Design and Implementation of PG&E's DSM Pilot Bidding Program

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PG&E is in the process of implementing its first DSM bidding program, PowerSaving Partners (PSP). PSP is a 20 MW program which is based on an open-procurement process. This paper addresses the objectives of PG&E's bidding programs, the process used to solicit proposals and complete contracts with 10 "partners", and the lessons learned from PG&E's first foray into DSM Bidding. The winning programs are pay-for-performance with the objectives of obtaining and proving the savings so that the contractors, customers and PG&E can collect payments. Verification is based on each individual project being metered on an annual basis to validate savings estimates.

Introduction

As part of the California Collaborative process, PG&E volunteered to undertake a DSM Bidding Pilot Program. After many months of planning, drafting and consultation with its advisory group, PG&E presented its PowerSaving Partners program to the California Public Utilities Commission.

Concept

PG&E focused on enhancing its existing customer energy efficiency (CEE) program efforts, rather than replacing programs with ESCO or customer delivered programs. The thrust was to foster partnerships with customers and ESCOs to improve customer service, rather than compete for the markets' energy efficiency dollars. Another aspect was the desire to avoid confusion within the market of competing entities with similar programs, but different operating areas, all working under the PG&E umbrella.

Objectives

The goal of the pilot program is to create savings that fulfill PG&E's resource and customer needs. Specific objectives include:

- developing partnerships with ESCOs;
- enhancement of Customer Energy Efficiency programs offered by the utility, not replacement;
- cost-effective, low rate-payer risk programs;
- benefits to ratepayers, customer and shareholders; and
- persistent, sustainable, reliable energy savings.

Background

As part of the collaborative agreement, PG&E volunteered to conduct a pilot DSM bidding program. PG&E worked closely with potential third party bidders, energy service companies (ESCOs), regulators, interveners, utilities and other interested groups to develop a successful bidding process acceptable to all participants. This pilot bidding program was called PowerSaving Partners.

The CPUC issued a decision on March 11, 1992 (Decision 92-03-038) approving PG&E's overall approach to DSM bidding, authorizing PG&E's pilot auction at 20 MW (50 MW was proposed), allowing for shareholder incentives on the pilot, approving $18 million for 1992-1995, and making some changes to specific aspects of the auction. Funding for DSM bidding programs in 1992-1995 was approved in the CPUC's March 1992 decision. A compliance version of the Request for Proposals was submitted on May 22, 1992.

On September 16, 1992, the CPUC approved, without change, the compliance filing of the Request for Proposals. In approving PowerSaving Partners without change, the commission directed PG&E to proceed with the auction. PG&E released the RFP to prospective bidders on October 15, 1992.

124 potential bidders and interested parties attended a Pre-Bid Conference. Following the conference, PG&E received 107 Notice of Intent to Bid forms on December 15, 1992. Estimated savings totaled 184 megawatts. PG&E's entire service territory was indicated for potential project sites.

On January 15, 1993, PG&E accepted 42 bids totaling 130 megawatts. Evaluation of bids occurred from January 15 to April 15 and a short list of winning bidders was announced on that day. Evaluation criteria determined winning bids which could provide cost-effective DSM resources to PG&E and its customers.

Table 1 lists the schedules and various phases of the PowerSaving Partners pilot program.

Bid Evaluation

After the issue of the RFP, PG&E received Notices of Intent to Bid, conducted Pre-Bid conferences, and received 42 bids for detailed evaluation. This began the Bid Evaluation Phase of the pilot. Seven cross-functional teams were assembled to evaluate each bid on one of the CPUC-approved attributes. The attributes and their relative weighings are described in Table 2.

Results

The Bid Evaluation Team ranked all the bids based on their scores on the seven attributes. Each bid was evaluated on economics first and then submitted for subjective evaluation. 39 of the 42 bids received passed the economics evaluation and were determined to potentially yield 88 MW. A distribution of market sectors and technologies is illustrated below in Figure 1.

The top 13 bids were selected, meeting the CPUC guideline of 20 MW in the DSM Bidding Pilot (see Table 3).

Contract Negotiation

PG&E announced the 13 Winning Bidders as the Short List for contract negotiation on April 15, 1993, marking the beginning of the Negotiation Phase. PG&E commenced negotiations with the Winning Bidders selected in May 1993 after significant analysis and preparation. The PSP Request for Proposal (RFP) specified that PG&E would close negotiations and file signed contracts in August 1993. By mutual agreement, PG&E and a Winning Bidder could extend their negotiations to a second closing date no later than December 1993.

