

ENERGY CONSERVATION

CP.405. Background Summary.

Astoria, like most communities in the State, relies on numerous types of energy to supply the needs of homes, businesses, vehicles and public buildings. These include electricity, both hydroelectric and thermal, fuel oil, natural gas, propane, wood, and the sun. Electricity is the most widely used residential energy in the City, with 4,138 residential customers. It is estimated that 20 to 25 percent of these customers use electrical power to heat their homes. Fuel oil accounts for the largest fraction of home and business heating needs in Astoria, with over 2,000 accounts scattered among four main suppliers. The Natural Gas Company lists approximately 1,200 accounts in the City. Propane dealers have about 60 accounts in the City. It is estimated that about one percent (40 to 50) of Astoria's homes are heated primarily by wood. There are no solar heated buildings in Astoria at the present time.

Because of the availability of cheap hydropower throughout the northwest, electricity has long been a favored source of energy for a variety of purposes. However, it appears the low rates (2.4¢ per kilowatt for residences after a base rate of \$3.00) are proposed to be raised as a result of changes in Federal law pertaining to BPA. Additionally, much of the electricity now used in the PP&L system is generated by thermonuclear plants at Ranier and Hanford reservation, and is considerably more expensive than hydropower.

Fossil fuels are the largest energy source in the City if heating oil and gas and oil for vehicles are lumped. Oil prices have been increasing between 10 and 15 percent per year, even though Alaskan oil production has created a "glut" of oil on the west coast. The climate of Astoria and the rural lifestyle of the region are not conducive to the maintenance of a transit system that can appreciably reduce vehicle use. The City has a bus system and a senior citizens bus. Like most communities, they are not self-supporting.

Both the electric and natural gas companies have energy conservation programs, including no-interest loans in the case of PP&L. "Winterization" loans are available through private lenders and the Area Agency on Aging.

CP.410. Conclusions and Problems.

1. In terms of land use, the City's power corridors and substations are sufficient to meet the needs of community growth in the foreseeable future.
2. Efforts to revive the old PP&L generation plant on Youngs Bay have not been successful, due to the condition (or lack) of equipment and the costs of pollution control. The site is thought to be a prime industrial location. Its value is estimated by PP&L to be \$750,000.

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3. PP&L hopes to eventually consolidate its various substations into one location, the former BPA substation at Olney and old U.S. Hwy. 101 north of the Yacht Club. The two small substations at 9th Street and at Ferry Street would then be available for other uses.
4. The City, as of January 1, 1979, is under the Energy Conservation Amendments to the Uniform Building Code (Chapter 53), which requires significant changes in the amount of insulation in buildings, particularly in roofs. The standard for roof insulation has been increased by more than 50%, from R-19 to R-30.
5. Several programs are available for insulation and other "winterization" loans or grants: the electric and natural gas utilities, the private lenders, and Farmers Home Administration (FmHA) all have loan programs. The Area Agency on Aging and the FmHA also have limited grant programs for low income elderly homeowners. The Northwest Oregon House Association (NOHA) has a long term no interest loan program for low income homeowners for major home repairs.
6. It appears that Astoria residents are well aware of the need for insulation, particularly since a large majority of the dwellings in the City were built prior to 1939. Insulation was identified as the primary concern of residents interviewed during the 1977 housing survey, with 25% of all respondents indicating such a need.
7. The City's compact form contributes to energy conservation by not extending public facilities (water or sewer lines) in a linear fashion; much of the future development is serviceable by gravity sewer lines, is surrounded by existing development (Vista Park) or is adjacent to the City (Tongue Point).
8. The City contributes annually to both the local bus system (TBR, Inc.) and the Area Agency on Aging, which operates a senior citizens bus. Although neither of these have heavy use, they offer an alternative to the use of private vehicles.
9. None of the buildings in Astoria are primarily solar heated at present, although interest in this form of energy is increasing. A recent study by the Oregon Department of Energy indicates that the northwest, and the coast particularly, are very suitable for the use of solar energy because of the region's mild climate. The application of solar energy to residential, commercial, and industrial purposes is projected to increase steadily over the next twenty years.

CP.415. Energy Goals.

The City will:

1. Work toward the conservation of energy in public facilities and services, especially the extension of sewer and water service and streets;

2. Adopt policies and standards in the Comprehensive Plan and Land Use Ordinances designed to conserve energy in land development;
3. Encourage the use of solar energy wherever possible through the layout of new subdivisions, and through flexible application of the Uniform Building Code;
4. Continue to support the public transportation system and the senior citizens bus; and
5. Discourage "strip development" through the provision of parking facilities in the downtown area where people can park in one place and walk to various destinations.

CP.420. Energy Policies.

1. The City will provide sufficient buildable land area for multi-family dwellings, and will encourage the clustering of developments wherever possible in order to conserve energy.
2. The City will consider the long-term energy costs of public facilities extensions or improvements, and whenever possible will use non-energy consumptive methods such as the aerobic sewage treatment lagoons and gravity sewer lines. Environmental benefits of additional treatment of the City's drinking water or sewage effluent must be weighed against the environmental costs of using more energy.
3. The City will encourage the establishment of a community recycling center by a service club, volunteer organization or other group. Consideration will be given to the use of City property where it does not conflict with established uses or the surrounding neighborhood.