

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



FILED

07-18-07
04:59 PM

Southern California Edison Company's Application For Approval of Embedded Energy Efficiency Pilot Programs for 2007-2008.	Application 07-01-024 (Filed January 16, 2007)
Application of Pacific Gas and Electric Company Seeking Approval of Water-Embedded Energy Savings Pilot Program.	Application 07-01-026 (Filed January 16, 2007)
San Diego Gas & Electric Company for Approval of Energy & Water Efficiency Partnership and Budget for Years 2007 Through 2008.	Application 07-01-029 (Filed January 16, 2007)
Southern California Gas Company for Approval of Energy & Water Efficiency Partnership and Budget for Years 2007 Through 2008.	Application 07-01-030 (Filed January 16, 2007)

**COMMENTS OF THE UTILITY REFORM NETWORK
AND THE DIVISION OF RATEPAYER ADVOCATES**

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July 18, 2007

COMMENTS OF THE UTILITY REFORM NETWORK AND THE DIVISION OF RATEPAYER ADVOCATES

I. INTRODUCTION

On January 16, 2007, Southern California Edison Company (SCE), Pacific Gas and Electric Company (PG&E), San Diego Gas and Electric Company (SDG&E), and Southern California Gas Company (SoCalGas) each filed an application seeking Commission authorization to implement a pilot energy efficiency program intended to capture the embedded energy savings associated with water conservation.¹ The Utility Reform Network (TURN) and the Division of Ratepayer Advocates (DRA) each protested all four applications on February 20, 2007. Pursuant to the April 23, 2007, *Assigned Commissioner's Ruling and Scoping Memo*, the utilities served supplemental testimony proposing revised pilot programs, or at least supplementing their previous showing, on June 14, 2007. On June 22, 2007, assigned Administrative Law Judge (ALJ) Weissman granted the request of TURN and DRA that the schedule be extended to allow for additional negotiations between the utilities and intervenors. Following these negotiations, the utilities submitted amended supplemental testimony on July 11, 2007.

Pursuant to the revised schedule adopted by ALJ Weissman on June 22, 2007, TURN and DRA submit these comments on the utilities' proposed pilot programs, as reflected in the July 11, 2007, amended supplemental testimony. TURN and DRA appreciate the utilities' willingness to work with us on resolving many of the concerns we raised in our protests. We are pleased to be able to recommend that the Commission

¹ "Embedded energy" refers to the energy used in the production, transportation and pre- and post-consumption treatment of water. See *Assigned Commissioner's Ruling on Process Related to the Consideration of Embedded Energy Savings Related to Water Efficiency*, Oct. 16, 2006, R.06-04-010, pp. 1-2.

authorize the utilities to implement their proposed pilots programs, with the caveats discussed below.

In the sections that follow, TURN and DRA briefly summarize our respective grounds for protesting the utilities' original applications. Then we explain how these concerns have been addressed by the utilities' July 11, 2007, proposed pilot activities. We also discuss the few areas where we continue to oppose or have concerns with the utilities' proposals and recommend how the Commission should resolve these issues. Finally, we address procedural issues for the remainder of this proceeding.

II. SUMMARY OF GROUNDS FOR PROTESTS

A. TURN's Protest

TURN protested the applications for a number of reasons. First, TURN asserted that each application lacked essential information, without which the Commission can neither assess potential ratepayer benefits from the pilots nor evaluate whether the pilots will help answer fundamental questions about water-embedded energy as a demand side resource for energy utilities. Second, TURN argued that the applications did not appear to satisfy the Commission's directive regarding low income customers because low income customers would not necessarily receive direct benefits from the proposed pilot programs. Next, TURN noted that the applications of SCE, SDG&E and SoCalGas conflicted with existing Commission energy efficiency policies addressing counted embedded energy savings towards the EE goals. Likewise, all four applicants proposed an EM&V plan that appeared to conflict with the EE administrative structure adopted by the Commission in D.05-01-055. Finally, TURN protested PG&E's proposed funding mechanism; PG&E alone proposed to increase its electric and natural gas revenue

requirements to fund water-embedded energy pilot program activities. TURN argued that PG&E should use existing electric EE funds.

B. DRA's Protest

DRA protested the IOU water-energy pilot applications for reasons that cut across all IOU proposals. DRA expected that pilot programs be designed to produce data that would clearly demonstrate whether water conservations programs could compete with more traditional types of energy efficiency programs for a place in the energy efficiency portfolios. In that regard, DRA was most concerned that water-energy pilot programs did not demonstrate the ability to save energy cost-effectively within a given IOU service territory.

Other issues that DRA raised included the failure to propose a pilot that saved therms; the fact that low-income programs did not appear to be designed specifically for low-income customers; the lack of binding partner commitments; the ability to complete pilots within the one-year timeframe specified by the October 16, 2006 ACR;² the need for transparency regarding potential conflict of interest for IOUs that also own water interests; and the need for Energy Division to oversee EM&V, consistent with Decision (D.)05-01-055.³

Finally, DRA noted that the policy issues addressed in this phase of the energy efficiency proceeding may have larger ramifications and should be coordinated at a statewide level. It appeared from the first pilot filings that the primary interest was in saving water and that energy was an afterthought. While not disputing the importance of

² Assigned Commissioner's Ruling on Process Related to the Consideration of Embedded Water Savings Related to Energy Efficiency, p. 3.

