

Restructured Rates at SMUD

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SMUD Pricing – Options and Opportunities

- SMUD has many pricing options that provide customers ways to save money, expand renewables and benefit the environment
 - All customers have multiple pricing options, including time of use rates
 - Green programs allow customers to purchase more renewable energy
 - Incentives encourage customers to install renewable generation
 - Options allow low income and multi-family housing to participate in expanding renewables
- SMUD pricing is progressive
 - Testing the future of pricing designs now
 - Smart grid investments and new technology will help customers save
 - Customer communication and engagement are key to pricing
 - Subsidies are being addressed
 - New pricing options for electric vehicles and demand response are coming
- SMUD pricing will keep pace with new competition, new technology and new service options customers demand

SMUD Ratemaking Principles

- SMUD's rates are designed to balance and achieve the following objectives
 - Reflect the cost of energy when it is used
 - Reduce use on peak
 - Encourage energy efficiency and conservation
 - Minimize "sticker" shock
 - Offer flexibility and options
 - Be simple and easy to understand
 - Meet the needs of people with fixed low incomes and severe medical conditions
 - Equitably allocate costs across and within customer classes

Recent Price Restructuring

- Not a revenue increase
- Eliminate subsidies caused by misalignment of prices and costs
 - Prepare for competition
 - Address long term inequities from net metering
 - Fairly compensate customers for renewables
- Customer engagement and community feedback key to successful process
- Five year rollout
 - Increase fixed charges and reduce usage charges
 - Commercial Time of Use Rates

SMUD Residential Pilot Rates

- **Smart Pricing Options® Rates**

- **Residential Time of Use Overlay Rates**

- Overlays a TOU price on a standard two-tier residential rate
- TOU price applies from 4-7 pm for four months (June – Sept.), all other times tiered rates apply
- Keeping existing tiered rates minimizes bill impacts while TOU overlay aligns prices with costs

- **Dynamic Pricing Pilot Rates**

- Increases peak prices (4-7pm) during 12 critical events/year in exchange for lower tiered or TOU pricing the rest of the year
- Aligns prices and costs and provides clear incentives to lower demand during the 12 worst days/year
- Evaluate customer acceptance, satisfaction, load reduction, price sensitivity, communication options, and technology options (pilots use in home displays to communicate to customers)

- **Electric Vehicle Pilot Rates**

- **Studying multiple options depending on charging requirements**

- **Level 1 charging – standard wall outlet, no separate meter requirements**
 - Whole House EV TOU Rate
 - Likely no need for transformer upgrades
- **Level 2 charging – sub-metered, higher voltage, quick charging (2-4 hours)**
 - TOU rate for sub-metered EV charging, separate rate design for the house load
 - Cost recovery for metering expense
 - Transformer upgrades may be required and will be recovered through rates
- **Level 2 charging - phase 2**
 - TOU rate for sub-metered EV charging, with a demand charge that applies during 12 critical events/year
 - New technology allows SMUD to turn off EV charger during events

Low Income Rates

- **Energy Assistance Program Rate Discount Restructure**
 - Usage greater than 600 kWh beyond applicable base usage no longer receives low income discount
 - Additional discounts for customers who stay under threshold
 - Overall low income subsidy unchanged
 - Encourages energy efficiency for high use customers
- **Better align fixed charges with fixed costs**
 - No change in 2012 monthly fixed charges
 - Increase fixed charges in 2013 and reduce usage charges

Energy Program Assistance Rate (EAPR)

- Low Income discount structure
 - 35% discount on base usage
 - 30% discount on up to 600 kWh of base plus usage
 - Encourage energy efficiency solutions for base plus usage over 600 kWh

Rate Class Characteristics

Class	Accounts	Energy	Peak	Revenue	Average Rates
Residential	528,690 (88.5%)	43.8%	58.8%	45.4%	\$0.1242
Small Commercial Energy Metered (GSN, < 21 kW)	50,934 (8.5%)	5.4%	4.0%	6.2%	\$0.1393
Small Commercial Demand Metered (GSS, 21-299 kW)	10,822 (1.8%)	17.3%	14.5%	18.9%	\$0.1278
Small Commercial TOU (GS-TOU3, 300-499 kW)	1,087 (0.18%)	8.3%	6.3%	8.2%	\$0.1182
Medium Commercial TOU (GS-TOU2, 500-999 kW)	297 (0.05%)	7.2%	6.1%	6.6%	\$0.1099
Large Commercial TOU (GS-TOU1, 1000 kW +)	155 (0.03%)	16.7%	9.7%	13.5%	\$0.0966
Other (Ag & Lighting)	5,112 (0.86%)	1.3%	0.6%	1.2%	\$0.1131
SMUD System Totals * 2010 Annual Report	597,097	10,284,810 MWh	3,299 MW	\$1,196,349,000	\$0.1194

Smart Pricing Options® Pricing Pilot Sample

Rate	Option	Technology	Participants	Postponed Enrollment Oct 1, 2012	Control Group
Time-Of-Use	Opt-In	No	942	942	942
		Yes	1,570	1,570	1,570
Critical Peak Pricing	Opt-Out Opt-In	Yes	992		37,682
		No	150		
	Yes	1,131		20,998	
Time-Of-Use with Critical Peak Pricing	Opt-Out Opt-Out	Yes	345		16,928
		Yes	300		
Total Participants			5,430	2,512	78,120

California Municipal Rate Group Rate Restructure

Utility	(a) Increase Fixed Costs		(b) Mandatory or Optional TOU		(c) Pilots to Test TOU/ CPP/SP		(d) NM, EV and Low Income		(e) Other Innovative Rate Design	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Pasadena	x		x		x		x			
City of Colton	x			x		x	x			x
Alameda	x			x		x	x		x	
Anaheim		x		x		x	x			x
Redding	x		x			x	x			x
Palo Alto		x			x		x			x
Modesto ID	x		x			x	x			
Lodi		x		x		x	x			x
Roseville		x		x		x				
Glendale	x		x		x		x			x
Azusa		x		x		x	x			x
Turlock ID		x		x		x	x			Maybe
Merced ID	x		x		x		x		x	
Port of Oakland		x	x			x	x			x
SMUD	x		x		x		x		x	
Counts	8	7	7	7	5	10	14	0	3	8

- About half of CMRG respondents are or will consider increases in fixed cost and address TOU rate options.
- Only about one third of CMRG respondents may consider pilots rates, and only a few are considering innovative rate options at this time.