Organizing for Market Transformation: Institutional Issues in the Creation of a New Energy Efficiency Policy Framework in California

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ABSTRACT

Recently there have been movements in a number of states and regions, as well as nationally, to establish public benefits mechanisms that use funding from universal ratepayer charges to attempt to transform energy-efficiency markets. However, most of these campaigns appear to still be in the planning stages. This paper reports on several key issues that have been faced in implementing one of the largest and furthest advanced energy efficiency public benefits mechanisms, the Public Goods Charge (PGC) mechanism in California being overseen by the California Public Utilities Commission (CPUC) and the California Board for Energy Efficiency (CBEE). The paper is written primarily from the perspective of the consultants commissioned by the CBEE to advise it in carrying out its mission of implementing the PGC mechanism in California, and does not purport to represent the views of either the CBEE or the CPUC. The main focus is on issues pertaining to institutional structure, including the number and organization of administrators selected to develop and oversee energy efficiency programs and budgets and the allocation of responsibilities for various functions between program administrators and other entities. The authors also discuss implications of California's experience for other energy efficiency public benefits planning efforts.

Introduction

The establishment of a new energy efficiency PGC mechanism in California commenced in earnest in the Summer of 1997, with the creation of a new policy and administrative framework and the development of a Request for Proposals to recruit independent administrators to manage the spending of roughly \$218-270 million annually in energy efficiency public goods funds. The results of these activities appear likely to produce a number of generalizable lessons regarding the manner in which energy efficiency public benefits mechanisms should be organized institutionally.

This paper explores these lessons to date, from the limited perspective of one set of participants in the process: the technical consultants commissioned by the California Board for Energy Efficiency (CBEE) to advise it in carrying out oversight responsibilities established by the CPUC. Specific institutional decisions reviewed include the following: (1) the number of independent administrators to

¹ The dollar range reflects the fact that California's PGC mechanism is expected to eventually include funding for both electric and gas programs, but currently includes only the former. The lower dollar figure is the amount for electric programs alone, and the latter figure the probable amount once funding for gas programs is added.

be hired, and the manner in which their responsibilities are to be organized; (2) whether various analytic functions such as program evaluation, market assessment, and strategic planning should be performed by administrators, state agencies, or other entities; (3) the extent to which various responsibilities involving program design and implementation should be performed by program administrators or private concerns working under contract for administrators; and (4) the specific mechanisms or procedures by which all of the above entities interact. The paper focuses on the rationales underlying the consultants' recommendations to the CBEE on these issues. Where specific decisions had been made by either the CBEE or the CPUC at press time, these decisions are reported. However, the paper does not purport to represent the views of either of these entities.

Organizationally, the paper: (1) begins with a presentation of background information regarding energy efficiency public benefits mechanisms in California; (2) continues with a discussion of the number and organization of administrators, and the delineation of administrators' responsibilities; (3) provides a summary of the institutional structures ultimately proposed by the CBEE and adopted by the CPUC; and (4) concludes with an attempt to draw from California's experience some general conclusions regarding how state- and regional-level energy efficiency public benefits mechanisms should be structured institutionally.

Background

The seeds for California's current energy efficiency public benefits efforts were sown in 1996, with state Assembly Bill 1890 (AB 1890). As part of a broader restructuring of California's electric utility industry, AB 1890 established a uniform funding mechanism for ratepayer-funded energy efficiency programs, along with funding levels, and charged the CPUC with overseeing this mechanism. The funding mechanism established by AB 1890 is to last until December 31, 2001, with the existence and level of any further funding for public-purpose energy efficiency programs after that date being left open.

In two decisions in 1995 and 1997 (D.95-12-063 and D.97-02-014)², the CPUC determined that the same changes in the electric industry that prompted electric industry restructuring in general called for three further changes in the nature and administration of ratepayer-funded energy efficiency programs. The first change was a revision in the primary policy objective to be pursued, from resource acquisition (the achievement of reliable energy savings that can displace supply-side options in the utility-administered planning process) to market transformation (the pursuit of lasting reductions in the market barriers that prevent market actors from promoting and customers from adopting cost-effective energy efficiency measures on their own). The second change was an end to the exclusive reliance on the utilities themselves to administer the programs, in favor of competitive selection of independent program administrators. The third change was an alteration in the way most services are actually provided in the field, from an environment under which most services are provided by other entities working under contract to program administrators.