³ D.05-01-055, p. 100.

water conservation as a statewide issue for California, DRA asserted that the primary focus of the pilots should be saving energy for the ratepayers who will fund the programs. DRA additionally raised issues of a “take-back” effect by such a pilot if in the end, the result of such conservation programs is for “conserved” water to be diverted to new developments in hot climates for large-sized homes that simply use greater amounts of water and energy. Accordingly, DRA asserted that it was important the pilots should also consider its impacts in the context of smart growth in relation to all programs and agencies on a statewide basis.

The April 23, 2007, *Assigned Commissioner Ruling and Scoping Ruling* that followed the protests addressed a major concern for both DRA and TURN by directing IOUs to provide supplemental testimony. This ruling explained:

Given these goals, any pilot program must be designed to enable the Commission to decide whether water conservation and less energy intensive water measures should be allowed to compete for utility energy efficiency dollars. In order to do this, the pilot program results must demonstrate that saving and using less energy intensive water, in fact, saves energy – not in the abstract, but in application.⁴

The April 23 ACR further acknowledged that cost-effectiveness was a key component and that Energy Division staff would release a cost-effectiveness calculator for the IOUs and their water partners to assess the initial cost-effectiveness of programs.⁵

DRA and TURN found both of these directives were steps in the right direction and hoped that the result would be the submission of revised proposals for pilot program activities, capable of providing data necessary for the Commission to ascertain whether or not water conservation programs could be competitive for energy efficiency funding.

⁴ *Assigned Commissioner Ruling and Scoping Ruling*, p. 13.

⁵ *Id.*, pp. 13-15.

III. RESOLUTION OF GROUNDS FOR PROTEST IN AMENDED SUPPLEMENTAL TESTIMONY

A. PG&E

1. Ratepayer Benefits Analysis

PG&E has supplemented its testimony with data sufficient to allow the Commission to assess the potential ratepayer benefits from the pilot activities. PG&E now uses service territory specific embedded energy estimates, as TURN and DRA requested in our protests, in calculating the total resource cost (TRC) for each proposed pilot measure and the pilot as a whole. While none of the pilot activities even approach cost effectiveness on a TRC basis, we nonetheless support ratepayer funding of PG&E's proposed pilot activities.

Taken together with the pilot programs proposed by the other utilities, PG&E's proposed pilot should generate information about measures and strategies that will enable the Commission to resolve the question of whether electric or natural gas ratepayers should fund water conservation activities as an energy demand side resource. Moreover, it is conceivable that the pilots may suggest or demonstrate the feasibility of measuring and capturing cost-effective water embedded energy savings in the future. The pilot programmatic elements must be viewed in conjunction with the revised EM&V Plan, which includes important studies and activities that should capture data necessary for informing future (if any) water-embedded energy savings activities. Finally, we applaud the utilities' new commitment to study how to avoid lost opportunities in direct water-energy savings, and to target direct energy savings in water distribution, treatment and wastewater treatment facilities in their current and future portfolios. Targeting direct water savings associated with these processes will address a previously ignored purpose

of the pilots, while providing ratepayers with benefits far less risky than the embedded energy savings the pilot will also seek to deliver.

On balance, TURN and DRA believe that the proposed pilots (including PG&E's proposed activities) follow the appropriate trajectory, given the Commission's stated goals for the pilot. As such, we recommend that they be funded, irrespective of their lack of cost-effectiveness in terms of delivered electricity and natural gas savings.

2. Appropriateness of Proposed Pilot Location, Partner(s), Program Design and Strategies

In response to discussions with TURN and DRA, PG&E has reduced the emphasis of its pilot on toilets (discussed further below), and has committed to requiring its wholesale water agency partner that the retailers participating in the pilot must purchase at least some of their energy from PG&E.⁶ In light of these changes, as well as the changes to the pilot activities proposed by the other utilities and the jointly sponsored EM&V Plan, TURN and DRA support PG&E's proposed pilot activities. To maximize the usefulness of data from PG&E's pilot, it is our hope that PG&E will work with Energy Division to ensure a well-drawn sample for toilet installation. Likewise, we encourage PG&E to work with retail partners who receive a majority of their energy from PG&E.

Until recently, however, PG&E still had not provided a breakdown of proposed funding for pilot activities by pilot partner, a deficiency noted in TURN's protest. Per email exchange, PG&E subsequently rectified the oversight as follows:

⁶ PG&E Additional Supplemental Testimony, pp. 1, 3.

PG&E Proposed Budget Allocations to Water Agency Partners				
	SCWA	SCVWD	EBMUD	TOTAL
Cost Category				
Administrative Costs	\$8,667	\$8,667	\$8,666	\$26,000
Marketing/Outreach	\$30,280	\$0	\$3,700	\$33,980
Direct Implementation	\$638,638	\$461,514	\$165,565	\$1,265,718
Budget	\$677,585	\$470,181	\$177,931	\$1,325,698

3. Low Income Element

PG&E now proposes to install 3,000 high efficiency toilets (HET) in the homes of low income customers of both PG&E and a retailer of the SCVWD.⁷ PG&E had proposed to install 4,200 toilets in low income homes in its June 14 supplemental testimony, but reduced this number in response to concerns raised by TURN and DRA and seeks to move the \$156,000 saved by installing fewer toilets to EM&V activities.⁸ This modification addresses two concerns raised in the protests of TURN and DRA.

First, by limiting the low income program element to customers of both PG&E and the water agency partner, PG&E will ensure that low income households receiving a high efficiency toilet will see direct benefits – namely, an expected reduction in their water bills. If toilets were placed in low income homes where water was provided on a master meter basis to the landlord, there would be no guarantee that the landlord would pass savings from reduced water bills on to low income tenants through rent reductions.

