REPORT OF THE

OREGON ENERGY FACILITY SITING

TASK FORCE

October 21, 1996

MEMBERS OF THE OREGON ENERGY FACILITY SITING TASK FORCE

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Senator Ron Cease, Professor of Political Science and Public Administration, Portland State University

Tamra J. Mabbott, Morrow County Planning Director

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TRANSMITTAL LETTER **October 28, 1996**

To the Governor of Oregon and the 69th Legislative Assembly:

Attached is the Final Report of the Oregon Energy Facility Siting Task Force.

The Task Force was established by the last session of the Oregon Legislature to review the public interest in the siting of energy facilities and to make recommendations to you.

The scope of the Task Force's review was very broad. At one extreme, we could recommend that Oregon's energy facility siting laws, first enacted in the early 1970s, be repealed and the Energy Facility Siting Council abolished. At the other extreme, we could recommend no change at all. Anywhere along the spectrum in between, we could recommend that Oregon's energy facility siting laws be tweaked, a lot or a little, to accommodate changes in the energy environment since the 1970s.

The Task Force recommends that the laws be tweaked -- a little.

We recommend elimination of the "need-for-power" standard for proposed electric generating facilities. We deem it anachronistic in today's competitive environment for power production.

Coupled with that recommendation, we urge adoption of a statutory climate change standard, expressed in terms of reduced carbon dioxide emissions, for natural gas fired powerplants, the generation technology of choice at the present time. The standard would require that CO_2 emissions be significantly less than those from the most efficient and least polluting fossil fueled powerplant operating in the U. S. today and could be made even more stringent after 2 years upon a finding that there is a more efficient new powerplant in operation anywhere in the U. S.

In addition to modest changes designed to conform other laws to elimination of the need standard, we urge (a) development of a model energy facility siting ordinance for local governments, and (b) evaluation of existing statutory findings with a view to adopting more contemporary state energy policies.

That's it in a nutshell.

The seven Task Force members comprise a broad range of backgrounds and interests. One, a state senator and professor of political science, was appointed by the President of the Senate. Another, a state representative and businessman, was appointed by the Speaker of the House. The others --- a professor of economics and former PUC chairman; an eastern Oregon county planning director; a labor union official and former state representative; a state environmental policy coordinator currently detailed to a federal natural resource agency who is also a former law school professor; and a business council president and former state official --- were appointed by the Governor.

The issues considered by the Task Force are contentious, to put it mildly. Parties at interest include utilities, environmentalists, powerplant developers, consumer representatives, the Oregon Office of Energy, and the Energy Facility Siting Council. Although the Task Force had pretty well made up its collective mind towards the end of its deliberations, we endorsed creation of a work group of competing interests to hammer out, if they could, some of the details (in which, as everyone knows, the Devil dwells).

After intense negotiations, the work group crafted a statutory climate-change standard. If enacted, it will focus greater attention on, and provide significantly greater internalization of, putative environmental climate-change impacts of fossil fueled powerplants than is the case anywhere in America, well ahead of whoever is in second place. It will not be cheap.

As expected, none of the participants was overjoyed. Industry representatives thought it went too far. Environmentalists and some members of the Energy Facility Siting Council thought it did not go far enough. Nevertheless, the hammered-out proposal was adopted by the work group by "complete consensus." Each participant has agreed unqualifiedly to support the recommendation in the 1997 legislative session.

The parties deserve congratulations for their hard work and willingness to compromise, in the best sense of that word, in order to reach consensus.

Throughout the Task Force's deliberations, many of the participating publics, in particular staff of the Oregon Office of Energy, worked hard to provide useful testimony, position papers, and comments on drafts of the Task Force's final report. They have our gratitude.

I want to compliment John Larson, the project manager representing the independent contractor providing staff support for the Task Force. In addition to being well informed, Mr. Larson was exceedingly conscientious and, considering the contentious nature of the study and the range of viewpoints of the interested publics and the Task Force members, evenhanded and honorable. He was ably assisted by Mary Beth Buffum.

Some of the Task Force members would have wanted its recommendations to be more sweeping. Others may feel they are excessive. I want to express my sincere appreciation to all of the members whose diligence, patience, respect for the views of the public, and civility towards one another, made it all possible.

Here is something notable: The Task Force's recommendations are unanimous.

Sincerely,

Mike Katz
Chairman

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APPENDICES

I. INTRODUCTION

Section 3(1) of Senate Bill 951, enacted in 1995, provides as follows:

> The Legislative Assembly finds that the energy industry has become increasingly competitive since the adoption of the state energy policy and since energy facility siting statutes were enacted in 1975, and that significant changes also have occurred in energy industry regulation and energy planning. In recognition of these changes, a Task Force is created to review the public's interest in the siting of energy facilities. The Task Force shall consist of seven members. Five members of the Task Force shall be appointed by the Governor, one shall be a member of the Senate appointed by the President of the Senate and one shall be a member of the House of Representatives appointed by the Speaker of the House of Representatives. The Task Force shall develop and present recommendations to the Governor and the Sixty-ninth Legislative Assembly addressing the appropriate public interest in the siting of energy facilities.

Section 3(2) of the bill provided that "[t]he Department of Energy shall enter into an agreement with an independent contractor to provide staff support necessary to the performance of the functions of the task force."

Prior to appointment of the members of the Task Force, the Oregon Office of Energy formed a selection committee for the purpose of seeking proposals from qualified independent contractors. As a consequence of that competitive process, Pacific Energy Systems, Inc., a Portland-based firm providing engineering and project management services to the energy industry, was selected to provide staff support to the task force. The firms of Cogan Owens Cogan, specialists in land use issues, and Landrey & Hunt, specialists in public involvement and public process issues, were enlisted by Pacific Energy Systems as subconsultants to assist with matters within their particular areas of expertise.

In early 1996, Governor Kitzhaber appointed Mike Katz, Tamra Mabbott, Bob Shiprack, Anne Squier, and Duncan Wyse, the President of the Senate appointed Senator Ron Cease, and the Speaker of the House of Representatives appointed Representative Jim Welsh, to serve as members of the Energy Facility Siting Task Force.

At its first meeting on March 5, 1996, Roy Hemmingway, the Governor's advisor for Salmon and Energy, presented the members of the Task Force with the following charge from Governor Kitzhaber, the complete text of which is included in this report as Appendix A:

> Protecting Oregon's environment has been a long-standing commitment for Oregonians. I believe a strong state role in siting energy facilities is an essential piece of that protection. However, the state's siting statutes were enacted in 1975 and significant changes in both the

electricity and natural gas industries have occurred since then. It is time to take a fresh look at the issue and clarify what it is the state seeks to achieve from its energy facility siting process.

Both the 1993 and 1995 Legislatures made some revisions to the siting statutes, but some basic tenets of the law remain in question. Accordingly, SB 951 calls for a Task Force to more fully review the issues and make recommendations to me and the 1997 Legislature. The scope of the review can be as broad or as narrow as the Task Force sees fit. At a minimum, however, the review should consider the following questions:

1. **What is the appropriate scope of state siting authority?** What energy facilities should be subject to state review? Should state siting decisions pre-empt or bind state agencies and/or local governments? If so, under what circumstances should that occur?

2. **How should the decision to permit new facilities be made?** If using a set of standards is reaffirmed as the most appropriate approach, are the current standards the ones to use? Should the siting body have the authority to adopt new standards or waive old standards as circumstances change?

3. **Should a determination of need be required before a facility can be built?** If so, how should the determination be made? Should the determination be made before approving a facility or before its construction begins?

4. **What should be the process to approve or deny requests to build new energy facilities?** At what point and to what degree should the public participate? Should there be a deadline by which a decision must be made? Should the process use a contested case, mediation or some other means of reaching a decision? Who should be able to appeal the decision?

At that same meeting, the members of the Task Force elected Mike Katz to serve as chairman.

At its second meeting, the Task Force heard presentations from certain interested publics, including sponsors of Senate Bill 951, the Office of Energy, the Energy Facility Siting Council, and persons representing certain public interests. (These presentations appear in Appendices B through F.)

Early in its proceedings, the Task Force invited "anyone wishing to express a position with respect to energy facility siting issues to prepare and deliver to the Task Force a position paper expressing his or her views on the issues." In response to this invitation, the Task Force received thirteen papers covering a wide range of issues and addressing the subject of energy facility siting from various perspectives. Papers were prepared and delivered by: CE Exploration Company; the Energy Facility Siting Council; Hermiston Power Project; the League of Oregon Cities; Northwest Environmental Advocates; the Oregon

Public Utility Commission; the Oregon Office of Energy; PacifiCorp and U. S. Generating Company, jointly; Portland General Electric Company; Oregon Chapter of the Sierra Club; Sifford Energy Services; the City of Umatilla; and Jason J. Zeller. (These position papers appear in Appendices G through S.)