In D.97-02-014, the CPUC also created the public board now known as the CBEE to advise it on how to pursue these major changes to ratepayer-funded energy efficiency programs. The CBEE's responsibilities were specified as including:

² All CPUC Decisions cited in this paper can be downloaded from the CPUC's Web site at www.cpuc.ca.gov.

- 1. Developing proposed new policy rules to govern delivery of ratepayer-funded energy efficiency programs under the changes to the policy environment listed above.
- 2. Developing a competitive process to select new independent administrators to oversee the delivery of PGC-funded energy efficiency programs.
- 3. Continuing to advise the Commission on the delivery and administration of the programs once new administrators are selected.

The schedule at the time this paper was prepared called for the new administrators to be on board by January 1, 1999. Through the end of 1998, the electric utilities were to serve as interim administrators, offering programs designed to provide a smooth transition between the old and new policy frameworks and administrative structures. The CBEE was charged with overseeing a joint planning process to develop specific programs and budgets for 1998, and with making recommendations to the CPUC on these issues.

In summary, the decisions of the Legislature and the CPUC led to the following four stages in the energy efficiency policy environment in California:

Old environment, applying through the end of 1997: the investor-owned utilities design, administer and implement energy efficiency programs intended to meet resource acquisition objectives, using ratepayer funds. Programs are overseen directly by the CPUC.

Transition period, 1998: the utilities design and administer energy efficiency programs intended to provide a smooth transition from the old resource acquisition-focused policy framework to the new market transformation-focused framework. Programs are funded using the Public Goods Charge (PGC) mechanism established by the Legislature. The CBEE makes recommendations regarding program design, funding, and implementation, and the CPUC approves or modifies these recommendations.

New environment, 1999-2001: Independent administrators selected through a competitive RFP process design and administer programs intended to meet market transformation objectives, using PGC funds. Most programs are actually implemented not by administrators but by other entities reporting to the administrators. The CBEE makes recommendations regarding program design, funding and implementation, and the CPUC approves or modifies these recommendations.

Post-2001 Environment: Existence, magnitude, and nature of public purpose energy efficiency programs all unknown.

The focus of this paper is on the institutional specifics of the new environment intended to apply from 1999 through 2001.

Institutional Issues Needing to be Resolved

While the decisions of the Legislature and the CPUC from 1995 to 1997 set forth a broad outline of the new institutional and policy framework for energy efficiency programs in California, there were a number of institutional issues that were not specified by these decisions. For example:

While the CBEE was charged with developing a competitive process to select a new program
administrator or administrators, the exact number of administrators, and the manner in which their
responsibilities were to be organized, were not specified.

- While it was clear that administrators were not intended to provide all or even most energy
 efficiency services themselves, the specific responsibilities of administrators and other entities in
 designing, overseeing, and implementing various types of programs were not identified.
- Furthermore, the handling of analytic support functions such as program evaluation, performance
 measurement, market assessment and strategic planning was not specified in the context of the new
 institutional framework. While the utilities had previously performed or managed these functions
 as part of their overall responsibility for program administration, the establishment of a new
 institutional framework allowed a fresh look at their handling.

In short, before it could prepare an RFP designed to recruit new administrators, the CBEE had to develop proposals regarding many of the specifics of the new institutional framework.

Number and Organization of Administrators

The first major set of issues that had to be resolved was the number of administrators to be selected and the manner in which their responsibilities should be organized. Prior to industry restructuring, administrative responsibility for energy efficiency programs had necessarily been organized along the lines of utility service territories. However, it was by no means clear that this approach should be retained in an era of independent program administration. Nor was it clear, given the amount of the funds involved and the scope and breadth of the programs envisioned, that a single state-wide administrator would be an optimal solution. Accordingly, the CBEE's consultants were commissioned to perform an extensive analysis of the advantages and disadvantages of various approaches to determining the number and organization of new administrators. The following approaches were considered:

- Selecting a single state-wide administrator;
- Organization using existing utility service territory boundaries;
- Organization using new geographic boundaries (e.g., choosing separate administrators for Northern and Southern California);
- Organization by customer class (e.g., choosing a state-wide administrator for residential customers, another administrator for small commercial, and another administrator for large commercial/industrial markets);
- Organization based on type of service (e.g., choosing separate state-wide administrators to deliver information services, customer-specific information and financial services such as energy audits and standard performance contracts, and upstream market transformation programs designed to achieve sustainable changes in the energy services market);