Schedule

PG&E has been uniquely successful among all of the utilities in the United States in keeping a complex evaluation and negotiation process on schedule, accomplishing each milestone on time, As a result, PG&E is respected in the ESCO industry, and has successfully demonstrated the advantages of a combined objective/subjective evaluation system.

Table 1. Schedules and Phases of the Power Saving Partners Pilot Program

Phase	Action	Date	Duration
Phase 1	Release of RFP	October 15, 1992	April 24 - October 15, 1992
Phase 2	Response Package Due	January 15, 1993	October 15, 1992 - January 15, 1993
Phase 3	Bid Evaluation		January 15 - April 15, 1993
	Announcement of "Short List"	April 15, 1993	
Phase 4	Negotiation Phase		April - September 1993
Phase 5	CPUC Approval of Contracts		
	1st decision	November 1993	September- November 1993 (1st)
	2nd decision	April 1994	December 1993- April 1994 (2nd)
Phase 6	3 yr. Implementation Period		January 1, 1994 - January 1, 1997
Phase 7	7 yr. Committed Operation Period		January 1, 1997 - January 1, 2004

Table 2. Attributes and Weightings

Attributes	Weighting (%)
Measurement and Evaluation	15
Program Development	10
Marketing Plan	10
Compatibility	10
Comprehensiveness	07
Location	03
Total Subjective	**55**
Economic (TRC)	**45**

Steps and Staffing

Prior to jumping into the negotiations, PG&E spent a significant amount of the little time available to plan, organize, recruit and train the Negotiation Team. The Negotiation Team consisted of five division major account representatives with knowledge of particular customers, three resource analysts with experience negotiating, one corporate account representative with knowledge of industrial applications, one national account representative with knowledge of retail chain stores, one measurement and verification engineer, three consulting firms in supporting roles, a project administrative assistant, an assistant project manager, and the project manager. The team trained together on the programs proposed by bidders, in the business context of the utility at the time. Once negotiations started, the team worked intensely from May 17 to September 2 to negotiate, close and file seven Agreements. Working an average of 12 hours per day for the months of June, July and August, the team accomplished what no other utility has done—negotiated seven DSM Bidding contracts for 15 MW in 3 1/2 months (see Table 4).

Issues

A variety of issues cropped up during the Negotiation Phase. Without this opportunity to address and resolve differences, build agreement, and establish trust and rapport, "partnerships" would have been merely an expression. The Sample Agreement included in the RFP and submitted to the CPUC for review and approval was intended as a starting point for negotiations, not a standard contract. Therefore, PG&E and the Winning Bidders negotiated several substantive issues. Minor deviation from Standard Terms was necessary to reach closure, but did not materially affect the cost-effectiveness of the Agreements. Some of the key issues which were negotiated are discussed below.

Liquidated Damages. In these Agreements the liquidated damages are equal to PG&E's Avoided Costs minus the PowerSaving Partners payments divided by the number of years of the Agreement. Liquidated damages