During the proceedings, the firm of Cogan Owens Cogan, represented by Arnold Cogan and Linda Davis, was asked by the independent contractor to prepare a comprehensive land use analysis which would: (1) provide the Task Force with "background information concerning current processes and issues in the land use aspects of the siting process"; (2) "examine the concept of supersiting and how energy facility siting compares with other supersiting in Oregon"; and (3) "identify possible options for land use decisions related to energy facilities". The Cogan Owens Cogan *Report on Land Use Issues* is included in this report as Appendix T.

The Task Force also concluded there would be value in examining how our neighboring states address the issue of energy facility siting. Davi-Smith, Administrator of the Energy Resources Division, Oregon Office of Energy, volunteered to prepare a comparative analysis of energy facility siting processes in the states of Oregon, Washington, Montana and California. (Idaho has no specific energy facility siting process.) That comparison is included in this report as Appendix U.

The Task Force invited state agencies affected by the energy facility siting process to comment on the existing process and make recommendations on how it might be improved. Responses were received from Building Codes Division, Oregon Department of Consumer and Business Services; Oregon Department of Environmental Quality ("ODEQ"); Oregon Department of Fish and Wildlife; Oregon Department of Land Conservation and Development; Oregon Division of State Lands; and Oregon Public Utility Commission. The Oregon Office of Energy also forwarded to the Task Force a copy of a letter from William C. Walters, Deputy Field Director, National Park Service, U. S. Department of the Interior, expressing support for the existing process. (These responses appear in Appendices V through CC.)

To facilitate decision-making in the course of its proceedings, the Task Force produced a series of matrix worksheets designed to stimulate thinking and discussion among the members of the Task Force and interested members of the public about issues key to the development of recommendations on Oregon's energy facility siting processes. The first of those worksheets focused on the many facets of the "Need for Facility" standard; the second focused on "Types of Facilities"; and the third focused on "Standards". (These worksheets appear in Appendices DD through FF.) The Task Force believes the use of these worksheets, coupled with the opportunity for broad participation by interested publics, was useful in the development of recommendations addressing the appropriate public interest in the siting of energy facilities.

Late in its proceedings, the Task Force received a thoughtful suggestion from the Association of Oregon County Planning

Directors (see Appendix HH). While supporting the existing energy facility siting process, the Association requested that the Task Force include as one of its recommendations the development of a model energy facility siting ordinance for use by local governments. Because it believes that even smaller facilities not subject to EFSC jurisdiction may entail complex issues requiring specialized expertise, the Task Force concurs and has included such a recommendation.

On October 3, 1996, the Task Force assembled for what was intended to be its final meeting. At that time, the Task Force had concluded that elimination of the need standard for electric generating facilities should be coupled with adoption of a statutory climate change standard designed to produce results comparable to those expected to be achieved by the Klamath Cogeneration Project as winner of the 500 MW Exemption described in greater detail in Appendix GG. However, in the course of this meeting, the Task Force also concluded that its recommendations to the Governor and the Legislature should define of that standard. A working group comprising environmentalists, industry representatives, and Office of Energy staff was charged with the task of trying to reach agreement on that measure and reporting its findings to the Task Force prior to the final meeting on October 21, 1996. Invitations to participate in the working group were extended to other interested publics. The report of that working group is included in this report as Exhibit I.

Over the course of nearly eight months, the Task Force has held seventeen public meetings, conducted site visits at major energy facilities in Eastern Oregon, and heard public comment on a wide range of issues affecting, and affected by, the siting of energy facilities.

The purpose of this report is to summarize the findings and conclusions of the Energy Facility Siting Task Force and to present the recommendations of the Task Force to the Governor and the Sixty-Ninth Legislative Assembly, convening in January 1997.

II. DIRECT RESPONSE OF THE TASK FORCE TO THE GOVERNOR'S CHARGE

In his charge to the Task Force, without limiting the scope of its undertaking, Governor Kitzhaber posed a series of questions to be addressed, as a minimum, in the course of its review. The Task Force has addressed each of those questions, and more, as summarized below. Citations are to page numbers in this report.

Pages

1. **What is the appropriate scope of state siting authority?** The Task Force concludes the scope of authority of the Energy Facility Siting Council ("EFSC") should remain substantially unchanged. In addition, the Task Force concludes the Legislature should require and fund development of a model energy facility siting ordinance for use by local governments. This function should be coordinated by EFSC, involving other appropriate state agencies as well as city and county representatives 18, 46

    a. **What energy facilities should be subject to state review?** The Task Force concludes those energy facilities currently subject to EFSC jurisdiction should remain unchanged. 44

    b. **Should state siting decisions pre-empt or bind state agencies and/or local governments?** The Task Force concludes that EFSC's siting decisions should continue to pre-empt and bind state agencies and local governments. 18, 46

    c. **If so, under what circumstances should that occur?** The Task Force concludes the existing process providing for close coordination with other state agencies and local governments and disposition by EFSC, in a one-stop permitting process, of the regulations and ordinances otherwise enforced by state agencies or local governments remains appropriate. 46

2. **How should the decision to permit new facilities be made?** The Task Force concludes that the process for review and approval of site certificate applications remains appropriate, though the requirement that at least 80% of the output from a proposed thermal generating facility be under contract prior to commencement of construction should be eliminated. 17, 58

    a. **If using a set of standards is reaffirmed as the most appropriate approach, are the current standards the ones to use?** The Task Force concludes, with

III. RECOMMENDATIONS

Based on the findings and conclusions contained in this report, the Oregon Energy Facility Siting Task Force submits the following recommendations to the Governor and the 69th Legislative Assembly, scheduled to convene in January 1997:

Recommendation No. 1

Coupled with amendment of the existing energy facility siting law to adopt a statutory climate change standard, amend the existing energy facility siting law to eliminate the standard relating to need for proposed electric generating facilities, while retaining the need standard for all other types of energy facilities.

Recommendation No. 2

Coupled with amendment of the existing energy facility siting law to eliminate the need standard for proposed electric generating facilities, amend the existing energy facility siting law to adopt a statutory climate change standard to be applied in siting natural gas fired generating facilities[1] intended for base load use expressed as a reduction of CO_2 emissions of 17% below the emissions of the most efficient, combined cycle, combustion turbine, gas fired plant commercially demonstrated and operating in the United States (currently 7200 BTUs per kWh[2], new and clean). The percentage and the initial standard (0.70 net pounds of CO_2 per kWh at an assumed 100% capacity factor) would be established in the statute. The statute would provide that the Energy Facility Siting Council ("EFSC") could not change the reduction of CO_2 emissions percentage to be applied. EFSC could change the net CO_2 per kWh standard after two years by finding that there is a new, more efficient plant in commercial use in the United States. Furthermore, EFSC should develop standards for other types of fossil fuel plants using the principles set forth below as a foundation for setting those standards.

Ways to Meet the Standard

1. The standard can be met by any combination of efficiency, cogeneration or offsets from offsite mitigation that reduce emissions to the allowable standard.

2. Offsets may be demonstrated either through a "Performance Path" or through a "Monetary Path."

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[1] "A natural gas fired facility means a facility that is intended to be fueled by natural gas except for infrequent periods when the natural gas supply is interrupted." [OAR 345-23-000(7) July 1994]

[2] The calculations assume that there are 117 pounds of CO_2 per million Btu of natural gas fuel.

A. Performance Path

Under this path, the applicant would propose certain mitigation projects and would have to demonstrate the reduction in emissions it would produce. The site certificate condition would require implementation of the offset projects, but would not require actual achievement of the emission reduction. If EFSC finds in the siting process that the proposed offset projects are inadequate to meet the standard, the applicant may fall back on the monetary path.

B. Monetary Path

Under the monetary path, the applicant would pay into a fund an amount of money deemed to pay for the offsets it needs to meet the standard. The statute would set the interim rate of $0.57 per ton of CO_2 for purchasing offsets through this Monetary Path. EFSC would have authority to adjust the monetary offset rate up or down after three years based on empirical evidence of the cost of CO_2 offsets from projects and a finding that the standard will be economically achievable. Following the initial three year period, EFSC may adjust the rate up or down no more than 50% in any two year period.

Once the applicant's site certificate is approved based on the monetary path, the applicant's payment would not be adjusted based on the actual performance of the projects funded with the money. The offset projects may reduce emissions beyond what was required for the plant to meet the standard or may not achieve the reduction in emissions needed to meet the standard. Either way, the applicant is not affected.

The details of the administrative management of the fund and of the process for allocating the moneys to projects should be determined by statute and administrative rule guided by the principles set forth below. The applicant should be allowed to participate in that process.

