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Order Instituting Rulemaking to Examine the Commission's Post-2008 Energy Efficiency Policies, Programs, Evaluation, Measurement, and Verification, and Related Issues.	Rulemaking 09-11-014 (Filed November 20, 2009)

THE DIVISION OF RATEPAYER ADVOCATES' OPENING COMMENTS IN RESPONSE TO ASSIGNED COMMISIONER'S RULING AND SCOPING MEMO REGARDING 2013-2014 BRIDGE PORTFOLIOS AND POST-BRIDGE PLANNING, PHASE IV

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I. INTRODUCTION

The Division of Ratepayer Advocates (DRA) submits the following comments in response to the October 25, 2011 "Assigned Commissioner's Ruling and Scoping Memo Regarding 2013-2014 Bridge Portfolio and Post-Bridge Planning, Phase IV " (ACR). The ACR anticipates a two-year bridge portfolio for Energy Efficiency (EE) programs during which the EE programs would transition away a portfolio containing measures that result in temporary savings such as basic CFLs to one that attains deeper savings such as EE financing, and fewer and less complex programs among other reforms. The purpose of the ACR is, in concert with efforts to replace Public Goods Charge and Public Purpose Program funding no longer available because of legislative action, to "ensure that all future funding... maximizes ratepayer benefits."[1] This ACR follows assigned Administrative Law Judge (ALJ) May 27, 2011 Ruling regarding Bridge funding for 2013 and mechanics of Portfolio Extension.

ACR directs that e*x ante values* be updated for the two-year cycle such that the portfolios are based on "best available information and realistic energy savings expectations."[2] The ACR determines that a two-year bridge cycle will allow for such changes to be made, while allowing sufficient time for evaluation of these changes to improve the next portfolio cycle. It will also allow for the concurrent cost-effectiveness updates, Commission collaboration with the California Energy Commission (CEC) on implementation of Assembly Bill (AB) 758, and consideration of rolling cycles for programs that are anticipated to require continuity to avoid the wasted efforts of the Commission and stakeholders on the "stop-start" of these program.

II. DISCUSSION

A. DRA supports the ACR's direction to eliminate compact fluorescent lamp (CFL) Incentives

The Commission staff's 2006-2008 Final Evaluation Report on the Upstream Lighting Program, as well as experts from the California Lighting Technology Center of University of California at Davis, have concluded that basic CFL rebates are doing little to move the market. In fact, basic CFL rebates may be distorting the market and therefore preventing the development

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[1] Assigned Commissioner's Ruling and Scoping Memo Regarding 2013-2014 Bridge Portfolio and Post-Bridge Planning, Phase IV, October 25, 2011 (ACR) p. 2.

[2] ACR, p. 2.

and commercialization of improved-quality CFL's. The basic CFL market is largely transformed: (1) there is likely over 93% consumer awareness of basic CFLs and over 77% of consumers have purchased CFLs;[3] (2) big box stores such as IKEA and Home Deport as well as smaller discount stores either exclusively sell CFLs or keep them well-stocked, many of which are CFLs without utility rebates(i.e. - the market has taken over); and (3) the high price barrier has largely been removed from the market of basic CFLs.[4] Current utility-sponsored basic CFL programs have not been moving the market for years. As "Compact Fluorescent Lamps Market Effects Final Report" states, "[d]espite years of aggressive promotions, price discounts, and increased availability in additional distribution channels…,California CFL saturation remains at approximately 21% of all sockets…".[5]

Furthermore, the current AB1146 Huffman Bill standards (which will become more stringent as additional requirements are phased in) provide a further signal to manufacturers to discontinue the production of less efficient bulbs.

B. DRA recommends that the Commission allocate $150 million per year to a Consolidated Financing Program for the next five years.

DRA agrees with the ACR that deep retrofits in the residential and commercial sectors represent "a significant source of untapped energy savings potential," and that financing is a method to "leverage scarce public dollars and attract private capital" to make meaningful progress in this deep savings Energy Efficiency Strategic Plan area.[6] DRA agrees that the lack of available financing is a key barrier in increasing deep building retrofits and that ratepayer capital must be leveraged to expand the flow of private capital to provide substantially greater financial resources to fund such projects.

