R.09-11-014

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

FILED
12-23-11
04:59 PM

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)

Comments of California Center for Sustainable Energy in response to Administrative Law Judge's Ruling regarding Program Guidance for the 2013-2014 Energy Efficiency Portfolio

California Center for Sustainable Energy

December 23, 2011

Andrew McAllister
Director of Policy & Strategy
California Center for Sustainable Energy
8690 Balboa Ave., Suite 100
San Diego, CA 92123
Tel: (858) 244-7282
Fax: (858) 244-1178
andrew.mcallister@energycenter.org

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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)

Comments of California Center for Sustainable Energy in response to Administrative Law Judge's Ruling regarding Program Guidance for the 2013-2014 Energy Efficiency Portfolio

I. INTRODUCTION

The California Center for Sustainable Energy (CCSE) is pleased to provide comments in response to the *Administrative Law Judge's Ruling Regarding Program Guidance for the 2013-2014 Energy Efficiency Portfolio*.[1] We appreciate the opportunity to provide further comments on key Bridge period program issues, and commend Energy Division (ED) for recognizing the need to focus on long-term energy savings and market transformation over short-term measures with temporal impacts. The ambitious goals set forth by the CEESP and AB 32 will only be accomplished with a comprehensive and coordinated suite of programs and policies supporting true market transformation within and across the various regions of the state. CCSE is broadly supportive of the proposal's focus on establishing a long term program structure to support EE goals. At the same time, we are concerned that the value of and need for dramatically increased third party and local government participation does not receive

[1] Administrative Law Judge's Ruling Regarding Program Guidance for the 2013-2014 Energy Efficiency Portfolio, December 7, 2011.

sufficient emphasis, and thus offer what we feel are critical perspectives that the proposal currently omits. Finally, we expected to see included some treatment of the water-energy nexus in the proposal; here we simply refer to our previous comments for reference.[2] We direct our comments towards the following areas:

- Residential Programs
- Diverse Initiatives Are Taking Place Under the EUC Banner
- Data Availability
- Behavior Change
- Financing
- Non-utility Program Implementation/Administration
- Small Commercial Programs
- Codes and Standards

II. RESIDENTIAL PROGRAMS

With regards to residential programs, CCSE agrees with the broad ideas contained in the Energy Division proposal, and indeed is already pursuing many of them, notably deep workforce development, behavior change programs, and deployment of industry partner delivery channels. We are pleased that the Commission recognizes that Energy Upgrade California (EUC) has become the primary driver of market transformation for the residential sector, and that a longer-term commitment to EUC is necessary in order to achieve the deep reductions in energy usage called for in the CEESP. In our view, success will require a commitment timeframe of at least 10 years, longer than the 5-year minimum proposed by ED. CCSE emphatically supports making ratepayer funds directly available for the continuation of

[2] Comments of the California Center for Sustainable Energy in response to Assigned Commissioner's Ruling and Scoping Memo regarding 2013-2014 Bridge Portfolio and Post-Bridge Planning, Phase IV, November 8, 2011.

ARRA-funded local government and other state/regional EUC marketing and outreach programs, as suggested by ED. We also note that since EUC is a long-term market transformation program, applying the TRC cost-effectiveness criteria to this early-stage program is highly problematic during the Bridge period, and we urge the Commission to take a longer view in this regard as well.

A number of changes and improvements to EUC would improve clarity for the customer, reduce transaction costs and improve access for contractor and administrator, and permit streamlined monitoring and reporting. As the Commission and legislature contemplate extension, funding and redesign of the existing efforts currently being implemented under the EUC moniker, it is essential to learn from the wide variety of existing effort, and to apply these lessons going forward. We provide the following observations:

- Quick certifications and shallow training are leading to a high number of loosely trained contractors, which will not provide the project quality or savings required for optimal customer experience. The building performance industry requires more than classroom training. Hands-on field experience in the trade and other practice-based programs such as mentorship and supervised on-the-job training are highly important for producing a qualified workforce.
- The statewide web portal is a good start, but needs more user-responsive, interactive features and more market information that help homeowners make decisions and get to retrofits quickly. Ownership of this site need not move away from the CEC, since it currently owns another statewide brand site, Go Solar California. At the same time, support for the portal should be more responsive and should include a clear mandate for regional content control; processes for this should be developed.
- The dual "basic" and "advanced" path options continue to confuse participants and decrease program uptake. We recommend just one option for homeowners, modeled on

the current "advanced" path, allowing contractor and resident to work on an appropriate action plan without artificial limitations.

