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PG&E	3	Methodological approach of Draft 2009 report is flawed and does not produce an accurate measure of savings generated by 2009 programs. The report does not include field verifications or additional studies of 2009, instead applying updated savings assumptions from 2006-2008. The 2009 report findings are unreliable because they are based upon flawed methodologies that informed the 2006-2008 report, which PG&E detailed in its comments on the 2006-2008 report. NTG, for example. PG&E does not believe that more than 1/3 <sup>rd</sup> of program savings from 2009 is attributable to free-ridership. Additionally, interactive effects, EULs and realization rates resulted in artificially low savings estimates. PG&E also commented on 2006-2008 issues related to baseline assumptions and res/non-res ratios for CFLs and issues surrounding stakeholder process.	Energy Division is implementing Ordering Paragraph 15 from D.10-04-029, which states, “Results from the final 2006-2008 evaluation reports shall be used as inputs for calculating the energy impacts of 2009 programs,” so the claim that 2009 report findings are unreliable is incongruous with the expressed direction of a Commission decision. The 2006-2008 input parameters were updated and applied pursuant to the January 2006 ALJ Ruling in R. 01-08-028. The 2009 records were updated consistent with D.10-04-029. . Energy Division corrected that were identified in comments and re-ran new savings numbers for the final report.
PG&E	5	2009 report should use 2008-specific evaluation results instead of using 2006-2008 averages, given that programs in 2008 more closely resembled 2009 programs.	2008-specific results were not generated as a result of the 2006-2008 evaluation. In addition, Energy Division is implementing Ordering Paragraph 15 from D.10-04-029, which states, “Results from the final <u>2006-2008 evaluation reports</u> shall be used as inputs for calculating the energy impacts of 2009 programs.” (emphasis added)

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PG&E	5-7	<p>2009 report should credit savings and benefits associated with all CFL's incented during the 2006-2008 program, but which were not installed prior to the close of the 2006-2008 cycle.</p> <p>Two issues: 1) Bulbs sold to customers but not installed should be credited in 2009. 2009 res installation rate of .67 despite 06-08 finding that 97% of CFLs sold would be installed within 2 years of close of program cycle. 06-08 report also applied a .73 installation rate for non-res CFLs, despite ULP report finding that 19% of those sold were in storage. Savings and benefits should be credited in year measures are installed, regardless of which program cycle incented. 06-08 report did not recognize savings, therefore 09 should. 6.8 million bulbs (SEE ULP report) should count in 2009.</p> <p>2) Bulbs shipped to retailers but not yet installed should be included in 2009 Draft Report. The 2009 report should include additional savings and benefits equally to 12% of the total res/non-res CFLs incented in 2006-2008. (12% of bulbs shipped to retailers in 2006-2008 were not sold before the end of</p>	<p>Energy Division addressed this issue and included savings from CFLs incented during the 2006-2008 program period that were installed in 2009. Please see Attachment R for methodology.</p>

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		2008.)	
PG&E	7	2009 Report fails to properly credit savings from C&S activities. Table 6 should be revised to include 100% of post-2005 C&S savings as opposed to only 50%. Correct draft report on page 7 to credit 100% of “ <i>post-2005</i> C&S advocacy work.” Additionally, report cites D07-10-032 when stating that it will credit only 50% of pre-2006 advocacy work. There is little justification for this. D10-04-029 said “concerns about counting C&S savings pre-2006 have been resolved to allow 100% of savings to be counted towards goals.” Although decision was in context of 2010-2012 implementation, no reason not to recognize 100% of savings from pre-2006 work given Commission policy.	The C&S savings are included in the 2009 report and shown in Table 6. Table 6 in the draft reports includes the correct C&S savings, but was mislabeled. Please see Appendix Q found at <a href="http://www.cpuc.ca.gov/NR/rdonlyres/DB366710-9F5B-4B71-B29B-B1C47AD6D762/0/AppendixQ_CandS_Savings.doc">http://www.cpuc.ca.gov/NR/rdonlyres/DB366710-9F5B-4B71-B29B-B1C47AD6D762/0/AppendixQ_CandS_Savings.doc</a> for an explanation on the methodology.
PG&E	8	LIEE savings should reflect 2009 achievements. 2009 Report does not account for LIEE savings and should be corrected to do so per D0709043. 06-08 LIEE program savings (table 5, 06-08 Scenario Analysis Report) are 78.7 GWh, 16.2MW, and 3.79 MMTherms. These are identical to those figures in table 6 for 2006-2009 LIEE savings (i.e. LIEE savings are not included).	2009 LIEE savings were left out of the draft report (Table 6), but have been included in the Final Report .
	9	2009 Report illustrates need for stakeholder involvement in evaluating and adopting policies	Energy Division acknowledges this comment from PGE, but notes this comment is outside the scope of providing

