## **Incorporating Lessons Learned into Demand Side Bidding**

Jane L. Finleon, Kelly A. Triplett and Bruce C. Peterson, Public Service Company of Colorado

This paper examines how Public Service Company of Colorado, (PSC) incorporated lessons learned from other utility bidding experiences to achieve a successful DSM bidding program. PSC experienced bidding through implementing a small pilot program as well as participating in three joint ventures with an energy service company in other utility bid programs. The lessons learned from "both sides" of bidding were incorporated into a larger scale bid program which was successful in achieving a response of 63 proposals, totaling 131 MW, at an average price of \$329/kW.

This paper will discuss key issues associated with DSM bidding such as scoring techniques, security deposits, timing of payments, eligibility, etc. and how PSC decided to resolve the issues based on its previous experience. In addition, the paper will review changes PSC would make in future DSM bidding programs.

Based on the issues described in this paper, it is concluded that a balance must be struck between a utility's need for reliable, low cost, eliminate, demand and energy savings and the amount of risk a utility can place upon potential bidders.

## Introduction

Demand Side Bidding is a process whereby a utility initiates a Request for Proposals (RFPs) to its customers and/or energy service companies (ESCOs) or other third parties for implementing Demand Side Management (DSM) technologies. The RFP typically specifies the types of DSM technologies desired by the utility and the criteria used to evaluate the proposals. The premise behind DSM bidding is that the competitive nature of bidding will provide market driven costs for implementing DSM measures.

PSC acquired experience in DSM bidding by participating in DSM bidding programs both as a bidder outside its service territory, and by conducting its own solicitations.

PSC's bidding experience began in mid-1989 with a pilot program consisting of the release, by PSC, of a Request for Proposals for Demand Side Management projects for a total of 2 MW. With little advertising, this solicitation received a response of 9 proposals totaling 6 MW at a cost of approximately \$240/kW. The 9 proposals consisted of a wide variety of DSM measures including electric to gas heating conversions, energy efficient lighting, economizers, energy efficient motors, and evaporative roof spray cooling. Nine contracts were signed totaling 3.8 MW. To date, 2.9 MW of demand reduction has been verified. Based on the initial success of the pilot project, PSC initiated a second solicitation for 50 MW in December 1990. Prior to initiating the 50 MW Bidding program, PSC filed an application to the Colorado Public Utilities Commission requesting special cost recovery treatment and a bonus incentive for pursuing the bidding program. The application was eventually settled by PSC, the PUC Staff, Office of Consumer Council and other interveners.

The cost recovery mechanism allowed the company to begin recovering program costs in the year following the expenditures for the DSM bidding program. A bonus incentive was derived which would pay PSC a percentage of the annual avoided costs of purchase power, based on the price of the DSM measure and the expected lifetime of the measure. PSC receives 5% of the annual avoided cost of purchase power if the DSM measures implemented average a price of \$240 per kW and have a life of 13 years. The DSM incentive increases or decreases for each year the average project life is greater or lower than 13 years. The DSM incentive increases or decreases for each year the weighted average program bid payment cost, in \$/kW, is below or above \$240/kW. The parties agreed to the \$240/kW and 13 year life as a base because it was the average price and lifetime resulting from the 2 MW bidding pilot program.

PSC utilized a 2 step process for evaluating the proposals from the 50 MW solicitation. The first step consisted of ranking each DSM measure according to their total points as determined by the following criteria: price per kW of demand reduction, measure lifetime, schedule for implementation, personnel experience, financing plan, marketing plan and verification method. The second step consisted of comparing the cost of the measure to a "ceiling price" based on the avoided capacity costs of the measure. Avoided energy costs were not factored in the evaluation because supply resources are added to the resource plan based on the company's peak demand forecast. DSM resources are evaluated based on their cost for peak kW reduction. The peak period for PSC is defined as 8 a.m. to 10 p.m. Monday through Friday, year round, therefore DSM measures which operated for more hours during the peak period had higher ceiling prices.

