

ELECTRIC

GW	gigawatt
GWh	gigawatt-hour
MW	megawatt
MWh	megawatt-hour
kW	kilowatt
kWh	kilowatt-hour
kV	kilovolt
MVA	million volt amps

GAS

psi	pounds per square inch
therm	unit of heat equal to 100,000 British Thermal Units (BTU)

WATER

gpm	gallons per minute
mgpd	million gallons per day
ccf	hundred cubic feet (1ccf=748 gallons)
ppm	parts per million

glossary

Individuals with disabilities who require accommodations to access City facilities, services or programs, or who would like information on the City's compliance with the Americans with Disabilities Act (ADA) of 1990, may contact the City's ADA Coordinator at (650) 329-2550 (voice) or email ada@cityofpaloalto.org

utilities at a glance

JUNE 2009

overview

MISSION STATEMENT To provide valued utility services to customers and dependable returns to the City.

GENERAL INFORMATION The City of Palo Alto owns, operates and maintains all of its utilities, and this means Palo Alto residents and businesses benefit in many significant ways:

- Competitive utility rates
- Reliable and safe service operations
- Local control and policy-setting
- High level of responsiveness and accountability to citizens and utility customers
- Community values-driven programs and services
- Support for Fire, Police, Library and other City and community services

The City of Palo Alto Utilities (CPAU) is responsible for all electric, natural gas, water and wastewater collection services. Additionally, since 1997, a dark fiber optics loop has been available to business customers. For information about current services, please visit www.cityofpaloalto.org/utilities or call the Customer Service Center at 329-2161.

Trash collection and recycling, wastewater treatment and storm drains are under the purview of the City's Public Works Department. For information about those services, please visit www.cityofpaloalto.org/pwd or call 329-2151.

CUSTOMER ASSISTANCE AND INCENTIVES For all customers the City offers energy and water saving rebates and incentives tied to general programs designed to educate residential and commercial customers on how to most effectively lower their utilities costs while improving the regional environment. These programs cover the latest technologies in areas such as lighting, heating, cooling, irrigation, water heating and photovoltaics. As an additional incentive, Palo Alto's tiered rate structures reward customers for efficiency. Customers also can participate in the City's PaloAltoGreen program, a nationally-recognized leader in providing renewable energy supply options. The City of Palo Alto offers assistance to low-income customers including both bill payment plans and free installation of conservation measures. To get more details about currently available programs, call Utility Marketing Services at 329-2241.

financial highlights

FINANCIAL HIGHLIGHTS <i>(in \$000 dollars) July 1, 2007 to June 30, 2008</i>	ELECTRIC	GAS	WATER	WASTEWATER COLLECTION	FIBER OPTICS	REFUSE
Sales Revenue	\$91,252	\$48,103	\$25,996	\$14,105	\$2,995	\$23,546
Interest, Fees and Other Revenue	\$21,308	\$2,261	\$3,293	\$2,521	\$448	\$6,164
Commodity Purchase Costs	\$71,064	\$27,160	\$8,363	••	••	\$9,276
Wastewater Treatment Costs	••	••	••	\$7,056	••	••
Operating Costs*	\$11,099	\$4,005	\$4,270	\$2,415	\$43	\$11,065
Equity Transfer to General Fund	\$8,998	\$3,044	\$2,589	••	••	••
Other Operating Transfers	\$3,890	\$838	\$460	\$482	\$2.9	\$1,053
Capital Improvement Program (CIP) Costs	\$13,138	\$5,594	\$3,866	\$4,238	\$412	••
Rate Stabilization Reserve Balances	\$61,227	\$12,133	\$13,111	\$6,027	••	\$4,468
Efficiency Program Operating Costs	\$2,821	\$333	\$313	••	••	••
Cost of Conserved Resources	2.3¢/kWh	35¢/therm	78¢/ccf	••	••	••

*includes depreciation and amortization



financial highlights

electric & fiber optics

ELECTRIC Founded 1900

CUSTOMER SATISFACTION

85% rated utility good or excellent

NUMBER OF METERS

Residential 24,495

Non-residential 4,529

**MILES OF 60 KV
SUBTRANSMISSION LINES**

12 miles (includes 6 miles underground)