- EUC is well-positioned to broaden offerings to include common measures currently treated as stand-alone. For example, pool pumps are an oft-encountered measure not currently eligible within EUC packages. Such integration could help meet the Commission's goals of reducing both program complexity and missed opportunities.
- Quality assurance and quality control processes need transparency and continued streamlining across territories. QA/QC standards were slow in development and only recently shared with contractors. All efforts must be made to reduce the associated transaction costs and leverage QA/QC to provide contractor feedback.
- EnergyPro modeling software is complex to input and not user friendly. It has improved in the last few months but the state needs more software options. Reducing the modeling barrier would generate goodwill and buy-in from the contractor community, essential for market traction.
- Align on a clear set of program goals, and establish metrics for success. There are many values to the program that go beyond strict energy savings. We suggest five measurable goals: BTU and kWh savings, job creation, health impacts, water savings and improved building stock.
- Selling the value proposition to the homeowner remains an issue. People do not have the expectation that their house "perform," and many homeowners do not intuit the value proposition in upgrades. A greater flow of increasingly targeted marketing is needed to overcome what can be a complex sales cycle.
- As a policy matter, it is necessary to connect ratings and upgrades to local government codes, e.g. by requiring them with ownership transfer.
- Consider moving all direct install programs such as ESAP towards a whole house building performance approach. Direct install does not address the pressure

diagnostics in a home, and without managing the pressure and zones properly, we leave a good number of opportunities for improvement on the table.

Finally, we agree with the Commission that programs addressing plug loads and appliances are also highly necessary, as evidenced by the inexorable increase in the proportion of overall residential energy consumed by a very diverse group of small devices. CCSE suggests that EUC is an excellent delivery channel for inserting plug-load-related outreach and education at the contractor and user levels; demand-level touches would facilitate complementary midstream and upstream initiatives. Expansion of the "whole house" concept to include the broadest array of end uses makes sense as part of overall program integration, does not need to dilute the home performance message, and is a logical area for piloting. This should happen sooner rather than later.

As the ED proposal points out, "the CEESP sets out the aspirational target of a 40% reduction in energy demand from the grid for all California residences by 2020…"[3] In the San Diego region the existing EUC project population is thus far showing around 26% savings on average; across the state regional programs are seeing similar savings. Certainly we desire to find ways to increase measure penetration, avoid unrealized opportunities, and bring to bear additional financing products that allow larger capital investments. With the current foundation, an innovative, flexible, fully focused approach will result in increasingly deeper average savings through time, and will achieve the long-term goals set out in the CEESP.

III. DIVERSE INITIATIVES ARE TAKING PLACE UNDER THE EUC BANNER

A few examples of non-utility EUC activities are appropriate here. The Staff proposal urges that local government EUC programs funded with ARRA resources continue forward

[3] Administrative Law Judge's Ruling Regarding Program Guidance for the 2013-2014 Energy Efficiency Portfolio, Attachment A, Page A6, 12-7-2011.

with ratepayer funds as the ARRA sunsets, starting in March 2012. We very much agree, and note that many of the programs described below fall in that category. While we may risk appearing to be San Diego- and CCSE-centric here, we are simply cautious not to presume to speak in detail for other entities across the state[4], and on balance we feel that this presentation is necessary to illustrate for the Commission the depth of engagement and independence of action currently taking place in the region we know best.

As a mission-driven organization dedicated to the development of a clean energy future for California, CCSE champions the benefits that whole house performance, in both new and existing buildings, brings not only to the state's goals but also more broadly. Communities are in need of economic development, reductions in air contaminants and jobs for a construction workforce struggling in the current economic climate. Indeed, contractor certification is not simply a box to be checked off for the EUC program; rather, it is the vehicle for instilling in the home performance workforce an in-depth understanding of the interrelationships that exist among myriad building characteristics and how they work to influence the building's energy performance.

Through partnerships with local governments, CCSE offers multiple training programs funded in large part by ARRA contracts. These ARRA contract activities are combined with CCSE's contractor training role for SDG&E; all told, contractors and students have access to a comprehensive suite of business development opportunities aimed at establishing a thriving, self-sustaining home performance industry. CCSE's TOP HVAC training program in particular includes specific and targeted outreach to HVAC contractors to encourage and train them in the whole building approach. TOP engages with HVAC contractors by offering building science training, business and sales development and consultation. These services

[4] The Local Government Sustainable Energy Coalition consists of innovative local governments and non-profit supporting agencies across California; its proposal for Regional Energy Networks deserves serious consideration by the Commission.

comprise the initial step in each contractor's transition towards becoming an Energy Upgrade California participant.