- Organization by type of market transaction or event (e.g., choosing separate state-wide administrators that would be responsible for new construction, replacement of existing appliances and equipment, and retrofit of existing buildings and equipment);
- Organization by market segment (e.g., separate administrators for distinct markets such as residential appliance replacement, commercial new construction, industrial process overhauls, etc.);
- A number of composite approaches under which the organizational approaches listed above would be combined in various ways; and
- An open competition approach, under which the number and organization of administrators would not be specified in the RFP, but would instead be deferred to the extent possible until after bidders had responded. For example, instead of an RFP, a Request for Qualifications (RFQ) might be issued, and the number and organization of administrators chosen based on the mix of qualifications of responding bidders.

The Technical Services Consultants prepared an issue paper that assessed and compared each of these approaches on a wide range of attributes (Prahl et al, 1997a), including the following:

- Administrative criteria, such as efficiency, fairness to bidders, probable market response, the
 potential for program coordination problems or gaps in program coverage, and the administrative
 burden placed on the CBEE;
- The extent to which each approach facilitated the primary policy objective of transforming energy efficiency markets; and
- The extent to which each approach facilitated secondary policy objectives promulgated by the CPUC, such as aligning the costs and benefits of programs and limiting the potential for administrators to abuse the powers vested in them for private ends.

On the basis of this analysis, the consultants concluded that many of the approaches listed above appeared to be ruled out by fatal flaws. For example:

- Organization by existing utility service territory boundary appeared to be barred by the substantial advantage that the incumbent utilities would enjoy in the competition, and the resulting loss of credibility suffered by the RFP process.
- Organization by service appeared to be barred by the substantial potential for program coordination
 problems across administrators, as most successful systematic market interventions require many
 different services targeted at the same customers and market actors.
- Organization by market segment, while potentially highly effective from the perspective of facilitating policy objectives, could lead to a plethora of balkanized and potentially overlapping

administrators, each wielding excessive market power in its own specialized market niche, as well as to larger administrative burdens for the CBEE due to the larger number of administrators.

 Open competition approaches such as an RFQ appeared to be ruled out by the need to comply with California's procurement rules. Under a strict application of these rules, no negotiation is allowed once winning bidders have been selected. Given the need to determine each administrator's specific responsibilities after the completion of the solicitation process, it would be difficult if not impossible to conduct an open competition approach without allowing for such negotiation.

The consultants concluded that, on balance, the single most effective approach would be to select two primary state-wide administrators, one covering residential customers and measures and the other covering non-residential customers and measures. It was anticipated that this approach would: (1) present each administrator with a sufficiently limited scope of responsibilities to be within the capabilities of a wide range of entities, thus allowing for a substantial market response to the RFP; (2) limit the risks attendant on the possibility that one or more administrators might fail to perform adequately; (3) keep the total number of administrators small enough to lead to a manageable administrative assignment on the part of the CBEE; (4) ensure that the responsibilities of each administrator were sufficiently clearly delineated to guard against the possibility of program gaps, overlaps, and jurisdictional ambiguities; (5) give the CBEE as many options as possible in tailoring the selection of Administrators to the mix of skills across bidders; and (6) ensure that administrators' responsibilities are structured in a manner that reasonably approximates the manner in which actual energy efficiency markets are structured, thus ensuring that administrators' efforts will be appropriately focused on specific and discrete energy efficiency markets.

This recommendation stimulated lively discussion, both among CBEE members and among stakeholders and other participants. After several months of intermittent discussions, the CBEE ultimately voted to recommend to the CPUC a modified version of the basic residential/non-residential split, under which three administrators would be selected: (1) an administrator responsible for overseeing programs targeting measures in existing residential buildings; (2) an administrator responsible for overseeing programs targeting measures in existing non-residential buildings; and (3) an administrator responsible for overseeing programs targeting measures in new buildings and facilities, whether residential or non-residential. Subsequently, this proposal was refined to include a number of specific criteria for resolving potential ambiguities regarding the boundaries between these three administrators.

In D.98-04-063, the CPUC ruled on this and other issues pertaining to the selection of new program administrators, approving the three-administrator organization recommended by the CBEE.