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3 Compact Fluorescent Lamps Market Effects Final Report, The Cadmus Group, KEMA, Itron Inc, Nexus Market Research, A. Goett Consulting for the California Public Utilities Commission, April 2010 (The Lighting Report), p. 46. For more information about this and on how current CFL programs are distorting the market, please see "Relighting American Homes With LEDs: Are we destined to repeat past mistakes or move forward with a rational plan that addresses consumer preferences?," Professors Michael Siminovitch and Konstantinos Papamichael, California Lighting Technology Center University of California, Davis, appended to these comments as Attachment A.

4 The Lighting Report, p. 100.

5 The Lighting Report, Executive Summary, p. ix.

6 ACR, pp. 5-6.

To this end, DRA urges the Commission to quickly establish a Consolidated Financing Program (CFP) for residential and small business customers[7] in the service territories of Pacific Gas and Electric Company (PG&E) , Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E),and Southern California Gas Company (SoCalGas).[8] The Commission should execute a contract with the California Advanced Energy and Alternative Transportation Authority (CAEATFA) to be the CFP administrator and allocate a minimum of $150 million annually to the program for the next five years. One hundred million dollars would be for residential and small business financing, while $50 million would be for industrial, agricultural and larger commercial customers.

CAEATFA should be tasked with leveraging this ratepayer capital, working with financial institutions that would in turn provide the funding for residential and small business building retrofit projects through a variety of financing mechanisms, as well as financing for industrial, agricultural and larger commercial customers. While industrial, agricultural and larger commercial customers may be currently eligible to participate in utility on-bill financing programs, such programs do not leverage private capital and charge no interest. DRA believes leveraging ratepayer capital with private capital several-fold should be a necessary condition of any financing program, as this is the most effective way to expand the resources available to the energy efficiency marketplace

"Energy Efficiency Financing in California: Needs and Gaps Preliminary Assessment and Recommendations,"[9] prepared under the direction of the Energy Division, would serve as an excellent starting point from which CAEATFA can work with stakeholders to develop suitable mechanisms to increase the flow of private capital. These stakeholders include, but are not limited to, the financial industry, local governments, non-profit affordable housing organizations,

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[7] DRA recommends that the CFP provide financing options for residential housing EE retrofits to serve single family homes, both owner-occupied and rentals and, multi-unit rental properties.

[8] DRA's comments refer collectively to PG&E, SCE, SDG&E, and SoCalGas as Utilities.

[9] Energy Efficiency Financing in California: Needs and Gaps Preliminary Assessment and Recommendations, Harcourt Brown & Carey, Inc, July 8, 2011, (Energy Efficiency Financing in California), p. 4 and Appendix C. Available at http://www.cpuc.ca.gov/NR/rdonlyres/B0EBFCA6-22B5-408D-96B8-6490A5A38939/0/EEFinanceReport_final.pdf.

and energy service companies (particularly those that are interested in "Energy as a Service" (EaaS) business models targeting the residential and small business market space).

CAEATFA is well-suited to take on this responsibility and could provide the Commission with an immediate option to move forward on energy efficiency financing. CAEATFA was established by legislation[10] and has broad authority to enter into contracts with public and private entities,[11] and receive grants and loans [12] as well as the broad authority to employ a host of financing mechanisms to leverage public monies with private capital. The "financial assistance" that CAEATFA is authorized to use includes:

> "any combination, of the following:
>
> 1) Loans, loan loss reserves, interest rate reductions, proceeds of bonds issued by the authority, insurance, guarantees or other credit enhancements or liquidity facilities, contributions of money, property, labor, or other items of value, or any combination thereof, as determined by, and approved by the resolution of, the board.
>
> (2) Any other type of assistance the authority determines is appropriate."[13]

CAEAFTA's expertise and experience is in working with the financial industry to facilitate its participation in clean energy markets.[14] CAEATFA is overseen by a board that includes the State Treasurer (who serves as chair), the State Controller, the Director of Finance, and

[10] Public Resources Code §26000 et seq.