Because of the cost recovery bonus incentive design, PSC had a direct incentive to achieve bids at a low price and to encourage proposals for DSM measures guaranteeing a long life of savings. PSC then designed the RFP around this criteria. One of the associated goals was to ensure a wide participation by customers and third parties which the company hoped would increase the competitiveness of the proposals. The 50 MW bidding program was successful in attracting 63 proposals totaling 131 MW at an average price of \$329/kW. The final award group comprised of the top 50 MW of proposals, averaged a price of \$220/kW.

A further breakdown of the results of the 50 MW bidding program included proposals from 45 Customers and 18 third parties. The following is a summary of the technologies represented by the 131 MW submitted. During the same time frame, beginning in August 1990, PSC participated in bidding programs outside the state, partnering with an energy service company, to gain experience from the "other side" of DSM bidding.

PSC and the ESCO entered into a 50/50 joint venture with the goals of obtaining information and experience in bidding that would enhance PSC's in-house DSM programs, and achieving a return on the investment in third party DSM bidding.

The partnership submitted proposals to three different utilities offering bidding programs in the Northeast; Consolidated Edison, New York State Electric and Gas, and Rochester Gas and Electric.

In the Consolidated Edison solicitation the partnership submitted a proposal for 1020 kW at a price of \$1769 per kW for installing compact fluorescents and efficient fluorescent lamps with electronic ballasts. Customers were to receive \$350/kW up front and receive access to an escrow fund for replacing the technologies upon failure at a value of \$336/kW. The partnership was successful in making the final award group; however, during contract negotiations, it became apparent that the potential rewards of the program could not overcome the risks, and so, the partnership withdrew its proposal. Third party bidders were required to produce letters of intent from customers but were not permitted to switch or expand customer sites, nor could they add new customers with similar technologies included in the original proposal. At the same time,

	<u>MW Bid</u>	Number of <u>Measures</u>	Price <u>Per kW</u>
Electric Heat Conversions to Gas/Steam	39 MW	43	\$ 246
Motor Efficiency	5 MW	8	\$ 532
Snow Making Equipment Efficiency	10 MW	(a)	\$ 188
Electric Cooling Conversions to Gas/Steam	n 4 MW	5	\$ 432
Industrial Process Efficiency Improvements	s 13 MW	15	\$ 312
Air Conditioning Equipment Efficiency	3 MW	8	\$ 467
Efficient Lighting	32 MW	27	\$ 325
Energy Cooperative	15 MW	(a)	\$1225
Energy Management Systems	8 MW	12	\$ 254
Other	3 MW	5	\$ 545
(a) Less than 5 measures proposed.			

the soliciting utility raised its rebate levels in its own direct rebate programs to prices near \$1000/kW, resulting in a major source of competition for the partnership's bid. Consolidated Edison required the escrow account be established to fund the replacement of equipment in case of failure and to guarantee the lifetime of the measure. Award payments were structured to occur over the measure life and below the utility's annual avoided costs. The necessity of establishing an escrow account and the extended payment period, coupled with the risks associated with customer cooperation, caused the costs of participating to outweigh the benefits. The partnership had invested about \$89,000 in the proposal prior to withdrawal.

In the New York State Electric and Gas program, the partnership invested about \$40,000 in a proposal which was not successful. The proposal was for 1332 kW of demand reduction consisting of compact fluorescent lamps, high efficiency fluorescent lamps, electronic ballasts and high efficiency motors.

The NYSEG program included a cost effectiveness scoring factor that favored DSM measures with longer lifetimes. Although the partnership's price per kW saved was lower than most other proposals submitted, the partnership was conservative regarding the expected lifetime of the project. Perceiving customers as unwilling to commit to a contract for a greater period of time, the partnership proposed a project for a 10 year lifetime. A post analysis indicated that if a 15 year life had been offered, the proposal would have been chosen.

In the Rochester Gas & Electric program a proposal was submitted for 2500 kW of demand reduction at a price of \$1168/kW for load control equipment, variable speed drives, chiller controls, and efficient lighting. The partnership invested about \$15,000, was successful in making the initial award group, and was then disqualified in the final analysis for reasons that are, as yet, not fully explained by the utility.