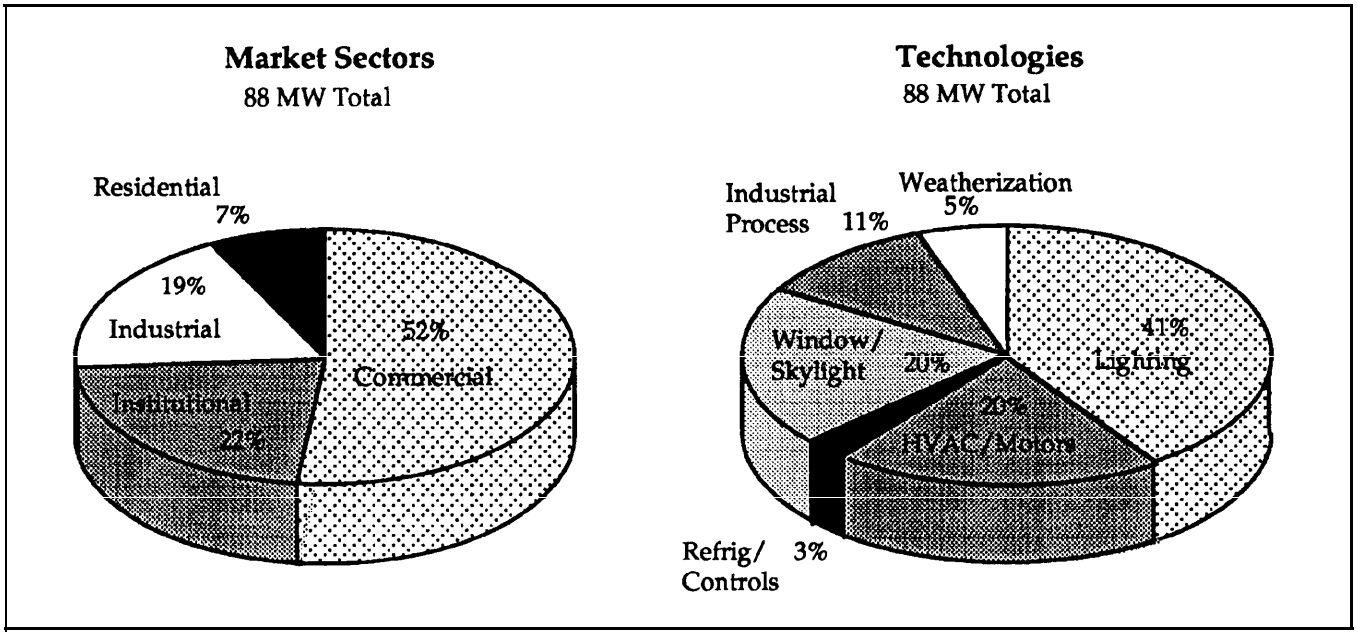

Figure 1. Distribution of Market Sectors and Technologies

Table 3. Bids Meeting the CPUC Guideline

Bid #	Target Market	Measures	UC	TRC	Max MW 1997	Total gWh (including residual)	Total Therms (Therms x 1,000,000)	Avoided Costs (NPVx1000)
1	Food Retail	Lighting/HVAC/Refrig.	2.46	2.55	5.32	435.72	0.00	19,319
7	City Bldgs	Lighting/Controls	2.74	2.25	0.29	16.24	0.00	911
19	Pub. Housing Authorities	Lighting	1.81	1.81	1.50	73.80	16.35	8,923
33	Municipal Water Districts*	Water Mgmt. System	1.34	1.89	0.00	0.75	0.00	19
44	Industrial Operations	Adj. Speed Drives	2.56	2.56	2.75	304.04	0.00	14,352
48	County Buildings	Lighting	2.09	2.09	0.74	69.64	0.00	3,479
55	Food & Non-Food Retail	Lighting	3.08	2.28	4.67	465.10	0.00	22,379
40	Institutional Buildings	Lighting/HVAC**/Motors	2.45	2.04	1.15	52.71	0.00	3,123
49	Institutional Buildings	Lighting/HVAC/Motors/EMS***	2.07	2.07	0.47	143.60	12.21	10,001
	Buildings	Motors/EMS***						
61	Auto Dealerships	Lighting/HVAC	2.80	2.37	0.90	72.45	0.00	3,626
	Totals		**2.46**	**2.27**	**17.79**	**1,634.05**	**28.56**	**86,133**

* NTG for all programs is 1.0, except bid #33, where NTG = .7.
** Heating, Ventilation, and Air Conditioning.
*** Energy Management System.

Table 4. Negotiation Process Steps and Team Staffing Criteria

Negotiation Process Steps	Negotiation Team Staffing Criteria
research prior negotiations in other utilities	DSM Bid Evaluation experience,
analyze Short List of bids	knowledge of a particular technology,
develop segmentation strategy	customer or market segment,
develop negotiation strategy	availability for intense negotiation training
establish negotiation principles/guidelines	and subsequent workload,
determine resource needs	ability to recognize/protect the company's
recruit Negotiation Teams	business interests,
train Negotiation Teams	and complete commitment to the Negotiation Team.
develop detailed negotiation plans, including gap analysis	
analyze alternative currencies	
negotiate Agreements	

became an issue for several bidders for two reasons. First, since PSP payments are only a fraction of Avoided Cost, in an event of default the liquidated damages for which a Bidder would be liable are several times the payment they would have received. This risk makes project financing extremely difficult. Second, there is a perception among some of the lower priced bidders that the liquidated damage mechanism effectively punishes them for low priced bids.

