

PAG Notification
SDG&E Single Family Rebate
Proposed Changes

San Diego Gas & Electric proposes the following changes to its Single Family Rebate program effective **February 1, 2007**. Changes are necessary in an effort to increase customer participation, standardize rebate specifications, and or to address current cold weather conditions.

Pool pump and motor rebate changes

Because of small number of multi-speed pool pumps and motors rebated in 2006, the significant energy savings this measure provides and the influence that pool contractors have in the decision making process, SDG&E proposes increasing the incentive to the pool contractors for multi-speed pool pumps and motors in 2007.

Also, to further new pool pump/motor technology in the residential marketplace, SDG&E plans to introduce a variable-speed pool pump/motor pilot program in 2007 (as was discussed at the last PAG meeting). The SDG&E will contract with manufacturers to increase the number of trained contractors and to introduce variable-speed installations. The variable speed pool pump/motor provides greater energy savings and reduced on-peak demand and provides about 2-year payback on the customer investment. With trained contractors and product availability, we can continue to offer pool pump rebates as part of the single-family program even after the two-speed pool pumps/motors become part of California code in 2008.

Specification change to dishwashers

In keeping with the current energy efficiency ratings set forth by Energy Star and the CEE (Consortium for Energy Efficiency), SDG&E is changing the existing rebate specifications for dishwashers to match the new 2007 Energy Star standards for these appliances. Also, there will not be a second tier for dishwashers.

2006 rebate specifications:

Dishwashers – EF (energy factor) .62 or greater

2007 rebate specifications (based on changes to Energy Star specifications)

Dishwashers – EF (energy factor) .65 or greater

Additional measures for 2007

For the purpose of creating more statewide consistency, SDG&E will be adding the following measures to the Single Family program:

- 92% AFUE Central Natural Gas Furnaces
- Whole House Fans

Energy Efficiency Program Change Requisition

Single Family Rebate Program

Program Name:	2006	2007	2008
Scenario Update Name:	n/a	2007 SF Forecast 1/22/07	n/a
Date & Time:	n/a	1/22/07 8:03 AM	n/a

Effects of Changes		Program Year 2006 Budget & NET Savings					
Program Name	Admin Budget 2006	Incentive Budget 2006	Total Budget 2006	kWh 2006	Therms 2006	kWh 2008	Therms 2008
Current Program	\$1,273,841	\$1,193,250	\$2,466,891	9,989,150	94,575	9,353,73	94,575
Proposed Changes	\$1,273,841	\$1,193,250	\$2,466,891	9,989,150	94,575	9,353,73	94,575
Changes (Proposed - Current)	\$0	\$0	\$0	\$0	0	0	0

Effects of Changes		Program Year 2007 Budget & NET Savings					
Program Name	Admin Budget 2007	Incentive Budget 2007	Total Budget 2007	kWh 2007	Therms 2007	kWh 2007	Therms 2007
Current Program	\$1,197,068	\$1,384,750	\$2,581,818	10,800,984	115,337	10,052,21	115,337
Proposed Changes	\$1,197,068	\$1,373,050	\$2,561,818	10,828,436	122,822	10,058,61	122,822
Changes (Proposed - Current)	\$0	-\$11,700	-\$20,000	27,453	7,485	6	7,485

Effects of Changes		Program Year 2008 Budget & NET Savings					
Program Name	Admin Budget 2008	Incentive Budget 2008	Total Budget 2008	kWh 2008	Therms 2008	kWh 2008	Therms 2008
Current Program	\$1,017,998	\$1,622,250	\$2,640,248	13,511,774	109,150	13,016,62	109,150
Proposed Changes	\$1,017,998	\$1,622,250	\$2,640,248	13,511,774	109,150	13,016,62	109,150
Changes (Proposed - Current)	\$0	\$0	\$0	0	0	0	0

