



BOMA
California

Report on Energy Advocacy in California 2007-2008 IDF Final Report

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Denver, CO
June 21, 2008



Energy Advocacy Produces Results

As energy costs increase, the users of utilities in our state all vie against one another for the best possible rates and market position. Agricultural and residential users historically have fared the best until recently when BOMA California stepped into the arena and started directly advocating on behalf of commercial real estate.

In 2007, BOMA California raised \$90,000 to match a \$70,000 IDF Grant. In 2008, BOMA California has raised \$50,000 to match a \$50,000 IDF Grant. These monies have funded our industry's advocacy efforts with the California Public Utilities Commission and Investor Owned Utilities in their General Rate Case proceedings. In less than two years this activity has produced remarkable results. In negotiations with both PG&E and SDG&E, BOMA was able to secure a significant rate reduction for large commercial users. In Northern California, this rate reduction in the bundled cost of electricity will save an estimated \$23 million for BOMA members, and up to \$43 million in energy cost savings to all large commercial customers in the PG&E service area over the next three years.

BOMA California was also able to negotiate a historic agreement that will, for the first time since 1962, allow owners to sub-meter tenants for the actual energy consumption. This change will enable commercial building owners to actively engage tenants in understanding and reducing their energy usage.

Although we are pleased with BOMA California's success in such a short period of time, our need to continue advocating for our industry is far from over. The rate reductions and ability to submeter must be expanded to all parts of the state and we must remain at the table to continue to push for rate parity, funding assistance for voluntary demand reduction programs, and the need to open electricity markets to retail providers. We need to continue opposing critical peak pricing and other mandatory demand response schemes.

For more information on BOMA California advocacy efforts, please visit: www.bomacal.org.



BOMA California Industry Defense Funds (IDF) Report 2008

Advocacy for Commercial Electricity

Rate Parity and the Submetering of Tenants

Electricity Rate Parity

Background on California Electric Industry Regulation

The regulation of investor owned electric utility companies in California is split between two agencies - the California Public Utilities Commission (CPUC) and the Energy Commission (CEC). The CPUC regulates the overall operations of utilities including the setting of retail electric rates, utility rates of return and rules for power acquisition, reserve margins and various other rules of utility operations. The CEC is essentially a State energy planning agency being responsible for forecasting energy needs, promoting energy efficiency through setting appliance and building standards, and licensing thermal power plants sited in California, and directing utility response to energy emergencies. BOMA California's electric rate advocacy activities have primarily been focused on the retail rate setting proceedings of the CPUC but have recently also included CEC proceedings concerning efficiency standards.

The CPUC's rate cases are generally sequenced in two phases. Phase One is concerned with the setting of a utility's total cost or revenue requirement for the projected rate period. This phase involves a detailed analysis and scrutiny of all of the utility's projected costs from O&M expenses to payments on invested capital by various intervening consumer groups. For this phase, BOMA California shares the interests of Office of Ratepayer Advocates (a State Agency), TURN and other consumer groups and has taken the position of observer to conserve advocacy funds for Phase Two.

Phase Two of the CPUC's rate cases involves the setting of the utility's marginal costs, the allocation of the utility's revenue requirement across customer classes based on marginal costs, and the setting of the individual rate parameters (customer charges, energy charges, and demand charges¹) for each customer class that are consistent with marginal costs and will collect the revenue requirement that is assigned to each customer class.

For several decades, it has been the stated policy of the CPUC to base its ratemaking on marginal cost with the intent of promoting efficiency and fairness among ratepayers. The policy was developed when utilities owned and dispatched their own generating units and marginal cost for each component of electric service (energy, generation capacity, transmission, distribution, customer connections, customer service, etc.) was generally defined as the cost of the incremental unit of each service component required to serve the system load. Ideally, once marginal costs have been determined then revenue allocation across classes and rate design for each class would be implied.

While the CPUC has long declared its support for marginal cost based rates it has not adhered to marginal cost based principles in many of its rate setting decisions in recent years which has resulted in large disparities in customer rates across classes and within classes, huge transfers of wealth among rate payers, and generally inefficient consumption of electricity. In particular, the tenants of commercial buildings have been excessively charged for electricity and have substantially subsidized the energy consumption of other rate classes and industrial customers within the commercial and industrial rate class.