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		<p>that further the goals of evaluation. Issues regarding accuracy of 06-08 and 2009 savings estimates are related to specific policy issues with major impacts on estimates. Such policies should be vetted and discussed with stakeholders prior to evaluation, preferably before start of program cycle. Evaluated savings will thus be more accepted by all parties. Commission should revisit:</p> <ul style="list-style-type: none"> <li>• Spillover effects and how to count</li> <li>• Counting only measures incented, installed and operational within a single cycle</li> <li>• Determination of appropriate baselines</li> <li>• Using as-is conditions at time of inspections for short EUL measures.</li> <li>• Maximum EUL of 20 years for all measures.</li> </ul> <p>(issues addressed specifically in Appendix B, which follows)</p>	<p>responses to specific comments on the report.</p>
PG&E	9	<p>2009 Report should be updated to reflect the changes referenced in these comments and to include an additional scenario utilizing the same methodology that the Commission adopts in resolving the 2006-2008 true up. Because of 06-08 inaccuracies, findings in 2009 report are questionable and do not paint an</p>	<p>Ordering Paragraph 4 of D.10-12-049 instructs the utilities to file applications by June 30, 2011 that calculate the energy efficiency incentive for 2009. Those utility applications will present the scenario using the same methodology that the Commission adopted in resolving the 2006-2008 true up.</p>

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		accurate or reasonable picture of the savings realized in 2009. PG&E recommends that the commission NOT adopt this report for the purpose of making any findings regarding portfolio savings. Revise Report to reflect all changes herein, thus giving report greater confidence level, though it should still only be used for informational purposes. 2009 report should be updated to include a scenario that uses the same methodology used in finalizing 06-08 true-up, as it will determine the manner and extent to which 06-08 report will be used to calculate earnings.	
SEMPRA	1	The same inaccurate studies used to inform the 06-08 Evaluation Report are being used to evaluate Sempra’s 09 programs. This is inappropriate and perpetuates the errors prevalent in the 06-08 Evaluation Report.	Energy Division is implementing Ordering Paragraph 15 from D.10-04-029, which states, “Results from the final 2006-2008 evaluation reports shall be used as inputs for calculating the energy impacts of 2009 programs.”
SEMPRA	1	The “Verification Report” should reflect Sempra’s 2009 LIEE savings	2009 LIEE savings were left out of draft report but have been included in the Final Report.
SEMPRA	1	SEMPRA recommends that ED determine savings based on the same scenario analyses presented in the Scenario Analysis Report.	Energy Division’s report determines savings based on Commission Ordering Paragraph 15 from D.10-04-029, which states, “Results from the final 2006-2008 evaluation reports shall be used as inputs for calculating the energy impacts of 2009 programs.”
SCE	2	The Draft Report is not a relevant measurement of the 2009 programs. Instead	Energy Division is implementing Ordering Paragraph 15 from D.10-04-029, which states, “Results from the final 2006-2008

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		of evaluation, it provides a broad estimation of savings extrapolated from 06-08, perpetuating the flaws of that report and methodologies determined to be inappropriate by the Commission. Additionally, the environment of 2009 was different than 06-08 and the report continues to use inappropriate DEER version. The report is a VERIFICATION REPORT, not an evaluation. Protocols state that verification requires on-site measure installation verification, which didn't happen for 2009. Instead, it relies on incomplete telephone surveys (Upstream CFL). There were no updates to any 06-08 findings, the report ignored inadequacies highlighted in SCE's comments on 06-08 report, and used poorly supported "professional judgments" that equally- or more-qualified professionals disagreed with.	evaluation reports shall be used as inputs for calculating the energy impacts of 2009 programs."
SCE	3	The Report undercounts CFL's installed in 2009. 06-08 report indicated that 31% of 06-08 CFL's were not yet installed and 13% were still on store shelves. Report does not follow up on assumption that these bulbs would produce future savings and omits them completely in savings calculations.	Energy Division addressed this issue and included savings from CFLs incented during the 2006-2008 program period that were installed in 2009. Please see Attachment R for methodology.
SCE	4	The report undervalues cost-effectiveness by	This is true and Ordering Paragraph 4 of D.10-12-049 states

