Exhibit ____(JL-7)
State Energy Strategy Section on Fuel Choice

BEFORE THE

WASHINGTON UTILITIES AND

TRANSPORTATION COMMISSION

Cause No. UE-920499, UE 921262
Rate Design Phase

PUGET SOUND POWER AND LIGHT COMPANY

Exhibit of

JIM LAZAR
CONSULTING ECONOMIST

On Behalf of
Public Counsel Section
Office of the Attorney General
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WASHINGTON'S ENERGY STRATEGY

An Invitation to Action

in industry. This approach is called "least-cost planning." It identifies the mix of supply and efficiency resources that will meet the demand for energy services at lowest cost, least environmental impact, and most reliability.

Least-cost planning reveals the full range of conservation and other resource options that may be less expensive than traditional power plants or gas supply contracts. Utility regulation is also changing, in recognition that these new ways of choosing resources may have different impacts on a utility's finances. New regulations attempt to align a utility's financial interests with active pursuit of its least-cost plan.

This section discusses issues affecting energy for buildings, farms, and industry in four categories: natural gas, electricity, non-utility fuels, and general issues affecting buildings no matter what their energy sources. The recommendations made in these categories are expected to achieve improvements in statewide energy efficiency in these sectors of between 12 and 15 percent by the year 2010 (see the section on Monitoring Our Progress), with commensurate improvements in environmental impact.

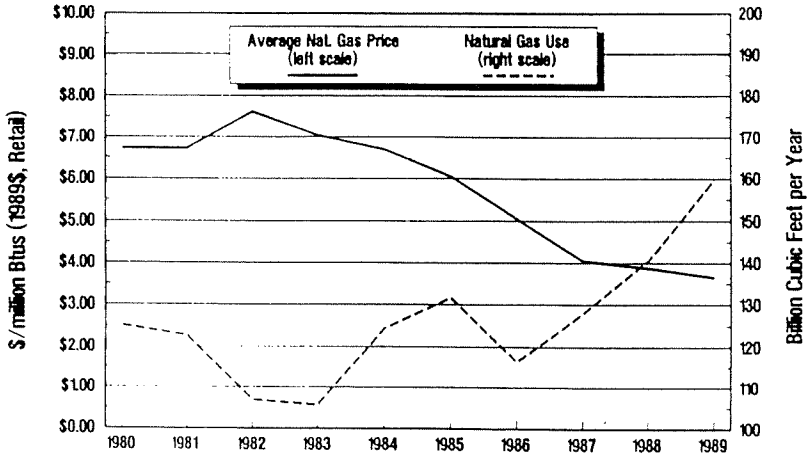
Natural Gas

Natural gas prices are currently at an historic low. Gas is also relatively clean burning. Both of these factors have encouraged widespread use of natural gas throughout the United States for residential space and water heat, as a vehicle fuel, and as a fuel for new electric power plants.

The natural gas industry consists of three separate components: owners of supplies, interstate pipeline companies, and local distribution companies or gas utilities. Beginning in the late 1970s and continuing through today, federal legislation and rules have focused on deregulating much of the natural gas supply and realigning regulation of the interstate pipeline delivery industries.

Deregulation allows large-volume natural gas users such as utilities and industry to shop for their fuel from the Southwest, the Rocky Mountains, or Canada. They also shop interstate pipeline companies to determine which can deliver it, at what price, and with what level of reliability (firm or interruptible). The impact of these changes on the gas business has been enormous. The adjustment period for utilities and their regulators may be one reason for slower implementation of least-cost planning.

