

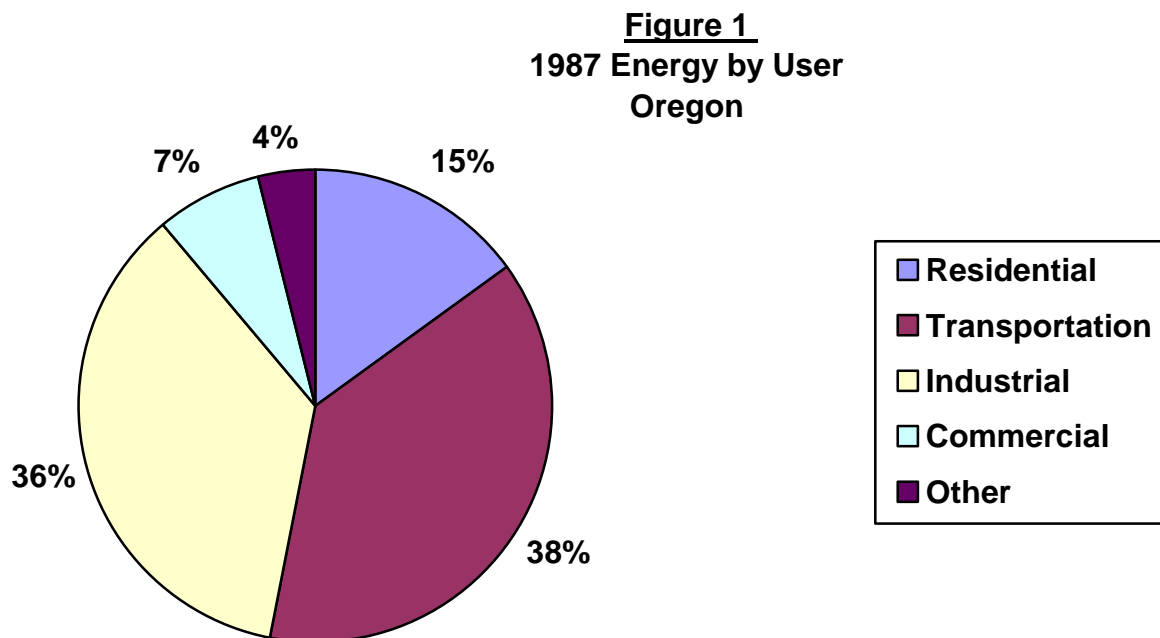
# ENERGY CONSERVATION

## Introduction:

Newport is an energy consumer rather than a producer. Specific data on all energy types is not available for the Newport area, so this section will rely on the State of Oregon's Department of Energy (ODOE) for such information. Consequently, the following discussion represents an overview and analysis of the State of Oregon Third Biennial Energy Plan as it applies to the Newport area.

## Energy Consumption:

Figure 1 depicts the amount of energy used in 1987 by the various energy users. The graph is for the state as a whole.



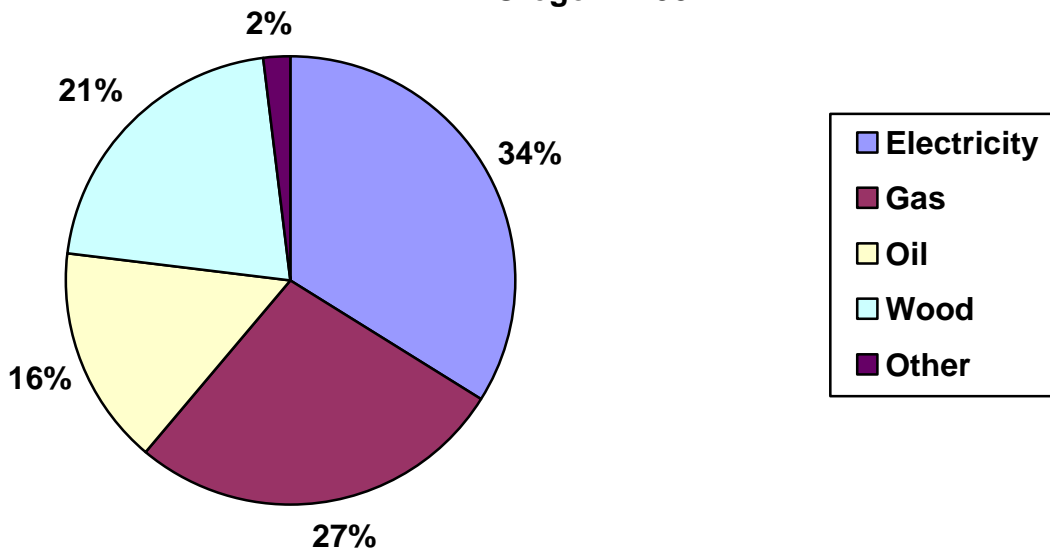
Newport's graph is undoubtedly different, however, in that there is not the industrial development present as in the rest of the state. The percentage of industrial energy consumption is lower, then, while the percentage of the other energy is most likely higher. The exact amount is unknown.

**Residential:**

The Oregon Department of Energy estimates that our households spent about \$850 million on electricity, natural gas, and heating oil in 1987; this averages to about \$800.00 per household. About 40% was spent to run household appliances, another 40% went to home heating, and the remaining 20% was used to heat water. In addition, space heating was supplemented significantly by wood (no estimate of the dollar amount of wood used was available).