Measurement and Verification. A key feature of the PowerSaving Partners program is the shifting of the burden of Measurement and Verification from the utility to the Bidder. These Agreements are designed to be pay-for-performance. The M & V plans submitted by the Bidders measure Power Savings and PG&E verifies program performance prior to making payments. This insures that ratepayers receive the energy savings for which they have paid.

Pricing Structure. Pricing structures for each Agreement were negotiable. Pricing structure was designed to give Bidders strong incentives to accurately estimate the size of their program and insure its performance at that level. In the majority of Agreements the full bid price is paid for Power Savings between 85% and 115% of the Contracted Power Savings. The average price is approximately 43% of PG&E's ten-year average avoided cost. If a Bidder delivers less than 85% of the Contracted Power Savings, the payment drops below the full price. In many Agreements, pricing below 85% is tiered, which assists the Bidder in obtaining financial backing. It was also important to offer partial payment below the 85% performance threshold, because reducing the payments to zero would have made obtaining financing impossible for some bidders.

Contract Administration Architecture. The Sample Agreement contained little information on how the contracts and payments would be administered by PG&E over time. As a result, it was necessary to design an architecture to administer the Agreements, before crafting the language which would legally bind the company to terms. PG&E invested a significant portion of available time during negotiations to creating a conceptual process to administer Programs, and then wrote contract language to allow for implementation. A better solution would have been to design the administration architecture first, then write a contract to administer the program and protect the interests of Parties.

Other Issues. The Negotiation Team also dealt with other issues equally as difficult, including:

- time constraints and number of negotiations
- complexity of program design
- disparity of professionalism among Bidders
- difficulty among customers making the mental shift to "Bidder".

Contract Approval

The contract approval process was designed to allow adequate time for a comprehensive, multi-departmental review process prior to the signature of a Vice President. PG&E used a Risk/Benefit analysis to brief management on the Agreements and secure their approval. An example is cited below:

Risk

- Payment price is fixed. If actual avoided costs fall significantly below forecasts, price may exceed actual avoided costs.

Benefits

- Increases shareholder earnings by $2.5 million (NPV)
- Cost-effective; comparing favorably to CEE programs and supply-side options
- Filed for pre-approval prior to any expenditure
- Pay-for-performance. Winning bidders are subject to performance risk, receiving payments only for measured and verified savings. Share administrative burden/costs.
- Positive partnership between PG&E and ESCOs

Filing

PG&E had the option to file the negotiated Agreements as an application for pre-approval with the CPUC, or to make the Agreement effective immediately but subject to both reasonableness reviews and potential disallowance. The PowerSaving Partners RFP anticipated that PG&E would file the resulting signed contracts for pre-approval. During the course of negotiations, several arguments against pre-approval arose and caused PG&E to reconsider its position.

Effective Immediately

First, filing an Application for pre-approval makes the program vulnerable to delay from interveners offering evidence or complaints in the hearings associated with the Application process, The result may be a delay in the normal Application process from 90 days to something greater. Second, filing for pre-approval complicates the

implementation process for Bidders. Host Customers are reluctant to wait, market dynamics continue to exert pressure on Bidders, and competitive opportunities may have to be bypassed because of pre-approval delay. Third, the CPUC expressed the opinion that pre-approval is unnecessary. It urged PG&E to forego the pre-approval process and request recovery from the balancing account approved for PowerSaving Partners through ECAC (or other relevant) proceedings.

Pre-approval

On the other hand, there were significant advantages to filing the contracts for pre-approval. First, filing for pro-approval minimizes PG&E's risk of disallowance in future reasonableness proceedings. Second, Bidders have uniformly expressed the desire for pre-approval. Naturally, they also wished for a quick turn-around to begin implementation. Our negotiators understood that the Bidders' motivation for prudence took precedence over the desire for speed, as prudence bears directly on the ability to obtain financial backing. Finally, the possibility of significant delay appeared to be remote. The CPUC believed that there was no controversy surrounding these contracts. Hence, PG&E believed that pre-approval would be granted quickly.

Ultimately, PG&E decided in favor of filing an application for pre-approval. The benefits to PG&E and the bidders of having Commission assurance that the contracts are reasonable outweighed the risks of implementing the Agreements immediately with the potential for future disallowance for all shareholders.

