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**Mark W. Toney, Ph.D., Executive
Director**

February 8, 2010

Commissioner Dian Grueneich
Administrative Law Judge David Gamson
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: Concerns on Cost-Effectiveness of 2010-2012 Energy Efficiency Portfolios

Dear Commissioner Grueneich and ALJ Gamson:

On December 14, 2009, The Utility Reform Network protested the compliance filings the utilities served in late November 2009. TURN's protest raised doubts about whether the utility-administered programs in 2010-2012 will deliver the promised levels of energy savings and whether the delivered savings would prove to be cost-effective.

In our follow-up letter to you of January 6, 2010, TURN raised further concerns that the utilities selective use of *ex ante* values could result in inflated levels of expected cost-effectiveness. Despite our call for a workshop or other forum that would permit a public discussion of these issues, to date there has been no action (or at least none shared with parties).

And so California consumers face being required to fund utility energy efficiency programs with direct costs of \$3 billion, plus significant additional amounts in energy efficiency administration costs covered by other utility revenue requirements (such as GRC rates) and potential incentives awarded to shareholders, even as doubts grow about whether the money will produce cost-effective savings. With such a price tag and with the success of California's greenhouse gas reduction efforts so tied to the success of these energy efficiency efforts, the Commission must ensure that these funds are likely to deliver the promised benefits. Finding out after-the-fact that the actual savings were nowhere close to the estimated savings would not only mean that ratepayers spent more than they should have, but that the efforts to address greenhouse gas are at risk of being a failure.

TURN has continued to analyze the 2006-2008 Ex Post EM&V results. As the accompanying table and explanatory text indicate, when viewing the performance of the four utilities as a whole the ex post adjusted savings represent only 61% of the GWh goals for energy savings, and

60% and 79% of the MW and therm demand reduction goals.¹ This is not just a question of measuring the utilities' past performance, since the saving inputs in their November 2009 Compliance Filings are very similar to their 4th quarter 2008 claimed savings (used as the starting basis for Energy Division's 2006-08 ex post M&V work). This further analysis of the 2006-08 data reinforces TURN's earlier-stated concerns that the 2010-12 EE portfolios are not prospectively cost-effective.

TURN is very concerned that the desire to implement the recently-approved portfolios for 2010-12 might cause the Commission to fail to review these very fundamental issues regarding those portfolios, even though the opportunity for meaningful review would seem to be earlier in the process rather than later. We again urge your review and consideration of these issues, and look forward to hearing from you how that review and consideration will take place.

Thank you for your attention to these matters.

Yours truly,

/s/

Robert Finkelstein
Legal Director

cc: Service list for A.08-07-021, et al.

¹ This is a conservative calculation that very much favors the utilities. The ED 06 -08 ex post M&V did not evaluate all EE measures or all critical EE variables. TURN's calculation assumes that the unevaluated savings are as the IOUs claim. The portion of claimed savings that ED did not evaluate are 20% GWh, 32% MW, and 30% Therms. In addition, for the portion of claimed savings that ED did evaluate, many of the key savings variables were not adjusted consistently or uniformly.

TURN Analysis of the 2006-2008 Ex Post M&V Results on
the IOUs' 2006-2008 Claimed Savings

PG&E	GWh	MW	Therms
CPUC Goals	2,826.0	613.0	45.0
PG&E Claimed Savings	5,254.4	845.7	66.2
PG&E Claimed Savings that could be Ex Post adjusted	4,163.1	584.7	61.2
%	79%	69%	92%
Ex Post Net Savings	1,046.1	166.6	28.3
Ex Post Net Savings + Unevaluated PG&E Claimed Savings	2,137.4	427.6	33.3
% CPUC Goals	76%	70%	74%

SCE	GWh	MW	Therms
CPUC Goals	3,135.0	672.0	
SCE Claimed Savings	3,263.6	592.5	
SCE Claimed Savings that could be Ex Post adjusted	2,745.7	394.2	
%	84%	67%	
Ex Post Net Savings	1,046.0	150.0	-
Ex Post Net Savings + Unevaluated SCE Claimed Savings	1,564.0	349.0	
% CPUC Goals	50%	52%	

SDG&E	GWh	MW	Therms
CPUC Goals	850.0	163.0	10.0
SDG&E Claimed Savings	849.3	147.4	8.2
SCE Claimed Savings that could be Ex Post adjusted	609.7	99.7	1.8
%	72%	68%	21%
Ex Post Net Savings	195.0	39.0	0.73
Ex Post Net Savings + Unevaluated SDG&E Claimed Savings	434.0	87.0	7.0
% CPUC Goals	51%	53%	70%

SoCalGas	GWh	MW	Therms
CPUC Goals			57.0
SCG Claimed Savings	6.5	4.1	70.6
SCG Claimed Savings that could be Ex Post adjusted	3.8	2.0	38.8
%	58%	49%	55%
Ex Post Net Savings	1.2	0.7	16.4
Ex Post Net Savings + Unevaluated SCG Claimed Savings	3.9	2.8	48.1
% CPUC Goals			84%

TOTAL IOUs	GWh	MW	Therms
CPUC Goals	6,811.0	1,448.0	112.0
IOUs Claimed Savings	9,373.8	1,589.7	145.1
IOUs Claimed Savings that could be Ex Post adjusted	7,522.3	1,080.7	101.8
%	80%	68%	70%
Ex Post Net Savings	2,288.1	356.8	45.40
Ex Post Net Savings + Unevaluated IOUs Claimed Savings	4,139.6	865.8	88.7
% CPUC Goals	61%	60%	79%

Explanation of TURN Analysis of the Initial 2006-2008 *Ex Post* M&V Results on the IOUs' 2006-2008 Claimed Savings

This document provides an overview of TURN's analysis of Energy Division's initial 2006-2008 *ex post* M&V results on the IOUs' 2006-2008 claimed savings, reflected in the table above. The starting point for all adjustments was the series of draft Evaluation Reports submitted to ED by the evaluation contractors toward the end of 2009. Evaluation contractors submitted a total of 12 reports.² There was relatively little consistency between the reports. As a result, this document describes the general approach TURN adopted in using the information in the Evaluation Reports to create an overview of *ex post* savings. This approach was modified as needed depending on the actual content of each report we reviewed.