[11] Public Resources Code § 26011(e) provides that CAEATFA may contract with a person, partnership, association, corporation or public agency" with respect to a project authorized by CAEATFA.

[12] Public Resources Code § 26040(a) provides that CAEATFA may "receive and utilize grants or loans from the federal government, a public agency, or any other source for carrying out the purposes of this division.

[13] Public Resources Code §26003(e)(1)-(2).

[14] Examples of programs administered by CAEAFTA include: Senate Bill (SB) 71, which provides sales and use tax exemptions for manufacturers that produce clean energy products; SB 77, which provides assistance in the development of PACE bond resource programs to aid local jurisdictions in financing distributed generation of renewables, energy efficiency and water efficiency improvements; Qualified Energy Conservation Bonds, which are designed to provide low interest financing to promote alternative energy and energy efficiency in state, local, tribal facilities. CAEATFA's role here is to be a conduit to bridge the borrower and the bond purchaser in the creation of these Qualified Energy Conservation Bonds; and AB x1 14, which requires CAEATFA to administer the Clean Energy Upgrade Program, including establishing a loan loss reserve program for residential energy efficiency upgrades. Note this program is not the same as Energy Upgrade California.

representatives from the Public Utilities Commission and the Energy Commission. Thus, an oversight board is already in place. Because representatives of Public Utilities Commission and the Energy Commission are on the board, alignment between the agencies on achieving the policy goals of AB 758 (at least on financing) can be achieved at the decision-making level.

While the contract with CAEATFA would be negotiated and overseen by the Commission, the contract, if necessary, could be between the Utilities (acting jointly) and CAEATFA in order to protect against any transfer of ratepayer funds to the state general fund. The release of ratepayer funds from the Utilities to CAEATFA would pursuant to the terms of the contract. The full Commission could delegate to the Assigned Commissioner on EE the authority to negotiate and execute the agreement with CAEATFA consistent with Commission directives, including direction that the Utilities pay CAEATFA for transactions within the scope of the contract.

DRA urges the Commission to strive to have an executed contract between CAEATFA and the appropriate counter party by April 1, 2012 so that CAEAFTA can begin to work with stakeholders shortly thereafter. Ideally, there would be some financial products available in the market by the start of the bridge year, with additional products introduced as they become available. If this timeframe is infeasible given the Commission's decision making process, then the roll out of the financing program could start later in the bridge cycle.

C. DRA supports the ACR's proposal to use *ex po*st numbers for the future programming purposes including for the 2013-2014 bridge period.

DRA agrees with the ACR that in the effort to inform each portfolio cycle with the best available information, energy savings measurements from the previous portfolio cycle should be used. This *ex-post* data has little lasting value if not used for portfolio planning purposes soon after completion.

D. DRA Supports Focused, Independently Administered, and Equitably Implemented Water-Energy Nexus Programs in Bridge Funding Years and Beyond

DRA concurs with the ACR's assessment that additional emphasis on attaining energy savings in the water sector is warranted. As the ACR notes, the Commission's embedded energy in water pilot studies indicate that programs such as leak-loss detection and certain systems efficiency measures show potential to generate significant water and energy savings.[15] Energy Efficiency funds may enable the successful development of energy saving measures in the water sector, but the use of EE funds presents challenges the Commission should consider carefully.

Those challenges include (1) the reluctance of water agencies to implement energy saving operations, (2) requests from water agencies for subsidies that burden energy ratepayers without appropriate support from water ratepayers, and (3) calculating and attributing energy savings accurately and fairly between energy and water ratepayers, as well as within subsets of energy and water ratepayers. As set forth below, DRA proposes a focused and independently administered water-energy program that seeks to address these challenges and avoid obstacles in an equitable manner.Water/Energy Nexus Programs Offer a Good Opportunity to Expand Third Party Administration

DRA recommends that water/energy nexus programs be administered by independent third parties[16] that are well-versed in water utility operations. A responsible third party administrator would examine water and energy considerations jointly and work to achieve "buy-in" from water utility managers for program and operations changes. For example, a third party administrator could work with water utilities and fire departments to design and implement pressure management approaches that save energy due to reduced system pressure without compromising fire flow needs. An independent administrator could also work to determine appropriate program cost allocation between energy and water ratepayers, which would inform assignment of credit for energy savings (resulting in greenhouse gas (GHG) reductions) that can be used by both water and energy utilities for AB32 compliance under California's cap and trade program. The energy utilities are not ideal program administrators, because they do not know water utility operations and have a disincentive to equitably allocate cost and credit for energy (and GHG) savings from water utilities.

