

Home Energy Performance Report

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This report includes the results of an on-site assessment of this project for the purposes of the evaluation of the energy consumption and upgrade potential of the building. Results reported are based upon information determined at the site, and discussions with the project occupants as well as incorporating published typical weather year information. If you have any questions about this report or would like to discuss the details or findings, please call or e-mail us

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Energy Use Summary

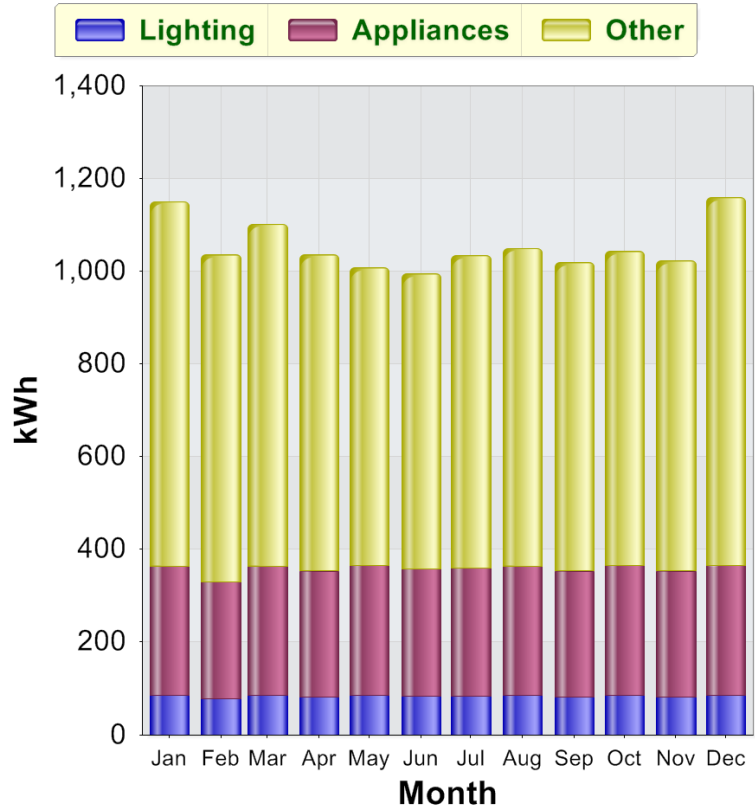
1451 Point Loma Way

San Diego, CA 92106

The tables and graphs below summarize the major energy uses in the home for both electricity and fossil fuels. Ancillary uses include swimming pools and spas.

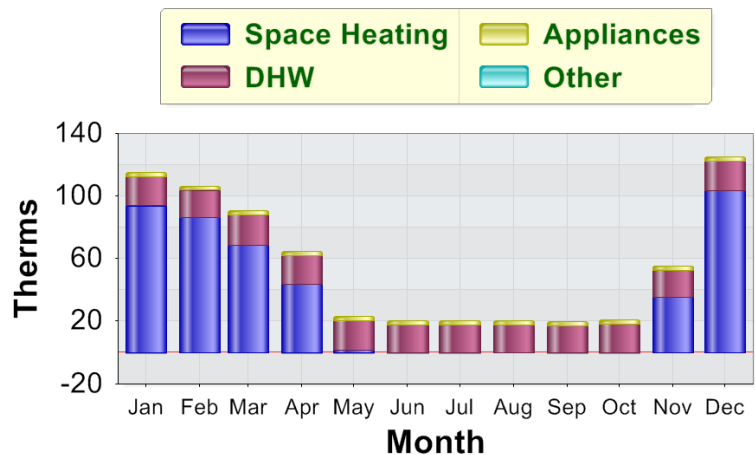
ELECTRICITY

End Use	kWh/yr
Space Heating	0
Space Cooling	0
Fans	991
Pumps	5,174
Domestic Hot Water	0
Indoor Lighting	945
Outdoor Lighting	69
Appliances	3,288
Ancillary	2,186
Renewables	0
TOTAL	12,654



FOSSIL FUEL

End Use	Therms/yr
Space Heating	433
Domestic Hot Water	218
Appliances	31
Ancillary	0
TOTAL	682



Recommendations

1451 Point Loma Way

San Diego, CA 92106

The recommendations shown in this table are based upon the computerized analysis of the home, and show predicted energy and cost savings. Savings may vary depending upon occupant use habits as well as the proper installation of measures.

