

by State Aeronautics publication "Airport Compatability Guidelines, 1981."

28. The County recognizes the importance of deep-water docking facilities to the economy and designates these sites as a deep-water transportation resource. The primary use of these sites will be for docking barges, cargo handling and support activities.

ENERGY CONSERVATION ELEMENT

Introduction

Energy conservation has certainly emerged as a primary concern in recent years, and the importance thereof relative to land use planning is easily recognized. The predominate reliance of the County's major industries on adequate energy sources compounds the importance of energy considerations. Additional concern is due to the rural character of the County and the required distances and travel modes created thereby.

In general terms, the primary goals set forth in this element of the "Plan" are directed at conserving energy, maintaining energy sources and costs, and identification of alternative energy sources.

Energy Resources

The Umatilla Plateau contains very little in the way of carbonaceous fuels. There are some noncommercial coal deposits located south of Heppner in the Clarno Formation. Although lenses and thin beds of pure good-grade bituminous coal are present, they are apparently too thin, intermixed with carbonaceous shale, and structurally deformed to be of commercial interest at the present time.

There have been small amounts of methane gas found in a few of the water wells in the Columbia River basalt.

Morrow County residents may be able to utilize solar and wind resources to provide power in the future. Reflective of conditions in Morrow County, National Weather Records for the period from 1941 - 1970 indicate that the Pendleton area averages 107 clear days per year and 88 partly cloudy days per year. Mean wind speed at

the Pendleton airport for the same period was 9.2 mph. Occasional gusts to 60 and 70 mph are also recorded.

Nearly any location below the 1400 foot elevation level is subject to sustained wind speeds. This elevation is significant because the majority of the population lives below this level, making transmission line lengths feasible, and above this elevation trees, vegetation and topography because disruptive to laminar air flow.

Conflicting uses are mainly agricultural in nature with the exception of the Navy Bombing Range area which has height limitations and the privately operated Boeing Airport which has height limitations. The agricultural conflicts are minor as they are related to the amount of land occupying by the wind generators. Many sites are available which are not suitable for agricultural purposes.

There are no identified geothermal sites in Morrow County.

The State of Oregon has recently completed a low head hydro-study of Morrow County streams which indicates that no sites are feasible.

Energy Developments & Potentials

In the seventies, a consortium of power companies led by PGE developed plans to construct a complex of coal and nuclear power plants in the Boardman area. In 1975 work began on the first of these, a thermal plant using Wyoming coal to be shipped by rail to the site called Carty (after an 1890 Irish sheepman) nine miles south of Boardman and a few miles east of the Bombing Range. The reservoir for the plant will also provide additional irrigation water by damming the runoff from the usually dry reaches of upper Sixmile Canyon. Whether any of the additional projected Morrow County plants will be constructed, or the nuclear plants planned nearby in Gilliam County or the aluminum reduction facility at the Port of Umatilla, remains to be seen. Delays occasioned by environmental impact statement requirements, court cases and financial considerations make the future of energy development in Morrow County uncertain.

Probably construction of a Willow Creek Dam has been talked of for several years. In 1965 a multi-purpose dam was discussed and approved by Congress, but was never funded. Then in 1974 a dam designed primarily for flood control was approved and funded by Congress but vetoed by the President.

National concern, resultant congressional actions and funding could expand opportunities for alternate energy sources such as solar and wind power generation. Such sources appear environmentally preferable over the above referenced facilities, although economical and efficiency factors may prevail.

Another alternative which may be important to Morrow County is the production of gasohol.

Findings

1. Utilization of the Columbia River system and distribution of hydro-electric power among competing interests is critical to the economic development of Morrow County.

2. Presently experimental but potentially economic sources of energy that could feasibly be developed in Morrow County include solar and wind-power electrical generation.

3. Wood products, natural gas, solar and wind energy sources may become important to Morrow County residents and industries as hydro-electric power becomes more expensive.

4. Morrow County receives about 300 days of sunshine per year. Solar energy may be a very feasible source of energy.

5. There is not an abundance of water in the County, therefore, hydro-electric dam sites are, at best, minimal.

6. There may be the possibility of some wind power sites in the County. Sites would most likely be found on higher elevation ridge tops in a saddle and would need an annual average minimum wind speed in the neighborhood of 12 miles per hour.

Policies

the land should seek to minimize the depletion of non-renewable sources of energy.

13. Land use actions should, to the maximum extent possible, seek to recycle and re-use vacant land and those uses which are not energy efficient.

14. Land use development in the County should, to the maximum extent possible, combine increasing density gradients along high capacity transportation corridors to achieve greater energy efficiency.

15. All plans should be directed toward energy conservation and should consider as a major determinant the existing and potential capacity of the renewable energy sources to yield useful energy output. Renewable energy sources include water, sunshine, wind, geothermal heat and municipal, forest and farm waste.

16. Land use development shall be based on utilization of the following techniques and implementation devices which can have a material impact on energy efficiency:

a. Lot size, dimension, and siting controls; b. Building height, bulk and surface area; c. Density of uses, particularly those which relate to housing densities; d. Availability of light, wind, and air; e. Compatibility of and competition between competing land use activities; and f. Systems and incentives for the collection, reuse and recycling of metallic and nonmetallic waste.

~~URBANIZATION ELEMENT~~

See Also New Portion

Introduction

~~The urbanization of the Plan is set forth primarily as a summary of the Urban Area Comprehensive Plans for the five (5) incorporated Cities of the County; Boardman, Irrigon, Ione, Heppner and Lexington. The "Plans" of all these Cities have been completed and adopted jointly by the County and each respective City. Said "Plans" for the Urban Areas of the Cities of Boardman, Irrigon, and Lexington have previously been "Acknowledged" by the State Land Conservation and Development Commission for Compliance with Statewide Planning Goals, and the "Plans" for the Urban Areas of~~