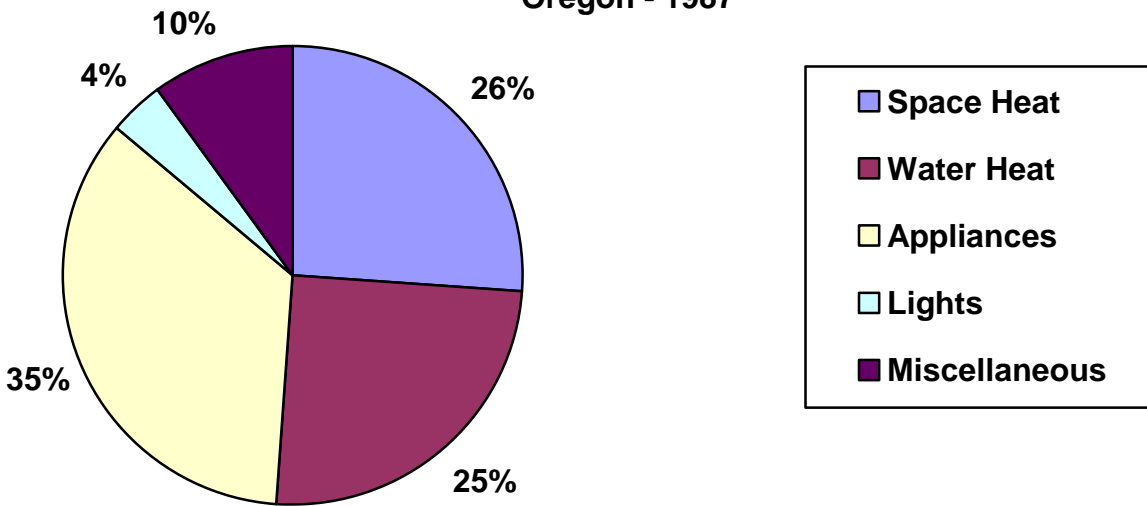
Home heating is the largest single use of energy for most households since most homes have electric, gas, or oil heating systems. One-third of all households also use wood stoves as a primary or back-up heat source. Figure 2 compares the amount of usable heat (the amount it takes to heat the household) each energy source provided.

**Figure 2**  
**Home Space Heating Use by Source**  
**Oregon - 1987**



Virtually all homes use electricity. The 1987 residential electric bill was nearly \$700 million for the State of Oregon. Figure 3 on the next page displays how the total is split among space heat, water heat, and appliances. The miscellaneous group includes up to 50 small household appliances (stereos, blenders, water bed heaters, toasters, etc.).

**Figure 3**  
**Residential Electricity Use**  
**Oregon - 1987**



**Transportation:**

This is the largest energy user (it accounted for 38% of total energy consumed in 1987). With few exceptions, transportation relies wholly on oil products. Nearly two-thirds of its energy comes from gasoline. Fifty-three percent of the gasoline was sold to fuel household vehicles--cars, light trucks, and vans. Another 15% was used for travel by tourists, businesses, and governments. Ships, railroads, and aircraft used about 18%, and the trucking industry used 14%.

**Commercial:**

Energy mainly provides comfort and convenience to customers, employees, students, patients, and other building occupants; thus, energy to light, heat, cool, and ventilate buildings represents more than two-thirds of the energy used by this sector. Cooking in restaurants and refrigeration in grocery stores are the other major energy uses.

Electricity accounts for nearly 60% of commercial energy use, while most of the rest is oil and gas. On page 71, Table 1 lists the major segments.

**Manufacturing:**

Industries use energy mainly to turn raw or unfinished materials into final products. In Oregon, the major consumers are the lumber, paper, primary metals, good, chemicals, and electronics industries. The Newport area has no industry of any significant size in any of those categories.

Table 1  
Commercial Statistics: 1986

Activity	Percent of Electricity Use	Percent of Fuel Use
Grocery	12	1
Restaurants	13	19
Lodging	5	5
Retail	12	3
Office	7	2
Health	7	3
Hospitals	5	11
Schools	8	26
Government	5	7
Other	26	23
<b>Total</b>	<b>100</b>	<b>100</b>

**Conservation:**

Because Newport is a consumer rather than a producer of energy, efficiency is Newport's main energy conservation potential. For residences, weatherization provides the largest energy savings. The Uniform Building Code (UBC) currently requires extensive insulation and other energy saving construction for new homes. According to the ODOE, about 14% of the housing stock in the state is "fully weatherized" and about 12% is "unweatherized." In between is the 74% that is partially weatherized. ODOE estimates that one-third of the conservation potential from weatherization has been attained.

Conservation opportunities for commercial buildings varies depending on the type of business. For most, more efficient lighting is the single greatest way to save energy. Grocery stores, however, can save considerable amounts of energy by switching from open to closed cooler and frozen food cases. Restaurants can best conserve in their manner of cooking, water heating, and refrigeration.

Transportation can profit from more efficient vehicles and by reducing the amount of travel. Industrial uses can also benefit by the use of more efficient machinery, especially electric motors.

**Conclusions:**

Newport is an energy consumer, with the two largest users being residences and transportation. Because we are an energy importer, conservation is the best approach to energy savings.

**GOALS/POLICIES**  
**ENERGY CONSERVATION**

**Goal: To conserve energy.**

Policy 1: The City of Newport shall encourage energy conservation through strict enforcement of Uniform Building Code energy efficiency standards.

Policy 2: The city shall cooperate with energy utilities in their energy conservation programs.

Policy 3: The city will encourage the use of forms of transportation (e.g., bicycles and mass transit) that are more energy efficient.

Policy 4: The city will encourage neighborhood commercial areas in order to conserve energy.

Policy 5: The city shall encourage the location of high density residential areas near high capacity transportation corridors in order to achieve greater energy efficiency.