Improvement	Description	Annual Savings	Est. Cost to Install	Savings	
				Site	TDV
Roof Insulation	Add insulation up to R-38 and Radiant Barrier	\$61	\$0	2.4 %	4.0 %
Wall Insulation	Type = R-13 Wall Cavity Insulation = 13.0 R-Value Interior Insulation = 0.0 R-Value Exterior Insulation = 0.0 R-Value	\$330	\$0	17.9 %	13.3 %
Floor Insulation	Type = R-19 Floor Crawlspace Cavity Insulation = 19.0 R-Value Interior Insulation = 0.0 R-Value Exterior Insulation = 0.0 R-Value	\$439	\$0	24.8 %	16.3 %
Building Leakage	Building Leakage = 4.4 SLA Leakage Rate at 50 Pascals = 2000 cfm	\$503	\$0	28.9 %	18.0 %
HVAC Duct Leakage	Leakage = 5 % Leakage Rate at 25 Pascals = 65 cfm	\$570	\$0	33.0 %	20.2 %

Each savings row also includes the savings from prior rows in table

Recommendations

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San Diego, CA 92106

The recommendations shown in this table are based upon the computerized analysis of the home, and show predicted energy and cost savings. Savings may vary depending upon occupant use habits as well as the proper installation of measures.

Improvement	Description	Annual Savings	Est. Cost to Install	Savings	
				Site	TDV
HVAC Duct Insulation	Duct Insulation = 8.0 R-Value	\$600	\$0	35.0 %	21.2 %
Indoor Lighting	Indoor Lighting Type = High Efficacy Control = Dimmer	\$708	\$0	35.8 %	22.9 %
Outdoor Lighting	Outdoor Lighting Type = High Efficacy Control = Sensor	\$719	\$0	35.9 %	23.1 %
HVAC System	95% AFUE	\$730	\$0	36.9 %	23.5 %
Domestic Hot Water Heater	Tankless DHW	\$809	\$0	43.2 %	26.3 %

Each savings row also includes the savings from prior rows in table

Recommendations

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San Diego, CA 92106

The recommendations shown in this table are based upon the computerized analysis of the home, and show predicted energy and cost savings. Savings may vary depending upon occupant use habits as well as the proper installation of measures.

Improvement	Description	Annual Savings	Est. Cost to Install	Savings	
				Site	TDV
Pool Pumps	Variable speed pump	\$1,416	\$0	49.4 %	35.9 %

Each savings row also includes the savings from prior rows in table

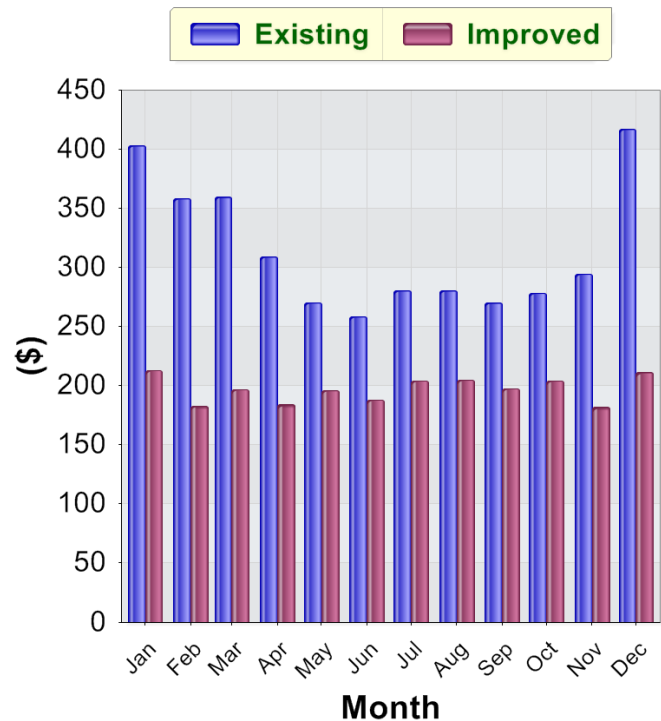
Recommendations

1451 Point Loma Way

San Diego, CA 92106

The summary below compares the annual home energy cost before and after the measures shown in the recommendations table. Some savings may occur in features that have not been upgraded simply because the reduced energy usage from other recommendations moves the home into a lower utility rate tier. The existing data shown is based upon the calculated amount the home would use under normal weather and operating conditions.