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		not including net benefits from Codes and Standards. Commission policy states that “100% of verified savings from post-2005 C&S advocacy count towards goals.” For example, net benefits from 2008 Title 24 Tier II lighting should be included. D0912045 concluded that “since the requisite data will be incorporated for 2010 true-up, IOUs will be made whole for effects of any updated data that may change the incentive earnings amount.” Omission of information is derogation of Commission direction.	that in their applications for interim earnings claims the utilities may, “..incorporate estimated net benefits attributable to post-2006 C&S program advocacy efforts.”
SCE	5	Report uses the wrong version of DEER 2008, relying on DEER 3.02, that ED already determined was not appropriate for 2010-2012. SCE commented on this version in 06-08 Evaluation Report comments – comment was not addressed. Report needs to be corrected to use DEER 2.05 in order to be compliant with Commission policy.	Energy Division’s work on interactive effects is based on DEER 2.05, but corrects for a normalization error that made the refrigerator numbers too low. This work, including the correction, is available at <a href="http://www.edcentralserver.com/ERT/B.%20%20HVAC%20Interactive%20Effects.zip">http://www.edcentralserver.com/ERT/B.%20%20HVAC%20Interactive%20Effects.zip</a> and <u>forms the basis for the proposed release of DEER 3.02. (ED has never used DEER 3.02.)</u>
SCE	6	Report has extensive factual and technical errors and is unreliable as a tool to evaluate 2009 programs. Despite fact that DEER 2008 updates are inappropriate and should not be used, they were not applied correctly in the Report. For virtually every type of update addressed in DEER 2008, report erred in	In the 2009 report, 0.9% of SCE’s UES records were updated using DEER, 2.38% of SCE’s NTG records were updated using DEER, and 27% of SCE’s EUL records were updated using DEER. IMCs were not updated and building type is not one of the parameters that can get a DEER update. So only EUL records relied heavily on DEER updates. Before an input sheet is submitted, the ERT application checks the data by

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		applying them to SCE’s portfolio (NTG, EUL’s, IMC’s, UES, and building type mapping). Quality control process was not adhered to.	running 16 quality control queries against the input sheet. Contractors may not submit ERTs until either the ERTs pass QC tests pass or the contractor can explain why a certain test failed.
SCE/Attachment A		1. The Draft Report incorrectly applies interactive effects	Energy Division’s work on interactive effects is based on DEER 2.05, but corrects for a normalization error that made the refrigerator numbers too low. This work, including the correction, is available at <a href="http://www.edcentralserver.com/ERT/B.%20%20HVAC%20Interactive%20Effects.zip">http://www.edcentralserver.com/ERT/B.%20%20HVAC%20Interactive%20Effects.zip</a> and forms the basis for the <i>proposed</i> release of DEER 3.02. (ED has never used DEER 3.02.) With respect to the quote about interactive effects only impacting lighting measures (Appendix C, p.36), it is saying that interactive effects only apply to lighting, which would be true from the point of view of someone only doing commercial. Interactive effects do play a part in residential Appliance Recycling.  With respect to the interactive effects values being applied twice – if this were the case, Energy Division would need to be provided with a specific list of these occurrences to verify if there were a double application of interactive effects.
		2. The Draft Report incorrectly applies DEER measures	These comments are not specific enough for Energy Division to determine if a specific program or measure was incorrectly updated.
		3. Incorrect use of DEER 2008 Climate Zone	For the upstream program, there is no data to support the actual climate zone where the measures were installed.



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			<p>Therefore, the value of “system” is used. SCE’s E3 calculator does support a “system value”.</p> <p>Changes were made to the climate zone based on the zip code provided in the tracking database. Several of the examples cited by SCE were changed to the correct climate zone for a given zip code. The other “issues” appear to be due to zip codes that span over multiple climate zones. Some zip codes were changed from one climate zone to another climate zone if that zip code includes both climate zones. The logic used did not change the climate zone identified as a CEC climate zones for that zip code.</p>
		<p>4. Load profiles applied by the Draft Report are incorrect</p>	<p>These measures are all found in the upstream portion of SCE2501. In the E3 filed by SCE, they claimed these records as Residential. As part of the update, the proper Res/NonRes split was applied and the load shape was updated for the NonRes records. It is unclear if the CFL fixtures purchased through the program are installed in the same spaces types as screw-in CFLs. Most CFL fixtures are pin-based and not screw-in. Therefore, CFL fixtures do not necessarily have the same load shape as screw-in CFLs.</p>
		<p>5. Lack of consistency in application of DEER 2008 EUL</p>	<p>The proper source for the EUL can be found as a link to the ED Verification Reports from 2008:  <a href="http://www.cpuc.ca.gov/NR/ronlyres/DC113DFE-6DD3-4E8E-A670-41F3F66FE0EB/0/AppendixE_DEER2008DatabaseDefinitionEULv2.xls">http://www.cpuc.ca.gov/NR/ronlyres/DC113DFE-6DD3-4E8E-A670-41F3F66FE0EB/0/AppendixE_DEER2008DatabaseDefinitionEULv2.xls</a></p>