The remainder of this paper describes issues that should be addressed by utilities when conducting their DSM bidding programs. These issues are broken down into three general categories: RFP Objectives, RFP Design and RFP Process. A description of each issue, some options and recommendations will be discussed.

## **RFP Objectives**

The utility should clearly identify objectives for pursuing demand side management bidding, and should develop the Request for Proposal around those objectives. Some of the issues around setting objectives include the following: (a) How should the program integrate with existing direct utility incentive programs (i.e., complement, compete with, or replace existing rebates programs)? (b) Should DSM savings be maximized per site, or should overall cost per unit of savings be minimized? (c) Does the utility want participation from both customers and ESCOs? (d) What load shape change does the utility want to acquire from bidders?

The objectives of the program may be determined and driven by regulatory incentives, the existence of other DSM programs offered by the utility, the amount of experience a utility has in implementing DSM, and by the system resource needs.

# Program Integration with Existing Utility Programs

The utility needs to decide if and how the bidding program should be integrated with its existing programs. Some utilities allow their DSM bidding program to compete directly with rebates offered by the utility for the same measures. In this case, it is unlikely that the cost of the bidding program will be less than the utility's rebate program, because customers must perceive that they will fare better under bidding than under the utility's direct rebate program. This can be offset by ESCos who can offer services such as financing, design and engineering, implementation and long term monitoring. Changing the amount of the rebates in a utility program during the bidding process can wreak havoc on an ESCO's ability to market the bidding program under a fixed price and does not provide the utility with a clear evaluation of the effectiveness of the bid program. Competing programs can also result in the alienation of the utility's customer representatives who would, in essence, be competing with ESCOs to persuade customers to install DSM measures. Utility customer representatives may have individual quotas for encouraging their customers to take advantage of utility rebates, a third party or ESCO could impede their progress. The reverse is also true, in that ESCOs have a harder time selling their proposals when a utility has a direct rebate for the same measure. The direct competition also serves to "confuse" the utility's customers as to the best way to achieve their energy goals. Often customers do not understand the competitive process and the ESCo's role.

PSC basically offered the bidding program in place of any other rebate programs. The 50 MW bid was the first major DSM effort for the company, and so, limited any confusion on the part of the customers. One recommendation for utilities with rebate programs already in place is to target bidding either to a specific market segment or to DSM measures ineligible for utility rebates. An option that would reduce competition between a utility's representatives and ESCOs would be to solicit bids from ESCOs to assist with the marketing and follow-up work associated with existing DSM rebate programs. This is a different type of bid based on time and materials necessary to implement the program rather than results achieved in terms of savings.

#### Maximize Savings Per Site vs. Minimize Cost Per Unit Savings

Utilities need to decide if their goal is to maximize the cost effective savings per site or to minimize the cost of the overall program per unit of savings. The answer may be a balance of the two objectives. It may be dependent upon the regulatory incentives available to the utility. PSC had clear regulatory incentives to minimize their cost per unit of demand savings. In this case, it is recommended that within a proposal each DSM measure be broken out and priced individually. It is likely more cost effective to implement the most inexpensive measure at several sites than to implement all possible measures at one site. Implementing lowest cost measures at each site is sometimes perceived as "cream-skimming" and could create "lost opportunities" in which other cost effective measures are not implemented at the same time as the low-cost measures. It also creates some uncertainty for bidders who risk having only part of their proposal accepted, in knowing how to price the individual measures in order to recover their fixed operating and maintenance costs. In PSC's program, many of the customer proposals consisted of projects the customer had looked at previously and the potential incentive made them cost effective to pursue, which is not typically perceived as "cream skimming". If the utility's objective is to maximize savings per site, then a means for allocating additional possible points for additional DSM measures installed at one site should be included when designing the scoring mechanism. An RFP developed by Pacific Gas & Electric awarded extra points for a proposal that would maximize the savings per site.