Background on the Evolution of Commercial Electric Rate Inequities

Inequitable and inefficient rates have evolved largely because of the CPUC's inattention to its stated policy of marginal cost rate setting in favor of pursuing other objectives, combined with the historical lack of commercial building representation in rate proceedings. Significant cross-class rate distortions from cost of service began to evolve at the beginning of electric sector restructuring in 1998 when residential and small business customers were given a 10% rate reduction. Then, when

¹ Customer charges are fixed monthly charges per customer or per meter. Energy charges are prices per kilowatt hour (KWh) which may vary by season and time of day. Demand charges are charges set the basis of the maximum demand (highest KW average reading over a fifteen minute period) during the month and may vary by season and time of use.



faced with the mushrooming costs of the 2000-2001 energy crisis, the CPUC dumped a disproportionate share of the crisis costs on the large commercial and industrial rate classes to the extent that E20 customers were hit with 44% rate increases from January 2001 to June 2001. During the same period, the Legislature passed AB1X which froze residential electric rates for all usage up to 130% of baseline levels. In addition to the disproportionate level of costs allocated to commercial and industrial customers, the rate design for that class further distorted rates for commercial buildings relative to the marginal costs of service. In particular, time of use peak period (summer afternoon) energy charges were increased to 200% of the cost of off peak energy charges, which significantly shifted the cost burden of the C&I class from flat load shape industrial customers to commercial buildings with relatively peaky load shapes. This cost shift was further exacerbated during PG&E's 2003 General Rate case which proposed increased peak period non-coincident demand charges. Demand charges are generally assessed to cover the capital costs of transmission, distribution, and generation capacity which typically amount to 15% to 18% of a utility's total costs. The result of the increased demand charges for C&I customers was that demand charges comprised from 30% to over 50% of the summer electric bills for many northern California BOMA Member buildings.

Simultaneous with these rate developments, partly as a result of insufficient growth of generation capacity during and following the energy crisis, the CPUC became obsessed with finding ways to reduce peak demand to avoid electric system shortages and possibly blackouts, other than building new capacity. The CPUC and others identified air conditioning as the primary cause of peak demand growth, assumed that air conditioning was a discretionary use of electricity and focused on commercial buildings as the target for reducing peak demand. Several members of the CPUC became convinced that Critical Peak Pricing was their silver bullet for forcing reductions in air conditioning and bringing down demand when the system is under stress (critical peak periods). They reasoned (without empirical evidence) that during critical peak periods, exceedingly high prices (as much as ten times the normal peak period rate) would yield significant short term demand response from commercial customers and avoid crises. As a result, without any apparent understanding of constraints on building owners to respond to CPP rates, CPUC ordered the utilities to design CPP rates that would be made mandatory for large C&I customers. All CPP rate designs proposed by the utilities substantially increased the electricity costs for commercial buildings unless they somehow found ways to curtail tenant services during critical peak periods.

BOMA California Rate Case Strategy

In collaboration with BOMA San Francisco, BOMA California began its electricity rate advocacy in 2005 by intervening in a CPP proceeding and in the tail end of Phase 2 of PG&E's GRC 2003 proceeding (the schedule of which had been significantly delayed). BOMA California then went on to intervene in Phase 2's of SCE's 2006 GRC (with BOMA Greater Los Angeles and BOMA Orange County), PG&E's 2007 GRC (with BOMA San Francisco) and SDG&E's 2008 GRC (with BOMA San Diego). **BOMA California's basic objective in intervening in all of these cases was to rectify the inequity and economic inefficiency implied in California's commercial and industrial rate structures, and in the CPUC promoted CPP rates by convincing the CPUC to return to its stated policy of basing its electric rates on marginal cost of service principles, and to base its marginal cost methodologies on the realities of contemporary energy markets. BOMA California's position on how best to achieve equity and efficiency is for the commodity component of all retail electric rates to be aligned with impartial hourly wholesale market prices.**

In each rate case, the utilities have followed convention and presented their marginal cost estimation methodologies and numerical estimates for marginal costs in their rate applications and, the intervening parties have provided their own methodologies and estimates in prepared testimony. However, in none of these cases, has the issue of marginal cost methodology or specific marginal cost estimates been litigated to the point of CPUC adoption of either a methodology or a set of marginal cost estimates. Instead, the CPUC has promoted the notion of **settlement agreements** among the parties in lieu of prolonged litigation. Finding it difficult to reach agreement among the Parties on marginal cost methodology, the settlement discussions have gone directly to the numerical issues of revenue allocation and rate design without settling marginal cost issues. Most Parties couch their arguments for their favored revenue allocation and rate design in terms of a marginal cost methodology, but the settlements have generally been determined by negotiations among the active Parties without the aid of a common set of principles concerning the marginal costs of service. By not enforcing the setting of new marginal cost methodologies as a condition for reaching settlements, the CPUC is leaving rate setting to be determined by political trade-offs between the interests of the participating Parties.



