discuss options for MSTR implementation
- To obtain customer feedback/input

Brief History

- Renewed interest by customers to investigate single DSW transmission rate
- Operationally 3 systems utilized as one – match product pricing with operational realities
- Initial attempt: Combined total Revenue Requirements divided by un-pancaked reservations

More History

- Overall reservations (denominator) decreased-most customers saw significant & immediate increases vs. today's cost
- Investigated various calculations to mitigate cost increases

And Still More History

- Brought in Rates Managers from other WAPA regions to discuss – how to bring MSTR to Reality
  - Developed set of principles – detailed discussion to follow
  - Basic concept—end state of a single un-pancaked rate with mitigation of cost shifting
  - Using these principles, came up with a "convergence" model

One Last History Slide!

- Basic Premise of "Convergence"
  - Calculate a target rate that collects necessary revenue over five year evaluation period
  - Calculate difference between Today's cost and the target rate
  - Implement 20% (1/5) of the difference between today's cost and the target rate each year. (2/5 in year 2, 3/5 in year 3, etc.)

Possible Time Line

- Dependent on Customer Feedback/Input
- Additional Informal meetings (?)
- Assume additional Informal meeting in May and in June:
  - Public Information Forum Late July 03
  - Public Comment Forum Late August/Early Sept 03
  - Comment Period Ends Mid October 03

PRINCIPLES

Gloria Jordan

List of Principles

- > Eliminate Pan-caking Service Charges

- > Mitigate Cost Shifts to Customers

- > End State

- > Comparable Treatment

- > Increase Available Transmission Capacity (ATC)

List of Principles (continued)

- > Close to Industry Standards

- > Simple and Transparent

- > Project Financial Integrity
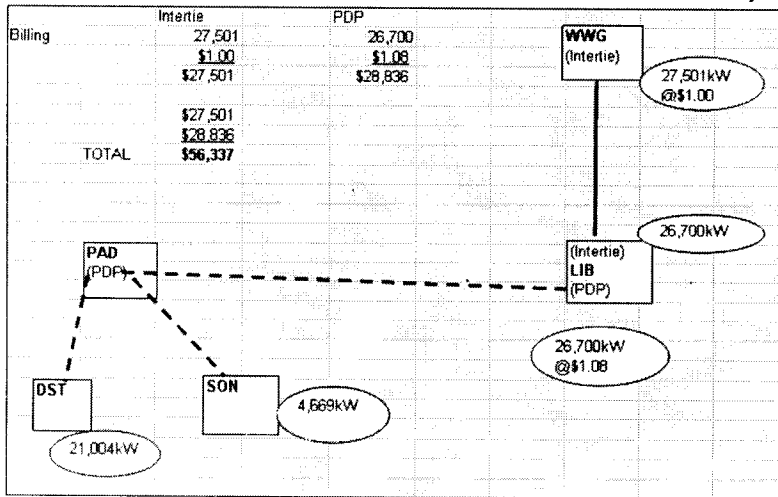
- > Ensure Repayment of Project

OVERVIEW OF RATE METHODOLOGIES

Bill Snowden

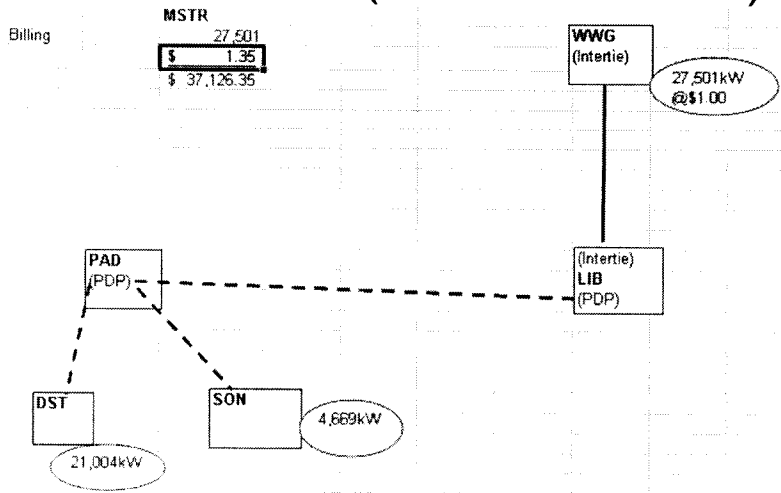# Pancaked Reservations

- Point of receipt on one system and point of delivery on a different system or
- Path which crosses to second system and back to the first
- The rate is applied on a contract basis
- If a part of the contract is pancaked, the rate is applied as if all reservations are pancaked

Examples of Pancaked Reservations (losses included)