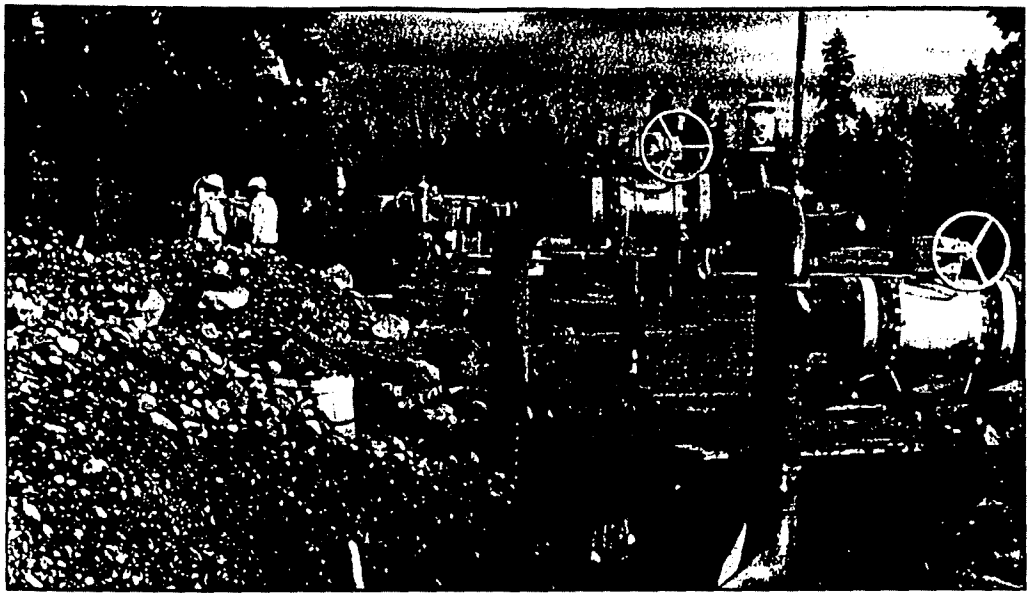
Price and Demand for Natural Gas



Demand for natural gas has increased as price declined over the past decade.

Source: USDOE/EIA

Pipelines bring natural gas to local suppliers.



Washington State's Natural Gas Industry

Washington currently has no commercially producing natural gas fields. Exploration for natural gas trapped in coal beds in the foothills of the Cascade Mountains may yet yield commercial gas supplies for Washington, but the magnitude of this supply and its cost remain uncertain. Lacking its own supply, Washington relies chiefly on gas from Canada and the Rocky Mountain region. Physical resources in both regions appear adequate for many years; the issues for Washington State involve price, pipeline capacity, reliability, and growth of demand. The Committee also identified a significant and growing interrelationship between the electric and gas utilities as the former increasingly turn to gas as a fuel for generation.

Washington's current annual demand for natural gas is 160 billion cubic feet, with recent peak demands of 1.3 billion cubic feet per day. The two interstate pipelines serving the state, coupled with gas storage facilities, have sufficient capacity to meet our current demands. However, firm demand is projected by the region's gas companies to grow by 3 to 5 percent per year through the end of the century. This forecast does not include gas for new industrial use, for power generation, or for vehicle fuel. As the demand to use gas for electricity, space and water heating, and vehicle fuels increases, the natural gas pipeline system will expand. Gas prices will, in large part, depend on the magnitude of the expansion and the efficiency with which the new capacity is used.

Gas for electricity generation is particularly significant. Independent power producers in Washington, the state's utilities, and BPA are currently pursuing gas-fired power generation at six facilities. In combination these facilities exceed 1100 average megawatts. While some of this generation would serve state and regional needs or be available for export, the facilities are expected to consume the equivalent of half again the total current statewide natural gas demand.

In short, the state's gas demand growth is prodigious, and will require expansions in pipeline capacity both north and south of the Canadian border, and possibly new corridors or rights-of-way. There is risk in this growth, particularly in relation to Canadian pipeline expansion and permitting and to United States federal responsibility for establishing the rates for new pipeline capacity. Assessing demand and developing new capacity, as

BPA

In 1937, the federal government created the Bonneville Power Administration (BPA) to revitalize the stagnant Pacific Northwest economy with inexpensive hydropower from Bonneville Dam and other dams on the Columbia River system. Only the Pacific Northwest and the Tennessee Valley are dominated by federally managed electric power, of which more than 80 percent is generated in these two areas.

In the Northwest, the Department of the Interior or the U.S. Army Corps of Engineers operates the dams. BPA markets the power through a vast network of transmission lines, which represents 80 percent of all large lines in the Northwest. The network stretches from Canada to California. BPA sells mainly to publicly owned utilities and large power-using industries, and also funds and conducts significant regional conservation programs for its customers.

THE NORTHWEST POWER PLANNING COUNCIL

"Power Council" is the short name for this regional planning body set up by the U.S. Congress in 1980. It is responsible for developing plans that balance the region's need for electricity with the needs of fish and wildlife on the Columbia river system. These plans are developed with the assistance of the utilities, BPA, other agencies, and the governors of Idaho, Montana, Oregon, and Washington.

The most recent plan recommends that the Northwest's utilities pursue conservation and efficiency, renewable energy sources, and other generating resources. The Power Council is the only regional least-cost electricity planning body in the United States. Its eight members are appointed by the governors of the four states.

required, is critical to the energy future of the state in the next 10 years.

The Committee recommends making gas more available for use directly in residential space and water heating. This is a more efficient use of gas than combustion in a power plant to generate electric power to serve the same functions. However, we must balance thermal efficiency with economic efficiency. Gas lines cannot go everywhere and, even if they did, our electric system still requires new resources, a large fraction of which will be gas-fired. Therefore, it is also important to emphasize more efficient use of gas, even where it is the most cost effective and efficient fuel for the job. Cost-effective conservation programs, developed and implemented by natural gas utilities, are important. The Committee also places priority on cogeneration in gas power plants (using the thermal energy not converted to electricity to power some other industrial process).