Implementation

PG&E is committed to administering the contracts effectively and efficiently, focusing on all of the legal program requirements specified in the Agreements. The major areas are:

- payment processing
- program administration
- data management and correlation
- measurement and verification
- administrative services
- report processing and evaluation.

PG&E will pay on a performance basis for savings over the next ten years, only if those savings are appropriately documented, submitted, and approved by PG&E. The risk for the savings falls on the Winning Bidders, not PG&E or its ratepayers or shareholders. These elements set the stage for potential conflict unless all Parties adhere to the Agreement as executed. The PSP program administrator will work with the Measurement and Evaluation section in the office of the Vice President of Marketing to provide the M&E expertise required on an on-going basis to verify Program results and authorize payments. This makes measurement and verification of power savings the central issue of contract administration.

Measurement and Verification

Approach

M&V is the key element of PSP. As the program is based on pay for performance, each project has a separate, unique verification process to confirm savings. At each site a bidder is responsible for defining baseline energy and demand use through engineering calculations and metering. After the project is completed the partner then submits a report, also based on engineering and metering, that defines the first year's projected demand and energy savings. Then, for the remaining ten years of the contracts the partner provides an annual "true-up" report which defines savings based on metered results of post-installation conditions. In some cases the metering is permanent and for other cases the metering is "snap-shot" for two weeks to two months per year.

For most projects, metering is used to define typical operating hours for lighting or motors which are modified as part of the program. Short term metering is used to define equipment or system wattage. However, for most lighting fixtures contract wattage's are based on default tables.

PG&E decided to evaluate every project rather than a sample, because the projects are so diverse in terms of size, technology application, and customer type, and because of the relatively small number (500 to 1,000) of projects in the program. A census approach is necessary because there is no simple way to extrapolate the results from a sample of projects to the entire population. Even within a well-defined technology application such as lighting efficiency retrofits, the evaluation results from a measure in, for example, a school bear little relation to the impacts for a measure in a grocery store.

Within a given contract however, the contractor may use sampling techniques to obtain estimates of key inputs to engineering calculations. In the evaluations of lighting projects, operating hours and load shapes for typical end uses (e.g., open offices, closed offices, retail space, etc.) are being developed using sampling of certain site data at a statistically defined number of locations. Samples for such data collection activities are designed so that the estimates of the critical variables are reliable within acceptable tolerances at a high level of statistical significance.

Given the diverse nature of the projects awarded under PSP, PG&E has decided *not* to specify a comparison group of non-participants as part of the evaluation. Many past evaluations of DSM programs have used control groups of non-participants to examine changes in energy consumption that are independent of the program. In the case of PG&E's bidding programs, this approach was rejected because of the difficulty of identifying a companion group of non-participants that is similar to the participant group, the complications associated with applying the tailored M&V plans to another group of non-participants, and the expense of essentially doubling the M&V program.

Given the census approach, evaluation of the savings estimates are not subject to sampling error in a statistical sense. Since most of the evaluations of the individual projects use engineering calculations and metering to estimate load reductions, they are not subject to sampling error (except in cases where the inputs are collected on a sample of installed devices). As a result, the estimates do not lend themselves to formal statements about reliability such as "reliable within 10% with a 90% confidence level. " Thus, the evaluation plans are guided by an informal "value-of-information" view of the reliability of the estimates in proposing the evaluation methods.

Submittal Process

Each Agreement contains a measurement and verification plan designed to fit the technology and market sector which the partner is addressing. There are also maintenance and management plans which define how the measures' savings are maintained for at least the ten year term of the contracts.

- Site Identification
- Approved Measure Installation
- Post-Installation Documentation and Review
- Initial Project Payment
- Annual Program Payments and Reporting.

Goal Allocation

The treatment of 1994 PSP accomplishments will be accounted for on two levels. First, program kW accomplishment and shareholder earnings will be credited to the PG&E line office, called a Division, in which they are achieved. Second, the total MW goal and budgets for PSP in 1994 (approximately 6 MW) will *not* be allocated pro-rata to each division, but held centrally at the office of Vice-President, Marketing.

The reasons for this unique treatment are due to:

- the pilot nature of the PSP program,
- the uncertainty as to where ESCOs will achieve results, and
- the concern that PSP Bidders not compete with PG&E Division CEE efforts.