	Intertie	PDP	
Billing	27,501	26,700	
	$1.00	$1.08	
	$27,501	$28,836	
	$27,501		
	$28,836		
TOTAL	$56,337		

WWG (Intertie)

27,501kW @$1.00

26,700kW

(Intertie) LIB (PDP)

26,700kW @$1.08

PAD (PDP)

DST

SON

4,669kW

21,004kW

Examples of Un-pancaked Reservations (losses included)

MSTR

Billing	27,501
	$ 1.35
	$ 37,126.35

WWG (Intertie)

27,501kW @$1.00

PAD (PDP)

(Intertie) LIB (PDP)

DST

SON

4,669kW

21,004kW

Total Reservations Differences

- There are fewer total reservations when system is unpancaked
  - Duplicate CROD is eliminated where the MSTR is applied.

Six customers have reservations that are Pancaked

	Pancaked Res.	% of Delivery
APA	48,139 kW	21%
APPA-SWTA	72,690 kW	37%
APPA-Mesa	18,546 kW	15%
CAWCD	122,400 kW	100%
IID	120,000 kW	75%
USBR	25,673 kW	100%

MSTR Only vs. Convergence Method

- In MSTR Only all customers pay the MSTR each year
- Convergence Method with two options
  - Apply the MSTR in the 1st Year
  - Apply the MSTR in the 5th Year

Why more than one method?

- Balancing the Principals
  - Eliminate pancaking
  - Mitigate cost shifts
  - Increase ATC
  - Simple & Transparent

MSTR Only

- All customers pay the same rate each year
- Rate is recalculated each year
- Similar to current rate calculation except on total system

Calculation of MSTR

- Total Revenue Requirement divided by Total Reservations
- Example: FY04
  - The sum of the Revenue Requirements for all projects is $71,578,795
  - The sum of the unpancaked Reservations for all projects is 4,150,595 kW
  - The rate is $71,578,795 / 4,150,595 kW / 12 or $1.44 /kW-mo

MSTR ONLY SPREAD SHEET

- 1st block Revenue Requirements
- 2nd block: reservations with pancaking eliminated
- 3rd block: calculate rate for each year
- 4th block: Allocation percentages
- 5th block: Comparison to Revenue Requirements

Convergence Method

- Those customers with CROD which is currently pancaked, pay the MSTR in the year it is applied.
  - Pancaking is eliminated on these reservations
- Those customers with CROD which is <u>not</u> pancaked pay the step rate of the appropriate Project the first 4 years of the period.

Calculation of Rate Convergence Method

- Set up Spread sheet
  - 1st block: Revenue Requirements
  - 2nd block: Capacity Reservations
  - 3rd block: Calculation of yearly step rates

First, Estimate Target MSTR

Target MSTR must be large enough to insure collection equal to RR for each project for the 5 year period

Choose a number in the range of the MSTR Only yearly rates

For the values done in this study pick
$1.35

Next, Calculate difference between Target and FY03 Rates

- This must be done for each Project
- Example: FY04
  - PDP: FYO3 Rate is $1.08 kW-mo
  - Target MSTR is $ 1.35
  - The difference is $ 0.27

FY03 Rates

- These rates are the basis for the Step rate for each project

PDP =	$1.08 kW/mo
CAP =	$0.82 kW/mo
IP 230/345 kV =	$1.00 kW/mo
IP 500 kV =	$1.44 kW/mo

Apply Discount or Adder to each Project Rate

- The discount is a per cent of the difference between the Target and Current Rate
- Example: 5 year period, use 20% per year
  - For PDP w/ a $ 0.27 difference
  - The discount is $0.22 for FY04 to get a rate of $1.13. The FY05 discount is $0.19 for a rate of $1.19 Etc.
  - In the 5th year no discount is applied
- IP requires an adder
- Block 3 shows the calculated step rates after the discount

Calculate Revenue Allocation Percent for each Project

- The allocation percent :
  - Applicable Revenue Requirement divided by the Total Revenue Requirement for the Year
  - Example: Intertie Project for FY04
    - IP Revenue Requirement is $ 33,247,603
    - Total Revenue Requirement is $71,578,795
    - IP Allocation percent is 46.45%
  - Block 5 shows the Allocation % per year

Calculate Revenue allocated to each Project for applicable rate

- Check Revenue recovery for period
- Sum the estimated Revenue for Projects

Compare the estimated revenue to the Revenue Requirement

- Block 6 shows estimates of Revenue Allocated, the Revenue Requirement and estimate of Over (Under) Collect for the period for each project
- Negative value in "Over (Under) Collect" column indicates "under" collection