Annual Results	Energy Cost		
End Use	Existing	Improved	Savings
Space Heating	\$479	\$58	\$421
Space Cooling	\$0	\$0	\$0
Fans	\$237	\$88	\$149
Pumps	\$1,237	\$695	\$542
Domestic Hot Water	\$242	\$153	\$89
Indoor Lighting	\$226	\$126	\$100
Outdoor Lighting	\$17	\$7	\$10
Appliances	\$820	\$756	\$64
Ancillary	\$523	\$481	\$41
Renewables	\$0	\$0	\$0
TOTAL	\$3,780	\$2,364	\$1,416



Misc	Existing	Improved	Savings
Average Demand (kW)	0.94	1.09	-0.16
TDV Energy (kBtu/ft ² -yr)	213.47	136.94	76.53

Demand usage is important to the utility as it impacts how much power plant capacity they must have at a given hour. Time Dependent Valuation (TDV) energy is a metric used by the California Energy Commission to value energy at different hours of the year.

CO ₂ (tons/year)	Existing	Improved	Savings
Electricity	3.96	3.02	0.95
Fossil Fuel	3.60	1.24	2.36
TOTAL	7.56	4.25	3.31

This table compares calculated Carbon Dioxide (CO₂) emissions before and after the home improvements. By reducing the energy usage of the home, the amount of CO₂ emissions resulting from electricity production and fossil fuel combustion will be reduced.

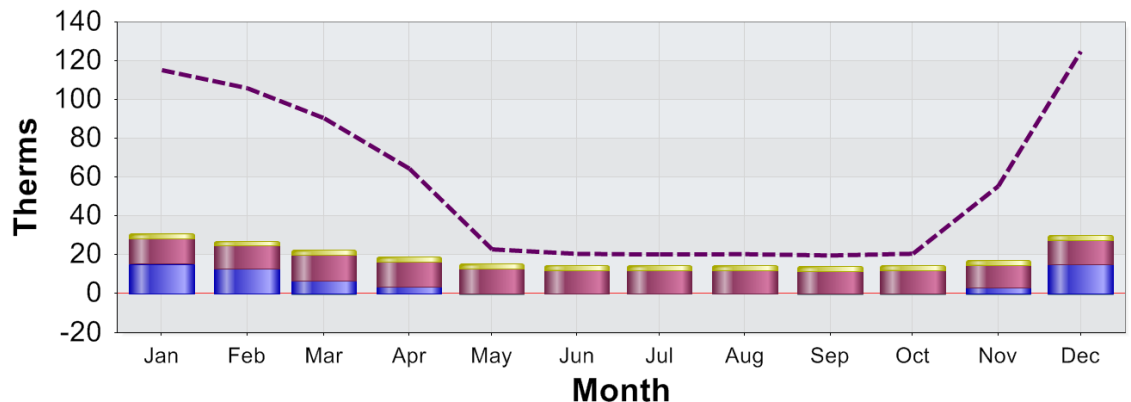
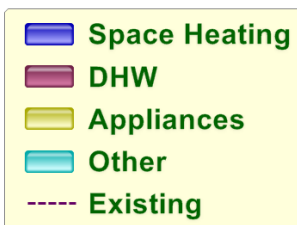
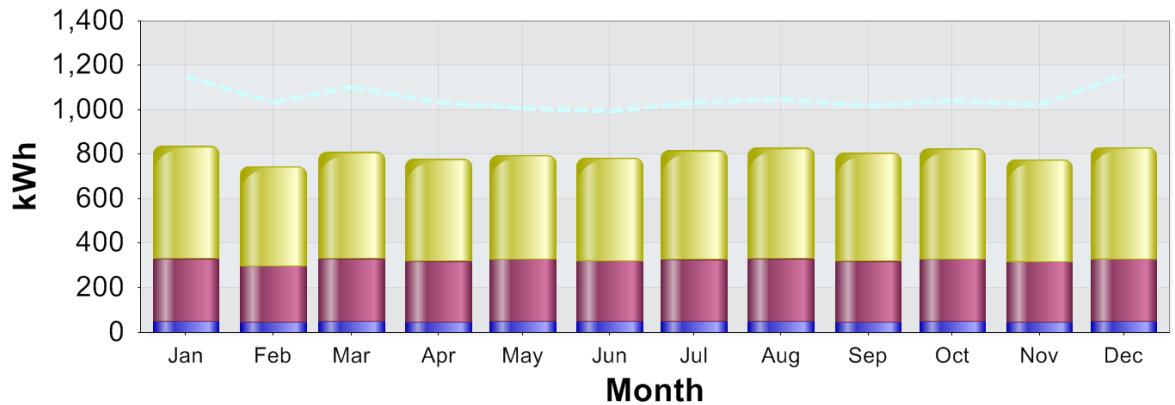
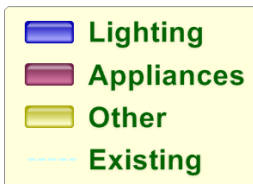
Recommendations