CCSE is currently administering a Low and Moderate income program with the City of San Diego that builds upon EUC, ESAP and SDG&E's soon-to-launch MIDI program. Through this partnership, CCSE has recognized that to better serve local communities, major steps must be taken to ensure that the benefits these programs offer are available to all market segments, regardless of income. This program known as the San Diego Home Energy Upgrade program incorporates additional home performance measures and diagnostic testing to the ESAP and MIDI programs, which further aligns them with market based EUC programming. ESAP/MIDI workforce development includes building science training consistent with BPI and EUC standards. CCSE has developed program content through the San Diego Home Energy Upgrade program that is now being adopted by MIDI program administrators.

CCSE is also responsible for administering additional incentives and building science standards to homeowners to help cover the costs of additional improvements above and beyond ESAP that move this program to a home performance model. Likewise, CCSE administers incentives and quality assurance standards for middle income residents, providing them with the opportunity to achieve better home performance at little or no cost.

In cooperation with San Diego County and the California Energy Commission, CCSE administers Green Grad Education and Training Upgrade Program (GETUP). This program includes two weeks of hands-on retrofit work in the field (a component that is critical in developing the home performance industry but which is often missing in training programs), soft-skills training and paid internship opportunities for those looking to work with participating EUC contractors. CCSE has been successful in pairing unemployed workers with EUC contractors looking to hire skilled professionals as the demand for EUC programs increases in the community. Through these programs, local governments are active and engaged in the residential retrofit market, and are dedicated to meeting the needs of their

communities through the promotion of safer, more comfortable homes with lower energy costs.

True innovation in this market can only be reached by including all stakeholders. Recognizing this, in 2010 CCSE organized, and continues to coordinate, the San Diego Retrofit Advisory Council. The RAC is a coordinated group of many of the retrofit stakeholders from around the region, including SDG&E, community-based organizations, realtors, financial institutions, contractors, raters, local governments and non- profits.

The fact that, in reply comments to Commissioner Ferron's Ruling and Scoping Memo[5], SDG&E asserts that "the overwhelming majority of funds for ARRA-funded EUC activities in San Diego County contracted or managed by CCSE have solely been for marketing purposes" evidences the lack of true engagement with the array of EUC program activities actually taking place.[6] Across the state in fact, EUC was hatched and has been nurtured largely outside of utility structures. It is most appropriate, then, for the Commission to recognize the breadth of action already happening, and support this existing program infrastructure forthrightly and directly: this is the clearest path toward the integrated suite of activities that must occur in order to achieve true market transformation and the associated long-term energy savings.

IV. DATA AVAILABILITY

Availability of robust data is absolutely crucial both for successful marketing & outreach and ongoing, fact-based assessment of program participation and impacts. EUC

[5] Assigned Commissioner's Ruling and Scoping Memo regarding 2013-2014 Bridge Portfolio and Post-Bridge Planning, Phase IV, December 7, 2011.

[6] Reply Comments of San Diego Gas & Electric Company (U 902 M) and Southern California Gas Company (U 904 G) on Assigned Commissioner's Ruling and Scoping Memo Regarding 2013-2014 Bridge Funding Portfolio and Post-Bridge Planning, Phase IV, November 16, 2011.

outreach has been hamstrung by a lack of access to adequately detailed participant and project data, for example: Relative measure uptake and cost; project-level savings (in therms, kWh and dollars); other ancillary benefits realized for each project; project location and implementing contractor.

The CSI program has a strong public reporting component and has been releasing large amounts of data through a site called California Solar Statistics (CSS). CSS[7] is a statewide integrated tracking and reporting tool used by the Commission and CSI Program Administrators to meet many of the Commission's reporting requirements and data requests (i.e. budgets, progress toward program goals, etc.), but it also provides information on project level data to the general public. From CSS, anyone can obtain redacted (no customer name, address, account number), project level data[8] for all applications moving through the CSI process. This has proved quite valuable to researchers, customers, and the contractor community at large by allowing for the analysis of industry trends, penetration rates, system costs, and the competitiveness of various markets throughout the state. Data from this site is regularly referenced by the Department of Energy (DOE), its national laboratories and private industry in reports examining the distributed PV market. Replicating something akin to this functionality in the EUC program has the potential to help jumpstart regional markets and increase the general understanding of which types of projects work in specific regions or locales. Finally, another data stream that would assist local jurisdictions and their partners tremendously is relatively granular (e.g. zip +4) aggregated consumption data, which would allow efficient, proactive program planning, segmentation and impact analysis.