Effects of Changes		Cumulative Program Years 2006-2008 Budget & NET Savings					
Program Name	Admin Budget 2006-8	Incentive Budget 2006-8	Total Budget 2006-8	kWh 2006-8	Therms 2006-8	kWh 2006-8	Therms 2006-8
Current Program	\$3,488,707	\$4,200,250	\$7,688,958	34,301,907	319,051	32,422,56	319,051
Proposed Changes	\$3,488,707	\$4,188,550	\$7,688,958	34,329,360	326,547	32,428,96	326,547
Changes (Proposed - Current)	\$0	-\$11,700	-\$20,000	27,453	7,485	6	7,485

Change Type	Engineer Workpapers Required
<input checked="" type="checkbox"/> Incentive Change	No
<input checked="" type="checkbox"/> Change in Savings	Yes
<input checked="" type="checkbox"/> Add New Measure	No
<input checked="" type="checkbox"/> DEER Measure	Yes
<input checked="" type="checkbox"/> Non-DEER or modified DEER measure	Yes

Regulatory Compliance	Advice Letter	Required?	Yes	No
Documentation Attached?				
PAG Notification				
Documentation Attached?				
Engineering Review				
Documentation Attached?				

Approvals	Date
Program Manager: <i>Neil Hoffman</i>	1/22/07
Engineer: <i>Charles N. Hoffman</i>	1/22/07
Program Advisor: <i>[Signature]</i>	1/22/07
Manager: <i>[Signature]</i>	1/22/07

Residential Dish Washing Machine Energy Savings seen at the Water Heater

The following is an excerpt from the CEE June 2006 Board Memorandum

Potential Energy Savings (Standard DW)

Table A5 shows the per unit and aggregate average potential energy savings over the federal standard at the current and proposed CEE Tiers 1 and 2.

Table A5: Annual Potential Energy Savings⁽¹⁾

CEE Tier Level	Per Unit Savings Above Federal Standard (kWh/yr)	Per Unit Savings Above Current ENERGY STAR (kWh/yr)
Tier 1	79	20
Tier 2	96	37
Tier 3	126	67

Table Note:

(1) Aggregate savings removed for clarity. Refer to original source for more information.

SOW: Convert Average per unit Savings from kWh/yr to therms/yr

Approach: Use the savings values presented in Table A5 from the CEE June 2006 board memorandum excerpts and convert them to therms by first converting the Solution:

$$dE/dt = (dQ/dt) / \eta / c1$$

eqn. 1

$$dQ/dt = (dE/dt) \times \eta \times c1$$

eqn. 1a

dE/dt = energy consumed to heat water (Btu/yr)

dQ/dt = heat transfer rate to water (Btu/yr)

η = water heater efficiency at transferring fuel source energy to water

for NG = 60%, for elec = 88%

c1 = energy conversion factor

for NG = 100,000 Btu/therm

for elec = 3413 Btu/kWh

CEE Tier Level	Per Unit Savings Above Federal Standard (kWh/yr)	Per Unit Savings Above Current ENERGY STAR (kWh/yr)
Tier 1	79	20
Tier 2	96	37
Tier 3	126	67

Energy Delivered to Water Savings, eqn. 1a (Btu/yr)	Average per unit Savings above Federal Standards eqn. 1 (therms/yr)	Energy Delivered to Water Savings, eqn. 1a (Btu/yr)	Average per unit Savings above Energy Star eqn. 1 (therms/yr)
237,271.76	4.0	60,068.80	1.0
288,330.24	4.8	111,127.28	1.9
378,433.44	6.31	201,230.48	3.4

Solution is highlighted in yellow and is bolded.