1451 Point Loma Way

San Diego, CA 92106

Annual Results	Electricity (kWh)			Fossil Fuel (therms)		
	Existing	Improved	Savings	Existing	Improved	Savings
Space Heating	0	0	0	433	56	376
Space Cooling	0	0	0	0	0	0
Fans	991	401	590	0	0	0
Pumps	5,174	3,156	2,018	0	0	0
Domestic Hot Water	0	0	0	218	147	71
Indoor Lighting	945	573	373	0	0	0
Outdoor Lighting	69	31	39	0	0	0
Appliances	3,288	3,288	0	31	31	0
Ancillary	2,186	2,186	0	0	0	0
Renewables	0	0	0	0	0	0
TOTAL	12,654	9,634	3,020	682	234	447

This summary compares the calculated annual home energy usage before and after the measures shown in the recommendations table. The existing data shown is based upon the calculated amount the home would use under normal weather and operating conditions.



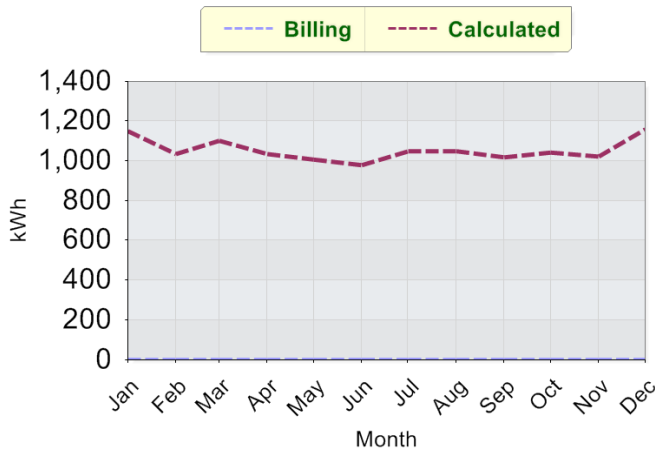
Utility Bill Summary

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These graphs show the energy use for the home based upon billing data collected from the utility. Also shown are the projected use numbers based upon the energy simulation tool for a typical year. The projected use numbers may vary from the actual year of billing data due to occupant use patterns and differing weather conditions.

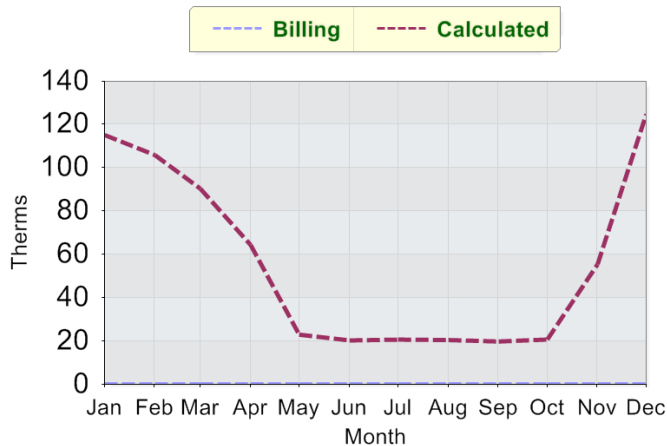
ELECTRICITY



Many electricity rates are tiered, which means you get charged a higher rate per unit of electricity used as your usage increases. Saving energy in these higher tiers can produce substantial cost savings.

SDG&E Coastal		
	kWh Tier	Rate
SDG&E Coastal Winter	303 kWh	\$0.1381/kWh
	393.9 kWh	\$0.1595/kWh
	606 kWh	\$0.2720/kWh
	Over	\$0.2920/kWh
SDG&E Coastal Summer	288 kWh	\$0.1381/kWh
	374.4 kWh	\$0.1595/kWh
	576 kWh	\$0.2890/kWh
	Over	\$0.3090/kWh

FOSSIL FUEL



SDG&E Gas		
	Therm Tier	Rate
SDG&E Gas Winter	46.38 therms	\$1.036/therm
	Over	\$1.192/therm
SDG&E Gas Summer	14.79 therms	\$1.036/therm
	Over	\$1.192/therm

The tables above show the utility rate structure for the home which is based upon usage tiers.