Second, the reduced scope of the low income toilet program preserves significant pilot funding for other data collection activities. As estimated by PG&E, high efficiency

⁷ PG&E Additional Supplemental Testimony, p. 1.

⁸ Id.

toilets in the pilot have a TRC value of between 0.13 and 0.28, depending on the load shape assumptions used in the WEE Calculator.⁹ Thus, devoting substantial pilot resources to evaluating this one measure will limit opportunities to study measures more likely to be made cost-effective for electric or natural gas ratepayers in the future.

Nonetheless, assuming the 3,000 toilets are targeted at a well-drawn sample of low income customers, including some in San Francisco for data diversity, we are hopeful that the low income pilot element will not only reduce the utility bills of these customers, but also provide useful data for the pilot.

Similarly, we support the proposed joint utility EM&V study on water-energy measures used by low income customers, intended to clarify how best to include and directly benefit low income customers in water-energy programs.¹⁰

However, PG&E's rationale for the reduction to 3,000 toilets remains unclear. For example, SCE in its amended application references the results of the June 27 meeting with DRA and TURN to reduce the low income HET installation to "more closely mirror within the Water Energy pilot the ratio of Low Income Energy Efficiency budget to overall SCE energy efficiency portfolio."¹¹ While PG&E customers may save on their water bills, the energy saved from the conveyance of water saved by HETs may not actually be saved in PG&E's service territory. For this reason, we are not convinced that HET programs are the best types of water-energy programs to be targeted to low income customers. Accordingly, while we support this segment of the pilot in concept

⁹ PG&E Additional Supplemental Testimony, p. 4

¹⁰ See SCE Amended Supplemental Testimony, p. 23.

¹¹ SCE Amended Supplemental Testimony, p. 12.

for the purpose of clarifying these types of data questions, 24%¹² of the budget may still be too large for the needs of PG&E's pilot. The goals of the pilot might be better served by redirecting more of these funds from toilets to other data collection activities. We expect that the study of low income programs that has been added to the list of EM&V studies will result in promoting future optimal program design directed to low income customers.

4. Counting Savings Towards EE Goals / Shareholder Incentives

Because PG&E acknowledged that the Commission has already “declined to count water-embedded electric savings toward achieving the Commission’s adopted savings targets or any risk/reward mechanisms the Commission might choose to adopt for energy efficiency programs,” TURN and DRA did not protest PG&E’s application on this basis.¹³

In contrast, we note our support for the joint utility proposal that direct energy savings from water distribution, treatment and wastewater treatment facilities, when funded as part of the 2006-2008 portfolio, should count towards the 2006-2008 goals.¹⁴

5. EM&V Plan

The four utilities jointly prepared a revised EM&V Plan in response to concerns raised by TURN and DRA, which SCE submitted as Attachment F to its July 11 amended supplemental testimony. This revised plan includes additional studies and adds to the scope of an originally proposed study, places EM&V studies on a fast track for

¹² PG&E 2006-2008 forecasted LIEE spending to total portfolio \$90,094,498 million out of \$957,562,741 million, or 9.4%

¹³ PG&E Prepared Testimony, p. 1-2.

¹⁴ See SCE Amended Supplemental Testimony, p. 22.

approval and implementation, and increases the share of pilot funds allocated to EM&V activities.¹⁵ TURN and DRA generally endorse the revised EM&V plan, particularly the proposed state level and utility-specific process and impact work. While not having reviewed all the elements of each EM&V study in sufficient detail to fully assess the entirety of the Plan, it appears to us to be a solid starting point with one significant caveat. The utilities have not addressed our concern that Energy Division should administer the pilot EM&V activities. Our support for the EM&V Plan is contingent upon Energy Division's administration of the plan, consistent with D.05-01-055.

6. Pilot Funding Mechanism

PG&E revised its proposed funding mechanism in its June 14, 2007, supplemental testimony. PG&E now proposes to fund the pilot from existing, unspent uncommitted EE funds from prior program cycles.¹⁶ Also, PG&E no longer proposes to use natural gas EE funds, since its pilot activities will exclusively target electricity savings.¹⁷ Accordingly, TURN no longer protests PG&E's proposal on this basis.

However, we note an inconsistency in PG&E's stated budget. In PG&E's Table 2, PG&E's total budget is \$2,083,853.¹⁸ Yet SCE's Table V-4 lists PG&E's total budget as \$4,406,160.¹⁹ In response to TURN's inquiry about this discrepancy, PG&E explained that the lower number should be used, as it reflects in part a reduction in HET activity.²⁰

¹⁵ SCE Amended Supplemental Testimony, pp. 21-26; Attachment F.

¹⁶ See PG&E Additional Supplemental Testimony, p. 2, fn 2.

¹⁷ PG&E Supplemental Testimony, p. 1-6.

¹⁸ PG&E Amended Supplemental Testimony p.5.

¹⁹ SCE Amended Supplemental Testimony, p. 29.

²⁰ As will be discussed in Section IV, the combined effect of PG&E and SCE (and as discussed in the following Subsection B. 6) choosing to not commit to their allocated portion of the authorized water energy pilot program budget cuts the otherwise \$10 million pilot down to slightly less than \$7 million (\$6,915,485).