Principles to be met by the Climate Change Standard For New Fossil Fuel Generating Facilities

1. Promote plant fuel efficiency.
2. Promote efficiency in the resource mix.
3. Reduce net CO_2 emissions.
4. Promote cogeneration that results in CO_2 offsets.
5. Provide an incentive for innovative technologies and creative approaches to mitigating, reducing and avoiding CO_2 emissions.
6. Minimize transaction costs, making it easy to do either path.
7. Monetary offset rate under the monetary path should be set at a rate reflective of what could reasonably be expected to be achieved by available third party mitigation offsets.
8. Provide certainty on what mitigation is actually being implemented.

9. Provide a point of certainty for issuing the site certificate, allowing construction of the plant to go forward, while the mitigation measures are being obligated/implemented.
    a. Review of mitigation actions under either path should not jeopardize the validity of the site certificate.
    b. A decision against the applicant on a performance path appeal would, at worst, kick the applicant into the monetary path.
    c. Create a wall between the review of the mitigation under the monetary path and the siting process; provide a mechanism for public interests to review what is being accomplished in the mitigation.
10. Allow either the applicant or third parties to implement the mitigation.
11. The process for changing or updating the standard must be specifically spelled out in the statute, with boundaries and criteria for the change. Allow EFSC to update the standard in a specific way that is bounded by statutory criteria based on how the initial number was created and evaluated.
12. There should be no change sooner than two years after the statute is enacted.
13. This standard is not intended to block/stop power generating plants from building in Oregon. The standard should be attainable and economically achievable.
14. Mitigation project proposals should have an accountable public review and input at various stages. The public review process of mitigation project proposals should not unreasonably lengthen the time of the implementation of the mitigation projects.
15. Implementation of the mitigation projects must correspond in some way with the emissions from the plant.
16. Provide for monitoring and evaluation of mitigation program performance.

Recommendation No. 3

Coupled with adoption of a statutory climate change standard and elimination of the need standard for proposed electric generating facilities, amend the existing energy facility siting law to eliminate the requirement that at least 80% of the output from a proposed thermal generating facility be under contract prior to commencement of construction.

Recommendation No. 4

Coupled with adoption of a statutory climate change standard and elimination of the need standard for proposed electric generating facilities, amend the existing energy facility siting law to clarify that economic need for new electric generating facilities should be shown by reliance on competition in the market and not by consideration of cost-effectiveness. This amendment should be accomplished in a manner that ensures state energy policy and the definition of cost-effectiveness continue to apply to decision-making other than the siting of electric generating facilities. Furthermore, this recommendation is not intended to alter the role of the Oregon Public

Utility Commission in promoting least-cost planning with respect to facilities within its jurisdiction.

Recommendation No. 5

Require and fund development of a model energy facility siting ordinance for use by local governments in siting energy facilities. This function should be coordinated by EFSC, involving other appropriate state agencies as well as city and county representatives.

Recommendation No. 6

Evaluate ORS 469.010 with a view to adopting more contemporary legislative findings that reflect changes that have occurred and are occurring in the energy industry since enactment of Oregon's energy facility siting law and resulting from implementation of recommendations contained in this report, particularly in light of EFSC's broad charter which requires it to conduct its business and render its decisions consistent with Oregon's energy policy. The foundation of that policy, which extends to other state agencies as well, is stewardship for present and future generations, promotion of efficient use of energy resources, and development of permanently sustainable resources. The Task Force believes Oregon's future energy policy should build on that foundation and take into account the following objectives (as discussed more fully at pages 30-32), as well as other aspects of the existing statute:

- Deliver benefits of competition to our citizens in a way that continues to respect our environment and our quality of life
- Promote reasonable and equitable access to energy and foster affordable prices, including all Oregonians
- Address energy uncertainty
- Provide accurate energy information for consumers and producers
- Ensure that consumers are afforded a free choice among alternative energy sources, together with the opportunity to be fully informed about the environmental, social, and economic costs and benefits of such choices
- Ensure honest dealings in energy products
- Mitigate or eliminate imperfections in the marketplace, including externalities
- Encourage cost-effectiveness in state agency decision-making relating to energy sources, facilities or conservation
- Encourage development and deployment of cost-effective conservation
- Encourage development and deployment of cost-effective renewable resources
- Improve energy system efficiency

IV. GENERAL

A. General: Background

History. Oregon's energy facility siting law originated with formation of the Nuclear and Thermal Energy Council ("NTEC") in 1971. The role of NTEC was defined to include regulation of the siting of nuclear and coal-fired generating plants with capacity of at least 200 megawatts. NTEC applied several standards in the course of reviewing a proposed energy facility. Among those standards was a "prudency" standard for judging whether there was sufficient demand for the output from a proposed facility to justify site certification.

In 1975, as the electric utilities serving the Pacific Northwest were predicting the need for extraordinary and rapid development of new generating facilities, Oregon revised its energy facility siting laws extensively. Those revisions included creation of the Energy Facility Siting Council ("EFSC") to replace NTEC and establishment of the Oregon Department of Energy ("ODOE"). Among other things, ODOE was formed to encourage conservation and renewables and to provide staff support to EFSC. The role of EFSC was defined to include regulation of the siting of electric generating facilities producing 25 megawatts or more, as well as the siting of high voltage transmission lines, gas pipelines, and radioactive waste disposal sites. Initially, as with NTEC, in addition to numerous other standards, EFSC applied a "prudency" standard in determining whether there was a need for a proposed facility.

In 1979, in response to a proposal by ODOE, EFSC used its discretionary authority to substitute a "need" standard for the "prudency" standard. The "need" standard gave weight to ODOE's energy forecasts and cost analyses and stressed conservation and utilization of renewable resources.

Despite the earlier rapid load-growth predictions of the electric utilities, with the exceptions of the Trojan Nuclear Plant, the canceled Pebble Springs Nuclear Plants, the Boardman Coal Plant, and the EWEB cogeneration facility in Springfield, very little actual or proposed electric generating facility siting activity took place in Oregon during the 1970s and 1980s. Other types of energy facilities sited during that period included the Mist Gas Storage facility, the South Mist Feeder gas pipeline, and the Eugene-Medford 500-kV transmission line.

In anticipation of an increase in siting activity, in 1989 ODOE proposed that EFSC undertake an extensive revision of the energy facility siting rules consistent with the council's broad statutory mandate. This rulemaking effort continued between 1989 and 1993. With enactment of Senate Bill 1016 during the 1993 legislative session, many of the specific concepts, or "standards", reflected in the resulting rules were adopted by statute.

During the 1995 legislative session, Senate Bill 951 was introduced at the request of some industry representatives. As proposed, SB 951 would have eliminated the "need-

for-facility" standard and narrowed EFSC's discretionary authority. When it appeared the governor would not sign the bill as proposed, the "need-for-facility" standard was restored (though a one-time only, non-recurring, 500 Megawatt Exemption from the requirement to show need was added), EFSC's authority to adopt standards not specifically addressed in the law was curtailed during the interim, and this Task Force was created to examine in depth the appropriate public interest in the siting of energy facilities and make recommendations to the governor and the next session of the legislature based on its findings. During the same 1995 session, HB 3455 transformed ODOE into the Office of Energy ("OOE") within the Department of Consumer and Business Services, though its functions and role as staff to EFSC remain essentially unchanged.

The Changing Environment. In 1969, Pacific Northwest utilities proposed a "Hydro-Thermal Power Program" which contemplated 20 nuclear power plants, each with a nameplate rating of 1,000 megawatts, sprinkled about the Pacific Northwest by early 1990. Load forecasts indicated that if additional generating capacity was not added quickly, demand for electric energy would rapidly outstrip supply.

Two years later, in addition to Trojan with capacity of 1,100 MW and the Centralia coal plant with two 700-MW units, a revised Hydro-Thermal Power Program scheduled six additional thermal power plants of 1,100 MW each by 1982, another three plants of 1,200 MW each by 1986, and seven more plants of 1,500 MW each by January 1992. Land use impacts would have been significant. Each plant would have employed hundreds of workers. Since some of the plants contemplated were coal plants, other safety and environmental impacts, given the technology of the time, would have been significant. The safety of nuclear plants and disposition of radioactive waste was a concern.

This was the setting in which Oregon's energy facility siting law was formulated.

Only one of the huge plants contemplated was built. Today in the Northwest, there is only one nuclear power plant operating, WNP 2 at the Hanford Reservation with a 1,200-MW capacity. It is often shut down for economy reasons when abundant cheaper power is available to the Northwest. Centralia continues to operate, as does Boardman in eastern Oregon with capacity of 560 MW, when they, too, are not shut down for economy reasons.