SECTION 1 – GENERAL MEASURE & BASELINE DATA

1.1 Measure Summary

- **Measure Name: 0.65 Energy Factor Dishwasher**
- **End Use: Water Heating**
- **Effective Useful Life (EUL): 13Years**

Definitions of each activity type from DEER Measure Cost Users Guide (v2.01):

- ⇒ Retrofit (RET) – replacing a working technology prior to failure
- ⇒ Replace-on-burnout (ROB) – replacing a technology at the end of its useful life
- ⇒ New construction (NEW) – installing a technology in a new construction or major renovation project ROB

- **Net-to-Gross Ratio (NTG): 0.80**

Gross Annual Savings:

Unit of Measure	Building Type	Building Vintage	Climate Zone	Peak kW	kWh	Therms
0.65 EF Dishwasher	Single Family	N/A	N/A	.0009	27	4.7

Measure Cost Data:

Unit of Measure	Program Strategy	Base Equipment Cost	Measure Equipment Cost	Incremental Cost	Labor Cost	Installed Cost
72 Kbtu Furnace	ROB	\$292.63	\$674.15	\$381.50	\$0	\$674.15

1.2 Measure Description & Background

- Measure Description: 0.65 EF Dishwasher
- Related DEER Measure: No. Assumes 25% above federal standard
- Base Case for Savings Estimate (Existing and Above Code): 0.46 EF

1.3 Load Shape

Indicate applicable measure load shape(s)

SECTION 2 – SAVINGS CALCULATION (ENERGY AND DEMAND)

2.1 Energy Savings Estimation Methodologies (Electric & Natural Gas)

Describe energy savings estimation methodologies. Include explanation and sample calculation including assumptions for hours of operation, energy interactive effects, etc., as applicable and cite references. Calculation methodology must meet commonly-accepted industry standards, such as ASHRAE standards, EM&V protocol, etc.

2.2 Peak Demand Reduction Estimation Methodologies (Electric)

Describe peak demand reduction estimation methodologies. Include explanation and sample calculation including assumptions for coincident diversity factors, demand interactive effects, etc. as applicable and cite references. Calculation methodology must meet commonly-accepted industry standards, such as ASHRAE standards, EM&V protocol, etc.

SECTION 3 – BASE CASE & MEASURE COSTS

Provide description of base case and measure costs, and explanation of which cost is used for different program strategies.

Definitions from DEER Measure Cost Users Guide (v2.01):

- ⇒ Base equipment cost – the cost of the baseline efficiency technology
- ⇒ Measure equipment cost – the cost of the energy-efficient technology
- ⇒ Incremental cost – the difference between the measure equipment cost and the base equipment cost
- ⇒ Labor cost – the installation cost of the measure including contractor overhead & profit
- ⇒ Installed cost – the sum of the measure equipment cost and the labor cost

3.1 Base Case Costs

Provide description of base case costs, including base equipment, installation labor, maintenance, etc. as applicable.

3.2 Measure Costs

Provide description of measure case costs, including measure equipment, installation labor, maintenance, etc. as applicable.

3.3 Incremental Measure and Installed Costs

Provide explanation of what costs (incremental measure and installed costs) are used for different program strategies.

SECTION 4: REFERENCES AND CITATION

Provide references and citations, such as:

- Related EM&V studies (Ex Post Data, etc.)
- Market potential & saturation (RASS, CEUS, etc.)
- Engineering/industry references

SECTION 5 – APPENDICES

- A. Document Revision History, including revision approvals
- B. Tables

- C. Figures
- D. Lists

SECTION 1 – GENERAL MEASURE & BASELINE DATA

1.1 Measure Summary

- **Measure Name: 92% AFUE Central Natural Gas Furnace**
- **End Use: HVAC – Space Heating**
- **Effective Useful Life (EUL):** Provide EUL for Retrofit (RET) and Replace on Burnout (ROB) and/or New Construction (NEW), if applicable. Must include reference (most recent M&V or ET study, DEER, Energy Efficiency Policy Manual, etc). 18 Years

Definitions of each activity type from DEER Measure Cost Users Guide (v2.01):

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- ⇒ Replace-on-burnout (ROB) – replacing a technology at the end of its useful life
- ⇒ New construction (NEW) – installing a technology in a new construction or major renovation project ROB

- **Net-to-Gross Ratio (NTG):** Provide NTG for different program strategies that may apply to this measure. Must include reference (most recent M&V or ET study, DEER, Energy Efficiency Policy Manual, etc). 0.89