# Participation by Customers and/or Energy Service Companies

Allowing direct participation by customers, in addition to ESCOs, can lower the overall cost of the bidding program to the utility. The PSC/ESCO partnership needed to retain close to 30% of the bid award payment to cover the costs of managing the project. If customers participate directly, care should be taken to make the bidding process as

simple as possible. PSC learned that providing constant communication to customers, and educating utility customer representatives about the bidding process generated enthusiasm for the program and encouraged customer participation. Establishing a personal rapport between utility staff and bidders is paramount to ensure customer participation as bidders. Without this essential communication, customers and the utility's representatives may become disenchanted with the process.

PSC's DSM solicitation was extended to customers and ESCOs or other third parties. Approximately two thirds of the proposals received in the PSC bid were from customers and one third from ESCOs or other third parties. The final award group had roughly the same mix of customers to third parties. When designing the RFP document, PSC strived to make it easy to understand and tried to minimize the requirements. PSC went so far as to prepare an attractive cover for the RFP as another attempt to appear "customer friendly". These actions, along with direct promotion to customers through newsletters, presentations, and contacts through the customer representatives, and the fact that PSC did not have competing rebate programs, all contributed to the significant customer participation.

#### Load Shape Objectives

Setting load shape objectives can help the utility obtain DSM measures that will benefit its system. The load shape objective directly relates to the types of DSM technologies allowed. One objective might be to "see what the marketplace desires" by leaving the type of DSM technology open. PSC's bidding program fell into this end of the spectrum. At the other end of the spectrum, a utility can meet their load shape objectives by specifying the DSM measure down to the type of equipment allowed. Consolidated Edison included a list of acceptable technologies and a ceiling price for each one. Other utilities defined a period such as the afternoon period in the summer as the most valuable time for the demand reduction to occur and then left the particular technology up to the bidder. While being very specific can ease the evaluation process in terms of determining technical feasibility, it leaves no room for innovation and is not market driven.

PSC had little DSM experience and thus, chose to leave the DSM options open to the bidder. Bids were received for a wide variety of technologies providing valuable data on costs and savings for a number of DSM technologies. PSC's system requirements were for DSM savings to occur in winter, summer, and year round due to the company's existing high load factor.

## **RFP** Design

When designing an RFP utilities should, at a minimum, consider the following factors: (a) verification, (b) pricing, (c) scoring, (d) security deposits, (e) bidder qualifications and experience, (f) measure lifetime, (g) minimum size requirements, and (h) timing of payments.

#### Verification

Determining the amount of DSM savings achieved is of paramount importance to the utility. In PSC's 2 MW pilot program, verification and site inspection were interchangeable terms, until the company found an application whereby the project was installed and savings were not what was predicted. A roof top evaporative cooling system was proposed by one bidder. The bidder provided engineering calculations as a prediction of the demand reduction. Once the cooling system was installed, PSC performed a billing analysis and found that savings were just over half what the bidder predicted. The bidder expected to be paid the full amount just for installing the system.

For the 50 MW program, PSC better defined verification into five specific categories: engineering calculations, engineering simulation models, short term metering, long term metering, and statistical analyses of energy bills. Bidders were allowed to choose specific methods and were responsible for conducting the verification with final review and approval to be the utility's responsibility. As a result, the costs of verification and its justification, became the responsibility of the bidder. This methodology, of making the bidder responsible for verification, was consistently used in New York as well. Problems in PSC's 50 MW program arose because bidders had little experience in designing verification techniques appropriate for their particular measure, and then PSC had to review and approve the technique and results.

Recommendations for future programs will include the utility designing and performing the verification to appropriately fit the particular measure and to assure consistency for similar proposals. Taking on more of the verification responsibility may result in a slight increase of administration costs for the utility, but should lower the bid prices.

