

Allen Wilcox
The Sacramento Municipal Utility District

Rate Portfolios that provide Customer Choice

The Sacramento Municipal Utility District has over fifty years of service in the Sacramento community. We serve over 580,000 residential and commercial customers within Sacramento County. An Island within Investor Owned Utilities, our customers benefit with rates that are 18% to 30% below the surrounding service area.

Since the early 90's, more than 25% of our retail revenues have come from time-of-use rates. Currently, 100% of commercial customers in excess of 300 kW are on well defined TOU rates that have prices approaching 20 cents per kWh in summer periods for up to 520 hours of the year. All residential and commercial customers have at least one TOU option, and in some cases more than one. Enhanced pricing options include temperature dependent pricing, residential thermal energy storage rates, and curtailment contracts.

SMUD has implemented a variety of demand response options that complement its rate design.

- **Air Conditioning Load Management** - Our residential customers receive modest incentives (\$10 per year) to allow the District to cycle off their air conditioner during critical hours. Participation in this program exceeds 100,000 customers and can shed at the push of a button up to 156 Mega-Watts of load.
- **Demand Bid Program** – This program offers customers credits for bidding load shed during critical hours. This program is similar to some Critical Peak pricing designs, but is based on the credits rather than higher pricing. This program requires expensive interval metering and consequently is limited to larger customers that have these hourly metering devices.
- **Voluntary Load Curtailment** – This program has nearly 20 Mega-watts of callable load that is offered to the District by responsible business in help reduce critical load conditions.
- **Temperature Dependent pricing** – The District has nearly 16 Mega-Watts of load that is subject to extreme penalties during hot summer days. This load can be shed instantaneously or wrapped around additional curtailment contracts that extend throughout the year.

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Designing enhanced time-of-use rates without raising costs

In much the same way that deregulation was the “silver bullet” for curing all of the Industries growth issues, advanced metering technologies and critical peak pricing are now being touted as the “cure all”. Before we take the plunge into raising rates to accommodate two-way communications or automatic response devices, careful consideration of interim steps may prove more economical. A typical TOU option with a four month summer and six hour peak for five days of the week will produce 520 hours of higher prices. If these hours are reduce to a two month summer and a three hour peak, the resulting 132 hours of higher prices would increase from 20 cents to as high as 35 to 40 cents per kWh. This strategy can be integrated nicely with customer education to

avoid or reduce thermostat settings (less than \$40) during these critical hours. Combining this with an Air Conditioning Load Management Device (\$60 to \$80), is likely to produce predictable load reduction at a much lower cost than is attainable under a CPP strategy. Combining an \$80 TOU device with a \$40 thermostat and a \$60 ACLM device keeps the price well below the cost of a two way communication device and accompanying automatic response devices.

Regulation of Retail Rate Design The Energy Policy Act of 2005 requires Utilities, State Legislatures to consider Time-of-Use options. This same legislation required FERC to hold hearings to identify participation levels in enhanced pricing options, availability of advanced metering technologies, participation in demand response, and customer willingness to participate in such programs. While we are openly participating in this component of that process today, we do not support a “one size fits all” concept dictated by Federal or State agencies. Some of the best features of Public Power support consumer choice in rate options, local control, and stable prices.