B. SCE

1. Ratepayer Benefits Analysis

SCE has supplemented its testimony with data sufficient to allow the Commission to assess the potential ratepayer benefits from the pilot activities. SCE now uses service territory specific embedded energy estimates, as TURN and DRA requested in our protests, in calculating the TRC for each proposed pilot measure and the pilot as a whole. While none of the pilot activities comes anywhere near cost-effectiveness on a TRC basis, we nonetheless support ratepayer funding of SCE's proposed pilot activities.

Taken together with the pilot programs proposed by the other utilities, SCE's proposed pilot should generate information about measures and strategies that will enable the Commission to resolve the question of whether electric or natural gas ratepayers should fund water conservation activities as an energy demand side resource. Moreover, it is conceivable that the pilots may suggest or demonstrate the feasibility of measuring and capturing cost-effective water embedded energy savings in the future. The pilot programmatic elements must be viewed in conjunction with the revised EM&V Plan, which includes important studies and activities that should capture data necessary for informing future (if any) water-embedded energy savings activities. And finally, we are highly supportive of the utilities' new commitment to study how to avoid lost opportunities in direct water-energy savings, and to target direct energy savings in water distribution, treatment and wastewater treatment facilities in their current and future portfolios. Targeting direct water savings associated with these processes will address a previously ignored purpose of the pilots, while providing ratepayers with benefits far less risky than the embedded energy savings the pilot will also seek to deliver.

On balance, TURN and DRA believe that the proposed pilots (including SCE's proposed activities) follow the appropriate trajectory, given the Commission's stated goals for the pilot. As such, we recommend that they be funded, irrespective of their lack of cost-effectiveness in terms of delivered electricity and natural gas savings.

Nonetheless, we do take issue with SCE's characterization of the WEE calculator as too narrowly defining the economic benefit of embedded energy savings. SCE claims: (1) limiting avoided cost to only embedded energy savings occurring within SCE's territory leaves about 75% of the energy embedded in water unaccounted for; (2) using an average energy intensity is incorrect when the intra-marginal energy intensity is more appropriate; and (3) comparing the calculated cost-effectiveness of proposed pilot strategies to existing traditional EE programs is misguided, as the consideration should be whether the proposed pilots will cost-effectively provide sufficient information to inform whether the pilots should be implemented on a portfolio-level basis.²¹

SCE's argument that the WEE calculator excludes a large portion of embedded energy savings speaks to the heart of why the water-energy partnership planning process has become so drawn out in the first place. When energy ratepayers are asked to fund water conservation activities, the central question for DRA and TURN has always been the amount of embedded energy that the IOUs will save as a result of the programs they fund. SCE's apparent "backdoor" effort to reargue this issue yet again is therefore disappointing. To SCE's second point, we agree that the State Water Project is the intra-marginal source of water imported from Northern California via the Aqueduct and pumping stations that lift that water over the Tehachapi Mountains. However, as detailed

²¹ See SCE Amended Supplemental Testimony, pp. 19-20.

in the June workshop by Energy Division's consultant Jeff Hirsch, SWP, operated as a pumped storage system, has negative avoided costs for water saved because water is moved to storage at night in order to maximize SWP electricity revenues through hydro generation during the day. SCE's rather nuanced third point is consistent with our position that pilots per se do not have to be cost effective, but rather must be designed to provide sufficient information by which to meet the pilot's objectives. In this case, the objectives include exploring whether water-embedded electricity or natural gas can be cost-effectively saved through water conservation activities funded by energy ratepayers.

2. Appropriateness of Proposed Pilot Location, Partner(s), Program Design and Strategies

In response to discussions with DRA and TURN, SCE has reduced the emphasis of its pilot on toilets (discussed further below), and will combine efforts with SoCalGas to explore creative ways to capture electricity and natural gas savings in the Lake Arrowhead Community Services District (LACSD).²² In light of these changes, as well as the changes to the pilot activities proposed by the other utilities and the jointly sponsored EM&V Plan, TURN and DRA support SCE's proposed pilot activities. While the potential for high freeridership in Lake Arrowhead still exists, we believe SCE's proposed activities in Lake Arrowhead will encourage building relationships between SCE and SoCalGas, as well as with LASCSD. Moreover, this project may yield broad societal benefits for application throughout the western states. Due to the unique geographic characteristics of Lake Arrowhead, the proposed partnership there could demonstrate that the aggregation of very small, per unit, gas and electric energy saving

²² SCE Amended Supplemental Testimony, pp. 2, 6.

measures can provide a significant benefit of energy and water savings in a water-constrained community.

To maximize the usefulness of data from SCE's pilot, it is our hope that SCE will work with Energy Division to ensure a well-drawn sample for toilet installation. We elaborate upon this point in the next section.

3. Low Income Element

SCE now proposes to install approximately 4,000 high efficiency toilets in “multi-family households in low income mutual MWD and SCE service territories.”²³ It is not clear from SCE's testimony whether these households will be customers of record of both SCE and the MWD member agency with whom SCE will partner. SCE had proposed to spend up to \$1,693,000 to install up to 7,500 toilets in low income homes, but reduced this number in response to concerns raised by DRA and TURN. The new budget cap for toilets is \$729,000.²⁴ This modification partially addresses the two major concerns in the protests of TURN and DRA.

First, the reduced scope of the low income toilet program should preserve significantly more pilot funding for other programmatic or data collection activities. As estimated by SCE, measures in the pilot have an average TRC value of between 0.19 and 0.35, depending on the load shape assumptions used in the WEE Calculator.²⁵ High efficiency toilets (HETs) are generally less cost effective than other measures in the pilot, with a low TRC estimate of 0.094 and high of 0.242.²⁶ Thus, devoting substantial pilot resources to evaluating this one measure will limit opportunities to study measures more

²³ SCE Amended Supplemental Testimony, pp. 13, A-4 – A-5

²⁴ *Id.*, p. 13.