Gross Annual Savings:

Unit of Measure	Building Type	Building Vintage	Climate Zone	Peak kW	kWh	Therms
72 Kbtu Furnace	Single Family	50% Pre1978 & 50% 1978-1992	10	0	0	40

Measure Cost Data:

Unit of Measure	Program Strategy	Base Equipment Cost	Measure Equipment Cost	Incremental Cost	Labor Cost	Installed Cost
72 Kbtu Furnace	ROB	\$1392.94	\$1052.68	\$549.36	\$836.01	\$1915.69

1.2 Measure Description & Background

- **Measure Description:** Provide brief description of measure

- Related DEER Measure: If measure is in DEER, indicate DEER measure and provide DEER measure ID/ run ID numbers, as well as a brief explanation on why the DEER numbers are not applicable RSFm1075RFC92 & RSFm1085RFC92
- Base Case for Savings Estimate (Existing and Above Code): Provide description of measure base case and cite any codes and standards requirement analysis as applicable. (Include applicable references in Section 4) 78 AFUE

1.3 Load Shape

Indicate applicable measure load shape(s)

SECTION 2 – SAVINGS CALCULATION (ENERGY AND DEMAND)

2.1 Energy Savings Estimation Methodologies (Electric & Natural Gas)

Describe energy savings estimation methodologies. Include explanation and sample calculation including assumptions for hours of operation, energy interactive effects, etc., as applicable and cite references. Calculation methodology must meet commonly-accepted industry standards, such as ASHRAE standards, EM&V protocol, etc.

2.2 Peak Demand Reduction Estimation Methodologies (Electric)

Describe peak demand reduction estimation methodologies. Include explanation and sample calculation including assumptions for coincident diversity factors, demand interactive effects, etc. as applicable and cite references. Calculation methodology must meet commonly-accepted industry standards, such as ASHRAE standards, EM&V protocol, etc.

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Existing Measure in SCG SFR4 Program

CYCLE_START_YR	FILING_MSR_NBR	FILING_MSR_DESC	UTILITY_ID	PGM_CD	SECTOR_CD	BLDG_TYP	FORM_CD	GR_SV_KWH	GR_SV_THERM	GR_SV_KW	GR_SV_KW_NC	NT_TO_GRS	PGM_TYP_CD	EIMPACT	GIMPACT	PIMPACT	ECIMPACT	GCIMPACT
2007	315014	Central Gas Furnace 92% AFUE	SDG&E	SFR	R	SFM		0	40.176	0		0.89	6	0	0.5580595	0	0	0.4424805

CYCLE_START_YR	FILING_MSR_NBR	RUN_ID	WGHT_PCT	LT_UPDT_DT_TM	LT_UPDT_BY	ValidatedFlag
2006	315014	RSFm1075RFC92	50	03-Nov-05	HDEJESUS	Y
2006	315014	RSFm1085RFC92	50	03-Nov-05	HDEJESUS	Y

Vintages 50% pre-1978
50% 1978-1992

Existing Measure in SCG SFR4 Program

PCIMPACT	SVGS_TYP_FLG	SVGS_MEMO	END_USE	AR_END_USE	NEW_SZ_TYP	MSR_LF	FRCST_UNITS	GENERAL_MEMO	MSR_INCNTV	CUST_CST	CUST_CST_MEMO	EQUIPCOST
0	N	Used Riverside climate zone as forecast climate zone - Used 72 Kbtu as the common unit per DEER	Space Cooling/Heating	HVAC	72 kBtu/h unit	18	4000		\$200.00	\$549.36		\$14.62

Existing Measure in SCG SFR4 Program

EQUIPCOST_FLG	LABORCOST	LABORCOST_FLG	INCEQUIPCOST	INCEQUIPCOST_FLG	INSTALLED COST	INSTALLED COST_FLG	ELEC_LOAD_SHAPE	PCT_TOU_AC_ADJ	GAS_SVGS_PROFILE	COMBUST_TYP_CD	ELEC_GRS_NPV_BEN	GAS_GRS_NPV_BEN	CALC_BEN_FLG
	\$11.99		\$7.63		\$26.61				0 Winter Only	14	\$0.00	\$334.72	