---

[7] http://www.californiasolarstatistics.org

[8] http://www.californiasolarstatistics.org/current_data_files

V. BEHAVIOR CHANGE

Energy Division recommends establishing a new program element to "implement existing residential behavior change approaches… and to undertake research necessary to expand such approaches." We commend the focus on behavior change programs: embracing and supporting this growing field is critical for development of next-generation program design. Understanding behavior and how to influence it effectively is foundational work without which our state will have enormous difficulty reaching its long-term energy and carbon reduction goals. We suggest that the research agenda, funding allocations to support it, and the resulting concrete feedback to programs that would be expected from these efforts, should reside with a Commission-level working group driven by recognized practitioners in this field. Having this work be driven by the IOUs introduces unneeded complexity and bureaucracy to the process, and likely ensures that the results will tend to favor status quo approaches—precisely what we understand that the Commission seeks to avoid. Behavior change—culture change, in essence—requires everything from high-level statewide messaging to innovative, nimble, and adaptive community-based organizations which can tailor offerings at a granular level to deliver the deep energy retrofits in specific contexts across the state. A structure that allows such adaptive approaches will best pave the way toward zero net-energy (ZNE) homes. This is particularly true for programs like EUC, and will facilitate integration with its counterparts in the distributed generation and transportation realms.

In the San Diego region, CCSE has been filling this role. For example, the existing collaboration under the DOE Better Buildings Neighborhood Program, aimed squarely at learning "what techniques best drive customer awareness, knowledge and action" to pursue home performance upgrades, is a perfect statewide vessel in which to pilot further behavior programs. In 2010 the Better Buildings partners have established a community-based-social-marketing (CBSM) working group that has developed and is managing four CBSM pilots: in Alameda County, Los Angeles County, San Diego County and the City and County of San

Francisco. This group is chaired by StopWaste and includes CCSE and the Energy Coalition as well as the related local governments; it meets regularly to share learning and best practices, and has contracted with some of the most respected professionals in this field to assist in program design and evaluation. The group could be easily utilized to develop and test other behavioral approaches, and recently discussed how valuable it could be to collaborate across a broader range of jurisdictions and specialists to further CBSM approaches across the state.

VI. FINANCING

We recognize that financing will be the subject of an upcoming Ruling from the Commission, but would mention here a few items relevant for the program discussion. Most critical is the message that residential and small-commercial programs will be most successful when they give contractors the tools they need to sell retrofit jobs. There is likely no one financing silver bullet; support for financial entities at all scales may be important for achieving project volume. The CAEATFA facility is a wonderful initiative for encouraging lender participation by mitigating risk, as are the various local loan-loss reserves in place and under development in cities and counties across the state, including San Diego. Other models are also proving successful, notably the MIST/CHF program, which CCSE was thrilled to help bring to the San Diego region. The bottom line is that programs will scale when transaction costs are low and financing offers attractive combination of low interest and long term. Contractors are a principal conduit for affordable financing solutions, and can sell under the right conditions.

VII. NON-UTILITY PROGRAM ADMINISTRATION/IMPLEMENTATION

As we have said, existing regional efforts are in actual fact providing thought leadership and implementation expertise across the state. We fear the Commission risks undermining valuable goodwill, collaborative inclination, and trusted connection with the

citizenry if it fails to involve these recognized local change agents centrally in its planning. We speak here not simply of having a "seat at the table" or modification of the existing local government partnership structure, but of participation as true equals in determining and executing California's next-generation efficiency initiatives, within the broader problematic of clean technology markets and adoption, and integration with local climate-oriented initiatives. The IOUs are clearly key players in this as well—and we do not intend to assert otherwise—but they will not voluntarily set the existing table for such a balanced meal.