²⁵ *See* SCE Amended Supplemental Testimony, p. 18:10 and 18:17.

²⁶ TURN obtained these values directly from SCE on July 18, 2007.

likely to be made cost-effective for electric or natural gas ratepayers in the future. Nonetheless, assuming the 4,000 toilets are targeted at a well-drawn sample of low income customers living in multi-family homes, we are also hopeful that the low income pilot element will provide useful data for the pilot endeavor. Similarly, we support the proposed joint utility EM&V study on water-energy measures used by low income customers, intended to clarify how best to include and directly benefit low income customers in water-energy programs.²⁷

SCE's rationale for the reduction of its HET program from 7,500 to 4,000 toilets is not entirely clear.²⁸ SCE states in its amended application that its new HET funding level of \$728,700 "represents about 21% of the total pilot budget, which much more closely matches the ratio of the budgets for SCE's Low Income Energy Efficiency (LIEE) programs and SCE's overall energy efficiency portfolio." However, SCE's LIEE program is 10.9% of its energy efficiency portfolio.²⁹ The additional allocation may be needed for SCE's low-income HET program due to fixed administrative costs and/or needs of data sampling, but SCE does not explain this further. Also, because SCE's HET program targets multi-family homes, low income residents may not directly benefit on their water bills, depending on whether the building is master metered and whether the landlord passes through savings to residents.³⁰ These uncertainties make it impossible to conclude that low income customers will benefit from the program.

²⁷ See SCE Amended Supplemental Testimony, p. 23.

²⁸ SCE Amended Supplemental Testimony, p. 13.

²⁹ SCE 2006-2008 forecasted LIEE spending to total portfolio \$82,200,000 million out of \$757,032,000 million, or 10.9%.

³⁰ Although SCE low income multi-family residents may not directly benefit on their water bills as part of the HET Low-Income program, TURN and DRA support SCE's multi-family approach as another facet of the statewide water-energy pilot in order to contrast with data collection for PG&E's single-family HET approach.

Furthermore, the energy saved from the conveyance of water saved by HETs may not actually be saved in SCE's service territory. For this reason, we are not convinced that HET programs are the best types of water-energy programs to be targeted to low-income customers. Accordingly, while we support this segment of SCE's pilot in concept for the purpose of clarifying these types of data questions, we are unclear whether this HET program warrants 21% of SCE's pilot budget or whether these funds might be better spent on other data collection activities. We expect that the study of low-income programs that has been added to the list of EM&V studies will result in promoting future optimal program design directed to low income customers.

Finally, TURN's and DRA's concerns regarding whether this element of the pilot will actually benefit low income consumers could be alleviated by calling it a "Multi-Family HET Program" rather than a low income program. This title more accurately reflects the fact that low income households many not financially benefit from the installation of HETs unless they are customers of record of both the water agency and SCE. Due to the data value of including a multi-family HET element, in addition to PG&E's single-family HET element, we support the inclusion of these activities in SCE's pilot.

4. Counting Savings Towards EE Goals / Shareholder Incentives

SCE continues to request that the Commission allow it to count savings from its pilot towards the Commission's currently adopted EE goals. TURN and DRA continue to protest SCE's application on this basis.³¹

³¹ See *i.e.* TURN Protest, pp. 29-31.

In contrast, we note our support for the joint utility proposal that direct energy savings from water distribution, treatment and wastewater treatment facilities, when funded as part of the 2006-2008 portfolio, should count towards the 2006-2008 goals.³²

5. EM&V Plan

As noted above, the utilities have jointly proposed an amended EM&V Plan. TURN and DRA address that plan in Section II.A.5 (PG&E) above.

6. Pilot Funding Mechanism

SCE proposes to fund its pilot activities from unspent / uncommitted EE funds from prior program cycles and record pilot expenditures in its Procurement Energy Efficiency Balancing Account. TURN and DRA did not protest this proposal.

However, we note that SCE's amended supplemental testimony inconsistently states the budget SCE proposes for its pilot activities. In Tables V-3 and V-4, SCE seeks spending authorization for a total pilot budget of \$2,665,488.³³ Yet SCE elsewhere requests authority to record up to \$3.427 million in pilot program project expenditures in its Procurement Energy Efficiency Balancing Account to pay for the pilot program costs.³⁴ In response to TURN's inquiry about this discrepancy, SCE explained that the lower number should be used, as it reflects a last minute reduction to SCE's share of the EM&V budget to more fairly allocate these costs among the utilities.

³² See SCE Amended Supplemental Testimony, p. 22.

³³ SCE Amended Supplemental Testimony, pp. 27, 29.

³⁴ See Id., pp. 26, 28, 29.

C. SDG&E

1. Ratepayer Benefits Analysis

SDG&E has supplemented its testimony with data sufficient to allow the Commission to assess the potential ratepayer benefits from the pilot activities. SDG&E now uses service territory specific embedded energy estimates, as TURN and DRA requested in our protests, in calculating the TRC for each proposed pilot measure and the pilot as a whole. While none of the pilot activities even approach cost-effectiveness on a TRC basis, we nonetheless support ratepayer funding of SDG&E's proposed pilot activities.