Existing Measure in SCG SFR4 Program

DEER_CALC_TYP	KWH_OVRD	THERM_OVRD	KW_OVRD	CUST_CST_OVRD	LIFE_OVRD	NO_SYNC_FLG	ORIG_FILING_MSR_NBR	CMPLT_FLG	CMPLT_BY	CMPLT_DT_TM	LT_UPDT_BY	LT_UPDT_DT_TM	PT_LT_UPDT_BY	PT_LT_UPDT_DT_TM
1	N	Y	N	Y	N	N					HDEJESUS	10-Nov-06	RDAVIS	14-Nov-05

2007 SF Forecast 1-22-07 Scenario

scenario_ic	filing_msr_nbr	msr_chang	new_flg	filing_msr_desc	filing_msr_frctst_units	frctst_units_gr_sv_kwh	gr_sv_kwh
225	229005	Y	N	A/C - Room unit - Energy Star	N	1000 N	127 N
225	229006	Y	N	A/C - Whole-House Fan	N	50 Y	23.7375 N
225	229012	N	N	Ducted Evaporative Cooler	N	0 N	918.024 N
225	229013	Y	N	Attic Insulation	N	1100000 N	0.079248 N
225	229014	N	N	Dbl Pane Clr Windws to Dbl Pane, Med Low-E Coating	N	0 N	1.397944 N
225	229015	Y	N	HE Electric Water Heater (EF=0.93)	N	0 Y	149.0462 N
225	229016	Y	N	Heating - Gas 90% AFUE	N	0 N	0 N
225	229017	Y	N	Motor - High Effncy Pool Pump and Motor Sngl Speed	N	1800 N	650 N
225	229046	Y	N	Motor - Pool Pump (two-speed)	N	700 N	1400 N
225	229048	Y	N	Wall R-0 to R-13 Insulation	N	600000 N	0.194606 N
225	229049	N	N	Water Heating - Dishwasher - Energy Star EF=0.58	N	0 N	19.4 N
225	229050	Y	N	Water Heating -High Energy Factor Unit-Gas Storage	N	1000 N	0 N
225	229053	N	N	Water Heating - Clothes Washer - Tier II MEF=1.60	N	0 N	20.83 N
225	229087	N	N	25 W Modlr CFL->=1,600 Lumens-pin based hrdwire	N	0 N	57.65175 N
225	229088	Y	N	Refrigerator - Energy Star(Retail)	N	2500 Y	60.53 N
225	229089	Y	N	Pool Pump Timeclock Reset Agreement	N	11500 N	900 N
225	229090	N	N	Water Heating - Clothes Washer - Tier III MEF=1.80	N	0 N	35.83 N
225	229091	Y	N	Water Htng-Dshwshr-Energy Star Tier I EF=0.62-0.67	N	0 Y	24.2 N
225	229092	Y	N	Water Htng-Dshwshr-Energy Star Tier II EF=0.68+	N	0 Y	30.2 N
225	229093	Y	Y	Dishwasher Energy Star (EF+0.65+)	N	10635 Y	27 Y
225	229094	Y	Y	Heating - Gas 92% AFUE	N	200 Y	0 Y