It is obvious that the energy industry has undergone considerable change since Oregon's energy facility siting law was first enacted. To some extent, that change has been reflected in amendments to the law. However, the effect of change is currently being felt to a far greater extent than was true at the time those amendments were enacted. For example, independent power producers ("IPPs"), not only regulated utilities, are building and operating electric generating plants. In addition, the power plants being proposed for construction are smaller, capable of being built with much shorter lead time, and, on a kilowatt-hour basis, more dependable, less expensive, less polluting, and less intrusive than was true just 5 years ago. (For examples, see Table 1,

Marginal Resource Comparison: Draft Plan Compared to 1991 Power Plan prepared by the Northwest Power Planning Council for inclusion in *Northwest Power in Transition: Opportunities and Risks*, adopted March 13, 1996, and Table 2, Selected Characteristics/Impacts of Oregon State-of-the-Art Thermal Power Plants, prepared by the Oregon Energy Facility Siting Task Force, April 24, 1996.)

Furthermore, as a consequence of federal legislation and the actions of the Federal Energy Regulatory Commission ("FERC"), the regulated electric utilities are positioning themselves to disaggregate their vertically integrated systems, i.e., to separate, at least functionally, transmission from their generation and distribution systems and, perhaps, to go on to the next step and separate generation and distribution. Electric consumers may one day, perhaps soon, be served by a single regulated common-carrier distribution line but have choice as to their supplier of electricity from among alternative retail vendors. Such competition may have the effect of making electricity competitively available to consumers at the lowest price and reduce or eliminate the need for traditional utility rate regulation.

Changes mandated by the Federal Energy Regulatory Commission ("FERC") in its 1996 Order 888, adopted pursuant to the Energy Policy Act of 1992, will affect the development of new transmission to accommodate this less structured utility environment. For instance, owners of transmission must grant open access on a non-discriminatory basis to anyone wishing to use their lines, charging the same as they would charge themselves. If an independent power producer requires transmission access it must be granted at non-discriminatory rates. If there is insufficient capacity, the transmission owner must build additional transmission capacity at the applicant's expense.

System reliability may become an issue of considerable concern as the relatively stable regulated utility environment is affected by the emergence of numerous new players, mostly in the form of IPPs providing new sources of generation. As the new marketplace takes shape, it appears that one or more independent grid operators will provide monopoly transmission services for the purpose of moving power from numerous unaffiliated generating sources to numerous unaffiliated local vendors and distributors. In the past, the investor-owned utilities performed the generation, transmission and distribution functions on a fully vertically integrated basis.

As restructuring of the traditional utilities begins, the concept of least-cost planning is expected to be addressed both by economic regulation and by competitive market forces, though the least-cost planning function of the OPUC remains important so long as there is no true competitive marketplace. Care may be needed to ensure that both short-term and long-term costs and benefits to society are adequately addressed by appropriate social regulations to which competitive firms are bound.

Rate Base Economics. Oregon's energy facility siting law was enacted, in part, to reflect the reality that the investor-owned electric utilities, which serve about 75% of electric customers in Oregon, were vertically integrated, i.e., they generated the electricity,

TABLE 1

Marginal Resource Comparison: 1996 Draft Plan Compared to 1991 Power Plan

Resource Characteristics	1991 Plan Gasified Coal	1996 Draft Plan Gas-Fired Turbine	Change
Size (MW Capacity of Typical Plant)	420	228	46% Smaller
Lead Time (Years)	7	4	43% Shorter
Capital Cost ($/kW)	$2,520	$684	73% Lower
Availability (%)	80	92	15% Greater
Efficiency (%)	36	47	30% Greater
Levelized Cost (cents/kWh)	6	3	50% Lower
Particulates (T/GWh)	0.07	0.03	57% Less
SO_2 (T/GWh)	0.04	0.02	50% Less
No_x (T/GWh)	0.50	0.07	85% Less
CO (T/GWh)	0.02	0.02	Similar
CO_2 (T/GWh)	985	497	50% Less

Legend:
MW = Megawatt
kW = Kilowatt
kWh = Kilowatt-hour
Gwh =Gigawatt-hour (1 million kWh)
T =Ton
SO_2 = Sulfur dioxide
NO_x = Nitrogen oxides
CO = Carbon monoxide
CO_2 = Carbon dioxide

Source: *Northwest Power in Transition: Opportunities and Risks*, Northwest Power Planning Council Draft Plan, March 13, 1996

TABLE 2

OREGON ENERGY FACILITY SITING TASK FORCE
Selected Characteristics/Impacts of Oregon State-of-the-Art Thermal Power Plants

Characteristics/Impacts	Boardman Coal	Coyote Springs CCCT	Hermiston Generating Plant CCCT
Generating Units	1	1 (d)	2
Nameplate Rating	560 MW	266 MW	474 MW
January Peak Capacity	507 MW	241 MW	429 MW
Annual Energy	385 MWa	219 MWa	390 MWa
Heat Rate (Btu/kWh) Efficiency (Btu output/input)	10,035 34%	7,200 47%	7,200 47%
Commercial Operation Date	July 1980	November 1995	July 1996
Land requirements	270 acres plus 1,500 acres reservoir (b)	≈22 acres	≈17 acres
Land zoning	Agricultural/Industrial	Port Indust. (Powerplant)	Industrial
Power line to main grid	17 miles	1.5 miles	≈11 miles
Building height	290 feet	≈100 feet	≈100 feet
Stack height	656 feet (c)	185 feet	215 feet
Makeup water for cooling	Willow Creek; 17 miles buried pipe	City of Boardman	Port of Umatilla
Fuel	Wyoming coal; 110-car unit train 4-5 times weekly on 16-mile spur from UP mainline	Canadian gas; 15-mile buried pipe from PGT pipeline	Canadian gas; 4.9 -mile buried pipe from Cascade pipeline
Employment (operating)	115	26	26
Variable cost	14 mills/kWh	11 mills/kWh	≈11 mills/kWh
Total cost	≈37 mills/kWh	≈27 mills/kWh	≈24 mills/kWh
Most serious environmental problem (a)	Air emissions	Anhydrous ammonia	Aqueous ammonia
CO_2 per million Btu (lbs.) CO_2 per net kWh (lbs.)	212 2.11	116 0.83	106 0.76

(a) According to plant managers; Office of Energy staff.
(b) A more costly cooling tower requiring ≈5 acres could substitute for the Boardman reservoir requiring 1,500 acres.
(c) The Boardman stack is the tallest self-supporting structure in Oregon; exceeding in height 1st Interstate and U.S. Bank towers in Portland, Oregon.
(d) Coyote Springs CT is planned as a two-unit facility, the second twin unit occupying no additional site land.

Sources: Northwest Regional Forecast of Power Loads and Resources, Pacific Northwest Utility Conference Committee, March 1996; plant managers and staff

they transmitted the electricity at high voltage to substations near the point of use, and they distributed the electricity to ultimate consumers. Because such vertical integration conferred special monopoly powers upon the electric utilities, Oregon enacted laws for economic regulation to protect the consumer from the kinds of abuse likely to arise in the presence of a natural monopoly. The Oregon Public Utility Commission ("OPUC") was formed to regulate pricing, promote system reliability and universal access to service, and to protect the public health and safety. Investor-owned electric utilities were granted exclusive service territories, the right of eminent domain to condemn property for utility purposes, and a guaranteed opportunity to earn a reasonable return on investment in exchange for their obligation to serve and to abide by regulatory orders of the OPUC, most particularly with respect to rates.

Though the investor-owned electric utilities serving in Oregon remain vertically integrated, still have exclusive service territories, and continue to be subject to OPUC regulation, significant change appears on the horizon. For example, with the exception of the Coyote Springs combined-cycle combustion turbine ("CCCT") plant brought into service by Portland General Electric in 1994, new generating facilities are being built by unregulated IPPs that sell their output to the utilities, directly to large industrial customers, or to a combination of utility and industrial customers. (It should be noted, in addition to contracting for its entire output, PacifiCorp has acquired a fifty-percent ownership interest in the Hermiston Generating Project, which is partially owned by a subsidiary of Pacific Gas & Electric Company; an affiliate of PacifiCorp has announced it will acquire a substantial interest in the proposed Klamath Cogeneration Project; and, an affiliate of Idaho Power Company holds a substantial interest in the proposed Hermiston Power Project. All of these projects are CCCTs.) Furthermore, sales from IPPs may be by long-term contract, through the wholesale market, or a combination of the two. Soon, it may no longer be true in every instance that the electric utilities that sell electricity to our homes and businesses will also generate and transmit that electricity.

