



Water Revenue Adjustment Mechanisms as a Necessary Regulatory Response

Stephen St. Marie
California Public Utilities Commission
Advisor to Commissioner John A Bohn
For Presentation to NARUC Water Committee
July 20, 2010
Contact Information: 415-703-5173, SST@cpuc.ca.gov

NOTE: Mr. St. Marie's opinions are his own, and do not necessarily represent
the policies of the California Public Utilities Commission

Overview

- It is necessary for regulators to institute some sort of Revenue Adjustment Mechanism (RAM) to offset the financial instability that would result from Conservation Rates
- Otherwise the risk, and the cost of capital, would be very high
- The RAM mitigates the effects of the conservation policies

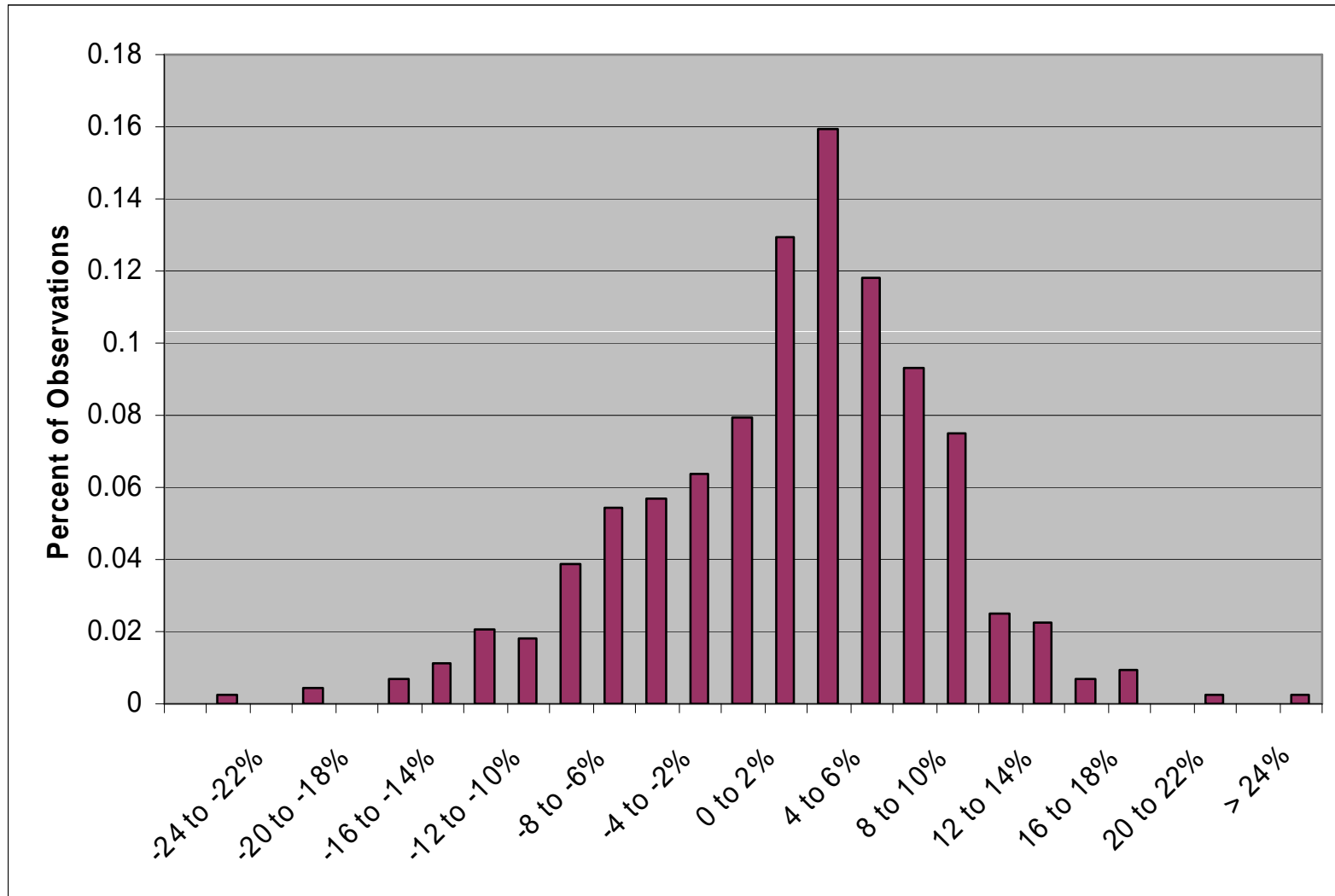
Why do Conservation Rates cause financial instability?

- Current Regulatory Practices separate Price Structure from Cost Structure of regulated utility services
- This is not an Error; it is Policy
- Regulatory process and high tiered rates amplify the effects

Three Policies that together Create Financial Risk

- Despite a utility cost structure that is largely fixed over the short to moderate run, policy is to set prices based largely on volume
- Regulatory processes take a long time to respond to financial results
- High Tiered Rates, also known as Conservation Rates, increase financial effects

Water Usage Changes from Year to Year



Utility Cost Difference Associated with Small Quantity Difference

Cost Assumptions

	Units	Variable Cost	Fixed Cost	Total Cost
Forecast	1,000	\$400.00	\$600.00	\$1,000.00
1% Less	990	\$396.00	\$600.00	\$996.00