Taken together with the pilot programs proposed by the other utilities, SDG&E's proposed pilot should generate information about measures and strategies that will enable the Commission to resolve the question of whether electric or natural gas ratepayers should fund water conservation activities as an energy demand side resource. Moreover, it is conceivable that the pilots may suggest or demonstrate the feasibility of measuring and capturing cost-effective water embedded energy savings in the future. The pilot programmatic elements must be viewed in conjunction with the revised EM&V Plan, which includes important studies and activities that should capture data necessary for informing future (if any) water-embedded energy savings activities. And finally, we are highly supportive of the utilities' new commitment to study how to avoid lost opportunities in direct water-energy savings, and to target direct energy savings in water distribution, treatment and wastewater treatment facilities in their current and future portfolios. Targeting direct water savings associated with these processes will address a

previously ignored purpose of the pilots, while providing ratepayers with benefits far less risky than the embedded energy savings the pilot will also seek to deliver.

On balance, TURN and DRA believe that the proposed pilots (including SDG&E's proposed activities) follow the appropriate trajectory, given the Commission's stated goals for the pilot. As such, we recommend that they be funded, irrespective of their lack of cost-effectiveness in terms of delivered electricity and natural gas savings.

2. Appropriateness of Proposed Pilot Location, Partner(s), Program Design and Strategies

Pursuant to the discussions SDG&E had with stakeholders following its June 14 supplemental testimony, SDG&E does not propose any changes to its pilot program elements in its July 11, 2007, testimony.³⁵ DRA and TURN support SDG&E's proposed pilot activities, which appear likely to contribute meaningful information and data as part of the coordinated water-embedded energy pilot effort described in the amended supplemental testimony distributed by all four utilities on July 11, 2007. While TURN continues to be concerned about freeridership in the industrial audit program element in the San Diego County Water Authority (SDG&E) partnership, we hope that this partnership will create benefits by opening opportunities for additional industrial sector direct and embedded energy and water savings, both within SDG&E's service territory and beyond.

3. Low Income Element

SDG&E removed its low income, multi-family high efficiency toilet replacement activities in its June 14, 2007, supplemental testimony. As a result, SCE does not

³⁵ SDG&E Supplement 1 to Supplemental Testimony, p. 2.

propose a low income element, but will contribute funds towards the low income study proposed in the revised EM&V Plan.³⁶ TURN and DRA support the elimination of this program element for the reasons given by SDG&E. This change will optimize the effectiveness of SDG&E's other pilot activities by directing resources toward the other four measures. Likewise, low income multi-family toilet replacement is currently part of SCE's pilot, and the results will be available to SDG&E to use in its own program planning.

4. Counting Savings Towards EE Goals / Shareholder Incentives

SDG&E's initial request for clarification about whether it could count embedded energy savings from the pilot towards its EE goals did not appear in its June 14 or July 11 supplemental testimonies. Thus, TURN and DRA presume SDG&E has dropped this request, and we therefore no longer protest its application on this basis.

In contrast, we note our support for the joint utility proposal that direct energy savings from water distribution, treatment and wastewater treatment facilities, when funded as part of the 2006-2008 portfolio, should count towards the 2006-2008 goals.³⁷

5. EM&V Plan

As noted above, the utilities have jointly proposed an amended EM&V Plan. TURN and DRA support the EM&V Plan, as addressed in Section II.A.5 (PG&E) above.

³⁶ See SCE Amended Supplemental Testimony, p. 23.

³⁷ See SCE Amended Supplemental Testimony, p. 22.

6. Pilot Funding Mechanism

TURN noted in our protest that SDG&E proposed to use available LIEE funds for the low income element of its pilot program. TURN protested the use of unspent, uncommitted LIEE funds from prior program years for this pilot activity, unless those activities would directly benefit low income utility customers by reducing their utility bill(s). Since SDG&E no longer proposes a low income element in its pilot, TURN assumes that SDG&E no longer proposes to use unspent, uncommitted LIEE funds from prior program years for its pilot program. However, TURN was unable to verify this change in funding mechanism.

D. SoCalGas

1. Ratepayer Benefits Analysis

SoCalGas originally proposed to partner with MWD to conduct activities expected to yield electricity savings but not necessarily any natural gas savings.³⁸ TURN and DRA protested SoCalGas' proposal that gas customers to pay for electricity savings, which simply cannot be construed as a demand side resource for a gas utility. TURN and DRA also recommended that SoCalGas be allowed to withdraw its application if it could not identify water-gas efficiency opportunities.

Instead, SoCalGas has substantially revised its proposed pilot activities to target both direct and embedded gas savings in water conservation activities. TURN and DRA greatly appreciate SoCalGas' willingness to work on devising pilot activities intended to target natural gas savings and wholly support its amended pilot proposal, with one exception addressed below.

³⁸ See SoCalGas Prepared Testimony, p. 5.

2. Appropriateness of Proposed Pilot Location, Partner(s), Program Design and Strategies

As noted above, TURN and DRA generally support the pilot program activities proposed by SoCalGas in its July 11, 2007, supplemental testimony. The one remaining proposed program that we find to still be inappropriate is the Joint Marketing and Outreach element of the SoCalGas/MWD partnership. SoCalGas proposes to jointly market water and energy rebates to commercial/industrial customers.³⁹ Because SoCalGas' original filing proposed no therm savings and because there is nothing in SoCalGas' program description that appears to benefit its own gas ratepayers, TURN and DRA recommend that this component of their proposal be removed from the pilot. Such a marketing partnership may be valuable in the future once this pilot identifies the types of water conservation programs that actually save gas. Under those circumstances, this marketing endeavor could be targeted and worthwhile.