Not all electric utilities are vertically integrated. Some, since their formation, have been distribution companies only. This condition is true of most peoples utility districts, cooperatives and municipal systems in Oregon. These entities take delivery of electricity generated and transmitted by others and distribute that electricity to their customers within designated service territories. Generally, these systems are customer-owned or publicly-owned and not subject to rate regulation by the OPUC. The way the investor-owned retail electricity vendors will operate in the future may resemble in some respects the way non-vertically integrated cooperatives and publicly-owned utilities have operated in the past.

Characteristics of the Energy Facility Siting Law. The existing energy facility siting law has many features:

- It confers upon EFSC exclusive authority to approve or disapprove the development of central station generating facilities, high voltage transmission lines, gas pipelines,

nuclear waste storage facilities, and other defined energy facilities.

- It facilitates **one-stop permitting** by empowering EFSC to apply, in a single proceeding, the land use standards of affected local governments and the permitting standards of any state agency that would normally issue a permit for the facility (with the exception of permits issued by ODEQ under federally delegated programs). In addition to meeting the standards that any other similar industrial facility would have to meet, energy facilities must also meet the EFSC siting standards which are designed to address impacts of energy facilities that are not addressed by the standards of other state agencies or local governments.

- It enables applicants to elect whether to obtain land use approvals directly from the affected local government (Path A, as discussed more fully in the Report on Land Use Approvals, Appendix T) or to have EFSC conduct the land use review as part of the one-stop permitting process by applying the local standards (Path B, as discussed more fully in the Report on Land Use Issues, Appendix T). As with any other land use application, applicants may seek exceptions or variances from both local and applicable state standards. If an applicant elects to have EFSC determine compliance with local land use standards, local governments nevertheless have a defined role in the EFSC process. First, they have a formal role in determining what local standards ("applicable substantive land use criteria") apply to the proposal. Second, they make a formal recommendation to EFSC as to whether the proposal meets the applicable substantive land use criteria.

- It provides that for multiple jurisdictions or more than three land use zones within a single jurisdiction, EFSC may evaluate the land use impacts of a proposed facility under the statewide planning goals rather than under local land use standards.

- It provides that if local standards conflict with the rules of a state agency, EFSC may resolve the conflict consistent with the public interest.

- It gives EFSC power to act where local land use standards of one jurisdiction conflict with standards of another jurisdiction or state agency or where local standards were not designed in anticipation of energy facilities.

- In some cases, it allows for the application of more rigorous standards than would be required under regulations enforced by other state agencies.

- It empowers EFSC to "consider the costs of emission from energy facilities of gases that contribute to global warming" in determining whether there is a need for the proposed facility (a standard which is

currently not applied to other types of industrial facilities).

B. General: Findings. With respect to general issues affecting energy facility siting, the Task Force finds:

- Oregon's existing energy facility siting law was first enacted in the early 1970's and has been amended from time to time to address changing conditions.

- The energy industry is undergoing substantial change, in large part as a consequence of deregulation of much of the natural gas industry and the anticipated deregulation of the electric power industry.

- Large coal-fired and nuclear generating facilities are now rarely built.

- New generating facilities are generally smaller, cleaner, cheaper, more efficient, higher availability, shorter lead-time, combined-cycle gas turbine power plants.

- The extensive hydroelectric system which provides a large percentage of Northwest capacity now faces issues which may limit production at existing hydroelectric facilities and impede or prevent development of new hydroelectric facilities. Virtually all of the economically feasible and environmentally acceptable hydroelectric potential for generation of energy has been developed. New sources of electric energy may be required to supplement existing hydroelectric capacity.

- When Oregon's existing energy facility siting law was first enacted, there was emphasis on development of renewable energy as a means of addressing a perceived immediate shortage of nonrenewable resources and recognizing the importance of reducing reliance on ultimately finite resources. Conservation was emphasized to defer development of more costly new generation as well as to reduce waste and promote energy independence. Despite changes in the energy picture, the fundamental policy reasons for the state to continue promoting conservation and renewables still has merit. Currently, there is diminished use of these resources because of the low cost and perceived abundance of conventional energy resources. The cost effectiveness of conventional energy sources has improved as fuel costs have dropped and technology advanced, making conservation and renewables somewhat less attractive economically despite their own continued cost improvement.

- When the existing energy facility siting law was enacted, high-cost coal-fired and nuclear generating plants were the norm, and the use of natural gas for the generation of electricity was prohibited by the federal Fuel Use Act of 1978, subsequently repealed. The removal of that prohibition, coupled with increased gas availability, decreased gas cost and improved gas turbine efficiency, has

made gas-fired thermal generation attractive. (About the same time the Fuel Use Act of 1978 was enacted, the OPUC issued an order prohibiting new hookups for natural gas.)

- One-stop permitting provides a benefit for those wishing to site energy facilities in Oregon. The process requires compliance with all of the standards that would apply in the absence of one-stop permitting as well as the standards adopted by EFSC to apply specifically to energy facilities. One-stop permitting places the decision as to whether all of these standards have been met with a single agency, namely EFSC, thereby reducing the potential for conflicting application of standards and requirements. While one-stop permitting necessarily involves transferring decision-making to a single agency, local governments and state agencies provide advice and recommendations to EFSC. Spokespersons for EFSC state that EFSC has rarely, if ever, made a decision contrary to the advice of a local government or other state agency.

- When the existing energy facility siting law was first enacted, the world scientific community placed less emphasis on the climate altering potential of carbon dioxide emissions. Though scientists have not reached total agreement on the subject, there is growing concern that human activities may contribute to climate change and that the emission of carbon dioxide may be a significant contributor to that change. While Oregon's ability to influence this global issue may be limited, Oregon should do its share.

- Given the actions of Congress, the views of the Administration, in general, and the Federal Energy Regulatory Commission, in particular, and movement in other states, including our neighboring states, we might expect increasing reliance on competition and the marketplace to determine what energy facilities are built with correspondingly reduced reliance on economic regulation.

C. General: Conclusions. With respect to general issues affecting energy facility siting, the Task Force concludes:

- The energy industry is undergoing substantial change which is stimulating competition among energy suppliers.

- If the electric energy industry restructures itself along lines currently anticipated, it is likely that a single transmission system under an independent grid operator will remain subject to economic common-carrier monopoly regulation and that local distribution companies may be broken up into two components: regulated common-carrier monopoly distribution lines and unregulated competitive commodity vendors. It is unlikely that electric generation companies will remain subject to economic regulation in the future

when distribution and transmission have been separated from generation.

- Even if the electric energy industry does not restructure itself along the lines currently anticipated, the consuming public should benefit from competition among electric generation companies, provided adequate safeguards are in place to protect consumers, particularly residential consumers, from lack of competition and from unfair allocation of utilities' stranded investments.

- Oregon's existing energy facility siting laws were enacted when investor-owned utilities were vertically integrated and subject to pervasive regulation, these same utilities were predicting rapid growth in the need for new electric generating facilities, and the only viable options for significant generating plants were larger nuclear and coal-fired plants. While the investor-owned utilities remain vertically integrated and subject to pervasive regulation (though change seems imminent), growth in the demand for new generating facilities has not increased at anywhere near the rate originally expected, and cleaner, smaller, cheaper, more efficient, lower environmental-impact, shorter lead-time, higher availability, combined-cycle gas turbine generators now predominate as the new electric generating plant of choice. While the cost of fuel may increase or decrease, the efficiency can only improve. On the other hand, regulation to reduce or tax the emission of gases that contribute to climate change could reduce the economic advantages of gas-fired turbines, *vis-a-vis* non-fossil-fuel alternatives.

- Oregon's energy facility siting laws require limited modification to accommodate the changing environment and ensure that consumers realize the benefits likely to accrue from competition among electric generation companies while continuing the protections currently afforded through EFSC.

- Generally speaking, affected constituencies believe the existing energy facility siting laws require only minor modifications to accommodate changing conditions in the energy industry.

V. POLICY

A. Policy: Background

Original Legislative Findings. Oregon's existing energy policy is predicated on legislative findings dating back to 1975. Those findings read as follows:

> ORS 469.010 **LEGISLATIVE FINDINGS.** The Legislative Assembly finds and declares that:
>
> (1) Continued growth in demand for nonrenewable energy forms poses a serious and immediate, as well as future, problem. It is essential that future generations not be left a legacy of vanished or depleted resources, resulting in massive environmental, social and financial impact.
>
> (2) It is the goal of Oregon to promote the efficient use of energy resources and to develop permanently sustainable energy resources. The need exists for comprehensive state leadership in energy production, distribution and utilization. It is, therefore, the policy of Oregon:
>
> (a) That development and use of a diverse array of permanently sustainable energy resources be encouraged utilizing to the highest degree possible the private sector of our free enterprise system.
>
> (b) That through state government example and other effective communications, energy conservation and elimination of wasteful and uneconomical uses of energy and materials be promoted. This conservation must include, but not be limited to, resource recovery and materials recycling.
>
> (c) That the basic human needs of every citizen, present and future, shall be given priority in the allocation of energy resources, commensurate with perpetuation of a free and productive economy with special attention to the preservation and enhancement of environmental quality.
>
> (d) That state government assist every citizen and industry in adjusting to a diminished availability of energy.
>
> (e) That energy-efficient modes of transportation for people and goods shall be encouraged, while energy-inefficient modes of transportation shall be discouraged.
>
> (f) That cost-effectiveness be considered in state agency decision-making relating to energy sources, facilities or conservation, and that cost-effectiveness be considered in all agency decision-making relating to energy facilities.
>
> (g) That state government shall provide a source of impartial and objective information in order that this energy policy may be enhanced.