**MILES OF PRIMARY
DISTRIBUTION LINES**

446

**MILES OF UNDERGROUND
DISTRIBUTION LINES**

193

HIGHEST PEAK LOAD

189 MW

SUBSTATIONS

(w/300 MVA total capacity) 11

**TOTAL ANNUAL ELECTRICITY
PURCHASED**

1,038 GWh

**PERCENT RENEWABLE
RESOURCE PURCHASED**

For Regular Customers: 9%

For Palo Alto Green Customers: 5%

For All Customers Combined: 14%

**TRAFFIC SIGNALS (intersections)
MAINTAINED**

97

STREET LIGHTS MAINTAINED

6670

**SAVINGS THROUGH EFFICIENCY
PROGRAMS**

5,499 MWh

All information is for FY 2007-08 unless indicated otherwise.

FIBER OPTICS Founded 1996

YEAR OF FIBER OPTIC BACKBONE CONSTRUCTION

1997

ROUTE MILES OF FIBER PLANT (complete backbone)

41

FIBER-MILES OF PLANT (no. of fiber route miles)

5,130

MILES OF OVERHEAD FIBER OPTIC PLANT

16

MILES OF UNDERGROUND FIBER OPTIC PLANT

59

**COMMERCIAL BUILDINGS CONNECTED TO FIBER OPTIC
BACKBONE IN PALO ALTO**

173

GROSS SALES "DARK FIBER LICENSING"

\$3.4 million

CUSTOMER COUNT

41

natural gas

GAS Founded 1917

CUSTOMER SATISFACTION RATINGS

84% rated utility good or excellent

NUMBER OF METERS

Residential 20,605

Non-residential 2,897

PRESSURE OF DISTRIBUTION SYSTEM

Gas Stations 1, 2, 3, and 4 deliver gas into the distribution system at 15–25 p.s.i. depending on demand on the system and the season. Gas is delivered to the VA Hospital at 35 p.s.i.

TOTAL MILES OF GAS MAINS & SERVICES 353

TOTAL ANNUAL GAS PURCHASED 33.4 million therms

GAS SYSTEM AVERAGE DAILY USAGE

Nov–Mar = 130,160 therms

Apr–Oct = 63,619 therms

Year Round = 91,251 therms

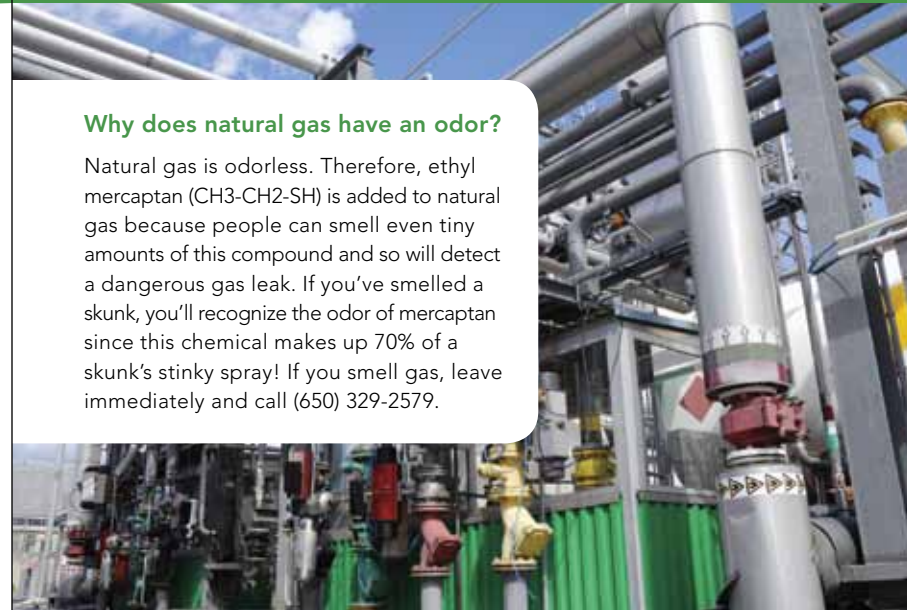
SAVINGS THROUGH EFFICIENCY PROGRAMS 35,057 therms

Why does natural gas have an odor?