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			<p>With respect to the comment about RUL for Appliance Recycling, Energy Division could not use an RUL that was part of a study because EULs and RULs were not part of the Residential Retrofit evaluation scope of work.</p> <p>Other comments about EUL were too vague to prepare a contract group specific response.</p> <p>Regarding the claim that the EUL was incorrectly applied to linear fluorescents, an EUL of 11 years was consistently used for all Residential Retrofit downstream lighting linear fluorescents.</p>
		<p>6. Draft Report erroneously alters pass through Unit Energy Savings (EUS) values</p>	<p>In response to the Palm Desert Partnership (SCE2566) disparity, there were a few lighting measures in the Palm Desert Partnership where 2006-2008 study results were not applicable (due to a measure type/sector combination) and where DEER was not applicable, and the non-interactive UES's were simply passed through. However, the interactive effects table was applicable and was used to produce the interactive UES numbers (eg. EDUESkWi, per the example). Therefore, in the SCE2566 example below, non-interactive UES equals ex-ante UES; however, interactive UES has interactive effects applied and does not equal the other two parameter values.</p> <p>The measures in SCE2501 and 2507 are zero quantity</p>

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			<p>measures; as a result, there is no effect to net savings. These records could be removed manually to avoid any confusion.</p> <p>For the SCE2510 program, all values were passed-through except for NTG.</p>
		7. Lack of sufficient documentation	<p>The file, “2009_ERT_ARP_UES_Calcs.xlsx” will be posted to the CPUC website:  <a href="http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/EM+and+V/2009_Energy_Efficiency_Evaluation_Report.htm">http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/EM+and+V/2009_Energy_Efficiency_Evaluation_Report.htm</a></p> <p>The file, “DEER2008 Database Definition – EUL v2.xls” can be found here:  <a href="http://www.cpuc.ca.gov/NR/rdonlyres/DC113DFE-6DD3-4E8E-A670-41F3F66FE0EB/0/AppendixE_DEER2008DatabaseDefinitionEULv2.xls">http://www.cpuc.ca.gov/NR/rdonlyres/DC113DFE-6DD3-4E8E-A670-41F3F66FE0EB/0/AppendixE_DEER2008DatabaseDefinitionEULv2.xls</a></p>
		8. Improper application of impact studies	<p>With respect to the CFL savings that have been defaulted to zero, this is because these measures are zero quantity measures; as a result, there is no effect to net savings.</p> <p>With respect to LEDs, LED UES values were weighted by the shipping distribution of such measures to produce one single weighted UES for all LEDs for the ERT.</p> <p>With respect to fixtures, fixture UES values were weighted by</p>

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			<p>the shipping distribution of such measures to produce one single weighted UES for all fixtures for the ERT.</p>
SCE/Technical Comments		<p>1. SCE 2500 – ARP The ERT updates for this program are based on DEER-adjusted <i>in situ</i> UES estimates for refrigerators. The freezer recycling measure was not evaluated although it is an integral part of the program. Despite the past history of greater program influence on freezer recycling, the NTG for this measure is assumed in the ERT update to be the same as that for the refrigerator recycling. Previous evaluations and studies have consistently demonstrated freezer recycling NTG to be higher than refrigerator NTG (0.702 vs. 0.614 in 2004-05). The NTG for freezer recycling measure should have been “pass through” because it was not evaluated in the Draft Report.</p>	<p>This program was re-ran for the final report to pass through the NTG values.</p> <p>The overall approaches to calculating the PEB for the ARP that are subject to criticism in these comments include four steps:</p> <ol style="list-style-type: none"> <li>Utilize the recycled appliance rated annual unit energy consumption (UEC) from the most recent evaluation as a starting point (established by performing laboratory tests using the DOE test method). However, instead of using the overall adjusted DOE UEC values derived by Energy Division using the 2004-2005 evaluation data, which covered both refrigerators and freezers (the 2006-2008 evaluation provided updates to this information only for refrigerators), SCE additionally adjusted the overall 2004-2005 DOE UEC values based upon actual sizes of units collected in 2009, assuming those units were well-represented by the 2004-2005 sample.</li> </ol> <p>The 2006-2008 evaluation found that the sample, for the first time, was dominated by appliances built after the major DOE standards change from the 1990’s and thus the typical unit rated UEC was substantially lower in the 2006-2008 ARP programs than in previous portfolio cycles. This is the first</p>

