APPENDIX 2

Explanation of Adopted Adjustment to 2009 Incentive Earnings Claims For Effects of Double-Counting of Compact Florescent Light Bulbs Installations

This appendix presents the supporting calculations the result in the adjustments to the adopted 2009 Risk/Reward Incentive Mechanism Earnings based on the errors identified by the Energy Division Staff relating to the counting of savings attributable to compact florescent light (CFL) bulb installations.

Table 1 below shows the utilities' original earnings claim amount in Column B, and the reductions in earnings necessary to account for double-counting of CFLs in Column C, followed by the new earnings amount in Column D (which is Column B + Column C).

Table 1 - Adjusted Earnings by Utility			
A	B	C	D
	Original Claim	**Reduction based on double-counting adjustment**	**Adjusted Earnings**
PG&E	32,446,184	-6,698,028	25,748,156
SCE	27,572,109	-7,031,301	20,540,808
SDG&E	15,108,031	-1,436,034	13,671,997
SCG	2,037,721		2,037,721
	77,164,045	**-15,165,363**	**61,998,682**

Tables 2 - 4 below further explain how the values in Table 1 – Column C were calculated. Table 2 shows the adjustments made to the net benefits derived from 2009 program CFLs. Adjustments to the 2009 net benefits amount were made for both residential and non-residential bulbs. This allows for adjustments for the proper install rate to be used (in Columns B and F) and for the proper quantities to be used to account for the residential and non-residential split (in Columns C and G). The values in Columns D and H represent the 2009 electric and gas benefits attributable to the 2009 bulbs from the utility E3 calculators. We can take the adjustment factors in Columns B and C and apply them to the values in Column D to derive an expected change in the net benefits for the 2009 residential bulbs in Column E. The formula used is ((Column B - 1) X Column D) + ((Column C - 1) X Column D). The exact same process is applied to the non-residential bulbs, using the adjustment factors in Columns F and G and applying them to the values in Column H to get the expected change in benefits for the 2009 non-residential bulbs in Column I. The formula used in Column I is ((Column F -1) X Column H) + ((Column G - 1) X Column H).

Table 2 - Adjustments Made to 2009 Net Benefits

A	B	C	D	E	F	G	H	I
	Residential				**Non-Residential**			
	Install rate adjustment	**Quantity adjustment**	**2009 claims elec+gas benefit $**	**Change expected in benefits**	**Install rate adjustment**	**Quantity adjustment**	**2009 claims elec+gas benefit $**	**Change expected in benefits**
PG&E	0.32	0.99	85,379,281	(58,698,106)	1.17	0.99	35,649,754	5,622,994
SCE	0.47	1.00	150,428,479	(80,284,568)	1.11	1.00	45,027,815	4,895,506
SDG&E	0.00	0.95	14,189,412	(14,898,882)	1.18	1.00	4,037,218	733,788

Table 3 below shows the adjustments made to the net benefits derived from 2006-2008 program CFLs. Similar adjustments were made to adjust for 2006-2008 program CFLs that were either purchased and placed into storage or not sold until 2009 then were installed in 2009. The adjustments were made to both residential and non-residential bulbs. The adjustment factors used can be found in Columns B and C for the residential bulbs and in Columns F and G for the non-residential bulbs. The benefits in Column E (for residential) and Column H (for non-residential) represent the change in net benefits due to these adjustments for stored and unsold 2006-2008 program CFLs. The benefits are adjusted using the following formula: ((Column B – 1) X Column D) + ((Column C – 1) X Column D) to get the expected change in benefits once the 2006-2008 install rates and quantities were adjusted for the residential bulbs. To adjust the non-residential benefits, a similar formula was used: ((Column F – 1) X Colum H) + ((Column G – 1) X Column H).