Oregon Energy Policy Statement. The energy policy statement incorporated in the statute reads as follows:

> ORS 469.310 **ENERGY POLICY.** In the interests of the public health and the welfare of the people of this state, it is the declared public policy of this state that the siting, construction and operation of energy facilities shall be accomplished in a manner consistent with the protection of the public health and safety and in compliance with the energy policy and air, water, solid waste, land use and other environmental protection policies of this state. It is, therefore, the purpose of ORS 469.300 to 469.570, 469.590 to 469.619, 469.930 and 469.992 to exercise the jurisdiction of the State of Oregon to the maximum extent permitted by the United States Constitution and to establish in cooperation with the Federal Government a comprehensive system for the siting, monitoring and regulating of the location, construction and operation of all energy facilities in this state.

B. Policy: Findings. With respect to policy issues affecting energy facility siting, the Task Force finds:

- The legislative findings and energy policies set forth in the existing law may have been appropriate for conditions at the time of enactment but, in some respects, would benefit from updating.

- Oregon energy policy currently requires that "cost-effectiveness" be considered in all agency decision-making relating to energy facilities.

- Under the existing energy facility siting law, EFSC is directed to conduct its business and render its decisions consistent with Oregon's energy policy, as are other state agencies.

C. Policy: Conclusions. With respect to policy issues affecting energy facility siting, the Task Force concludes:

- Energy policy choice will often involve tradeoffs among goals. It will be impossible, for example, to achieve lowest possible energy prices, improved environmental quality, and limited government intervention, all at the same time.

- Consideration of cost-effectiveness in EFSC decision-making relating to electric generating facilities would be inappropriate if the need standard is eliminated and the marketplace becomes a substitute for economic regulation. However, the role of the Oregon Public Utility Commission in promoting least-cost planning should not be modified with respect to facilities within its jurisdiction.

- Oregon's energy policy should be revised to reflect changes that have occurred and are occurring in the energy industry since enactment of Oregon's energy facility siting law. EFSC's broad charter requires it to conduct its business and render its decisions consistent with Oregon's energy policy. The foundation of that policy, which extends to other state agencies as well, is stewardship for present and future generations,

promotion of efficient use of energy resources, and development of permanently sustainable energy resources. These goals remain worthwhile. The Task Force believes that Oregon's energy policy should take into account the following objectives:

- **Deliver benefits of competition to our citizens in a way that continues to respect our environment and our quality of life.** To the extent practicable, the state should promote the transition to competitive energy markets. At the same time, the state should set and enforce environmental standards.

- **Promote reasonable and equitable access to energy and foster affordable prices, including all Oregonians.** The goal of universal access to energy products should be encouraged.

- **Address energy uncertainty.** A surprise-free energy future is unlikely. The state can play a role in reducing energy risks by coordinating contingency planning among utilities and other energy providers, and fostering a reasonable level of diversity of new energy resources.

- **Provide accurate energy information for consumers and producers.** Perfect competition assumes fully informed buyers and sellers. The state is uniquely qualified to provide reliable and convincing information on energy production and consumption, and energy efficiency savings. Acquiring energy data, inventorying resources, tracking trends, compiling costs, distributing information, etc., are appropriate government functions.

- **Ensure that consumers are afforded a free choice among energy sources, together with the opportunity to be fully informed about the environmental, social, and economic costs and benefits of such choices.** Consumers, with opportunities to be fully informed about material facts, should not be restricted in their choice of fuels or, to the extent feasible, in their choice of vendors.

- **Ensure honest dealings in energy products.** Trustworthy weights and measures are essential for the market to flourish. For example, the state should inspect and enforce accurate meter reading at the gasoline pump, the electricity meter and the gas meter, and otherwise protect against consumer fraud.

- **Mitigate or eliminate imperfections in the marketplace, including externalities.** Cost-effective conservation requires up-front capitalization and is handicapped because, unlike energy suppliers,

consumers face very high costs of capital. Although there has been progress in internalizing environmental costs, externalities (e.g., CO_2 and residual SO_2, NO_X and particulates) persist. Additionally, to the extent feasible, the state has a role in internalizing externalities and developing mechanisms to deploy cost-effective conservation.

- **Encourage cost-effectiveness in state agency decision-making relating to energy sources, facilities or conservation.** With few exceptions, sound economics suggests that the acquisition of cost-effective energy resources be encouraged and that costs include social as well as private costs.

- **Encourage development and deployment of cost-effective conservation**.

- **Encourage development and deployment of cost-effective renewable resources**.

- **Improve energy system efficiency.**

D. Policy: Recommendations. With respect to policy issues affecting energy facility siting, the Task Force recommends:

(1) Evaluate ORS 469.010 with a view to adopting more contemporary legislative findings that reflect changes that have occurred and are occurring in the energy industry since enactment of Oregon's energy facility siting law and resulting from implementation of recommendations contained in this report, particularly in light of EFSC's broad charter which requires it to conduct its business and render its decisions consistent with Oregon's energy policy. The foundation of that policy, which extends to other state agencies as well, is stewardship for present and future generations, promotion of efficient use of energy resources, and development of permanently sustainable resources. The Task Force believes Oregon's future energy policy should build on that foundation and take into account the following objectives, as well as other aspects of the existing statute:

- **Deliver benefits of competition to our citizens in a way that continues to respect our environment and our quality of life**
- **Promote reasonable and equitable access to energy and foster affordable prices, including all Oregonians**
- **Address energy uncertainty**
- **Provide accurate energy information for consumers and producers**
- **Ensure that consumers are afforded a free choice among alternative energy sources, together with the opportunity to be fully informed about the environmental, social, and economic costs and benefits of such choices**
- **Ensure honest dealings in energy products**

- **Mitigate or eliminate imperfections in the marketplace, including externalities**
- **Encourage cost-effectiveness in state agency decision-making relating to energy sources, facilities or conservation**
- **Encourage development and deployment of cost-effective conservation**
- **Encourage development and deployment of cost-effective renewable resources**
- **Improve energy system efficiency**

(2) Coupled with adoption of an interim statutory climate change standard and elimination of the need standard for proposed electric generating facilities, amend the existing energy facility siting law to clarify that economic need for new electric generating facilities should be shown by reliance on competition in the market and not by consideration of cost-effectiveness. This amendment should be accomplished in a manner that ensures state energy policy and the definition of cost-effectiveness continue to apply to decision-making other than the siting of electric generating facilities. Furthermore, this recommendation is not intended to alter the role of the Oregon Public Utility Commission in promoting least-cost planning with respect to facilities within its jurisdiction.

VI. NEED

A. Need: Background

Purpose. Among the many current standards adopted by EFSC, "need for the proposed facility" is the one standard subject to the greatest controversy. Initially, the need standard was intended to defer the construction of an energy facility until it could be shown that the output from the proposed facility was truly required, i.e., energy demand was threatening to exceed local energy supply. This standard appears to have served multiple purposes:

- The need standard served to ensure that proposed energy facilities were likely to be timely and cost-effective compared to other available alternatives. Historically, extremely costly investments in new energy facilities, such as the five large Washington Public Power Supply System nuclear projects in the State of Washington, have proven to be mistakes. EFSC's need standard was originated in part to protect against the recurrence of such mistakes for which the economic costs fall on society broadly.

- When the standard was adopted, power generating facilities were being built by investor-owned electric utilities which charged rates grounded in "rate base economics", i.e., what a utility could charge for a kilowatt-hour of electricity was a function of what that utility had prudently invested in its plant and equipment (the "rate base"). As a consequence, whenever a utility's cost of capital was lower than its authorized rate of return, the utility was motivated to invest as much as possible in plant and equipment. It was the job of the Oregon Public Utility Commission ("OPUC") to ensure that the utility's investments were prudent in light of its obligation to serve the customers in its allocated service territory, though OPUC normally made this determination in rate cases after construction of a facility. The EFSC need standard served as yet another check on the utility's natural tendency to add plant and equipment, thereby enlarging the rate base upon which its allowed returns were measured. But unlike OPUC, EFSC applied its standard before plant construction thereby preventing unnecessary development, the costs of which would be borne either by utility shareholders, or, to the extent the investments were found prudent, by ratepayers.