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			<p>major error in the 2009 claims corrected by the Energy Division ERT effort.</p> <p>2. Utilize the DEER methodology to convert these rated or test condition UEC values into estimated in situ values. Energy Division does not accept that the physical location and use of a refrigerator or freezer should not be used to modify the rated UEC of the appliance. The 2004-2005 and the 2006-2008 evaluations both proposed methods that could be utilized for converting the reference UEC values into expected in situ values to account for variations in the appliance size and features, placement (primary or secondary, in house or in garage), and household demographics (number of occupants, etc.). DEER also includes a methodology, which Energy Division and its contractors believe is more robust and accurate, to convert the rated UEC into an in situ UEC for refrigerators and freezers utilizing survey data to establish household typical indoor temperature profiles for a range of house demographics. The DEER method places the appliance into that indoor environment and models how the house impacts the appliance energy consumption. The DEER method is far more appropriate than accepting the utility assumption that the rated UEC is the best estimation and that the differences between the rated and in situ UEC should be ignored.</p> <p>3. Utilize 2006-2008 evaluation updates to the DEER methodology to calculate HVAC interactive effects to be</p>

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			<p>applied to the energy savings impacts for recycled refrigerators and freezers. In opposition to Decision 09-05-037, the utilities’ claimed savings omit adjustments to gross savings due to the interaction with heating and cooling systems taking into account the climate variations as well as the variations of heating and cooling equipment types and saturations. Energy Division applied updated DEER HVAC interactive effects. Those updates were developed specifically for the 2006-2008 evaluations and took into account the latest data available on heating and cooling system types and saturations as well as climate based variations rather than simply applying the older DEER 2008 factors.</p> <p>4. Utilize 2004-2005 survey data to account for the fraction of the recycled appliance UEC which translates into a unit energy savings (UES.) The post-installation minus the pre-installation energy use is the energy savings. For the ARP, the recycled unit is the baseline and what happens when the unit is removed is the measure case. The utilities suggest that the post-recycling case is zero energy use by the recycled unit thus no further considerations need be examined. However, this ignores the CPUC policy that all savings are to be based upon the electric grid impact of the program activity, not the energy consumption impact on a specific device that was altered or removed by the program. The TRC/PAC (and thus PEB) calculation guidelines calculates</p>

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			<p>impacts for all rate-payers. In the case of the ARP the grid impact of the recycling program is not isolated to the location from which the recycled unit is collected nor the participant in the recycling program but influences appliance use at other locations by other ratepayers. A recycled unit may not be transferred, but the “would-be” users can still acquire an appliance, thus reducing the impact of ARP. Both the 2002-2003 and 2004-2005 ARP evaluation research projects performed surveys to address this issue, which was properly described in the 2004-2005 as a “baseline” or gross savings adjustment question and the 2006-2008 evaluation acknowledged the importance of this issue. The Energy Division ERT work utilized the 2004-2005 survey data (i.e., table 3-15 in the 2004-2005 report) to develop the gross savings adjustments to calculate a UES from the in situ UEC. The utilities’ 2009 ARP claims assume the full rated UEC for an appliance becomes a grid UES.</p> <p>In summary, the utilities prefer to not consider the issues discussed in 1-4 above at all and simply claim the full 2004-2005 rated UEC for the appliance as if it were an appropriate 2009 in situ UES. Energy Division rejects this incorrect approach.</p>
		<p>2. SCE 2501 – Residential Incentives - For attic installation, the reference to 0.75 installation rate cannot be located in the ERT documentation. For electric water</p>	<p>Install rate of attic insulation for SCE2501 was the average of the three evaluated install rates for the three evaluated attic insulation programs (from PGE2000, SCG35317, and SDGE3024). For water heater NTG, it’s true that an</p>

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		<p>heaters, gas water heater results from 2006-08 evaluation have been, without exploring if parameters like NTG would be different for these measures. Also installation rate for the gas water heater is applied, which could have been a “pass through” value for electric water heater measures.</p>	<p>evaluation has not been performed for electric water heaters but extrapolation from gas water heaters is the best estimate. For install rate of water heaters, the other IOUs had evaluated gas heater parameters applied to electric heaters, so it’s only fair that they apply to SCE’s electric heaters.</p>
		<p>3. SCE 2502 – Multifamily - The ERT update for UES relied on data from a very differently delivered Upstream Lighting Program and lumped the major measures of this program with “downstream lighting program” that includes totally distinct programs (a lighting exchange program, a mobile home customer direct install program, and a multifamily landlord rebate program).</p>	<p>Since the ULP provided the most comprehensive information on delta watts, hours of use, and coincidence factors, these estimates were applied to other programs that incented (or gave away) CFLs for use in extrapolating the UES. Direct install or giveaway programs, however, had installation and NTG rates that could vary from ULP and therefore NTG and installation rates were not extrapolated between ULP and DLP programs. Installation rates and NTG numbers were specific to the primary distinct programs (such as lighting exchange). Additionally, HOU &amp; peak coincidence estimates for multifamily programs were measured through primary data collection of multifamily program participants.</p>
		<p>4. SCE 2504 – Integrated School - The kWh UES for Green Campus do not match the info in Appendix C. The program was technically evaluated, but the UES was passed through, indicating that ex-post should match ex-ante, which is indicated in tables M-16 and M-17. This</p>	<p>The parameters are properly applied but the documentation is incorrect. The Tables M-16 and M-17 are reflective of 2006-08 program level savings. The Savings Table 1A and 1B are shown below for the properly applied UES, Installation rate, and NTG for the 2009 program as reported in the Specialized Commercial Volume 2 Report.          Table 1A and 1B: Total Energy Savings and Demand Savings</p>