As of this date, the CPUC has not updated its official marginal cost methodology or estimates of marginal cost in the past 14 years, a period during which the market structure of the electricity sector has changed substantially. As a result, utilities continue to propose generation marginal cost methodologies that may have applied prior to industry restructuring but are not consistent with the current electricity market structures and utility power acquisition practices.

The largest portion of electricity costs are related to generation. Following their traditional approach, the utilities claim that marginal generation costs should be decomposed into both a marginal energy cost and a marginal generation capacity cost. They argue that market prices reflect only fuel costs (exclusive of capacity costs) and are measures of energy marginal cost (a position that BOMA Cal disputes)². They further claim that marginal generation capacity costs should be based on the capital costs of a hypothetical peaking plant. These capital costs, allocated to summer peak period hours justify the continued imposition of generation-related demand charges. The associations representing large industrial customers support the utility's methodology for the obvious reason that the imposition of large demand charges shifts generation cost burdens from flat load shape industrial customers to peaky load shape commercial customers. **BOMA California has taken the position that the utility marginal generation cost methodology is not consistent with how utilities acquire electricity in California's current and/or evolving electricity markets and there is no basis for the continued imposition of generation related demand charges.**

The utilities generate some of their supply from utility owned plants but most is acquired under long term contracts with other suppliers. Short term increments for following load are purchased through spot or imbalance wholesale market managed by the California Independent System Operator (CAISO). The utilities also sell excess power in the CAISO imbalance market³. Therefore, the current CAISO imbalance market establishes an impartial estimate of the marginal value of electricity. The California wholesale electricity market is an **energy only** market such that all prices are stated on a per MWh basis. These prices, as bid by suppliers and accepted by buyers, embed both energy (fuel) costs and payments for capacity capital recovery. Hourly prices from the CAISO market plus various CAISO charges set the hourly market value of electricity. **BOMA California has argued in each rate case that the impartial market price plus CAISO charges represent the appropriate measure of marginal generation cost and that the CPUC should move toward adopting real-time market-based energy prices (RTP) as the default energy rate for all customers. BOMA California has further argued that hourly market-based RTP rates are the only rates that accurately align the time profile of retail rates with the market value of electricity.**

BOMA California has used the hourly market value of electricity as the standard for determining whether commodity rates (energy charges and demand charges) are consistent with basic cost of service principles. Market rates have provided the source of arguments for reducing the peak/off-peak differentials in TOU energy charges and non-coincident peak period demand charges, as well as critical peak period charges in the highly promoted CPP rate. In designing TOU rates utilities use their methodology (described above) of decomposing generation marginal cost into two components and justify high peak period and energy and demand charges by allocating the capital costs of a hypothetical peaking plant to summer peak period hours. Similarly, in designing CPP rates utilities justify high critical peak period rates by allocating the capital costs of a hypothetical peaking plant only to critical peak period hours while discounting rates during non-critical periods. This distorts retail rates from the market value of electricity virtually all of the time, promoting the off-peak use of electricity for activities with marginal value of product less than the market value of electricity used, and promoting the curtailment of activities with marginal value of product greater than the market value of electricity during peak and critical peak periods. **BOMA California has argued that CPP rates are inconsistent with the marginal costs of service, promote inefficient use of electricity, and cause cost shifts among customers. Further, BOMA California has argued that the design of CPP rates does not provide the incentive necessary for obtaining the short term demand reductions sought by CPP rates.**

BOMA's California's rate advocacy strategy and positions outlined here are intended to be fair to all consumers and to help achieve maximum efficiency of the California electrical system. These positions are also believed to be in the best interest of BOMA Members by setting rates such that Members pay their fair share of utility costs but not more. Members may also benefit indirectly from a more efficient electrical system.

² Commissioner Chong has ordered that the issue of whether market prices adequately cover capacity costs should be investigated in the dynamic pricing phase of PG&E's GRC

³ In the next 3 months, the CAISO will begin operating a much awaited day-ahead wholesale market.



