



March 24, 2008

California's Investor Owned Utilities:
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)

RE: Preliminary Energy Efficiency Strategic Plan – Supplemented Draft

Dear PG&E, SCE, SDG&E and SoCalGas:

Better Buildings Incorporated would like to thank California's Investor Owned Utilities (IOUs) for the opportunity to provide comments about their Supplemented Draft of the Preliminary Energy Efficiency Strategic Plan (PEESP).

INTRODUCTION

Better Buildings Incorporated (BBI) is a consulting and advisory collaborative, currently consisting of fifteen professionals who presently work or who have worked directly in the HVAC industry, and all of whom are long time, passionate advocates for energy efficiency. In addition to its founder Dale Gustavson, among this team of contractors, engineers, sustainability experts, manufacturers and facility managers are a past National Chairman of ACCA, past National President of the Association of Professional Energy Managers (APEM), a former CEO of the Building Performance Institute (BPI), past Board Member of NATE, and a former National Board member of the U.S. Green Building Council (USGBC). Several are currently or have served on the Editorial Advisory Boards such HVAC and energy industry periodicals as *Contracting Business*, the *ACHR News*, *Energy & Environmental Management*, *HPAC-Engineering* and *Home Energy* magazines. Other HVAC industry associations in which BBI consultants and advisors have actively participated at the local, state or regional Board levels include RSES, ASHRAE, SMACNA, MSCA, AEE, ICSC, AESP and ASA (American Statistical Association).

Nearly half of the Better Buildings Incorporated collaborative reside in California and sincerely appreciate the opportunity to participate in the strategic planning process.

OPENING REMARKS

The IOUs have done an admirable job of distilling hundreds of pages from the various sector reports into one coherent strategic plan. Under-girding the hundreds of pages that made up the sector reports are thousands of pages of content developed by each sector's sub committees. Our thanks to the writing team.

RECOMMENDATIONS

Some of the following recommendations are being made without reference into which chapters they might be incorporated in future revisions, but are directly primarily to subject matter contained within Section 2 (Residential Sector), Section 3 (Commercial Sector), Section 6 (Heating, Ventilation & Air Conditioning), Section 9 (Workforce Education & Training), Section 10 (Marketing, Education & Outreach), Section 14 (Long-Term Planning), and Section 15 (Policy Issues Raised by the *California Energy Efficiency Strategic Plan*).

1) Raise to “urgent and immediate” Section 6, Strategy 3, Page 61 “Deploy System Diagnostics to Maintain Quality Performance of HVAC Systems.”

The IOUs and the CPUC should immediately allocate emergency funding from 2008 budgets to more accurately determine the energy savings associated with HVAC maintenance measures such as condenser cleaning, evaporator cleaning, “RCA,” economizer repairs/upgrades, air distribution system repairs, etc. This would have exceptionally favorable effect on 2009-2011 HVAC programs, particularly in the so-called “small commercial” sector. (If acted upon quickly, this move could even significantly increase the impact of the 2008 tune up efforts already funded by the IOUs.)

- a. While DEER and savings averages used to establish the cost effectiveness of programs are useful from a “top down” perspective, they are not what market actors need to know to decide whether or not to use (pay for) the portable fault detection and diagnostics tools/processes called for in this strategy. Both residential and commercial consumers want to know what the financial return of participation in HVAC tune-up/RCx programs will mean to them in their own homes and buildings, and NOT just have the savings described in vague and general estimates. On the flip side of the coin, quality contractors want to know what the technologies and services they are being asked to sell/provide/employ REALLY ACCOMPLISH in dollars and cents for their clients; they want to make reasonable promises to their clients, promises they can keep. This information should be made available in 2009, and to do so we cannot wait another day.
- b. California ratepayers would be well served if the CPUC would approve the development of a multi-tier savings estimator for HVAC maintenance measures, along the lines of the following:
 - i. What is a “reasonable” savings estimate based on an independent review of (IOU/CEC or broad-based institution) academic papers/journal articles, manufacturer research and documentation, etc.?
 - ii. What do laboratory and field studies say consumers are actually saving in their particular applications/circumstances? and,
 - iii. What savings is being realized on average and portfolio-wide by various measures? Adding the first two levels of savings estimation to California’s Energy Efficiency Strategic Plan will reduce uncertainty (and the perceived risk of adoption it creates) and increase investment in “quality” HVAC maintenance.
- c. The energy savings generated by maintenance measures vary from unit to unit (or rooftop to rooftop) depending on those HVAC systems’ current condition, the accuracy of the diagnostics employed and the skill sets of technicians. In the “real world” there is no such thing as a useful life for coil cleaning or a charge adjustment: HVAC systems should be periodically diagnosed (using modern hand held diagnostics tools) or diagnosed on an ongoing basis by permanently installed diagnostics. The IOUs should propose and the CPUC should consider

the establishment of an energy savings value for accurately diagnosing HVAC annually. Unless units are routinely diagnosed, the work that actually needs to be done can't be determined.