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gr_sv_ther	gr_sv_ther	gr_sv_kw	gr_sv_kw_nt_to_grs	nt_to_grs	msr_incntv	msr_incntv	cust_cst	cust_cst_fl	msr_lf	msr_lf_flg	new_sz_ty	new_sz_ty	ar_end_us	ar_end_us
0 N	0.0987044 N	0.8 N	0.8 N	50 N	106 N	15 N	Unit	N	HVAC	N				
-0.0465 N	0.0231 N	0.89 N	0.89 N	50 Y	600.84 N	15 N	1,000 sqft I	N	HVAC	N				
-36.951 N	1.6809 N	0.89 N	0.89 N	300 N	1220.16 N	15 N	1000 sqft I	N	HVAC	N				
0.022667 N	9.63224E-05 N	0.89 N	0.89 N	0.15 N	0.757 N	20 N	1000 sqft r	N	HVAC	N				
0 N	0.00147241 N	0.89 N	0.89 N	0.5 N	1.68 N	20 N	Square For	N	HVAC	N				
0 N	0.032790171 N	0.89 N	0.89 N	30 N	72.3014 N	15 N	Hot Water	N	Misc	N				
23.65 N	0 N	0.89 N	0.89 N	100 Y	333 N	18 N	50,000 Btu	N	HVAC	N				
0 N	0.104 N	0.89 N	0.89 N	30 N	50.91 N	10 N	Swimming	N	Misc	N				
0 N	0.54 N	0.89 N	0.89 N	300 N	182.1777 N	10 N	Swimming	N	Misc	N				
0.083803 N	0.00015757 N	0.89 N	0.89 N	0.15 N	1.3222 N	20 N	sqft	N	HVAC	N				
3.4 N	0.006 N	0.8 N	0.8 N	30 N	133.6443 N	13 N	Dishwashe	N	Misc	N				
9.8591 N	0 N	0.89 N	0.89 N	30 N	175.2956 N	13 N	Hot Water	N	Misc	N				
3.54 N	0.0087 N	0.8 N	0.8 N	75 N	606.86 N	14 N	Clothes W	N	Misc	N				
0 N	0.0054675 N	0.8 N	0.8 N	N	23.8042 N	16 N	Bulb	N	Light	N				
0 N	0.0102901 N	0.8 N	0.8 N	50 N	141.5197 N	18 N	Refrigerato	N	Misc	N				
N	1 N	0.8 N	0.8 N	25 N	10 N	2 N	Time Clock	N	Misc	N				
6.08 N	0.0149 N	0.8 N	0.8 N	N	518.78 N	14 N	Clothes W	N	Misc	N				
4.24 N	0.008 N	0.8 N	0.8 N	30 N	183.64 N	13 N	Dishwashe	N	Misc	N				
5.312 N	0.01 N	0.8 N	0.8 N	50 N	383.64 N	13 N	Dishwashe	N	Misc	N				
4.7 Y	0.009 Y	0.8 N	0.8 N	30 Y	385 Y	13 Y	Dishwashe	N	Misc	N				
40 Y	0 Y	0.89 Y	0.89 Y	200 Y	549.36 Y	18 Y	72,000 Btu	N	HVAC	N				