BOMA California Rate Case Accomplishments

BOMA California's participation in the CPUC's rate proceedings has accomplished significant movement of commercial rates toward parity across classes and within the large commercial and Industrial rate class, and has saved many millions of dollars for BOMA Members. The gains have come in the form of more equitable allocations of revenue requirements across customer classes and in the form of time of use rate design changes that reduce relative peak period energy charges and maximum demand charges.

The estimated average savings achieved by BOMA California's rate advocacy efforts per square foot, for buildings with approximately average load shapes, are as follows:

	Annual savings per square foot
PG&E 2003 GRC	18.1 cents
PG&E 2007 GRC	27.6 cents
SCE 2006 GRC	20.0 cents
SDG&E 2008 GRC	13.2 cents

BOMA California's participation in the CPUC's rate proceedings has also been effective in avoiding the mandatory imposition of CPP rates on commercial buildings for all three utility service areas. However, gains from the avoidance of mandatory critical peak pricing are difficult to estimate because of the complexity of the rate, the number of versions that have been proposed, and the variability of the number of critical days that may be called. Best guess is that mandatory CPP would have increased summer average rates for commercial buildings in the range of 5% to 20%. And, perhaps the most important benefit from BOMA California's persistent opposition to CCP rates is that this effort has refocused the deliberations about rate design and has brought RTP rates into serious consideration as a base or default rate for all customers when real time meters have been fully installed.

An additional benefit from BOMA California's participation in rate proceedings is that BOMA California is now respected as a key player in electricity rate deliberations by the CPUC and the other Parties in rate proceedings. In each rate case in which BOMA California has participated, the rates that apply to commercial buildings have generally obtained greater reductions or smaller increases than the rates for any other rate classes. The positions of BOMA California have often been referenced in CPUC Decisions as key arguments.

Tenant Submetering

Background on Tenant Submetering in California

For several decades, the submetering of tenant electricity use and billing in accordance with that use has been forbidden under CPUC approved Rule 18 for PG&E and SCE, and Rule 19 for SDG&E. Under these rules, electricity charges must be allocated in a manner that is not reflective of individual tenant use and must be included in rent. This has given rise to the standard practice of allocating electricity costs to tenants on the basis of square footage. The origins of these rules are not generally understood, even by utility personnel, but it is generally thought that they were intended to protect the monopoly supply position of the investor owned utilities, and the rules have been tenaciously maintained by the utilities.

Some of the implications of these rules are:

- Tenants are shielded from information about their energy usage, its cost, and both the incentives and ability to manage energy usage and cost, and can not effectively participate in price induced demand response.
- The allocation of building electricity costs is inequitable, forcing tenants who use energy parsimoniously to subsidize the energy usage of energy intensive tenants
- The allocation of building electricity costs is inefficient - high use tenants pay lower average rates than utility tariffs encouraging excessive use



BOMA California Submetering Strategy

BOMA California initially appealed to participate in a proceeding dealing with residential submetering but the appeal was denied, with a recommendation that BOMA California file a separate petition to the CPUC for rule change. That potentially expensive option was put on hold and instead, the issue of submetering was raised in BOMA testimony for each of the above rate cases even though the issue was not included in the official scope of issues for any of the proceedings. **BOMA California's strategy was to argue that Rules 18 and 19 represented obstacles to accomplishing demand response from applying dynamic rates to commercial buildings, due to the fact that tenant controlled load (30 to 40 % of building load) was shielded from rates and price incentives.** While BOMA California also pointed out the equity and efficiency implications of the rules, those arguments did not gain much traction.

Commissioner Chong, who presided over PG&E's GRC 2007, recognized the relevance of the submetering issue to the broader issue of using dynamic rates for harvesting demand response and included it in the scope of issues for the GRC. When submetering was included in the scope of issues, BOMA California approached PG&E to negotiate a settlement on changing Rule 18.

TURN also became a party to the discussions and vigorously opposed BOMA California's proposal. However, after many months of negotiation, BOMA California and PG&E came to a joint agreement and submitted it to the CPUC. TURN filed a protest.

BOMA California Submetering Accomplishments

The CPUC has adopted the BOMA California/PG&E agreement (with some provisions) and has recommended that other utilities follow the example and propose changes to their comparable rules. SDG&E included submetering in its settlement agreement for its GRC 2008, which was recently approved by the CPUC. SCE attempted to change its Rule 18 to also allow submetering through a simple Advice Letter filing but was told by the CPUC to file a joint BOMA/SCE settlement agreement instead. It is anticipated that a settlement agreement will be filed on June 20 and it will get fast track approval.

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