There is currently no defined process for developing an independent-minded approach for adapting and managing EUC and related regional efforts throughout the IOU territories; and an acceptable approach should not be expected to appear from a vacuum. We strongly believe that instituting such a process is one of the highest-priority items the Commission could accomplish with its upcoming Proposed Decision regarding the Bridge period and beyond. Just as the IOUs would be expected to develop and file 2013-2014 portfolios in April 2012, a coordinated group of regional entities could be expected—given proper clarity on funding levels and scope by the Commission—to provide clear regional program portfolios that complement, leverage and coordinate with the IOU's anticipated efforts. 2012 is sufficient time for this to occur.

In the *Assigned Commissioner's Ruling and Scoping Memo Regarding 2013-2014 Bridge Portfolio and Post-Bridge Planning, Phase IV*, Commissioner Ferron expressed a desire to see an increased use of local governments and third party programs; in our comments CCSE offered a concrete regional perspective on current activities and the learning this is resulting from them.[9] However, direct Commission support of regional autonomy based on multi-stakeholder planning and execution is absent from the Staff proposal. The 2013-2014 Bridge

[9] Assigned Commissioner's Ruling and Scoping Memo regarding 2013-2014 Bridge Portfolio and Post-Bridge Planning, Phase IV, December 7, 2011.

period provides an excellent opportunity for the Commission to pilot further local government and third party approaches in preparation for broader optimization of market transformation in the following cycle's portfolio. This could work particularly well in regions where existing local government and non-profit infrastructure is capable of driving market activity, among them the Bay Area, Los Angeles, and San Diego. CCSE urges the Commission to take full advantage of such opportunities to expand local government and third-party leadership. These efforts require a long-term, strategic outlook that sees beyond immediate, short-term energy savings.

As we noted in previous comments within this proceeding, there is clear precedent for the Commission to delegate specific programs to non-IOU entities. The Commission did precisely this in 2001 when it granted SDREO (now CCSE) administration of SGIP, and due to the success of that arrangement, the Commission directed SDG&E to contract with CCSE (formerly SDREO) to administer the CSI program in the San Diego region as well. We propose that the Commission take similar action with regards to EUC program administration in the San Diego region. By doing so, the Commission would be fulfilling its previously stated intentions to explore non-utility administration of energy efficiency programs.[10] Placing EUC administration with CCSE would make possible full integration of residential programs aimed at achieving zero net-energy homes under a single, mission-driven, highly competent and experienced administrator, increasing the likelihood of achieving the long-term energy goals contained in the CEESP.

[10] Decision 01-03-073. INTERIM OPINION: IMPLEMENTATION OF PUBLIC UTILITIES CODE SECTION 399.15(b), PARAGRAPHS 4-7; LOAD CONTROL AND DISTRIBUTED GENERATION INITIATIVES, P. 18

VIII. SMALL COMMERCIAL PROGRAMS

CCSE agrees with ED regarding its broad recommendations for the commercial sector. Specifically, we concur with the ideas of addressing market barriers such as split-incentive issues and the need for deeper retrofits. We further agree with the need to increase program delivery to small commercial customers, such as "mom and pop" businesses. These customers tend to share more characteristics with the residential sector than the larger commercial sector, and for this reason could benefit from inclusion in the EUC program in order to take full advantage of existing program infrastructure, for example through local-government outreach and other offerings, and neighborhood-based EUC activities.

IX. CODES AND STANDARDS

As the endgame for market transformation programs, the realm of codes and standards is crucial to California's clean energy future. The rubber meets the road at the local government level, and it is local governments who will push the envelope in adopting energy reach codes in the building sector. Local governments are the only entities with the authority, mandates, and local knowledge to design and enforce innovative codes and standards to achieve lasting energy savings in their communities. Thus, instead of incentives for code compliance through the IOUs as suggested, the Commission could better assist this endeavor through direct support to local government associations, COGs and other similar actors. This could be done at the statewide or regional level to leverage economies of scale and encourage maximum participation from individual jurisdictions within a given region.

X. CONCLUSION

CCSE thanks the Commission for the opportunity to provide these comments in response to the Ruling. We very much look forward to further dialogue with the Commission and staff to find productive, innovative ways to achieve increased alignment between

California's local authorities, community organizations, energy utilities, energy service providers and, ultimately, our citizens.

December 23, 2011

Andrew McAllister
Director of Policy & Strategy
California Center for Sustainable Energy
8690 Balboa Ave., Suite 100
San Diego, CA 92123
Tel: (858) 244-7282
Fax: (858) 244-1178
andrew.mcallister@energycenter.org