Appendix E:

San Diego Gas & Electric Company

Table -
Savings Values Adjustment Factors

Appendix E: Table, Savings Values Adjustment Factors

DOCUMENTATION OF ENERGY SAVINGS ADJUSTMENTS USED IN SDG&E'S PY2015 PROGRAM FILING

SDG&E started the update process from PY2013 energy and peak demand assumptions using energy savings that were either in DEER2011 or workpaper savings values that were either updated based on the Energy Division's Dispositions or "Passed-through".

To update the PY2013 assumptions, SDG&E obtained a copy of the DEER2014 data ("D14v1.2_Measure_Energy-Impacts_SDG.zip") and the Lighting HVAC Interactive Effects Interactive Effects Workbook (the Workbook) posted at DEEResources.com in the DEER2014 Code Update area.

All interior lighting measures that have savings from SDG&E's workpapers were updated using interactive effects factors from the Workbook. SDG&E then replaced all of its measures that have savings from DEER2011 with the DEER2014 by a combination of primary key variables (e.g., IOU, MeasureID, Building Location, HVAC Type, etc.). If a measure was no longer active in DEER2014, the measure was linked to a valid DEER2014 measure. For example, DEER2011 measure "NE-HVAC-airAC-Pkg-lt65kBtuh-14p0seer" is superseded by "NE-HVAC-airAC-Pkg-lt55kBtuh-14p0seer".

For measures not addressed by the approaches described above, SDG&E first developed a dataset comprised of the intersection of DEER2011 and DEER2014. Using that dataset, SDG&E computed a set of energy savings ratios by Sector (Residential and Nonresidential) Use Category, Use Sub-category, Tech Type and Tech Group. The Vintage variable was constrained to existing buildings. These ratios were used as the basis for a set of kWh, KW and therm factors that would be applied to the respective savings values in a workpaper. The workpapers were aligned consistent with the Sector, Use Category, Use Sub-category, Tech Type and Tech Group based on SDG&E's judgment of the appropriate match. The respective factors are equal to 1.0 minus the ratio of the DEER2014 savings value relative to the DEER2011 savings value. A summary of the measure counts and savings affected by the above described approaches are included in Table E-1. SDG&E's kWh, KW and therm factors and sources are listed in Table E-2 below.

Table E-1

SDG&E 2015 Filing Measure Updates (excluding C&S)							
Savings Group	Measure Count	Electric Measure kWh	Percentage of kWh Savings	Electric Measure KW	Percentage of KW Savings	Gas Measure Therms	Percentage of Therm Savings
1 - WP with DEER IE	108	20,434,363	8%	4,687	12%	-	0%
2 - Updated DEER	216	57,665,786	23%	11,134	28%	247,472	7%
3 - DEER Based Factors	60	5,838,159	2%	1,256	3%	888,415	25%
4 - Custom	59	71,837,872	29%	7,454	19%	2,029,457	57%
5 - WPs Not Updated	210	23,649,790	10%	5,157	13%	107,460	3%
Totals	**653**	**179,425,970**		**29,687**		**3,272,803**	
Note: Gas measure savings exclude the negative therm values from electric measure interactive effects.							

Table E-2

WPName	Applicable Sector	TechType	Kwh Ratio	KW Ratio	Therm Ratio	Type	kWh Factor	kW Factor	Therm Factor
Packaged and Split Air Cooled Commercial A/C and H/P Units under 65k Btu/h	Com	pkgEER	19.15%	19.19%	-9.83%	Code	0.808	0.808	1.098
Space Heating Boilers	Com	Boiler_AF	-7.77%	414.64%	11.57%	Code	1.078	(3.146)	0.884
Network Desktop Computer Power Management Software	Com	CFLint_lamp	2.69%	-3.65%	-3.93%	CA	0.973	1.037	1.039
Deemed Program for Commercial Steam Traps	Com	Boiler_AF	-7.77%	414.64%	-8.95%	Code	1.078	(3.146)	1.089
Commercial Tank Insulation	Com	Boiler_AF	-7.77%	414.64%	-8.95%	Code	1.078	(3.146)	1.089
Boiler Cleaning	Com	Boiler_AF	-7.77%	414.64%	-8.95%	Code	1.078	(3.146)	1.089
Hot Water Line Insulation – Electric Heaters	Com	Stor_EF-NE	5.04%	2.95%	-59.06%	Code	0.950	0.970	1.591
Pipe insulation (Non-Space Conditioning)	Com	Boiler_AF	-7.77%	414.64%	-8.95%	Code	1.078	(3.146)	1.089
Multifamily DHW RCx, Training, and Boiler Reset Controller	Com	Stor_Et-NG	-46.01%	-39.64%	0.42%	Code	1.460	1.396	0.996
LED Night Light EEM Work Paper	Res	CFLint_lamp	0.20%	-1.78%	1.31%	CA	0.998	1.018	0.987
Low Income M&V Study - placeholder	Res	WallBlowIns	21.72%	20.71%	8.24%	CA	0.783	0.793	0.918
California HVAC Upgrade: Efficient Fan Controller (EFC) – Residential	Res	spltSEER & GasFurnace	3.89%	-40.02%	457.27%	Code	0.961	1.400	0.993
Energy Star Room Air Conditioners	Res	spltSEER	3.89%	-40.02%	457.27%	Code	0.961	1.400	(3.573)
Residential Heat Pump Wter Heater	Res	Stor_EF-RE	61.75%	61.46%		Code	0.382	0.385	1.000
Energy Star Clothes Washers	Res	Used Energy Star.gov				Code	1.000	1.000	0.846

Note: Gas measure savings exclude the negative therm values from electric measure interactive effects.

Appendix F:

San Diego Gas & Electric Company

Table -
List of Work Papers Submitted for New Measures

Appendix F: Table, List of Workpapers Submitted for New Measures

No additional workpapers submitted for 2015.