#### Pricing

Rather than using "avoided costs" as the ceiling price for proposals, PSC utilized a reference price of \$240/kW for the 50 MW program based on the bid prices received from the first 2 MW solicitation. Bids were scored, in part, based on the difference between the reference price and the bidder's proposed price. The reference price seemed to have a psychological effect of forcing bidder prices near the reference price in that negative points were received when bid prices exceeded \$240/kW. The average price of the final award group from the 50 MW program was \$220/kW while the assumed avoided costs were nearer to \$1000/kW. Since PSC achieved its goal of acquiring 50 MW through bidding at as low a cost as possible, it did not matter that some proposals were rejected that had prices lower than the avoided costs.

In New York, Consolidated Edison compared the bid price to the ceiling price identified for each technology. NYSEG and Rochester Gas & Electric utilized a bid price and lifetime formula to assess cost effectiveness.

#### Scoring

The scoring methodology should be designed to meet the utility's objectives. PSC used an objective scoring system in which bidders scored themselves. Bidders benefited by knowing exactly how they would be scored, leaving less potential for PSC to be accused of preferential treatment. The disadvantage to a self scoring RFP is the potential for "gaming" the system by the bidders. For example, PSC awarded points in the 50 MW solicitation for providing combinations of verification techniques that utilized billing analysis, engineering calculations, and metering. Many bidders chose all methods to receive the maximum points for this category. Once the proposals were chosen, bidders attempted to eliminate the requirement of performing all the methods in the contract negotiation process. Many times the methods were not appropriate to the individual technologies (e.g., long term metering for lighting), making the negotiation process more difficult. It is recommended that the self-score items be limited to price and measure lifetime, and the utility be allowed to subjectively score certain items such as financial capability, marketing plan, and proposal comprehensiveness, etc. Rochester and NYSEG both utilized a two-step process whereby the first scoring was objective and performed by the bidders. The second step was subjective and performed by the utility.

It is important that the scoring criteria (both objective and subjective) be clearly described up front in the RFP itself. Submitting proposals is time consuming and costly to bidders, therefore, in developing their proposals, they should understand clearly the utility's objectives. From PSC's experience as a bidder in out-of-state bidding programs, not knowing the reasons for disqualification was a source of frustration.

#### Security Deposits

Security deposits are needed to ensure the utility receives well thought out and sincere proposals. Utilities invest time in the evaluation of each proposal they receive. There are three specific points in the bidding process that require some kind of security be provided to the utility. The first is in the proposal submission stage. Some type of nonrefundable application fee will help ensure that once a proposal is chosen, the bidder will negotiate in good faith to secure a contract. Once the contract is negotiated, the utility needs security that the bidder will install the DSM measure and achieve the savings. Once the DSM measure is installed, the utility needs assurance that the savings will be maintained over the life of the proposal. PSC required a \$100 non-refundable application fee and a \$20/kW security. The \$20/kW was paid at the time the contract was executed, and held over the measure lifetime. In future programs, the application fee may be variable, tied to the kW proposed, and then refunded should a contract be executed or the proposal eliminated. The New York utilities utilized an application fee tied to the size of the proposal that would be refunded should the proposal be eliminated.

#### **Bidder Qualifications and Experience**

Evaluating the experience and qualifications of the bidder can provide information to the utility regarding the riskiness of the proposal. However, experience may not always be necessary to ensure a good proposal. PSC utilized a self-scoring mechanism that gave bidders more points for having completed similar projects in the past. This kind of system may be disadvantageous for customers who are bidding on their own facilities as they may not have previous experience in implementing the same type of DSM measure. A recommendation is to have some type of subjective scoring by the utility that weighs a bidder's qualifications based on references and the quality of the proposal submitted.

#### **Measure Lifetime**

Lifetime of the measure is important in determining the length of time the utility can rely on the demand and energy reduction occurring. One option for assessing the measure lifetime is to utilize ASHRAE type standards for individual pieces of equipment. The utility would then assign this standard in the RFP and require all bidders to contract for this amount. Another option is to allow bidders to propose a lifetime whereby they agree to replace and maintain equipment if the proposed lifetime is longer than the standard lifetime. The second option increases the value of the savings but is riskier in terms of the length of a contract. There are many unknowns concerning potential technological advancement 10 to 15 years in the future, although one may assume that at a minimum, the energy efficiency of technologies will increase. PSC allowed bidders to propose a lifetime from 10 to 20 years. Almost all of the proposals were for 20 year lifetimes. It is questionable whether some businesses will be in place in 20 years, therefore longer contracts are riskier to the utility unless payments are made over time.