Natural gas is odorless. Therefore, ethyl mercaptan ($\text{CH}_3\text{-CH}_2\text{-SH}$) is added to natural gas because people can smell even tiny amounts of this compound and so will detect a dangerous gas leak. If you've smelled a skunk, you'll recognize the odor of mercaptan since this chemical makes up 70% of a skunk's stinky spray! If you smell gas, leave immediately and call (650) 329-2579.

All information is for FY 2007-08 unless indicated otherwise.

natural gas



water & wastewater

WATER UTILITY Founded 1896

CUSTOMER SATISFACTION

87% rated utility good or excellent

NUMBER OF METERS

Residential 15,331

Non-residential 4,611

MILES OF WATER MAIN 219

WELLS

5 operating standby wells

3 new wells under construction

RESERVOIRS

4 Steel and 2 Reinforced Concrete

Total Storage Capacity: 10.5 million gallons

TOTAL ANNUAL WATER PURCHASED

4.6 billion gallons

WATER SYSTEM AVERAGE DAILY USAGE

Nov-Mar = 8.7 million gallons

Apr-Oct = 18.2 million gallons

Year-Round = 13.2 million gallons

PEAK FLOW (calendar year 2008)

21.5 million gallons per day

FLUORIDE ADDED BY SFPUC

Average concentration = 1.0 ppm

CHLORAMINE ADDED BY SFPUC

Average Chloramine Residual = 2.0 ppm

SFPUC website: <http://sfwater.org/home.cfm>

WATER CONSERVATION SAVINGS

29.8 million gallons

WASTEWATER COLLECTION

Founded 1898

CUSTOMER HOOKUPS 21,990

EFFLUENT TREATED FROM PALO ALTO SEWERS

3.3 billion gallons/year

TOTAL MILES OF SANITARY SEWER LINES 202

All information is for FY 2007-08 unless indicated otherwise.

refuse/recycling

REFUSE Founded 1914

RECYCLING (ZERO WASTE)

Founded 1971

COMPOSTING Founded 1978

HOUSEHOLD HAZARDOUS WASTE Founded 1983

REFUSE COLLECTED 47,402 tons

REFUSE RECYCLED 12,633 tons

REFUSE DIVERTED FROM LANDFILL 63%

HAZARDOUS WASTE DIVERTED 166 tons

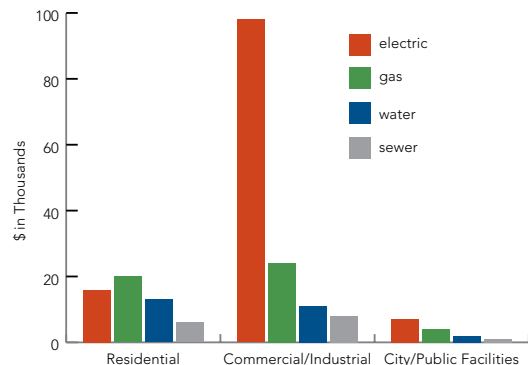
GreenWaste Program

GreenWaste of Palo Alto is the City's new service provider for recyclables, compostables and garbage. GreenWaste will be helping the Palo Alto community achieve its zero waste goals and reduce the amount of waste going to landfills.

All information is for FY 2007-08 unless indicated otherwise.



FY 2007-08 SALES REVENUE



*Efficiency is encouraged as rates are over 25% higher in upper tiers.

RESIDENTIAL RATE STRUCTURES*

ELECTRIC	
Tier One	0-300 kWh
Tier Two	301-600 kWh
Tier Three	over 600 kWh
GAS (based on 30-day month)	
Summer Tier One	20 therms
Summer Tier Two	over 20 therms
Winter Tier One	96 therms
Winter Tier Two	over 96 therms
WATER	
Tier One	0-7 ccf
Tier Two	over-7 ccf

FY 2007-08 AVERAGE MONTHLY RESIDENTIAL BILL

	ELECTRIC	GAS	WATER	SEWER	REFUSE (per can)	STORM DRAIN
Dollars	\$60.83	\$102.03	\$64.21	\$23.48	\$24.16	\$10.55
Usage	650 kWh	60 therms	14 ccf			
TOTAL AVERAGE RESIDENTIAL BILL: \$285.26*						

*not including 5% user tax on metered utilities

For more details on all customer classes and current rates visit us at www.cityofpal Alto.org/utilities and click on Utilities Rate Schedules.