Table 3 - Adjustments Made to 2006-2008 Net Benefits

A	B	C	D	E	F	G	H	I
	Residential				**Non-Residential**			
	Model Claim 06-08 Install rate	**06-08 Claim Quantity Adjust**	**06-08 claims elec+gas benefit $**	**Change expected in benefits**	**Model Claim 06-08 Install rate**	**06-08 Claim Quantity Adjust**	**06-08 claims elec+gas benefit $**	**Change expected in benefits**
PG&E	0.83	0.94	147,544,595	(34,160,186)	0.93	0.71	23,454,664	(8,450,819)
SCE	0.86	0.94	102,073,238	(20,110,655)	0.94	0.60	10,609,760	(4,947,441)
SDG&E	0.86	0.95	28,413,405	(5,534,551)	0.94	0.68	2,154,570	(815,122)

The final step is to take the expected change in benefits from Tables 2 and 3 and apply the 7% earnings rate to calculate the total expected change in earnings as a result of these adjustments. Table 4 shows the resulting change in expected benefits in Columns B, C, D, and E. Column F is the sum of all the expected changes in benefits (Column B + Column C + Column D + Column E). Finally, the 7% earnings rates is applied to the value in Column F to generate the expected change in the utility earnings claim as a result of the adjustments made in Tables 2 and 3. These numbers match the values in Table 1 – Column C above.

Table 4 - Adjustments Made to Total Earnings

A	B	C	D	E	F	G
Source	*Table 2 - Column E*	*Table 2 - Column I*	*Table 3 - Column E*	*Table 3 - Column I*		
Change in Expected Benefit	2009 Residential	2009 Non-Residential	2006-2008 Residential	2006-2008 Non-Residential	TOTAL = (Column B + C + D + E)	Adjustment made to Earnings = Column F x 7%
PG&E	(58,698,106)	5,622,994	(34,160,186)	(8,450,819)	(95,686,117)	(6,698,028)
SCE	(80,284,568)	4,895,506	(20,110,655)	(4,947,441)	(100,447,158)	(7,031,301)
SDG&E	(14,898,882)	733,788	(5,534,551)	(815,122)	(20,514,768)	(1,436,034)

Adjusting the utilities' original earnings amount by the values found in Table 4 – Column G will result in the new earnings amount total of $61,998,682 (as shown in Table 1 above and repeated below again):

Table 1 - Adjusted Earnings by Utility

A	B	C	D
	Original Claim	**Reduction based on double-counting adjustment**	**Earnings Approved**
PGE	32,446,184	-6,698,028	25,748,156
SCE	27,572,109	-7,031,301	20,540,808
SDGE	15,108,031	-1,436,034	13,671,997
SCG	2,037,721		2,037,721
	77,164,045	**-15,165,363**	**61,998,682**

The following tabulation provides a summary description of the variables identified in the tables above, together with a brief description of the formulas used to calculate the 2009 RRIM Earnings Adjustments.

– Formulas Used in Tables

Name	Table	Column	Formula
Install Rate Adjustment	2	B (for Res), F (for Non-Res)	=2009 Install Rate from Kema Model / 2009 Upstream Lighting CFL install rate
Quantity Adjustment	2	C (for Res), G (for Non-Res)	= (Res_Non-Res Split that should have been used / Res_Non-Res Split that was used) / the quantity adjustment from the ERT input sheets found in the Energy Division evaluation report Appendix M1 for the IOU 2009 ULP screw-in CFL claims
2009 claims elec+gas benefit $	2	D (for Res), H (for Non-Res)	= The utility's electric benefits + gas benefits only for CFLs
2009 claims elec+gas benefit $ (SDGE Only)	2	H (for Non-Res)	= (ratio of SDGE Non-Res lamps to SCE Non-Res lamps) X SCE's Non-Res Benefits
Model Claim 06-08 Install rate	3	B (for Res), F (for Non-Res)	= [((Utility number of 2006-2008 bulbs in storage - the portion of residential or non-residential bulbs that were 2006-2008 bulbs sold in 2009 from the Kema model) / Utility number of 2006-2008 bulbs in storage)] + [the 2009 Install Rate from the Kema model) X (1 - ((Utility number of 2006-2008 bulbs in storage - the portion of residential or non-residential bulbs that were 2006-2008 bulbs sold in 2009 from the Kema model) / Utility number of 2006-2008 bulbs in storage))]
06-08 Claim Quantity Adjust	3	C (for Res)	= the ratio of 06-08 bulbs in storage from the Kema model to the 06-08 bulbs in storage from the 2009 input sheets
06-08 Claim Quantity Adjust	3	G (for Non-Res)	=[(storage rate from the small commercial report * invoice verifcation adjustment rate * leakage adjustment rate * the rate of bulbs sold in the cycle * (1 - the portion of residential sales) * the amount of rebated lamps sold in 2006-2008)] / 2006-2008 non-res bulbs in storage

(END OF APPENDIX 2)