We otherwise applaud SoCalGas for modifying its proposed pilot activities to both conserve water (and thus embedded natural gas) and to make current water delivery and treatment systems more energy efficient. SoCalGas now proposes not to install toilets but to enter the Lake Arrowhead partnership with SCE. Additionally, SoCalGas proposes to conduct a pilot pump/engine efficiency testing program. The results from this pilot will be used to develop a second phase to the Crestline-Lake Arrowhead Water Agency (CLAWA) and Eastern Municipal Water District (EMWD) testing/evaluation program. SoCalGas will include this second phase program in its upcoming round of EE portfolio funding proposals, and TURN and DRA intend to support this request. Furthermore, the first phase of the pilot pump/engine efficiency testing program should

³⁹ SoCalGas Prepared Testimony Water Pilot Application, January 16, 2007, pp. 3-4.

be useful to PG&E and SDG&E in their gas EE efforts as well, and we would expect to see similar proposals in their next round of funding.

3. Low Income Element

SoCalGas no longer proposes to install high efficiency toilets in low income homes, but instead to use its pilot funds for newly added program activities and to help fund the joint utility EM&V Plan. TURN and DRA support SoCalGas' revised proposal. Without a showing that toilet replacement captures significant embedded natural gas savings, this program would not make sense for gas ratepayers to fund. Noteworthy, SoCalGas' CARE customers pay for gas EE programs through rates, just as non-CARE customers, so ensuring that gas rates reflect reasonable investments will help low income customers afford their gas bills. Moreover, SoCalGas' proposed alternate pilot activities have much greater potential to capture cost-effective direct and indirect natural gas savings, thus benefiting all of SoCalGas' ratepayers.

4. Counting Savings Towards EE Goals / Shareholder Incentives

SoCalGas' initial request for clarification about whether it could count embedded energy savings from the pilot towards its EE goals did not appear in its June 14 or July 11 supplemental testimonies. Thus, TURN and DRA presume SoCalGas has dropped this request, and we therefore no longer protest its application on this basis.

In contrast, we note our support for SoCalGas' proposal to count direct energy savings from water conservation activities, i.e. hot water savings, towards its 2006-2008 goals, if SoCalGas funds those activities from its 2006-2008 portfolio budgets.⁴⁰

⁴⁰ See Supplement 2 to Supplemental Testimony of SoCalGas, p. 4, fn 1

Counting such savings is consistent with the Commission's EE Policy Rules, as SoCalGas notes, and with SoCalGas' 2006-2008 portfolio activities, which include incentives for the hot water saving measures to be included in SoCalGas' partnership with LACSD and SCE.

Likewise, we support allowing SoCalGas to count savings from the second phase of the CLAWA / EMWD testing / evaluation program, which will be funded as part of SoCalGas' regular 2006-2008 or 2009-2011 EE portfolio, after results from the pilot are available.⁴¹ The program will target direct natural gas savings with EE portfolio funds, and thus should be treated like any other traditional EE activities for counting purposes.

5. EM&V Plan

As noted above, the utilities have jointly proposed an amended EM&V Plan. TURN and DRA address that plan in Section II.A.5 (PG&E) above.

6. Pilot Funding Mechanism

TURN's protest noted that SoCalGas proposed to use available LIEE funds for the low income element of its pilot program. TURN protested the use of unspent, uncommitted LIEE funds from prior program years for this pilot activity, unless those activities would directly benefit low income utility customers by reducing their utility bill(s). Since SoCalGas no longer proposes a low income element in its pilot, TURN assumes that SoCalGas no longer proposes to use unspent, uncommitted LIEE funds from prior program years for its pilot program. However, TURN was unable to verify this change in funding mechanism.

⁴¹ See Supplement 2 to Supplemental Testimony of SoCalGas, p. 9.

IV. RESPONSE TO PROPOSED REDUCTION IN TOTAL WATER-ENERGY PILOT PROGRAM BUDGET

As noted in our discussions on PG&E’s and SCE’s Pilot Funding Mechanisms (See Subsections A.6 and B.6) the IOUs have selectively chosen to not commit to their full authorized water-energy pilot program budgets. As shown in the table below, PG&E proposes to spend less than half of its allowed \$4.4 million, or \$2.08 million; while SCE’s proposed budget of \$2.66 million is about three-quarters of its allowed amount of \$3.43 million. These budget reductions cut the otherwise \$10 million pilot down to slightly less than \$7 million (\$6,915,485).

CPUC Authorized Water Energy Pilot Program Budget					
	2006 - 2008 Proposed Budgets	Allocation			
		Percentage	Allowed	Proposed	Difference
PG&E	\$867,468,243	44%	\$4,406,160	\$2,083,853	\$2,322,307
SCE	\$674,831,998	34%	\$3,427,000	\$2,665,488	\$761,512
SDG&E	\$257,540,565	13%	\$1,308,134	\$1,308,134	
SoCalGas	\$168,921,633	9%	\$858,010	\$858,010	
Total	\$1,968,762,439	100%	\$9,999,304	\$6,915,485	\$3,083,819
<i>Source: Additional Supplemental Testimony SCE Table V-4: Authorized 2006-08 EE Budgets and Proposed Water Efficiency Budgets</i>					

TURN and DRA were not aware until a detailed review of the IOUs’ additional Supplemental Testimonies and numerous clarifying emails that the total requested budget would be about two-thirds of the Commission authorized amount. While this may be indicative of the apparent “much ado about [very little or] nothing” embedded energy savings for California energy utilities, TURN and DRA recommend that the Commission approve the entire funding amount per utility allowed allocation. We recommend that the Commission designate the uncommitted funds for two or more possible activities: (1) additional EM&V activities and studies as deemed reasonable and appropriate by ED,

and (2) a statewide third-party solicitation for innovative embedded energy – water conservation project(s), managed by ED or its consultant(s).