- d. The diagnostics and tune-up protocols being employed by California's approved Verification and Service Providers (VSPs) are different from one another and the differences should be celebrated. Each VSP has its own unique combination of data-gathering tools and processes, academic and field research, "feedback loops" for techs/contractors/end-users, quality assurance and documentation. They all have a place in the market, but when allowed to truly compete with one another (a good thing), they have different costs and achieve different results from one another. At this time, there is no way for program resources to be allocated based upon the actual costs of adoption and results being achieved. The November, 2007 HVAC Roundtable held in Oakland (and referenced in the HVAC Sector Draft Report) made an immediate and ongoing, independent research and benchmarking of tune-up protocols its number one recommendation. We can't wait any longer to make this investment in "QM"

2) Change the term "QI/QM" to "QM/QI" in order to overcome what appears to be a hopeless over-emphasis on HVAC installation in the PEESP and even in the HVAC Sector Draft Report.

Despite unprecedented HVAC industry participation in the strategic planning process to date, too little time and attention is being devoted to radically (BOLDLY) improving the operation of existing HVAC. The CPUC Decision calls for a "reshaped HVAC industry" and rightfully orders that maintenance be part of that "BBEES." We recommend raising what some might view as a clever "tactic" of changing the order of the initials to the level of a conscious strategy, because it appears that it is the only way we will make "quality maintenance" (and its attendant energy efficiency) business as usual in California. We need more stakeholders thinking about and working on "QM." (Respectfully, we refer you to Better Buildings' October 9, 2007 "Comments On Proposed Decision On Issues Relating To Future Savings Goals and Program Planning For 2009-2011 Energy Efficiency And Beyond," Pages 3 – 7 for additional detail on why an "extraordinary" emphasis on QM is vital.....even to the success of "QI".)

3) Immediately, establish a Statewide HVAC Industry Advisory Group and involve it in 2009-2011 program planning.

The "unprecedented collaboration between stakeholders and agencies needed to achieve the goals in this plan" (Section 15, #3, Page 125) has already begun. Better Buildings Incorporated is proud to have played a role in what has been perhaps the most broad-based energy efficiency planning process in recent history. To continue the momentum and, more importantly, to increase both program participation and results, we should not wait until 2009 to begin thinking about the makeup of and formation of this group. It should begin at once. PLEASE NOTE: The HVAC Industry Advisory Group should be separate from and in addition to the "California Energy Efficiency Alliance" mentioned on Page 123 of the PEESP. For the HVAC industry is to be entirely "reshaped," will require focus.

4) Collaboration between the IOUs, program consultants/administrators and the HVAC industry should be a "two way street," and the CPUC should approve funding to the IOUs to accomplish it.

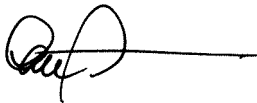
The PEESP should commit the IOUs, their consultants/program administrators (and perhaps even some CPUC and CEC staff) to “go to the HVAC industry” in the same way that it is expected that the HVAC industry will “come to the California efficiency process.” The IOUs should be allowed to allocate funding for attendance and participation at important HVAC industry events and conferences such as the IHACI trade show, the ACCA, MCAA, SMACNA and similar national conventions, Comfortech, distributor-hosted technical training, manufacturer-hosted sales training, etc. in order to a) experience first hand what the industry is already doing to improve itself and b) develop relationships with HVAC industry leaders and the subject matter experts (consultants) that serve them. Likewise, the IOUs should be allowed to adequately fund HVAC Industry Advisory Group meetings, annual statewide HVAC efficiency “gatherings,” etc. Current rules discourage the IOUs from doing what needs to be done to foster “unprecedented collaboration.”

5) A Straw Man: The CPUC should immediately appoint (and fund administrative and writing support for) a short term Blue Ribbon Task Force led by a knowledgeable, well known, highly respected, “no nonsense,” consensus-builder. (With the wisdom of King Solomon.) In addition to high profile leadership, the task force will include executive-level representation from the HVAC industry (management and labor), the business community, educators, energy industry experts, consumer organizations, etc. Together, over a six month period, they will investigate and recommend at least three creative, lawful, accountable and equitable means/mechanisms (presumably administered by the IOU’s) for allocating, disbursing, and measuring the energy-impact of tens of millions of ratepayer dollars to be invested in 2009-2011 for the purposes of augmenting HVAC industry workforce recruitment, training and education.

We anticipate that current rules will severely restrict the IOUs from making investments in workforce development during 2009–2011 in anywhere close to the levels of funding identified as “needed” during the strategic planning process. We also anticipate a wide variety of responses to the “Assigned Commissioner’s and Administrative Law Judge’s Ruling Regarding Cost-Effectiveness Metrics and Energy Efficiency Policy Manual.” Both of these will conspire to delay a sufficiently responsive solution for developing an effective “green collar workforce” that can and will reduce energy use in California. Now is not the time for protracted discussions and for that reason, we recommend that whatever the CPUC decides includes a tight timeframe.

Thank you for your time and attention.

Respectfully submitted,



Dale A. Gustavson
President & Principal Consultant