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Information Report On Energy-Efficient Model Conservation Building Standards in Time of Surplus

City Club of Portland (Portland, Or.)

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A. Background

The Northwest Power Act passed by Congress in 1980 directed the Northwest Power Planning Council to include regional energy conservation programs in its long-range energy plan. Specifically, the Council was to develop and include model conservation standards for new and existing structures that are designed to produce all power savings that are cost-effective for the region and economically feasible for consumers. The Council's 1983 energy plan included standards designed to reduce the amount of electricity needed for residential space heating in Oregon from the current building code level of about 5.5 kilowatt-hours per square foot to 2.0 kilowatt-hours per square foot, a savings of over 60 percent.

The Council's plan directs Washington's, Idaho's, Montana's and Oregon's state or local governments or utilities to meet the model conservation standards by adopting energy-efficient building codes by January 1, 1986 or by designing acceptable alternatives which achieve comparable savings of electricity. One example of such an alternative is a requirement that new homes be built to the model standards before they are connected for electric service. Another example is use of a system of financial incentives to obtain a high rate of compliance with a voluntary program of energy-efficient building.

In jurisdictions where this does not occur, utilities may be subject to a 10 percent surcharge on firm power purchased from the Bonneville Power Administration (BPA) to compensate for loss of energy savings. For a residential customer of PGE or PP&L using 1,000 kilowatts per month, the surcharge could amount to about $2.50 per month or $30.00 a year. For the entire Northwest region, the surcharge on total load if no jurisdictions adopted the standards or alternate programs would total approximately $180 million per year. Oregon's share would be approximately $55 million per year.

BPA is also developing an incentive program for those governments which adopt the standards early — before 1986. The city of Tacoma, Washington, was the first and is now receiving BPA financial assistance. Other BPA activities associated with the model standards include training programs for builders, architects, code officials, appraisers, and lenders; an information program for the homebuying public; marketing assistance and incentives to builders and homebuyers; development of a system to rate new homes for energy efficiency; and model home demonstration projects.

B. Current Status of Oregon's Energy Code

Oregon's current energy code, which is a chapter of its building code, was last revised in 1979, when electric energy rates were substantially lower than they are today. In 1979, Oregon's code was one of the most stringent in the nation. Since then, electric energy costs have increased significantly, and some believe the economic efficiency of the current standard is less than is justified by present energy costs. Several states
now have energy codes which are more stringent than Oregon's, e.g., Minnesota, Wisconsin, and South Dakota. As described below, Oregon's energy code is scheduled to be revised in 1985. A November, 1985 adoption date is anticipated, and the revised code is scheduled to go into effect December 31, 1985.

In Oregon, the Director of the Department of Commerce has authority to revise building codes by way of administrative rulemaking. The Structural Codes Advisory Board (SCAB) and the Energy Conservation Board (ECB), with technical assistance from the Oregon Department of Energy, assist the Director on this issue. In addition, the Oregon Housing Council has the responsibility of advising the Director of Commerce on the issue of affordable housing for Oregon residents.

Oregon's existing energy code is a "minimum and maximum standard," which means that cities and counties cannot adopt codes that are either less or more strict than the state code. If they choose not to enforce a code at all, the state is responsible for enforcement. In general, smaller, less densely populated areas let the state do the enforcement work.

C. Issues

Some builders, local governments responsible for code enforcement, banks, utilities, and other affected groups are raising important issues during the rule-making proceeding. Some of these issues are:

1. In a time of energy surplus and a depressed construction market, why do we need revisions to the energy code which would add $2,000 to $5,000 to the cost of a new home?

2. The Council's model conservation standards apply to electric energy use only. Oregon has a building code which requires that all new homes be built to the same standard, regardless of the fuel used for heating. If the new standards are adopted by Oregon, will they apply equally to homes heated by natural gas, oil or wood, as well as to homes heated by electricity?

3. Is a 10 percent surcharge on utilities fair, especially in light of increased utility bills resulting from WPPSS and other factors, and in light of the fact that the actual additional cost to the region from the increased energy use may be a smaller percentage?

4. Why are these standards being imposed now, before results from demonstration buildings have been obtained and before affected governmental units have had a chance to study the question more closely?

D. Arguments In Support Of The Model Conservation Standards

1. The standards are a good investment for the region. Without the energy savings produced by the model standards, the region would need to operate up to four additional coal plants, which would be
2. The standards are a good investment for individual homeowners. The savings in utility bills over the life of the house will more than make up for the cost of adding these conservation features. If a homeowner preferred to build to current standards now and retrofit later, the energy-efficient measures added later on would be double in cost and would be approximately half as effective.

3. The standards are extremely flexible. They do not prescribe how a house must be built. Instead, they set "energy budgets" - how many kilowatt hours per square foot annually a house should use for electrical space heating. The house may be built to any design to achieve this energy budget. This allows the homeowner great flexibility in choosing any style of house.

4. As time goes by, the standards will become relatively even less expensive than they are now. Demonstration programs are being conducted to teach builders how to build to the standards. As builders become more familiar with the necessary techniques, their efficiency will increase and costs will decrease.

5. While the region has a surplus of power now, the average life span of a house is 54 years. This means that a house built to the model standards will consume 60% less energy for electrical space heating than will a house built to current standards - long after the surplus has ended.

E. Arguments in Opposition To The Model Conservation Standards

1. The standards are neither cost effective for the Pacific Northwest region as a whole nor economically feasible for individual consumers.

2. A code incorporating the standards will put a major damper on Oregon's housing industry, delaying or prohibiting the purchase of many new homes because the purchase price of the homes will be higher.

3. It is discriminatory to apply these standards only to those who buy or build new homes heated by electricity. An energy code should be "fuel blind" and apply to all forms of heating fuel — oil, natural gas and wood as well as electricity.

4. A 10 percent penalty is no way to encourage adoption of energy-efficient standards. If they are so effective, market forces alone should encourage their adoption. Surcharging utilities is too indirect a way to encourage the state or local governments to adopt energy-efficient building codes.

5. There should be at least a two-year delay before these standards are required to be adopted and any surcharge is imposed. This delay would permit demonstration program data to be gathered and
state and local governments and utilities to carefully consider all factors before adopting codes or alternative programs.

F. Current Status Of Adoption Efforts

The model conservation standards have been challenged in a lawsuit filed in the Ninth Circuit Court of Appeals by the Seattle Master Builders Association and other representatives of the building industry. This lawsuit also challenges the constitutionality of the Council because the Council claims to have "significant authority" under the federal Northwest Power Act although its members are not federal appointees. BPA has stated that it supports the Council's constitutionality because it views the Council's planning functions as merely advisory.

In the meantime, state and local governments are proceeding in their efforts to evaluate and adopt the Council's model conservation standards. In Oregon, a state building code has been proposed which some feel would produce one-half to two-thirds of the savings which the Council's model conservation standards would produce. The Council has recommended that BPA impose a ten percent surcharge on its customers in jurisdictions which have not adopted the model conservation standards or acceptable alternative measures by January 1, 1986. BPA is in the process of formulating its surcharge policy.

Respectfully Submitted,

Pat Adams Joanne Starr
Teresa Cunningham Jan Hanson, Subcommittee Chair
Don Dame Bob Grey, Committee Chair

Energy Subcommittee,
Standing Committee on Energy and Environment

Approved by the Research Board on February 14, 1985 and by the Board of Governors on February 25, 1985 for publication and distribution to the membership. Because this report carries no conclusions or recommendations, no official action is required of the membership.