- Despite impressive improvements and best efforts to mitigate impacts, electric generating facilities adversely affect the natural environment. The development of generating facilities uses free but finite public resources (the commons), e.g., clean air, clean water, wildlife, and aesthetics, to the exclusion of other competing uses or to the detriment of other public values. The need standard served the

purpose of preventing construction of unnecessary electric generating facilities.

- Pursuant to statute, in adopting a need standard EFSC must "consider all of the costs of the emission from energy facilities of gases that contribute to global warming". Consequently, the need standard serves as a mechanism for controlling or offsetting the emission from energy facilities of greenhouse gases. However, EFSC is not required to adopt a need standard.

- When utilities were the only developers of new power supply, it was possible for the need standard to discourage new utility fossil fuel generation if cheaper conservation and renewable resources were available to meet end user demands. By requiring that new facilities be cost-effective compared to alternatives of conservation and renewable resources, among others, the need standard has indirectly "promoted" conservation and renewable resources.

- The need standard has served, albeit indirectly, as a way to encourage conservation and development of renewable resources where EFSC found a need for those kinds of resources. Developers of nuclear and fossil fuel-fired generating facilities would be required to satisfy the need standard while developers of geothermal, wind energy, solar energy, and biomass facilities, within certain limits, were relieved of the requirement to show need.

The 500-Megawatt Exemption. As mentioned earlier, Senate Bill 951, in 1995, provided for a one-time-only, non-recurring, 500 Megawatt Exemption from the need standard for natural gas-fired facilities whose applications were deemed complete on or before July 1, 1997. By rulemaking, EFSC chose to award this exemption to an applicant (or applicants, in the event the winning applicant proposed a facility with capacity of less than 251 megawatts) proposing the facility (or facilities) causing the least environmental impact in a proceeding commonly referred to as the "Best-of-Batch" contested case (as discussed more fully in Appendix GG).

B. Need: Findings. With respect to need issues affecting energy facility siting, the Task Force finds:

- Oregon's energy facility siting law enables, though does not require, EFSC to adopt a standard with respect to the need for proposed energy facilities.

- Under EFSC's existing energy facility siting regulations, an applicant for a site certificate must show need for the power from an electric generating facility as a precondition to site certification. With limited exceptions (pertaining primarily to certain renewable energy facilities, high efficiency cogeneration facilities, and facilities proposing to sell their output to the Bonneville Power Administration), need for an electric generating facility

must be demonstrated by reference to an investor-owned utility's least-cost plan (or to a comparable demonstration for non-regulated publicly owned or customer-owned utilities). Satisfaction of this precondition to site certification is dependent, among other things, on a clear showing that energy demand threatens to overtake energy supply.

- In an open and competitive market, it is unlikely developers would continue for long to build excessive electric generating facilities for which there is no market. Developers of excessive capacity should suffer the same harsh economic consequences that await any business producing a good or service that cannot be sold. The state should continue to protect the interests of the public through standards that limit how long such facilities can tie up air, land, water, and other resources and that ensure restoration of sites that are no longer used or useful. In addition, the state should control enforcement of environmental standards and economic regulation of monopoly components of the energy business. It should not attempt to shield developers from their right to guess wrong and suffer the financial consequences.

- We have not yet transitioned to an open and competitive market.

- Under the current energy facility siting law, it is in adoption of the need standard that EFSC must "consider all of the costs of the emission from energy facilities of gases that contribute to global warming".

- Competition among energy suppliers, particularly development of "merchant" plants supplying the wholesale market, is impeded so long as the development of new generating facilities is conditioned on a showing of need for the facilities.

- The Oregon Public Utility Commission, which has primary responsibility for consumer protection and system reliability, has concluded that the need standard no longer serves a useful purpose. In a letter to the Task Force dated June 6, 1996 (the full text of which appears at Appendix L), the three commissioners reached many of the same conclusions the Task Force has reached with respect to the changing energy environment. The following excerpts from that letter are illuminating:

  > ". . . the bulk power supply market has transformed itself considerably. No longer are utilities constructing large central station generating facilites. Smaller units, for the most part developed by third parties, are being deployed. With shorter lead times, utilities are able to remain more flexible in their planning for new power supplies to serve customers. If supply contracts are structured appropriately, the financial risk associated with potentially

unnecessary power supply facilities is lessened.

" . . . the tendency now is for market forces to heavily influence decisions regarding new power supply facilities. These market forces have come about primarily through the persistence of low natural gas costs, enabling independent parties to construct and operate new generation facilities at relatively low prices. Therefore, utility avoidance of large-scale central generation facilities, the financial risk of uneconomic decisions, the Commission's own planning review activities and market forces all lead to a process that will bring on new power supplies as they are 'needed.' In concert, these factors will adequately protect customers of Oregon electric utilities from any negative effects of excess power supplies. Therefore, we no longer see a purpose for a 'need for power' standard."

C. Need: Conclusions. With respect to need issues affecting energy facility siting, the Task Force concludes:

- Among the many standards EFSC may adopt, the standard which requires applicants for site certificates to demonstrate the proposed energy facility should be built because demand for energy threatens to exceed supply is the one standard which is no longer entirely appropriate. If Oregon's energy consumers are to derive benefits from price competition among energy suppliers, the need standard, as it applies to the development of electric generating facilities, should be eliminated, and the economic costs and risks of energy facility development should be placed upon investors through market mechanisms, as is the case with other industries.

- EFSC has and should continue to have authority to adopt standards, as necessary, to accommodate other purposes formerly served by the need standard, including but not limited to system reliability or stability and protection of the public resources.

- Elimination of the need standard as it relates to electric generating facilities should not have the effect of modifying OPUC's role in promoting least-cost planning with respect to facilities within its jurisdiction.

D. Need: Recommendations. With respect to need issues affecting energy facility siting, the Task Force recommends:

Coupled with amendment of the existing energy facility siting law to adopt an interim statutory climate change standard, amend the existing energy facility siting law to eliminate the standard relating to need for proposed electric generating facilities, while retaining the need standard for all other types of energy facilities.

VII. CLIMATE CHANGE AND OTHER STANDARDS

A. Climate Change and Other Standards: Background

Existing Standards. The statute requires EFSC to adopt standards applicable to the siting of energy facilities. Those standards may address, but need not be limited to, the following subjects:

- Organization, managerial, and technical expertise of the applicant
- Seismic hazards
- Protected areas, including monuments, wilderness areas, wildlife refuges, and scenic waterways
- Financial ability and qualifications of the applicant
- Fish and wildlife, including threatened and endangered fish, wildlife or plant species
- Historic, cultural or archaeological resources
- Public health and safety
- Nuclear waste accumulation, storage, disposal and transportation
- Recreation, scenic, and aesthetic values
- Suitability of local infrastructure
- Need for the proposed facility
- Compliance with statewide planning goals adopted by LCDC
- Soil protection

Despite language granting EFSC latitude to adopt standards in addition to or in lieu of those expressly set forth in the statute, SB 951 prohibits EFSC from adopting any standard on any subject not expressly set forth in the statute until adjournment of the 1997 Legislature.

Climate Change. Under the existing statute, it is in discretionary adoption of a need standard that EFSC must "consider all of the costs of emission from energy facilities of gases that contribute to global warming".

B. Climate Change and Other Standards: Findings.

With respect to climate change and other standards issues, the Task Force finds:

- The existing energy facility siting law addresses comprehensive standards applicable to the siting of energy facilities in the public interest.

- There is reasonable scientific basis for concern that emissions of CO_2 are contributing to global climate change and that fossil fuel electric generation is a significant source of CO_2 emissions. Oregon currently relies in some measure on older fossil fuel electric generation in other states with relatively low levels of efficiency and correspondingly high levels of CO_2 emissions. Recognizing that effects from fossil fuels on climate change is a global and national issue, Oregon can nevertheless use the process of siting electric generating facilities to encourage the use of non-fossil fuel generation technologies and efficient fossil fuel generation technologies to stabilize or reduce the impact our

energy use may have on global climate change. This objective can be advanced by adopting a climate change standard expressed as a limit on CO_2 emissions from new generating facilities.

- The 500 MW Exemption competition was an illuminating exercise which produced considerable evidence with respect to useful measures for controlling, offsetting, sequestering, or compensating for CO_2 emissions from electric generating facilities.

- The Klamath Cogeneration Project was winner of the 500 MW Exemption competition on showing to EFSC's satisfaction that by implementation of a series of CO_2 offsets and mitigation measures, it would emit less CO_2 per kilowatt hour generated than the other projects competing for the exemption.