### Minimum Size Requirements

PSC required a minimum bid size of 300 kW per proposal for a third party bidder and 100 kW for a customer. Proposals could consist of any number of separate measures with no minimum size per measure. Because measures were treated separately within a proposal, contracts for part or all of a proposal were negotiated. PSC contracted with 39 bidders, the average in the northeast resulted in less than ten bidders. The minimum size requirement was to ensure proper economies of scale for the investment in evaluating proposals and negotiating contracts. The minimum size requirement should be balanced with the utility's desire to allow customers to submit their own proposals, as single customers must be large to achieve a demand reduction of 100 kW or more.

### Timing of Payments

Timing of payments is important to bidders in terms of cash flow. Bidders want to offset their investment in the energy efficiency measure upfront while the utility, at a minimum, wants to ensure payment for the savings as they are achieved. PSC paid the entire award payment to bidders after the measure was installed and savings were verified. In some cases, where the verification included metering or billing analysis, payment did not occur until 6 months to a year following installation. PSC agreed to pay part of the bid award based on engineering calculations until the final verification was achieved. Other utilities have declined to pay more than the savings were worth for each year, making the award payments annually over the term of the contract, or required a security deposit worth up to 150% of the bid price. Understandably, making payments over time will increase the overall cost. The PSC/ESCO partnership estimated a negative cash flow for the first several years for all the projects it proposed. It is simpler and less expensive for the utility to make the payments up front, however the risk is that the savings will not be maintained over time. This risk can be mitigated somewhat with contract language and with the security deposit. PSC used the security deposit to ensure persistence of kW savings. All three New York utilities

used payments to the bidders over the contract life to ensure persistence.

## **RFP Process**

After the objectives are set and the RFP designed the utility needs to determine how it will conduct the bidding program. Some of the issues associated with the process of a bidding program are (a) degree of flexibility in contract negotiation, (b) assistance offered to bidders, and (c) communications.

# Degree of Flexibility in Contract Negotiation

Bidding programs can take 1 to 2 years to complete, from the time of release of an RFP to having signed contracts. During that period of time, many things can change, such as the type of DSM measures a bidder wishes to market, the business conditions surrounding potential customers and the availability and prices of technologies. The utility needs to balance flexibility with the need to obtain verifiable and reliable demand reduction measures. If all elements of the contract were negotiable, the utility would have no idea what it was actually getting until all the contracts were signed and realistically, there would be no competitiveness. The utility may find that its contracts are of little value. Consolidated Edison required the bidders to identify sites and would not allow substitution if one customer withdrew by the time the bids were evaluated. PSC allowed bidders to negotiate a decrease in bid size and elimination of measures, however increases were not permitted. Allowing bid downsizing created some problems when it came close to signing contracts as some large proposals were reduced dramatically in size. This required PSC to offer contracts to lower ranked proposals in order to meet the targeted 50 MW. Not allowing bidders to reduce their bid size would have resulted in more proposals being withdrawn. Allowing bidders to increase their bid size could result in a utility signing contracts for more DSM than is needed. Having a nonrefundable application fee tied to the proposal size (\$2/kW) may help to reduce this problem in the future.

### Assistance Offered to Bidders

In the first programs offered by PSC, the utility tried to stay at "arm's length" from all bidders, customers and ESCOs. Customers felt they were treated unfairly compared to past experiences with the utility when they were given greater flexibility. Historically, PSC's expressed role to customers was to be consultative regarding their entire operation. Some ESCOs used PSC's program to market to customers and later blamed the utility when problems occurred. Customer representatives became frustrated when program requirements got in the way of their objective of maintaining relationships with their customers. It is recommended that the utility provide assistance to all bidders through workshops to help bidders with proposal preparation. More upfront time from the utility may be required but should result in fewer problems down the road.