1. TURN reviewed the draft reports to establish which High Impact Measures (HIMs) were evaluated within the overall programs. We looked for data at the highest level of aggregation that was available. For example, the Upstream Lighting Program draft evaluation report provided data for the entire program, as well as its constituent High Impact Measures, and this was the data we used. In contrast, the Residential Retrofit draft evaluation report provided very little useful information at the aggregate level and so we used HIM level data to make the adjustments to claimed savings.
2. TURN sought to use data contained in the draft evaluation reports to the fullest extent possible. Where the relevant information was not available within the reports we reviewed, we extracted data from the IOUs' Q4 2008 E3 calculators.
3. TURN extracted the following data for each HIM or group of HIMs from each report:
 - Net claimed savings by IOU (*ex ante* savings)
 - Gross claimed savings (*ex ante* savings)
 - *Ex ante* Net-to-Gross Ratios (NTGRs)
 - *Ex post* net savings

² While TURN reviewed all of the reports, we did not use the Emerging Technologies report in our analysis because its evaluation was qualitative in nature.

- *Ex post* gross savings
 - Evaluated or *Ex post* Net-to-Gross Ratios
 - Gross Realization Rates
 - Net Realization Rates
4. TURN also looked for information on total portfolio savings by IOU. We found this for kW and kWh in the Upstream Lighting Program report. We used these portfolio level savings in our calculations. For therms, TURN used total portfolio savings from the IOUs' Q4 2008 E3 calculators.
5. There were few reports for which this full series of data was available. TURN therefore sought to calculate the information required to estimate ex-post savings from the available data:
- If net claimed savings were not available, we multiplied gross claimed savings by the *ex ante* NTGR to arrive at an estimate of ex ante net savings.
 - For a few measures, only gross claimed savings were provided. If these measures were significant in terms of their contribution to overall savings, TURN went to the Q4 2008 E3 calculators to find the *ex ante* NTGRs that the IOUs were using. This E3 derived NTGR was then applied to the gross savings claim to calculate a claimed net savings estimate.
 - If measure level *ex post* gross or *ex post* net savings data were not provided, we calculated estimates for these savings by using gross and net realization rates. If gross realization rates were available, but not net, we used the gross RR and the gross claimed savings to calculate *ex post* gross savings and then applied the evaluated NTGR to generate an estimate of *ex post* net savings.
 - For some measures, gross and net realization rates were not available. In these cases, TURN looked for information that would allow us to calculate *ex post* savings. In the Residential Retrofit draft evaluation report, for example, we used the HIM-level evaluated NTGRs to adjust gross claimed savings. For most of these measures, we did not make any further adjustments because *ex ante* gross savings levels were not available by measure, only by unit.³ In addition, we only made the NTGR adjustment if the Unit Energy Savings (UES) data indicated that unit savings had shifted in the same direction as the NTGR. For measures in which the *ex ante* and *ex post* NTGR and UES adjustment moved in opposite directions, we did not calculate an *ex post* estimate of savings because it was not clear whether the impact of the evaluated NTGR would be cancelled by the

³ In many cases, we could have calculated more accurate estimates of *ex post* savings by using the evaluated Unit Energy Savings data. This is a time-intensive process and we only undertook this additional analysis for Appliance Recycling (a measure for which a relatively large quantity of *ex ante* savings were claimed).

countervailing impact of the change in UES. For measures adjusted in this way, then, the *ex post* estimates are very conservative: if the evaluated UES levels were factored in, the difference between *ex ante* and *ex post* savings levels would be higher.

- Within Residential Retrofit, the exception to this procedure was in the approach we took to Appliance Recycling. For this measure, we applied both the evaluated NTGR and the evaluated UES. For this measure, we took the number of units and multiplied it by the evaluated UES to generate an estimate of *ex post* gross savings. We then applied the evaluated NTGR to this figure in order to estimate *ex post* net savings. Time constraints precluded us from following this procedure with other Residential Retrofit HIMs.
6. Once TURN had the relevant information, for each measure or group of measures we entered the following data into a spreadsheet:
 - Net claimed *ex ante* savings
 - Net *ex post* savings.
 7. For each IOU and for all IOUs cumulatively, TURN then summed the claimed savings and the *ex post* savings for evaluated measures for which both *ex ante* and *ex post* savings levels were available. This gave us an overall total of claimed and *ex post* savings for these measures.
 8. For each measure, and for the totals, TURN then calculated the percentage difference between the *ex ante* and the *ex post* savings.

For each IOU, TURN subtracted the claimed savings for evaluated measures (for which both *ex ante* and *ex post* savings levels were available) from the total portfolio claimed savings for each IOU. This provided an estimate of the level of unadjusted savings. We assumed that these claimed savings would not be adjusted and so added this figure to the adjusted *ex post* savings to get an overall estimate of total ex-post savings.