2007 SF Forecast 1-22-07 Scenario

cmnt_txt	elec_grs_n	gas_grs_n	calc_ben_f	calc_ben_e	lt_updt_by	lt_updt_dt_tm	filing_msr_desc1	frcst_units	1gr_sv_kwh
	226.5395	0			NSYBERT	1/22/2007 7:48	A/C - Room unit - Energy Star	1000	127
See SFR L	42.3424	0			LLOVELES	2/13/2007 16:22	A/C - Whole-House Fan	0	23.7375
	1637.549	0			MWOLD	5/19/2005 8:52	Ducted Evaporative Cooler	0	918.024
	0.1663	0.1888			NSYBERT	1/22/2007 7:48	Attic Insulation	1100000	0.079248
	2.9335	0					Double Pane Clear Windows to Double Pane, Med Low-E Coating	0	1.397944
See SFR L	112.6506	0			LLOVELES	2/13/2007 16:22	HE Electric Water Heater (EF=0.93)	50	149.0462
See SFR L	0	197.0363			LLOVELES	2/13/2007 16:22	Heating - Gas 90% AFUE	0	0
	356.6094	0			NSYBERT	1/22/2007 7:48	Motor - High Efficiency Pool Pump and Motor Single Speed	1800	650
	768.0818	0			NSYBERT	1/22/2007 7:48	Motor - Pool Pump (two-speed)	700	1400
	0.4084	0.6982			NSYBERT	1/22/2007 7:48	Wall R-0 to R-13 Insulation	600000	0.194606
	13.2746	19.9358			AVELAZQI	11/11/2005 12:17	Water Heating - Dishwasher - Energy Star EF=0.58	0	19.4
	0	57.8085			NSYBERT	1/22/2007 7:48	Water Heating -High Energy Factor Unit - Gas Storage	1000	0
	15.0138	21.9432			NSYBERT	5/4/2005 9:13	Water Heating - Clothes Washer - Tier II MEF=1.60	0	20.83
	45.4087	0					25 Watt Modular CFL - >=1,600 Lumens - pin based hardwire	0	57.65175
See SFR L	50.9732	0			LLOVELES	2/13/2007 16:22	Refrigerator - Energy Star(Retail)	1900	60.53
	129.9226	0			NSYBERT	1/22/2007 7:48	Pool Pump Timclock Reset Agreement	11500	900
	27.0783	37.6877			NSYBERT	1/22/2007 7:48	Water Heating - Clothes Washer - Tier III MEF=1.80	0	35.83
	19.3238	24.8611			LLOVELES	2/13/2007 16:22	Water Heating - Dishwasher - Energy Star Tier I EF=0.62-0.67	6500	24.2
	24.1148	31.1467			LLOVELES	2/13/2007 16:22	Water Heating - Dishwasher - Energy Star Tier II EF=0.68+	4135	30.2
Savings ba	16.5996	20.0634	Y		LLOVELES	2/13/2007 16:22			
Savings in	0	213.224	Y		LLOVELES	2/13/2007 16:22			

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gr_sv_ther	gr_sv_kw1	nt_to_grs1	msr_inc	tv_cust_cst1	msr_lf1	new_sz_typ1	ar_end_use1	New Measure Code	Effective Year	PGM_CD	SECTOR_CD
0	0.098704	0.8	50	106	15	Unit	HVAC		2006	SFR	R
-0.0465	0.0231	0.89	100	600.84	15	1,000 sqft house	HVAC		2006	SFR	R
-36.951	1.6809	0.89	300	1220.16	15	1000 sqft House	HVAC		2006	SFR	R
0.022667	9.63E-05	0.89	0.15	0.757	20	1000 sqft roof, 1000 SqFt	HVAC		2006	SFR	R
0	0.001472	0.89	0.5	1.68	20	Square Foot	HVAC		2006	SFR	R
0	0.03279	0.89	30	72.3014	15	Hot Water Tank	Misc		2006	SFR	R
23.65	0	0.89	1	333	18	50,000 Btu unit	HVAC		2006	SFR	R
0	0.104	0.89	30	50.91	10	Swimming Pool Pump	Misc		2006	SFR	R
0	0.54	0.89	300	182.1777	10	Swimming Pool Pump	Misc		2006	SFR	R
0.083803	0.000158	0.89	0.15	1.3222	20	sqft	HVAC		2006	SFR	R
3.4	0.006	0.8	30	133.6443	13	Dishwasher	Misc		2006	SFR	R
9.8591	0	0.89	30	175.2956	13	Hot Water Tank	Misc		2006	SFR	R
3.54	0.0087	0.8	75	606.86	14	Clothes Washer, CWasher	Misc		2006	SFR	R
0	0.005468	0.8		23.8042	16	Bulb	Light		2006	SFR	R
0	0.01029	0.8	50	141.5197	18	Refrigerator	Misc		2006	SFR	R
	1	0.8	25	10	2	Time Clock	Misc		2006	SFR	R
6.08	0.0149	0.8		518.78	14	Clothes Washer, CWasher	Misc		2006	SFR	R
4.24	0.008	0.8	30	183.64	13	Dishwasher, DWasher	Misc		2006	SFR	R
5.312	0.01	0.8	50	383.64	13	Dishwasher, DWasher	Misc		2006	SFR	R
								SFR07001	2006	SFR	R
								HVAC136	2007	SFR	R