[15] ACR, p. 7, footnote 14.

[16] Potential third parties that could play a role in program administration by lending their expertise include federal agencies (i.e. the Environmental Protection Agency and the National Oceanic and Atmospheric Administration), Regional Water Quality Control Boards, local governments, and consumer and environmental non-governmental organizations.

1. Initial programs should focus on leak-loss detection and remediation and pressure management, utilizing multiple funding sources.

The Commission's pilot studies demonstrated potential for significant water and energy savings through leak-loss detection and remediation.[17] Those studies also demonstrated the clear link between pressure and leaks.[18] In addition, the United States Environmental Protection Agency Region IX recently completed a pilot program aimed at leak-loss reduction that also demonstrated water and energy savings potential. Thus, DRA recommends that bridge period funding focus on these programs. This focus would ensure that funding is coordinated between water utilities, EE funds, and other programs coordinated by the California Financing Coordinating Committee, which coordinates state and Federal funding programs.[19] A mix of funding sources would reduce the likelihood that water utilities will look solely to EE funds to implement water-energy programs that also benefit water ratepayers.

E. DRA recommends an improved competitive bidding process for third party programs, and a market transformation perspective for approving all programs

DRA has consistently recommended the use of competitive market resources to inform, design and fund California's EE programs. DRA does not advocate a prescriptive, heavy-handed approach. Rather, DRA supports the issuance of a broad policy foundation and guidance upon which competitive market actors provide their best proposals through an improved competitive bidding process. The ACR lays out much of the foundation needed for the pursuit of improved EE outcomes – use of *ex post* data, increased focus on deep retrofits and longer term, market-transforming savings, elimination of ineffectual measures, and the lessening the complexity and number of programs.

For all proposed market transformation programs, whether direct-utility implemented or non-utility implemented, program proposals should include the following information:

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[17] Water Systems Optimization, Inc., "Secondary Research for Water Leak Detection Program and Water System Loss Control Study, December 2009.

[18] Water Systems Optimization, Inc., "Secondary Research for Water Leak Detection Program and Water System Loss Control Study, December 2009, pp. 23-24, 37.

[19] See http://www.cfcc.ca.gov/Default.htm, accessed November 1, 2011.

(1) a clear definition of the addressable market;[20]

(2) identification of market barriers the program aims to address;

(3) location of the efficiency "product" along the market adoption curve;

(4) roadmap or set of milestones the program will achieve;

(5) the impact of the program on market barriers, market adoption and savings;

(6) identification of key developments or facts that would trigger the necessity of making program adjustments or terminating the program;

(7) defined, measurable indicator(s) that the market has transformed and an estimate of the timeframe that captures the program lifecycle; and

(6) the program's exit strategy.

Proposals to extend existing resource acquisition programs should include the following information:

1) the total number of years subsidies have been in place;

2) the date when the subsidies will be terminated;

3) the total budget required for the program through the termination date; and

4) an analysis showing that continuance of the subsidies until the date of termination will not negatively impact the market and create an expectation and dependency among market actors on such subsidies (in effect creating an entitlement).

Ideally, an umbrella independent entity would provide the overarching market transformation strategy and indicators that would guide implementer, the Utilities and local government programs. This entity would provide:

1) clear definition of the addressable market;

2) analysis of the current market structure ("market characterization") serving the addressable market, identifying all upstream market actors and the goals, strategies, incentives and motivations that drive their behavior, the way they interact with each other to sell and deliver a product or service to the addressable market, and the constraints and leverage points identified in this value chain that impede or enhance market transformation efforts;

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[20] For a discussion on defining an addressable market for the introduction of a new technology, product, or service see, "Crossing the Chasm" by Geoffrey Moore. Harper Collins, 2002.