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		<p>is not the case. the kW does match. In addition, the Installation rate does not match. NTG does, although it is called “passthru”. There are interactive effects, which are not evaluation-based, and yet it still says “OthEMV”. This was also the issue in the 2006-08 ERT. The UESs for Livingwise are incorrect. All the kW values are correct, except for faucet aerators and shower heads; these were the only two kW values updated by the study, so all were passed through, some erroneously. The kWh estimates for the Livingwise program seem to be incorrect. For example, the 2006-08 evaluation of the program found a gross realization rate of 90% on 23 W CFL. SCE claimed 43.2957954 kWh, but the ERT contains a value of 30 kWh (exactly), which is not equal to <math>43.2957954 * 0.90</math>, which is 38.97. The 2006-08 ERT applied the installation rate twice, once in the UES itself, and then including an installation rate different from 1. This does not seem to be a problem, but the exact nature of the problem is unclear.</p>	<p>for 2009 Integrated Schools: Green Campus</p> <table border="1" data-bbox="1163 358 1850 537"> <thead> <tr> <th></th> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> </tr> <tr> <th>High Impact Measure</th> <th>Program with Measure</th> <th>HIM Ex-ante Gross kWh Savings</th> <th>HIM Ex-post Gross kWh Savings</th> <th>HIM Gross kWh Realization Rate [Column B/Column A]</th> <th>HIM Install Rate</th> <th>HIM Installed Ex-post Gross kWh Savings [Column B * Column D]</th> <th>HIM NTGR</th> <th>HIM Ex-post Net kWh Savings [Column E * Column F]</th> </tr> </thead> <tbody> <tr> <td>Integrated Schools: Green Campus</td> <td>SCE2504</td> <td>2,662</td> <td>2,356</td> <td>89%</td> <td>68%</td> <td>1,602</td> <td>0.800</td> <td>1,282</td> </tr> </tbody> </table> <table border="1" data-bbox="1163 553 1850 732"> <thead> <tr> <th></th> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> </tr> <tr> <th>Non-High Impact Measure without Site M&amp;V</th> <th>Program with Measure</th> <th>Measure Ex-ante Gross kW Savings</th> <th>Measure Ex-post Gross kW Savings</th> <th>Measure Gross kW Realization Rate [Column B/Column A]</th> <th>Measure Install Rate</th> <th>Measure Installed Ex-post Gross kW Savings [Column B * Column D]</th> <th>Measure NTGR</th> <th>Measure Ex-post Net kW Savings [Column E * Column F]</th> </tr> </thead> <tbody> <tr> <td>Integrated Schools: Green Campus</td> <td>SCE2504</td> <td>0.45</td> <td>0.45</td> <td>100%</td> <td>68%</td> <td>0.30</td> <td>0.800</td> <td>0.24</td> </tr> </tbody> </table> <p>The parameters are properly applied but the documentation is incorrect. The Tables M-16 and M-17 are reflective of 2006-08 program level savings. The Savings Table 2A and 2B are shown below for the properly applied UES, Installation rate, and NTG for the 2009 program as reported in the Specialized Commercial Volume 2 Report.</p> <p>Table 2A and 2B: Total Energy Savings and Demand Savings for 2009 Integrated Schools: Living Wise</p>			A	B	C	D	E	F	G	High Impact Measure	Program with Measure	HIM Ex-ante Gross kWh Savings	HIM Ex-post Gross kWh Savings	HIM Gross kWh Realization Rate [Column B/Column A]	HIM Install Rate	HIM Installed Ex-post Gross kWh Savings [Column B * Column D]	HIM NTGR	HIM Ex-post Net kWh Savings [Column E * Column F]	Integrated Schools: Green Campus	SCE2504	2,662	2,356	89%	68%	1,602	0.800	1,282			A	B	C	D	E	F	G	Non-High Impact Measure without Site M&V	Program with Measure	Measure Ex-ante Gross kW Savings	Measure Ex-post Gross kW Savings	Measure Gross kW Realization Rate [Column B/Column A]	Measure Install Rate	Measure Installed Ex-post Gross kW Savings [Column B * Column D]	Measure NTGR	Measure Ex-post Net kW Savings [Column E * Column F]	Integrated Schools: Green Campus	SCE2504	0.45	0.45	100%	68%	0.30	0.800	0.24