The Committee sees three areas requiring special attention:

- Developing more comprehensive least-cost planning for gas utilities.
- Making gas and electric utility plans compatible, to ensure that the full range of interactions between the two energy supplies is considered.
- Providing more access to gas service so that consumers can more easily choose between gas and electricity. Gas service is simply unavailable in many sparsely populated parts of the state, as well as some of the rapidly growing "edge" communities of Puget Sound.

Planning for More Choices

Our increased reliance on natural gas in the near future requires that we act intelligently to maintain reasonable prices and reliable supplies. In recognition of the importance of gas in our near-term future, the Committee strongly supports the following actions.

- The state's gas utilities should work closely with WSEO and the WUTC to develop and implement comprehensive least-cost planning. Least-cost planning will ensure reliability of supply, as well as implementation of cost-effective conservation and efficiency programs for gas utility customers.
- Gas utilities should implement cost-effective conservation measures and programs in their service territories consistent with their least-cost plans.
- The state's electric and gas utilities should work closely with WSEO and the WUTC to integrate their least-cost planning. In many cases they are looking at the same fuel, the same pipelines, and many of the same end uses. The increasing overlap and interaction between the two industries creates questions of who pays for new pipeline capacity, what the long-term outlook for gas prices is, what impact new gas demands will have on the reliability of service to existing customers, and what the impacts might be if customers switch back and forth between the two fuels. Washington's gas and electric utility planners and regulators need to reach a new level of coordination, information exchange, and least-cost planning.

Because the state has had ample supplies of inexpensive electricity, many homes and businesses heat water and space with electric power. Opportunities to heat with gas have not been nearly as available, and "leap frog" development on the urban fringe is especially difficult to supply with gas service.

Most new single family homes are now being built with gas for space and water heat, at least where gas service now exists. New multifamily residences are generally supplied with electricity for space and water heat. Absence of local gas service can prevent access to cost-effective fuel choices, and extension of service into areas not now served may raise regulatory and policy issues. In the multifamily sector, use of gas in new or retrofit applications is complicated by venting, air distribution, and piping costs.

The Committee believes that many unexploited opportunities exist to improve the efficiency and cost-effectiveness of supplying space and water heat through the direct use of natural gas.

However, not all customers can be reached cost-effectively with gas lines; and not all end-uses can be converted practically or economically. The thermal advantage of using gas directly rather than in a combustion turbine may be clear, but the cost-effectiveness of using gas for space and water heat varies dramatically within Washington State depending on the price of electricity, climate, access to natural gas, degree of existing insulation, and the electric utility's growth rate.

Since many homeowners are already choosing to shift from electricity to natural gas to meet energy needs, the question is, "What more needs to be done?" The Committee is in agreement that good consumer information is definitely needed to support good marketplace choices. While the Committee is not allowed by its statute to "mandate the use of one energy source over another," we do favor a series of actions in this area.

The Washington State Energy Office, in cooperation with the WUTC, utilities, Bonneville Power Administration, and the Northwest Power Planning Council, should provide a report to the Governor and Legislature that clearly identifies the nature and extent of the savings available from cost-effective fuel choice. Fuel choice represents a state-wide resource, but one that varies dramatically in magnitude within the state. If this resource is to be pursued, information programs, line extension policy changes, and other efforts must begin to target areas of the state where direct use could save gas (when compared to gas-fired generation) and be cost effective for both electric and gas consumers. The principal goals are to assist the WUTC to develop reasonable and efficient line extension policies and to assist BPA and the Power Council to develop efficient and coherent programs for pursuing fuel choice in public utility service territories.

Change the line extension policy of the WUTC to develop new pricing methods to permit recovery of costs from lower volume lines. This should be aimed especially at areas with high expected growth that would otherwise be served by electric space and water heat if gas is not available. This effort should be closely coordinated with local governments developing growth management plans to evaluate and include provisions for line expansion in areas not now served.

Encourage electric utilities to consider fuel choice as a resource in their least-cost planning and to implement appropriate programs. One option might be to provide consumer information through bill stuffers or informational hotlines.

Encourage BPA to review its new (fall 1992) experimental fuel choice program. In connection with the report described above, BPA should work with other Pacific Northwest parties to refine this program where it can be shown that fuel choice is cost effective and reduces the need to use gas for electricity generation.

Provide clear information to support cost-effective fuel choices. With the support and direction of the Bonneville Power Administration, WSEO operates several information clearinghouse programs. The Committee believes that a similar program supported by the state's gas and electric utilities could provide credible information to support free market decisions on the choice of heating fuel.