Effects of a Small Quantity Difference On Costs

■ **Planned Quantity** 1,000 Units



■ **Actual Quantity** 990 Units



■ **Planned Cost** \$1,000



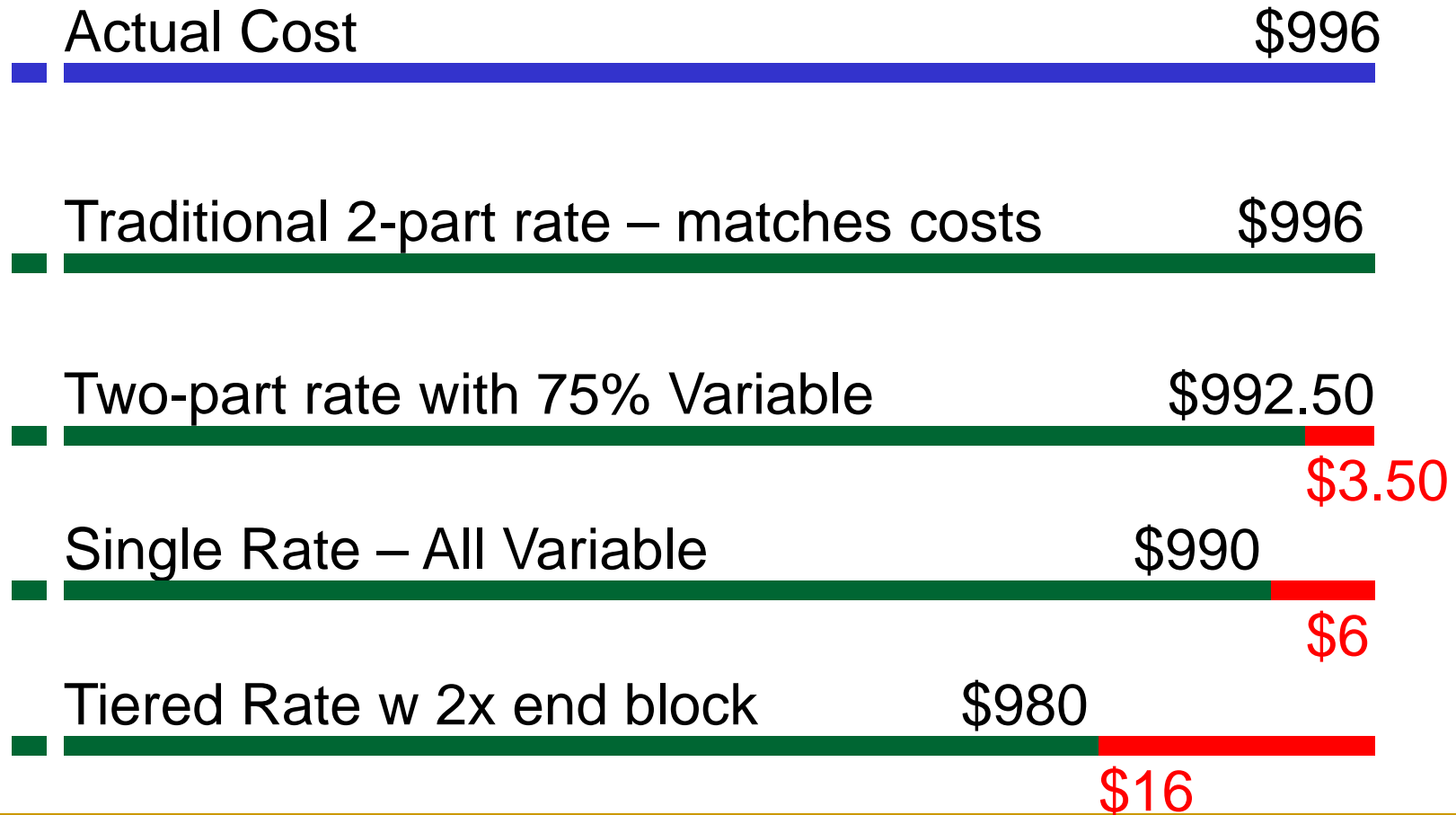
■ **Actual Cost** \$996



Utility Revenue Difference Associated with Small Quantity Difference

Revenue Result -- Hypothesis is that planned earnings are \$100							
			Variable	Fixed	Total	Earnings Impact	
		Units	Revenue	Revenue	Revenue	\$	%
1)	<i>Two-Part Tariff w matching variable/fixed proportions (\$0.40 for marginal units)</i>						
	Forecast	1,000	\$400.00	\$600.00	\$1,000.00		
	1% Less	990	\$396.00	\$600.00	\$996.00	\$0.00	0.00%
2)	<i>Two-Part Tariff w 75% Variable and 25% fixed (\$0.75 for marginal units)</i>						
	Forecast	1,000	\$750.00	\$250.00	\$1,000.00		
	1% Less	990	\$742.50	\$250.00	\$992.50	(\$3.50)	-3.50%
3)	<i>Single Tariff -- All Volumetric (\$1.00 per marginal unit)</i>						
	Forecast	1,000	\$1,000.00	\$0.00	\$1,000.00		
	1% Less	990	\$990.00	\$0.00	\$990.00	(\$6.00)	-6.00%
4)	<i>2x Tier -- All Volumetric (\$2.00/unit for marginal units)</i>						
	Forecast	1,000	\$1,000.00	\$0.00	\$1,000.00		
	1% Less	990	\$980.00	\$0.00	\$980.00	(\$16.00)	-16.00%

Effects of a Small Quantity Difference On Revenue and on ROE



Water RAM is necessary to counter-act the effects of the conservation rates

- Unless water sales are precisely on forecast, the utility will either vastly over-earn or under-earn
- A Water Revenue Adjustment Mechanism restores the forecast revenues in a timely manner, mitigating the enhanced revenue risk
- Ordinary business risk remains unchanged

Effects of High Tiered Rates And Necessary Response