For these reasons, the PSP accomplishments in 1994 will be credited toward the Division in which they are achieved, but will in no way inflate any Division's CEE goals or impact their budgets.

Division Roles and Responsibilities

The primary responsibilities of Division Representatives with respect to PSP are to represent PG&E's interests in the PowerSaving Partners Program. These interests are proven "Power Savings", and host customer satisfaction.

In addition, there are certain principles PG&E wants all Division Representatives to exhibit:

- Focus on customer satisfaction
- Be a skeptical BUYER of Power Savings
- Be a good business partner to ESCOs.

The final area of responsibilities to address is that of pre-installation inspections and post-installation inspections. PG&E must inspect a site prior to measures being installed to insure that the projected savings are based upon realistic assumptions and actual field conditions. PG&E must re-inspect the site after measures are installed to insure that the savings projected should materialize as expected and to preclude any semblance of fraud. With respect to these activities, PG&E will out-source the majority of work to be performed to a stable of qualified contractors around the state. The Divisions are not being asked to perform this work as a routine assignment. However, on certain occasions, the PSP program administrator may need assistance in verifying information or work. If that occasion arises, the PSP program administrator will contact a Division PSP Coordinator to obtain the requested assistance.

Results

PG&E and the first group of Winning Bidders filed 10 contracts with the CPUC for pre-approval, representing a total of 19.2 MW (at program maturity) . The package of Agreements was cost-effective and profitable, producing $86 million in Avoided Cost Benefits and an additional $3 million (NPV) in PG&E shareholder earnings. The funds for program payments are already allocated in rates through this GRC, and constrained to be spent on this activity only. The average price per kWh on PSP is about $.034/kWh (levelized) or, $1,827 MW-year. The PSP

Agreements compare favorably with PG&E's CEE programs and a combustion turbine (CT) operating at 80% capacity factor. The CT is $.046; PSP is $.029; and CEE is $.024 per kWh. The TRC for PSP is 2.27 compared with 2.24 (CEE).

Lessons Learned

Given what PG&E undertook in its PSP auction—i.e., a ground-breaking, ambitious project, commitment of resources, and an aggressive schedule—the results were very positive. From bid design through contract negotiations, the PSP auction earned high marks from bidders, regulators and evaluators. PSP staff, winning bidders, and even losing bidders had many positive comments about the PSP auction. Communication with losing bidders is an area PG&E can most improve for future endeavors.

PSP effectiveness in meeting stated goals:

Establish and work in positive partnership with Third-Party Providers of Energy-Efficiency Resources. G&E was effective in attracting a variety of third-party providers into the PSP auction; most of the 42 bidders were ESCOs. With the winning bidders it was clear that PG&E was able to develop workable contracts within a cooperative framework; these bidders had the opportunity to work face-to-face with PG&E staff during negotiations and to assess PG&E's approach to partnership firsthand.

Produce Energy Savings with a real, measured resource value. G&E and the winning bidders put considerable effort into developing M&V plans that will be able to measure the energy savings produced from the PSP auction for the next ten years.

Enhance PG&E's ability to meet the energy needs of its customers at a competitive price. Whether the PSP auction can meet this program goal is still a great unknown, as program implementation has barely begun. On paper, the costs are competitive. However, PG&E will only be able to assess the actual competitiveness of the PSP resource through implementation and M&V efforts, which will determine its true cost-effectiveness.

Provide support and services valued by PG&E customers. As with the preceding goal, the ability of the PSP program to provide services of value to PG&E customers is largely unknown at this point. The marketing plans and qualifications provided by the winning bidders suggests that customers are interested in the services offered by third-party providers of energy-efficiency resources, but this contention has yet to be tested.

Increase penetration of the energy-efficiency market. Most of the winning ESCO bids appear to be increasing the penetration of energy efficiency in PG&E's service territory (e.g., through the targeting of schools, city/county offices, auto dealerships, grocery stores, water districts, and public housing authorities).

Promote comprehensive DSM bid packages. The PSP auction planners believed in the desirability of comprehensiveness and communicated their belief to the bidders. However, the economics attribute used for the PSP auction did not promote comprehensiveness. Many bidders, especially the losing bidders, noted this disparity between what they were told and what actually happened and were frustrated by it. For some of the winning bids, comprehensive approaches were added during negotiations while maintaining the bid in the winning category.