Finding ways to leverage the utility's marketing advantage can help ESCOs lower their costs. NYSEG went as far as to offer extra points to an ESCO who would invite NYSEG customer representatives on any potential sales calls with customers. An RFP by Central Hudson, on the other extreme, requires ESCOs to send letters to potential customers stating that they are not agents of the utility. PSC provided ESCOs with summaries of customer market research data to help them target customers. The utility could also provide assistance to the successful ESCOs' targeted customers, in the form of program education. A utility representative, calling on a customer along with the ESCO, adds credibility to the process and should improve the ESCO's selling power. Utility involvement with the ESCO also provides the utility with some control over how information is presented to customers. This involvement may increase the administrative costs to the utility because they are more involved in the ESCO marketing process. Alternatively, allowing ESCOs to come between the utility and its customers could hurt the relationship the utility has with its customer.

#### Communications

Communication is very important during the bidding process. The department within the utility, responsible for managing the bidding process, must be in constant communication with other departments within the utility regarding the status of the program. At one of the New York bidding programs, the PSC/ESCO partnership was soliciting a customer who called the utility to find out if the bidding program was legitimate. The customer called the area of the company that administered the rebate programs and was told that the bidding program did not exist. The partnership lost this customer as a potential client. Customer representatives need to fully understand the rules and procedures of the program and know the status of proposals submitted by their customers. Informed representatives will refrain from providing contradictory information and can assist in communicating progress to the bidders.

Enhanced communications with bidders is important. PSC was well regarded by the bidders in terms of the responsiveness to questions. PSC had staff available to answer

questions during the entire bidding program process. The bidding programs that the PSC/ESCO partnership were involved in required all questions to be submitted in written form. This made it difficult for the partnership to gain the full understanding of the answers to questions. Regular newsletters outlining the status and reviewing the procedures are one avenue to improve communications. Workshops, briefings and 1-800 numbers are other ideas. PSC learned that not everyone will read and understand the rules if they are written only in the RFP.

## Conclusions

It is important that a utility consider the costs and risks to itself and to potential bidders when designing and implementing a bidding program. Finding ways to share the risks with bidders will result in programs with lower costs and more reliable savings.

Clear objectives must be established by the utility when designing a competitive bid program. Procedures and policies must be developed for communicating those goals internally and presenting a unified company perspective to potential bidders. The RFP should concisely and clearly state the utility's expectations of potential bidders. The more information a bidder has about what the utility wants and how it is to be presented, the higher the quality of information will be submitted. Leveraging the market power a utility has to work with customers and ESCOs can improve the overall effectiveness of the program.

## References

Public Service Company of Colorado. 1990. Demand Side Management 50 MW Bidding Program--Request For Proposal. Public Service Company of Colorado, Denver, Colorado. Peters, J. S., M. R. McRae, and K. Seiden. 1992. Process Evaluation of Public Service of Colorado's 50 MW Bidding Program. Barakat & Chamberlin, Inc., Oakland, California.

Consolidated Edison Company of New York. 1990. Request for Proposals for Supply and Demand Side Resources, RFP #90-1. Consolidated Edison Company of New York, New York, N.Y.

New York State Electric and Gas Company. 1990. Guidelines for Resource Bidding and Request for Proposal No. 1. New York State Electric and Gas Company, Binghamton, N.Y.

Rochester Gas and Electric Corporation. 1990. Request for Proposals No. 90-1 to Meet the Electric Resource Needs of Rochester Gas and Electric Corporation. Rochester Gas and Electric Corporation, Rochester, N.Y.

Pacific Gas and Electric, 1991. Draft--A Positive Partnership Procurement Request for Proposals, Energy Efficiency Resources Volume 1. Pacific Gas and Electric, San Francisco, California.

Central Hudson Gas and Electric Corporation. 1991. Request for Proposal to Supply Capacity and Energy and/or Provide for the Installation of Demand Reduction Measures. Central Hudson Gas and Electric Corporation, Poughkeepsie, N.Y.