Delineation of the Responsibilities of Administrators Vs. Other Parties

The second major set of institutional issues that needed to be resolved before an RFP soliciting prospective administrators could be prepared involved the specific responsibilities of administrators versus other parties. This encompassed two sub-issues: (1) what should be the specific responsibilities of administrators and other parties regarding program design and implementation; and (2) who should be responsible for analytic functions such as program evaluation, market research and strategic planning.

Handling of Program Design and Implementation

In its initial decision on restructuring, the CPUC described the responsibilities of new program administrators in the following broad terms:

"Additional expectations concerning the role and function of the administrator(s) should be articulated by the Board, as part of the RFP development process. Generally, we expect the Administrator(s) to perform the following functions:

- 1. Assists the Board in selecting various projects
- 2. Pays monies to and verifies program milestones/performance indicators.
- 3. Manages any Standard Offers.
- 4. Collects the funds and manages the bank account.
- 5. Provides administrative support to the EEB.
- 6. Will not deliver energy efficiency solutions." (D.97-02-014.)

In September 1997, the Commission expanded on the relative roles of Administrators and Implementors in program implementation functions, stating that:

"In particular, project development and agreements with customers should be left to private companies... At the same time, we emphasize that there are other functions articulated by CBEE associated with the new administrative structure that we believe are more properly performed by program implementers. Such functions include providing customers with meaningful information on energy efficiency investments and reducing barriers to investments in energy efficient technologies. CBEE and the administrator(s) should ensure these functions are effectuated through the marketplace as part of the efforts to create a sustainable and competitive energy services market." (D.97-09-117.)

While these passages trace the broad outlines of administrators' responsibilities regarding program design and implementation, there is much that they do not specify. It was clear that administrators were intended to play some sort of role in deciding what kinds of programs are to be offered, in accounting for costs, and in providing administrative support to the CBEE. It also seemed clear that limitations on the scope of administrators' direct involvement in program delivery were envisioned. However, it was initially unclear: (1) whether administrators were to have sole responsibility for designing programs within the constraints of the program guidelines specified in the RFP, or whether the CBEE, the CPUC or other parties were to share this responsibility; and (2) what specific program implementation activities administrators were to be banned from performing under the headings of delivering energy efficiency solutions, developing projects, and signing agreements with customers.

In an issue paper (Prahl et al., 1997b), as well as in a number of subsequent deliverables, the consultants developed recommended approaches for dealing with these issues to be submitted to the CPUC. Key to the consultants' recommendations was the concept that a specific function should be assigned to administrators only if: (1) there were compelling reasons to believe the function could be performed significantly more efficiently or effectively by administrators than by existing market actors; and (2) it was clear that assigning the function to administrators was consistent with the

CPUC's objective of privatizing energy-efficiency markets because the function was one that inherently could not be privatized in a sustainable fashion – i.e., that the nature of the function was such that it would not be provided by private market actors even in a vibrant, well-functioning market.

Specifically, under the consultants' recommendations:

- Administrators would be responsible for facilitating and leading the development of new programs, but this would be conceived of as a collaborative process, involving both the CBEE and various stakeholders. In addition, there would be different planning mechanisms for different types of programs. Many programs would be developed initially by administrators, who would obtain extensive public input through the collaborative planning process. However, funds would be set aside each year for third-party programs, or programs which are initially conceived by a party other than the administrator, with the administrator coordinating further development of the program through the collaborative planning process. The CBEE would provide recommendations to the CPUC regarding specific programs, and the CPUC would retain approval authority.
- Administrators would be allowed, subject to the approval of the CBEE on a case-by-case basis, to
 participate directly in the implementation of programs that: (1) for one reason or another, can be
 performed more efficiently or effectively by the administrator than by a separate entity working
 under contract to the administrator; and (2) either do not involve the direct provision of energy
 efficiency services to customers, or involve activities that are not expected to be provided by
 private market actors in a fully privatized market.
- Examples of possible programs which administrators may be viewed as being able to implement more effectively or efficiently than a separate entity working under contract to the administrator would include: (1) programs which, in order to be implemented effectively, require an entity with a central market position and ties to a wide range of market actors, such as bulk purchasing programs; (2) programs requiring an entity with an unusual degree of credibility and an image of disinterestedness, such as product rating and contractor certification programs; and (3) programs requiring the type of comprehensive understanding of the range of activities being performed by implementors that administrators are likely to possess, such as centralized phone lines directing consumers to the specific implementor or implementors providing the services they are seeking.
- Examples of activities not expected to be provided by private market actors even in a fully privatized market would include: (1) activities that are inherently unprofitable in the absence of public sponsorship or subsidy, such as code enforcement or training; and (2) activities that, by their nature, cannot be linked to specific proprietary products or services.
- In order to ensure that administrators were not able to use their commanding position in the marketplace to develop and later exploit brand equity for those services they do perform, the CPUC would retain the contractual right to require them to use a brand identity developed by the CBEE.