The committee discussed the idea of reducing barriers to gas services by expanding the number of providers, specifically by giving public utility districts authority to sell gas and encouraging municipalities to consider it.

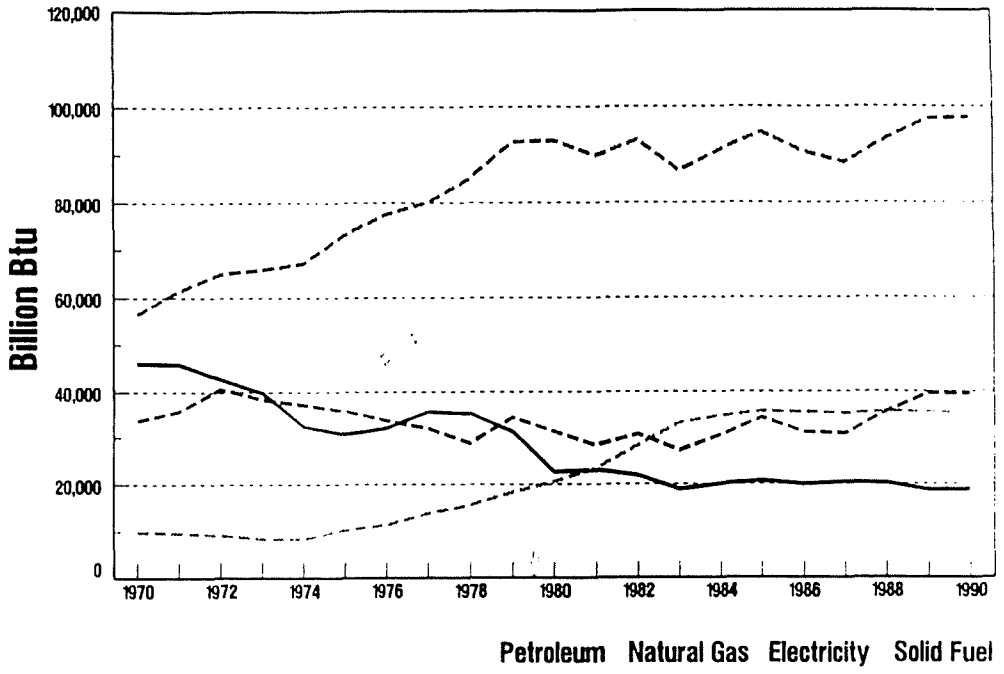
Some members of the Committee felt this would promote competition and more rapid development of service in the unserved areas, and also increase utility support for cost-effective fuel choice.

Several members questioned whether a recommendation in this area was within the scope of the Committee. It was agreed that the Committee would report but take no position on this issue.

Gas Policy and Siting Issues

The Committee sees rapid near-term growth in gas demand as inevitable, given current prices for other fuels and environmental factors. We do not favor rapid growth in gas demand or over-reliance on gas as an energy strategy. On the contrary, our efforts are aimed at increasing the efficiency with which we use this fuel as its importance grows. We favor efficient use of gas through careful assessment of cost-effective fuel choice and

Washington's Residential Energy Use by Fuel



enhanced least-cost planning that identifies opportunities for new efficiency investments.

Roughly $1 billion of investment in new interstate gas pipeline capacity is anticipated in the next decade in Washington State. Industrial users, local distribution companies, and developers of gas-fired power plants all must plan at least three to five years into the future to reserve space on the pipeline to meet their needs. There are significant costs in buying pipeline space; there are uncertainties over associated Canadian expansion, as well as the pricing of pipeline services on both sides of the border. As we expand our use of gas, we need to keep in mind that this is not a resource that is either infinite or immediately available. Its costs and reliability will depend on how effectively we plan for its use and how efficiently we use it.

The Committee recommends careful attention to gas demand growth and the need for new pipeline and storage capacity. Complex transactions between private entities negotiating gas supplies will continue, but significant statewide growth in gas demand and the need for expeditious pipeline and gas storage siting in both the United States and Canada favor the following actions:

In coordination with the state's electric and gas utilities and gas customers, WSEO should develop regular statewide estimates of natural gas use. Such estimates will guide siting decisions and ensure good coordination with government planning and siting officials in British Columbia and Alberta. It is important that market growth and capacity needs in Washington are accurately considered when Canadian decisions are made.

Coal bed methane has the advantage of being an indigenous gas supply that can be developed without new interstate pipeline capacity. This resource should be closely monitored by WSEO and the Department of Natural Resources to determine its potential contribution and how to remove any obstacles that might discourage further development.

The majority of the Committee's recommendations in this section have focused on improving the efficiency of natural gas use even as overall demand for the fuel grows. To monitor the success of these recommendations, the Washington State Energy Office should develop indices to track the efficiency of natural gas use in the state