OTHER QUICK FACTS

POPULATION SERVED 63,367 AREA SERVED 26 square miles UTILITIES EMPLOYEES 235

residential resources

UNDERSTANDING RESOURCE TERMS

What can a kilowatt do?

One thousand watts of electricity used for one hour equals one kilowatt-hour (kWh). A 100 watt incandescent light bulb uses 1 kWh every 10 hours. A 15 watt compact fluorescent light uses 1kWh every 66 hours. A 300 watt (50") plasma television uses 1 kWh every 3 hours.

What can a therm do?

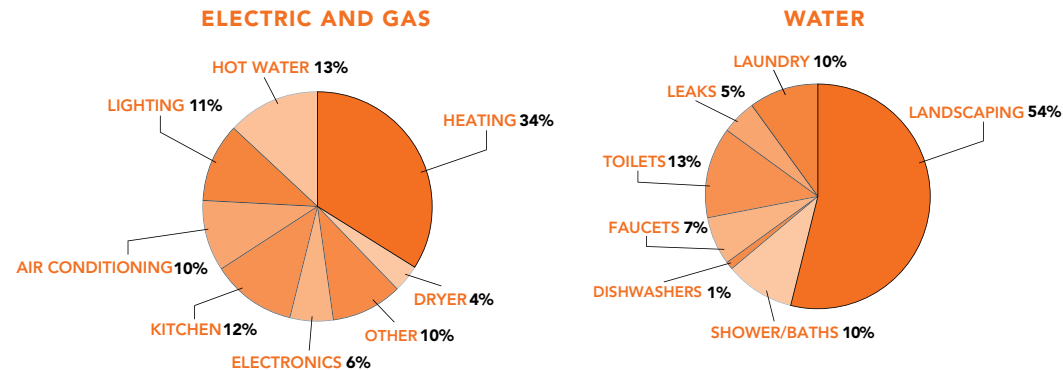
One therm of gas equals 100,000 British Thermal Units (BTUs). A BTU is the amount of heat required to raise one pound (~ one pint) of water one degree Fahrenheit. One therm will run a typical clothes dryer for 5 hours or a typical oven for 4 hours or a gas fireplace for 1.5 hours or a swimming pool heater for 30 minutes.

What can a ccf do?

One hundred cubic feet (ccf) of water equals 748 gallons. One ccf of water is enough for you to take over 62 showers or wash 19 loads of laundry or water the average lawn 4 times. It is also the amount lost in 12 days by a typical toilet or pipe leak.

WHERE DO THEY GO?

While your home usage may vary based on amount of landscaping, whether you have a pool or air-conditioner and so on, these charts give you a good idea of what activities use the most of our planet's resources and contribute the most to residential utilities bills!



contact information

GENERAL INFORMATION

329-2161

Call Before You Dig (*avoid pipelines*) 811 or
1-800-227-2600

Or visit: www.cityofpaloalto.org/utilities

UTILITIES EMERGENCIES

Electric Utility lines and outages 496-6914

Gas Leaks & Pipe Breaks 329-2579

Water Main & Hydrant Leaks 329-2579

Street Light Outages 496-6916

Sewer Problems 329-2579

CUSTOMER SERVICE

Billing Questions 329-2161

Low Income Assistance 329-2161

Credit & Collections 329-2333

Utility Service On/Off 329-2161

KEY UTILITIES CONTACTS

Utilities Website Homepage:
www.cityofpaloalto.org/utilities

Director of Utilities 329-2326

Utility Marketing Services 329-2241

Residential Efficiency Programs:
www.cityofpaloalto.org/ResRebate

Business Efficiency Programs:
www.cityofpaloalto.org/CommercialPrograms

Electric Engineering 566-4500

Electric Operations 496-6934

Water/Gas/Wastewater Engineering 566-4501

Water/Gas/Wastewater Operations 496-6982

San Francisco Public Utilities Commission:
<http://sfwater.org/home.cfm>

Engineering & Operations:
<http://www.cityofpaloalto.org/utilities>

Refuse Collection 493-4894

Zero Waste (Recycling) 496-5910
www.cityofpaloalto.org/zerowaste

Household Hazardous Waste 496-6980