Integrate DSM bidding with PG&E Customer Energy Efficiency (CEE) Programs by ensuring equal priority and incentives for the two types of programs. The integration of DSM bidding with CEE programs is another big challenge for PG&E. Coordination between existing PG&E programs and the winning bidders will be especially important. Both PG&E program management and winning bidders are uncertain how division representatives and ESCOs will form constructive, cooperative relationships. However, the goal allocation propositions offers a good start.

Gain experience and collect data that will help guide the future direction of DSM bidding at PG&E. The substantial program records and the insightful PG&E staff and participants made it possible for this comprehensive process evaluation to be undertaken. this process evaluation, when coupled with the experience of past and current program staff, will provide PG&E with guidance for future bidding programs. The M&V plans, which will be put into operation during program implementation, will also provide valuable information that will be used to guide future auctions.

TRC vs. UC— PG&E has determined that the Utility cost test is the most appropriate test in the current regulatory environment. TRC should be used as a threshold test, with Utility Cost test results differentiating the results of bid evaluation. In a deregulated electric environment with performance based rate-making, the only test that remotely comes close to satisfying the needs of the utility and the market is a modified RIM test.

Enhancement— PG&E is committed to the enhancement philosophy under the current regulatory environment. As a result of its partnership strategy, PG&E was able to establish a cooperative relationship with the winning bidders that resulted in contract agreeable to all parties. PG&E will continue its partnership strategy during negotiations with future winning bidders. However,

PG&E needs to reassess the appropriate role or roles for ESCOs as partners with PG&E in providing customer energy services. ESCO activity might occur within three frameworks: replacement, outsourcing, and enhancement. Although PG&E originally designed the PSP program to foster enhancement, changes made to the RFP during the hearings process had the effect of rewarding commercial lighting projects, creating a potentially competitive, or replacement, environment between ESCOs and the utility.

Targeting— PG&E favors a targeted approach over the open bid demonstrated by PSP. An RFP can target a given level of comprehensiveness, various technologies or market sectors, ESCOs only, customers only, or many other variants. The benefits of targeting an RFP is reduced bidder costs, reduced PG&E costs, and reduced feelings of resentment from potential bidders and future losing bidders who believe that the RFP is misleading in its openness.

Targeting is especially critical in light of the CPUC's proposal announced on April 20, 1994. The utility can target market segments or even use targeting to replace utility provided programs or services on a cost competitive basis. This strategy will allow the utility to determine least cost approaches to an increasingly deregulated environment. Eventually moving to profit-generating services or programs based upon market demand.

Specifying— Along with targeting, future RFPs will specify more of the elements that PG&E expects to see from winning bidders and contracts, e.g., bidders would like to see sample contracts and M&V plans in the RFP.

Thresholds— As part of its implementation of the targeting and specificity recommendations, PG&E will develop considerably more stringent threshold requirements. Analysis of other bid scoring systems confirm several suspicions:

- When the goal of an auction is to reduce DSM costs, the outcome of competitive bidding is necessarily determined by the price of the bids;
- When the total subjective score is calculated by taking the average of many attributes, many statements, and many evaluators, the net effect is minimal variation among bids; and
- Price and bid quality are not characteristics that can be added to determine the best bid overall. Bid quality modifies price; price needs to be assessed in light of quality to identify high-value bids.

Given these factors, PG&E will consider bid quality thresholds and select the lowest price bid meeting the threshold. Or, it may want to set a price (cost-effectiveness) threshold and select the highest quality bid meeting the threshold. If desired, bid quality can be defined so that comprehensiveness is a critical aspect of a high-quality bid.

However, PG&E is keenly aware that DSM is not simply a commodity (i.e., megawatts). It is a complex service combining resource value (megawatts) with customer service, customer retention, customer satisfaction, and product differentiation. Yet a competitive bidding process can impose a commodity perspective on DSM: the purpose of DSM bidding is to acquire DSM—defined as generic megawatt savings—for the lowest price.

Conclusions

The PowerSaving Partners Agreements represent a cost-effective, profitable, energy saving addition to PG&E's DSM portfolio, with a minimum of company risk and several attractive benefits. PSP has allowed PG&E to manage entrance of Energy Service Companies (ESCOs) into the Customer Energy Efficiency market on a cooperative basis, and given PG&E flexibility and increased effectiveness in penetrating difficult markets.

Acknowledgments

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