The CBEE voted to recommend this approach to allocating responsibility for program design and implementation to the CPUC. In D.98-04-063, the CPUC approved the recommended approach, with the key modification that any direct administrator involvement in program implementation was to be

subject to formal approval by the CPUC itself, rather than by the CBEE. The CPUC also emphasized that it continued to be cautious about the possibility of allowing administrators to become directly involved in program implementation. Finally, it made minor modifications to the list of specific programs for which administrators would be eligible to participate directly in program implementation. The final disposition of specific program categories is shown in Table 1.

Table 1. Role of Administrators in Program Implementation in California.

Administrator Has No Direct Role In Implementation	Administrator May Have Limited Direct Role In Implementation on Case-by-Case Basis, Subject to Commission Approval	
Customer Incentives	Incentives to Upstream Market Actors	
Standard Performance Contracting	• Information and Support to Upstream Market Actors	
Customer Specific Information	Code Support and Training	
Design Assistance	Mass Advertising and Public Relations	
 General Technical Training 	Bulk Procurement	
Commissioning	Collaborations With Other Regional or National Market Transformation	
Direct Installation	Initiatives	
Energy Centers	Product Rating	
	Contractor Certification	

Handling of Analytic Functions

In the original policy environment, utilities had primary responsibility not only for program design, administration and implementation, but also for analytic functions such as program evaluation and market research. However, the development of a new institutional structure allowed a fresh look at this issue. What were the advantages and disadvantages of assigning various analytic responsibilities to administrators vs. other parties? If these responsibilities were to be assigned to other parties, what entities should receive them?

The CBEE's technical consultants took up these issues in the same issue paper discussing allocation of responsibilities for program design and implementation, as well as in a number of subsequent deliverables (Prahl et al., 1997b). Among the first conclusions the consultants reached was that there were good reasons not to allocate handling of all analysis functions to the new program administrators. For example:

• It was probable that program administrators would be operating under performance incentive mechanisms linking their compensation to their performance. It was also likely that program evaluation would be used in part to assess administrators' performance for the purpose of implementing these mechanisms. There thus appeared to be a conflict of interest inherent in assigning full responsibility for program evaluation to administrators. (Under the existing policy framework a system had been developed under which the utilities performed studies used to determine their compensation, but these studies were performed under the constraints of a complex and extensive collaborative planning and review process. However, it seemed unclear whether this approach would work for studies requiring measurement of an outcome subject to so little experience as the market effects of energy efficiency programs.)

Table 2. Data Collection and Analysis Responsibilities of Program Administrators and Analysis

Agents in California.