Energy Upgrade Recommendations

ECON-2

Project Name <i>Michael Shames</i>	Documentation Author <i>We Green Inc.</i>
Project Address <i>1451 Point Loma Way San Diego, CA 92106</i>	Author Address <i>23 Corporate Plaza Suite 100 Newport Beach, CA 92660</i>

Recommended Improvements	Description	Annual Savings	Est. Cost to Install	Savings	
				Site	TDV
Roof Insulation	Type = R-38 Roof Attic Cavity Insulation = 38.0 R-Value Interior Insulation = 0.0 R-Value Exterior Insulation = 0.0 R-Value	\$61	\$0	2.4 %	4.0 %
Wall Insulation	Type = R-13 Wall Cavity Insulation = 13.0 R-Value Interior Insulation = 0.0 R-Value Exterior Insulation = 0.0 R-Value	\$330	\$0	17.9 %	13.3 %
Floor Insulation	Type = R-19 Floor Crawlspace Cavity Insulation = 19.0 R-Value Interior Insulation = 0.0 R-Value Exterior Insulation = 0.0 R-Value	\$439	\$0	24.8 %	16.3 %
Building Leakage	Building Leakage = 4.4 SLA Leakage Rate at 50 Pascals = 2000 cfm	\$503	\$0	28.9 %	18.0 %
HVAC Duct Leakage	Leakage = 5 % Leakage Rate at 25 Pascals = 65 cfm	\$570	\$0	33.0 %	20.2 %
HVAC Duct Insulation	Duct Insulation = 8.0 R-Value	\$600	\$0	35.0 %	21.2 %
Indoor Lighting	Indoor Lighting Type = High Efficacy Control = Dimmer	\$708	\$0	35.8 %	22.9 %
Outdoor Lighting	Outdoor Lighting Type = High Efficacy Control = Sensor	\$719	\$0	35.9 %	23.1 %
HVAC System	Name = Upgraded HVAC System Type = Split DX Heating = Central Furnace Efficiency = 0.95 AFUE Cooling = No Cooling SEER = 13.00 EER = 10.00	\$730	\$0	36.9 %	23.5 %
Domestic Hot Water Heater	Name = Eternal 508(11,12,21,22)1100/GU100 Type = Gas Fired Volume = 1.7 gal Efficiency = 0.940 EF	\$809	\$0	43.2 %	26.3 %
Pool Pumps	Pool Pump = Revised Pumping	\$1,416	\$0	49.4 %	35.9 %

Annual Results	Energy Cost		
End Use	Existing	Improved	Savings
Space Heating	\$479	\$58	\$421
Space Cooling	\$0	\$0	\$0
Fans	\$237	\$88	\$149
Pumps	\$1,237	\$695	\$542
Domestic Hot Water	\$242	\$153	\$89
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Ancillary	\$523	\$481	\$41
Renewables	\$0	\$0	\$0
TOTAL	\$3,780	\$2,364	\$1,416

Electricity (kWh)		
Existing	Improved	Savings
0	0	0
0	0	0
991	401	590
5,174	3,156	2,018
0	0	0
945	573	373
69	31	39
3,288	3,288	0
2,186	2,186	0
0	0	0
12,654	9,634	3,020

Fossil Fuel (therms)		
Existing	Improved	Savings
433	56	376
0	0	0
0	0	0
0	0	0
0	0	0
218	147	71
0	0	0
0	0	0
31	31	0
0	0	0
0	0	0
682	234	447

CO ₂ (lbs/year)	Existing	Improved	Savings
Electricity	8,731	6,648	2,084
Fossil Fuel	7,940	2,731	5,209
TOTAL	16,671	9,378	7,293

Climate Zone:	7	Improvements above shown with cumulative savings benefit for combined measures
Electric Rate:	SDG&E Coastal	
Gas Rate:	SDG&E Gas	
Floor Area:	1,756	
Type:	Single Family	

Average Demand (kW)	0.94	1.09	-0.16
TDV Energy (kBtu/ft ² -yr)	213.47	136.94	76.53

The estimated operating costs shown in this report are dependent upon many factors. The construction and conservation features of the project clearly are important. Equally important is the thermostat setting. How the thermostat is used, appliance use, and occupant interaction all influence the annual operating cost. The estimates provided in this report are based on typical conditions; your actual usage will vary.