3) a description of the institutional and/or market barriers the intervention (program) will remove or mitigate;

4) a description of the program theory or logic model, including specification of short-term, mid-term, and long-term outcomes;

5) a description of market transformation indicators that will be used to track progress toward transformatng the market and the removal or mitigation of institutional and/or market barriers, including an explanation of the data that will be collected and the sources of the data;

6) a defined entry and exit strategy, including a scheduled date for terminating the intervention (program);

7) a description of the critical success factors in transforming the market and disclosure on known risks;

8) the estimate of energy consumption and GHG emission reductions that will occur after the intervention (or program) and subsidies are eliminated; and

9) key developments or facts that would trigger the necessity for program adjustments or termination.

DRA recommends that the Commission seriously consider development of such an overarching entity during the bridge funding period. Without such an entity the burden of market transformation falls entirely on fragmented but overlapping market actors that either lack market transformation expertise or that are working in common market segments and would thus be duplicating their efforts. With such an overarching entity, a focused and organized market transformation approach to California's EE program is more likely to come to fruition.

F. DRA supports the independence of local government EE efforts.

The Commission should establish a new paradigm for administering local government programs. Rather than allowing the Utilities to select the local government programs that they will include in their portfolios, the Commission should direct the Energy Division to contract with a local government coordinator, which would be responsible for selecting local government programs that should receive ratepayer funding and determine the level of funding. Criteria for program selection would include (1) savings potential, (2) the duration of those savings, and (3) the ability to support other local government programs in order to achieve economies of scale and exchange of information, resources, and expertise. The Utilities would be directed to execute contracts for the local government programs selected.

G. DRA supports decreasing the number and complexity of EE programs.

DRA agrees that the number and complexity of programs in the EE portfolio have increased without providing commensurate improvements in energy efficiency savings. One way to consider which programs are worth the investment of ratepayer capital and which should be eliminated would be to view all proposed programs in terms of the duration of their expected savings, and to develop portfolios that emphasize programs that deliver the longest-term savings. The Commission should consider establishing three tiers of energy efficiency programs (excluding DRA's proposed Consolidated Financing Program). The top tier would include programs expected to deliver savings for fifteen years or longer. The middle tier would be programs expected to deliver savings for ten years or longer. The lowest tier would include programs expected to deliver savings for less than ten years.

The Utilities would be directed to file bridge funding applications that identify expected duration of savings for each proposed measure or program, and that focus on measures in the top two tiers.

H. DRA agrees that cost-effective, market transforming programs should be allowed to continue through its full cycle.

DRA agrees that market transformation programs should be allowed to continue, provided that they are cost effective, have a clearly defined exit plan and schedule, and provide the information outlined in section II E of these comments. Cost-effective resource acquisition programs that provide the greatest value beyond 10 years (the procurement planning period) after installation should receive the highest priority.

I. DRA supports the use of updated energy savings parameters, and looks forward to ED staff programmatic guidance for the bridge funding year.

DRA supports the ACR's commitment to use results from the most current evaluations, or the best available data, to create *ex ante* assumptions for the 2013-2014 bridge cycle, and in particular, focusing on updating assumptions for High Impact Measures and "changes having the biggest impact on savings." This is an efficient method of prioritizing based on maximizing ratepayer EE benefits.

DRA defers comment on the schedule at this time.

III. CONCLUSION

DRA supports the Commission's efforts to use the proposed bridge years of 2013-2014 as a transition to improved EE portfolios for the long term. To that end, DRA recommends that the Commission establish and fund a Consolidated Financing Program in the amount of $150 million per year, and direct the Energy Division to contract with a local government coordinator to select local government programs that will be included within the Utilities' portfolios. Additionally, DRA continues to recommend that the Commission begin work on the development of an overarching market transformation entity that would facilitate a statewide market transformation approach to EE.

Respectfully submitted,

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