Function	Role of Program Administrators	Role of Analysis Agents
Market	May perform some limited, short-term activities as	Perform most studies under direction of CBEE.
Assessment	needed to support program planning process, but relies	
	primarily on work produced by Analysis Agents.	
	May perform some limited, short-term activities as	Perform most studies under direction of CBEE,
Evaluation	needed to support tracking and monitoring, but relies	including primary responsibility for assessing the
	primarily on work produced by Analysis Agents.	market effects of programs and portfolios of
		programs.
n	May perform some limited projects as needed to	Perform most studies under direction of CBEE,
Process	provide short-term feedback regarding administrative	including primary responsibility for projects focusing
Evaluation	processes. Should not perform projects that resemble	on understanding the manner in which programs
	market evaluation in their focus on understanding the	interact with market forces over the mid- to long-
	manner in which the program is interacting with market	term.
If	forces over the mid- to long-term.	114
Information	Responsible for assuring that all of the information	May perform some studies as directed by CBEE to
Support for Program	needed to support the program development process is available. To this end, reviews information collected	support strategic planning processes. Will conduct
Development Development	by analysis agents and performs any additional studies	market assessment and evaluation studies that may
Process	needed to support the program development process	provide relevant information for program
rrocess	needed to support the program development process.	development process. Any such studies to be made available to Program Administrators.
	Sole responsibility for tracking and monitoring of	No role.
Tracking and	program results, including factors such as participation,	NO TOIC.
Monitoring	tracking estimates of savings, and financial accounting.	
	Responsible for measurement of program outcomes or	May review and comment on administrators'
	processes that is needed for the specific purpose of	measurement and verification approaches, as
Measurement and	determining contractually based payments to	directed by CBEE.
Verification	implementors. Includes measurement of energy savings	director by CDDD.
	when, and only when, these form the contractual basis	
	of payments to implementors. In most such cases –	
	notably, for SPC programs – the Administrator's role is	
	expected to focus on developing procedures and	
	oversight mechanisms, with implementors performing	
	the actual measurement and verification.	
Measurement of	Provides tracking, monitoring, measurement and	Responsible.
Administrator	verification data to Analysis Agents as needed.	
Performance	_	
	Conducts prospective cost-effectiveness analyses of	Conducts retrospective cost-effectiveness analyses.
	administrator-initiated programs, and provides	May be asked to review the methods and
Cost-Effectiveness	technical support to assist third-parties in performing	assumptions used by administrators and third-parties
Analysis	prospective cost-effectiveness analyses of third-party	in conducting prospective cost-effectiveness
	programs. Provides tracking, monitoring, measurement	analyses.
	and verification data to Analysis Agents as needed to	
	support retrospective cost-effectiveness analyses.	

• Unless it was ultimately decided that a single state-wide administrator would be selected, assigning responsibility for analytic functions entirely to administrators would necessarily involve allocating these responsibilities across two or more different entities each charged with overseeing certain categories of programs. Such an arrangement would have the following disadvantages: (1) it could result in excessive duplication of effort, as each administrator would be required to develop the same types of expertise; (2) because it was anticipated that much of the responsibility for policy and program development would be performed at the state level, by either the CBEE or the CPUC, rather than by administrators, it would result in some cases in analyses that were needed at a state-wide level being performed by entities who did not have state-wide responsibilities, and thus might

not be in the best position to understand the issues; and (3) because it was unclear whether administrators would be organized in a manner that would mirror the structure of individual energy efficiency markets, it could result in market research being performed by entities that were not necessarily involved with or experienced in the specific markets of interest.

At the same time, it seemed clear that administrators would need to have *some* expertise in analytic functions. First, many of the decisions to be informed by these analyses *are* envisioned as being made by administrators, instead of at a state-wide level. Second, if past experience is any guide, it will probably be most efficient for some of the data needed to support analysis functions to be collected by the entities implementing programs, and it is administrators who are likely to be in the closest and most frequent contact with these entities. Finally, as administrators are likely to be held responsible for the performance of the implementors working under contract to them, it seems only fair that they be allowed to measure that performance as part of their core responsibilities.

Accordingly, the consultants recommended an approach under which responsibility for analysis functions would be divided between administrators and another entity or entities reporting to the CBEE, referred to generically as *analysis agents*. One possibility would be to select a single analysis agent to perform these functions for the life of the public benefits mechanism – essentially an analysis administrator, parallel to the program administrators. Another possibility would be for the CBEE to simply recruit contractors to perform analysis tasks on an as-needed basis.

The CBEE approved this approach at a conceptual level, but both individual Board members and a number of public participants and potential bidders raised a variety of issues regarding the handling of specific types of analysis tasks. As a result, over time the planned division of labor between administrators grew more specific and more complex. At the time the RFP soliciting administrators was completed, the division of labor stood as shown in Table 2.

In D. 98-04-063, the CPUC approved this proposed arrangement in its entirety.

Conclusions and Implications for Other Energy Efficiency Public Benefits Mechanisms

In summary, California's planned new administrative environment includes five major components: (1) the CPUC, responsible for setting policy and approving programs; (2) the CBEE, responsible for making recommendations to the CPUC on a wide range of energy efficiency issues; (3) three Program Administrators, responsible for overseeing the design and implementation of programs targeting residential, non-residential, and new construction markets, respectively; (4) a wide range of Implementors, responsible for implementing most programs under the direction of Administrators; and (5) Analysis Agents, responsible for performing some analysis functions under the direction of the CBEE.

California's experience in reaching this outcome appears likely to provide transferable lessons to other jurisdictions contemplating the development of energy efficiency public benefits mechanisms. These lessons are explored in the remainder of this paper.