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		<p>Similarly, the evaluation found a gross realization of 13834% for showerheads, but the ex-post value in the ERT matches the ex-ante value for a realization rate of 100%, even though the source is labeled OthEMV.</p>	<table border="1"> <thead> <tr> <th></th> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> </tr> <tr> <th>High Impact Measure</th> <th>Program with Measure</th> <th>HIM Ex-ante Gross kWh Savings</th> <th>HIM Ex-post Gross kWh Savings</th> <th>HIM Gross kWh Realization Rate [Column B/Column A]</th> <th>HIM Install Rate</th> <th>HIM Installed Ex-post Gross kWh Savings [Column B * Column D]</th> <th>HIM NTGR</th> <th>HIM Ex-post Net kWh Savings [Column E * Column F]</th> </tr> </thead> <tbody> <tr> <td>Integrated Schools: LivingWise Screw-in CFL 23 Watt</td> <td>SCE2504</td> <td>723,692</td> <td>505,590</td> <td>70%</td> <td>68%</td> <td>343,801</td> <td>0.800</td> <td>275,041</td> </tr> <tr> <td>Integrated Schools: LivingWise Showerhead</td> <td>SCE2504</td> <td>18,819</td> <td>43,847</td> <td>233%</td> <td>45%</td> <td>19,731</td> <td>0.800</td> <td>15,785</td> </tr> <tr> <td>Integrated Schools: LivingWise Faucet Aerators</td> <td>SCE2504</td> <td>28,228</td> <td>22,983</td> <td>81%</td> <td>38.5%</td> <td>8,848</td> <td>0.800</td> <td>7,079</td> </tr> <tr> <td>Integrated Schools: LivingWise Air Filter Alarm</td> <td>SCE2504</td> <td>119,400</td> <td>151,677</td> <td>127%</td> <td>30%</td> <td>45,503</td> <td>0.800</td> <td>36,402</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th></th> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> </tr> <tr> <th>Non-High Impact Measure without Site M&amp;V</th> <th>Program with Measure</th> <th>Measure Ex-ante Gross kW Savings</th> <th>Measure Ex-post Gross kW Savings</th> <th>Measure Gross kW Realization Rate [Column B/Column A]</th> <th>Measure Install Rate</th> <th>Measure Installed Ex-post Gross kW Savings [Column B * Column D]</th> <th>Measure NTGR</th> <th>Measure Ex-post Net kW Savings [Column E * Column F]</th> </tr> </thead> <tbody> <tr> <td>Integrated Schools: LivingWise Screw-in CFL 23 Watt</td> <td>SCE2504</td> <td>123.39</td> <td>123.39</td> <td>100%</td> <td>68%</td> <td>84</td> <td>0.800</td> <td>67</td> </tr> <tr> <td>Integrated Schools: LivingWise Showerhead</td> <td>SCE2504</td> <td>4.14</td> <td>4.14</td> <td>100%</td> <td>45%</td> <td>2</td> <td>0.800</td> <td>1</td> </tr> <tr> <td>Integrated Schools: LivingWise Faucet Aerators</td> <td>SCE2504</td> <td>6.21</td> <td>6.21</td> <td>100%</td> <td>38.5%</td> <td>2</td> <td>0.800</td> <td>2</td> </tr> <tr> <td>Integrated Schools: LivingWise Air Filter Alarm</td> <td>SCE2504</td> <td>41.44</td> <td>41.44</td> <td>100%</td> <td>30%</td> <td>12</td> <td>0.800</td> <td>10</td> </tr> </tbody> </table>			A	B	C	D	E	F	G	High Impact Measure	Program with Measure	HIM Ex-ante Gross kWh Savings	HIM Ex-post Gross kWh Savings	HIM Gross kWh Realization Rate [Column B/Column A]	HIM Install Rate	HIM Installed Ex-post Gross kWh Savings [Column B * Column D]	HIM NTGR	HIM Ex-post Net kWh Savings [Column E * Column F]	Integrated Schools: LivingWise Screw-in CFL 23 Watt	SCE2504	723,692	505,590	70%	68%	343,801	0.800	275,041	Integrated Schools: LivingWise Showerhead	SCE2504	18,819	43,847	233%	45%	19,731	0.800	15,785	Integrated Schools: LivingWise Faucet Aerators	SCE2504	28,228	22,983	81%	38.5%	8,848	0.800	7,079	Integrated Schools: LivingWise Air Filter Alarm	SCE2504	119,400	151,677	127%	30%	45,503	0.800	36,402			A	B	C	D	E	F	G	Non-High Impact Measure without Site M&V	Program with Measure	Measure Ex-ante Gross kW Savings	Measure Ex-post Gross kW Savings	Measure Gross kW Realization Rate [Column B/Column A]	Measure Install Rate	Measure Installed Ex-post Gross kW Savings [Column B * Column D]	Measure NTGR	Measure Ex-post Net kW Savings [Column E * Column F]	Integrated Schools: LivingWise Screw-in CFL 23 Watt	SCE2504	123.39	123.39	100%	68%	84	0.800	67	Integrated Schools: LivingWise Showerhead	SCE2504	4.14	4.14	100%	45%	2	0.800	1	Integrated Schools: LivingWise Faucet Aerators	SCE2504	6.21	6.21	100%	38.5%	2	0.800	2	Integrated Schools: LivingWise Air Filter Alarm	SCE2504	41.44	41.44	100%	30%	12	0.800	10
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		<p>5. SCE 2517 – Business Incentives - Net to gross values for specific measures are incorrect.</p>	<p>Each of the lighting NTGR values in question can be found in table 4-16 of the Small Commercial Contract Group Direct Impact Evaluation Report. There are no missing NTGRs in the ERT as stated in one of the comments.</p> <p>For strip curtains, the updates were done in accordance with the 2006-2008 evaluation updates performed by ADM. For UES “These records were not updated as the HIM contractor (ADM) did not feel the records were sufficiently comparable to those sampled for that HIM study” however, for NTGR</p>																																																																																																												