V. RECOMMENDATIONS REGARDING OUTSTANDING ISSUES

As discussed above, DRA and TURN generally support the proposed pilot programs, with only the following outstanding issues requiring additional action by the Commission:

- The Commission should direct Energy Division staff to oversee all EM&V activities related to the pilots, consistent with the recognition in D.05-01-055 of the inherent conflict of interest in allowing program administrators to oversee EM&V of their programs;
- The Commission should deny SCE’s request to count embedded energy savings from the pilot towards its EE goals, consistent with the October 23, 2006, Assigned Commissioner’s Ruling in R.06-04-010;
- The Commission should ignore SCE’s argument that the WEE calculator undervalues embedded energy, since the purpose of the pilots is to determine whether ratepayer funds should be expended on embedded-energy water programs going forward;
- The Commission should ensure that HETs are installed in homes that are served directly by both SCE and the water partner where possible, so that low income families will directly benefit from the program. To the extent that this may not be possible, such as in master-metered multi-family homes, the pilot should be renamed to avoid confusion about whether low income consumers benefit from these activities.
- The Commission should ensure that PG&E includes San Francisco homes in its pilot for data diversity.
- The Commission should ensure that SDG&E and SoCalGas will not use LIEE funds for their pilot programs.
- The Commission should reject the MWD joint marketing component of SoCalGas’s proposal.
- The Commission should authorize \$10 million for the water-energy pilot, as discussed in Section IV.

VI. OTHER PROCEDURAL RECOMMENDATIONS

In his April 30, 2007, *ALJ Ruling After the Scoping Memo Correcting and Augmenting the Schedule*, ALJ Weissman directed parties to indicate whether they believed intervenor testimony or hearings would be necessary in a motion filed concurrently with opening comments.⁴² TURN and DRA clarify that we do not seek to offer testimony or for the Commission to hold evidentiary hearings in this consolidated proceeding.

TURN and DRA additionally recommend that the Commission closely coordinate its action in this docket with the Energy Efficiency Rulemaking, R.06-04-010. In that proceeding, the Commission has solicited comments from parties on if and when the Commission should allow the utilities to count water-embedded energy savings towards their EE goals.⁴³ TURN, DRA and other parties have recommended that the Commission defer resolution of this issue unless and until the water-energy pilot programs at issue in the instant proceeding demonstrate the appropriateness of counting water-embedded energy savings. The Commission has not yet acted on this issue in R.06-04-010, and it is unclear whether a decision will issue first in R.06-04-010 or in this proceeding.

To ensure consistent results in both dockets, TURN and DRA recommend here what we recommended in R.06-04-010. We request that the Commission clarify in its decision in this proceeding that water-embedded energy savings should not count towards the utilities' EE goals, pending pilot results on the feasibility and economic viability of gas or electric ratepayer funding of water conservation activities. Likewise, we

⁴² *ALJ Ruling After the Scoping Memo Correcting and Augmenting the Schedule*, April 30, 2007, p. 3.

⁴³ See *Assigned Commissioner's Ruling Soliciting Questions on Whether and How to Change Utility Energy Savings Goals*, June 1, 2007, R.06-04-010.

recommend that the decision issued in this docket be served on parties to R.06-04-010, and that pilot results be made available to parties to R.06-04-010 as such results become available.

VII. CONCLUSION

Water-embedded energy may or may not offer electric or natural gas utilities a cost-effective demand side resource, competitive with more traditional energy efficiency resources. The pilot program activities proposed by the utilities in their July 11, 2007, testimony should provide data and information essential to the resolution of this issue. Moreover, the utilities seek to study opportunities for direct water-energy savings in water distribution, treatment and wastewater treatment facilities (existing and new construction). This study should provide valuable information to assist the utilities in increasing direct water-energy savings in their current and future EE portfolios. Accordingly, DRA and TURN recommend that the Commission authorize these water-energy pilot programs, with the modifications discussed herein.

DRA and TURN also anticipate that the pilot programs will assist California in answering broader questions about the interdependence of water and energy consumption, yielding benefits that transcend any one utility service territory. The Commission should be mindful of the fact that the pilot results and associated EM&V studies may show us that embedded energy saved primarily benefits some other agency and not ratepayers of utilities regulated by this Commission. The results may none the less prove useful toward greater integration of diverse agencies and market sectors, working together as the Commission has envisioned in the “Big, Bold Energy Efficiency Strategies” (BBEES) under consideration in R.06-04-010. But first we need the pilot

CERTIFICATE OF SERVICE

I, Larry Wong, certify under penalty of perjury under the laws of the State of California that the following is true and correct:

On July 18, 2007 I served the attached:

**COMMENTS OF THE UTILITY REFORM NETWORK
AND THE DIVISION OF RATEPAYER ADVOCATES**

on all eligible parties on the attached lists to **A.07-01-024**, by sending said document by electronic mail to each of the parties via electronic mail, as reflected on the attached Service List.

Executed this July 18, 2007, at San Francisco, California.

 / s/

Larry Wong

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