1. Institutional structures matter. Perhaps the most obvious and broadly applicable lesson than can be drawn from California's experience to date is that the institutional organization of public benefits mechanisms is likely to be a key determinant of their effectiveness. For example, it seems clear that certain approaches to organizing the responsibilities of multiple administrators would have

been likely to lead to substantial problems stemming from jurisdictional ambiguities, such as turf wars and program gaps, or conferred a significant advantage on the incumbent utility administrators.

- 2. Specifically, a systematic thought process regarding the number and organization of administrators is likely to pay dividends over the long run. In some ways, the decision to recruit three separate administrators may be viewed as being largely unique to California. This decision stemmed largely from the significant amount of funds at stake, and the resulting need to ensure that the administrator or administrators were not overwhelmed by their responsibilities. contemplating competitive recruitment of independent energy efficiency program administrators are likely to be dealing with a smaller quantity of funds, thus suggesting that they will be more likely to avoid some of the complications reviewed in this paper by opting for a single administrator. However, some of the factors that led California to recruit multiple administrators do appear to be relevant to other states. For example, one argument that many parties in California appeared to find compelling was what might be called the Eggs-in-one-Basket factor: the desirability of hedging against the risk of poor administrator performance by selecting multiple administrators, thus allowing the possibility of terminating non-performing administrators' contracts and transferring their responsibilities to performing administrators. Another factor potentially relevant to other states was the possibility that having multiple administrators might mitigate potential concerns over possible administrator abuse of market power. Careful consideration of such issues from the start is likely to pay long-run dividends, even if it is only by calling attention to the need for other strategies to mitigate these concerns under a one-administrator system.
- 3. Take advantage of the clean slate. The transfer of responsibility for state and regional-level public purpose energy efficiency programs from utilities to other institutions represents a major policy shift. As such, it represents an opportunity to consider anew some of the administrative arrangements that have been used routinely for many years in implementing public-purpose energy efficiency programs. An example is the arrangement that prevailed in most states during the age of shareholder incentives, under which utilities were responsible both for implementing programs and for measuring their own performance. While this arrangement was arguably a natural one given that utilities were the locus of most of the available administrative and technical expertise, it presented obvious conflict of interest problems that led to the development of a new industry for evaluation reviewers. The development of an entirely new institutional framework to guide energy efficiency programs presents an opportunity to assess whether this is the most desirable institutional approach to organizing program evaluation efforts. Examples of other age-old institutional arrangements which may be approached afresh include: (1) the union of program design and implementation within the same entity; (2) the union of responsibility for program administration and most analysis functions within the same entity; and (3) centralization of oversight responsibilities within a single entity.
- 4. Institutional structures should be carefully designed to be congruent with policy objectives. Many of the institutional features of California's new policy framework flowed directly from the CPUC's over-arching objective of improving the functioning of energy efficiency markets to the point where public intervention is no longer needed. This objective influenced the number and organization of administrators (by dictating a segmentation approach that corresponded reasonably closely to the boundaries of actual energy efficiency markets); the broad scope of administrators' responsibilities (by calling for an approach based largely on an assessment of which activities would and would not be expected to continue under a fully transformed market); and the specific role of administrators in implementing programs (by dictating that most programs be implemented by entities working under contract to administrators, rather than by administrators themselves). It is likely that a different set of

policy objectives would have called for a different institutional structure. This suggests the broader lesson that policy-makers are likely to find it worth their while to commit the time and resources necessary to carefully consider what institutional features will facilitate or impede the attainment of the specific objectives being pursued.

5. If a competitive solicitation process is to be used, inject as much flexibility as possible into the procurement process. As noted earlier, in designing the RFP, the CBEE was required to adhere relatively closely to California's procurement rules, which are intended to ensure fair and open procurement practices. While this undoubtedly helped to ensure fairness, it also imposed some significant practical constraints. For example, an open competition approach using an RFQ appeared to offer several important advantages, including the ability to match the number and organization of administrators to the actual mix of skills among bidders, and the ability to allow the specific scope of work to evolve over time with experience. However, such an approach appeared to be barred under the procurement rules. States or other jurisdictions initiating competitive solicitation processes in the future may wish to allow for more flexibility in the procurement process, reflecting the lack of experience in competitive recruitment of energy efficiency program administrators.

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