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			<p>“These measures and the SCE2517 Express program element were deemed sufficiently similar to the ADM statewide Refrigeration Strip Curtain study to allow the application of the update values from that study.”</p> <p>For glass door freezer/cooler door gaskets, in the 2009 report, all 06-08 evaluation result updates are called OthEMV. Updates were done in accordance with the 2006-2008 evaluation updates performed by ADM and “These [passed through] records have a building type that was not represented by the ADM Refrigeration Door Gasket study and thus no update was applied.”</p>
		<p>6. SCE 2512 – Savings by Design - Appendix C states that “only the UES and NTGR parameters for SCE2512 were updated using direct evaluation results. For the other parameters, the ex-ante values from the IOU tracking systems were passed through.” However, in the ERT, the source of information for ED NTG for kW and kWh is listed as “other EMV.” Also, in Appendix C it states that “The NTGRType was set to “EMV” for all NRNC records” which was not the case in the ERT. So it appears that the ERT incorrectly imported the NTG values.</p>	<p>For SCE2512, the documentation for NTG should have read “OthEMV.”</p>
		<p>7. SCE 2530 – UC/CSU Partnership - It is</p>	<p>In SCE2530, interactive effects were not included in the</p>

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		<p>unclear how the interactive effects in the gross realization rate apply between the EDUES and EDUES with interactive effects fields.</p>	<p>EDUES parameters; only the interactive EDUES parameters (eg. EDUESkWhi) included interactive effects when applicable. The kWh Gross Realization Rate for all SCE2530 retrofits (including lighting) is 0.57. After interactive effects are applied to lighting measures addressed by the interactive effects lookup table, the equivalent kWh GRR for certain SCE2530 lighting retrofits would be 0.66, depending on the specific lighting measure. Although the kWh GRR with interactive effects is not a number reported in the LGP report, it can be back-calculated after applying the applicable interactive effects (i.e. to obtain the cited RR of 0.66). Per the ED interactive effects lookup, interactive effects are dependent on IOU, building type, vintage, measure, and baseline. For the project mentioned above, Pomona Bldg 5, it was unclear which lighting technologies were used in the retrofit; therefore, interactive effects were not applied for this project. Similarly, interactive effects were not applied to a number of UC/CSU projects that had several different measure types (lighting, HVAC, etc.) grouped together into a single line item, which made it impossible to choose the correct interactive effect value.</p>
		<p>8. SCE 2566 – Palm Desert - All NTG values were correctly applied based on Table 8-3 in the LGP report, but this Table was not referenced in Appendix C. The Appendix C appears to be missing a lot of documentation.</p>	<p>Table 7.8 (in the section titled “Procedures for 2009 ERT Update for the Palm Desert Partnership Energy Efficiency Program” of Appendix C) contains all sources of updates for SCE2566. Table 8-4 of the LGP report, “NTGR for Res, Non-RCE, Non Early Retirement measures” is cited in Table 7.8 of Appendix C.</p>

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