- If the law is amended to eliminate the need standard, then the requirement that in discretionarily adopting a need standard EFSC "consider all of the costs of the emission from an energy facility of gases that contribute to global warming" should be addressed in some other form. If effects of carbon dioxide emissions on climate change are to be considered, it may be necessary to provide for the statutory adoption of a specific standard with respect to carbon dioxide emissions. EFSC may also need to develop additional standards to address policy issues previously addressed through the need standard, such as system reliability, system stability, and protection of public resources.

C. Climate Change and Other Standards: Conclusions. With respect to climate change and other standards issues, the Task Force concludes:

- With the exception of the need standard, the standards set forth in the existing energy facility siting law should continue to apply to all applicants for site certificates and EFSC has and should continue to have authority to adopt new standards as conditions warrant.

- In addition to the standards set forth in the existing energy facility siting law, the statute should be amended to adopt a new standard addressing emissions from electric generating facilities of gases that may contribute to climate change. Such a standard should be no less demanding than the standard which applied to the Klamath Cogeneration Project, winner of the 500 MW Exemption proceeding, and should be expressed as a limit on allowable emissions of CO_2 per unit of energy generated, adjusted to account for supplemental non-combustion generation, supplemental biomass generation, CO_2 sequestration, CO_2 offsets, conservation, use of wasted energy sources, and energy efficiency enhancements, including cogeneration, peaking, and hydro-firming.

- Oregon should seek to ensure that the environmental costs and risks of energy facility development are properly borne by energy producers and their customers and that proper price signals are transmitted to ultimate consumers. Although climate change is a global issue of national and worldwide concern, and will be overwhelmed by what happens elsewhere on the planet rather than in Oregon, it is appropriate that emissions that may contribute to climate change be addressed through adoption of a specific state standard, if for no other reason than to signal to the world that Oregon is prepared to do its fair share.

D. Climate Change and Other Standards: Recommendation.

With respect to climate change and other standards issues, the Task Force recommends:

Coupled with amendment of the existing energy facility siting law to eliminate the need standard for proposed electric generating facilities, amend the existing energy facility siting law to adopt a statutory climate change standard to be applied in siting natural gas fired generating facilities[3] expressed as a reduction of CO_2 emissions of 17% below the emissions of the most efficient, combined cycle, combustion turbine, gas fired plant commercially demonstrated and operating in the United States (currently 7200 BTUs per kWh, new and clean). The percentage and the initial standard (0.70 net pounds of CO_2 per kWh[4] at an assumed 100% capacity factor) would be established in the statute. The statute would provide that the Energy Facility Siting Council ("EFSC") could not change the reduction of CO_2 emissions percentage to be applied. EFSC could change the net CO_2 per kWh standard after two years by finding that there is a new, more efficient plant in commercial use in the United States. Furthermore, EFSC should develop standards for other types of fossil fuel plants using the principles set forth below as a foundation for setting those standards.

<u>Ways to Meet the Standard</u>

1. **The standard can be met by any combination of efficiency, cogeneration or offsets from offsite mitigation that reduce emissions to the allowable standard.**

2. **Offsets may be demonstrated either through a "Performance Path" or through a "Monetary Path."**

   A. <u>Performance Path</u>
   Under this path, the applicant would propose certain

[1] "A natural gas fired facility means a facility that is intended to be fueled by natural gas except for infrequent periods when the natural gas supply is interrupted. [OAR 345-23-000(7) July 1994]

[2] The calculations assume that there are 117 pounds of CO_2 per million Btu of natural gas fuel.

mitigation projects and would have to demonstrate the reduction in emissions it would produce. The site certificate condition would require implementation of the offset projects, but would not require actual achievement of the emission reduction. If EFSC finds in the siting process that the offset projects are inadequate to meet the standard, the applicant may fall back on the monetary path.

B. <u>Monetary Path</u>

Under the monetary path, the applicant would pay into a fund an amount of money deemed to pay for the offsets it needs to meet the standard. The statute would set the interim rate of $0.57 per ton of CO_2 for purchasing offsets through this Monetary Path. EFSC would have authority to adjust the monetary offset rate up or down after three years based on empirical evidence of the cost of CO_2 offsets from projects and a finding that the standard will be economically achievable. Following the initial three year period, EFSC may adjust the rate up or down no more than 50% in any two- year period.

Once the applicant's site certificate is approved based on the monetary path, the applicant's payment would <u>not</u> be adjusted based on the actual performance of the projects funded with the money. The offset projects may reduce emissions beyond what was required for the plant to meet the standard or may not achieve the reduction in emissions needed to meet the standard. Either way, the applicant is not affected.

The details of the administrative management of the fund and of the process for allocating the moneys to projects should be determined by statute and administrative rule guided by the principles set forth below. The applicant should be allowed to participate in the process.

<u>Principles to be met by the Climate Change Standard For New Fossil Fuel Generating Facilities</u>

1. **Promote plant fuel efficiency.**
2. **Promote efficiency in the resource mix.**
3. **Reduce net CO_2 emissions.**
4. **Promote cogeneration that results in CO_2 offsets.**
5. **Provide an incentive for innovative technologies and creative approaches to mitigating, reducing and avoiding CO_2 emissions.**
6. **Minimize transaction costs, making it easy to do either path.**
7. **Monetary offset rate under the monetary path should be set at a rate reflective of what could**

reasonably be expected to be achieved by available third party mitigation offsets.

8. **Provide certainty on what mitigation is actually being implemented.**
9. **Provide a point of certainty for issuing the site certificate, allowing construction of the plant to go forward, while the mitigation measures are being obligated/implemented.**
    a. **Review of mitigation actions under either path should not jeopardize the validity of the site certificate.**
    b. **A decision against the applicant on a performance path appeal would, at worst, kick the applicant into the monetary path.**
    c. **Create a wall between the review of the mitigation under the monetary path and the siting process; provide a mechanism for public interests to review what is being accomplished in the mitigation.**
10. **Allow either the applicant or third parties to implement the mitigation.**
11. **The process for changing or updating the standard must be specifically spelled out in the statute, with boundaries and criteria for the change. Allow EFSC to update the standard in a specific way that is bounded by statutory criteria based on how the initial number was created and evaluated.**
12. **There should be no change sooner than two years after the statute is enacted.**
13. **This standard is not intended to block/stop power generating plants from building in Oregon. The standard should be attainable and economically achievable.**
14. **Mitigation project proposals should have an accountable public review and input at various stages. The public review process of mitigation project proposals should not unreasonably lengthen the time of the implementation of the mitigation projects.**
15. **Implementation of the mitigation projects must correspond in some way with the emissions from the plant.**
16. **Provide for monitoring and evaluation of mitigation program performance.**

VIII. TYPES OF FACILITIES

A. Types of Facilities: Background

Types of Facilities Subject to EFSC Jurisdiction. Oregon's energy facility siting process consolidates within EFSC exclusive authority to issue a site certificate upon review and approval of an application for the siting of an energy facility as defined in ORS 469.300. The site certificate is the grant of a conditional right to site, construct, operate, and retire an energy facility, and no energy facility not specifically exempted from the requirement to obtain a site certificate may be constructed or expanded in Oregon without having first obtained a site certificate. Energy facilities include:

- Electric generating plants ≥25 megawatts
- Electric transmission lines ≥230 kilovolts and ≥10 miles in length
- Natural gas pipelines ≥16 inches in diameter and ≥5 miles in length
- Petroleum pipelines ≥6 inches in diameter and ≥5 miles in length
- Radioactive waste disposal sites
- Surface facilities related to underground natural gas storage facilities
- Large synthetic fuel production facilities (including refineries)
- Liquified natural gas storage facilities

B. Types of Facilities: Findings.

With respect to types of facilities issues affecting energy facility siting, the Task Force finds:

- Any **electric generating** facility that would produce 25 megawatts or more (with the exception of a high efficiency cogeneration facility) is subject to site certification. In California and Montana, the comparable threshold is 50 megawatts. In Washington, the threshold is 250 megawatts. While Oregon's threshold may be low in comparison to its neighbors, it is arguable that exempting high efficiency cogeneration facilities from the site certification requirement could have the salutary effect of promoting development of energy efficient facilities. Furthermore, generating facilities between 25 and 50, 100, or even 250 megawatts that do not meet the high efficiency criteria are likely to have significant impacts and therefore should require EFSC review.

- Any **solar collecting** facility that would occupy 100 acres or more is and should be subject to site certification.

- Any **transmission line** that would be more than 10 miles in length with a capacity of 230 kilovolts or more to be constructed in more than one city or county is and should be subject to site certification.

- Any **natural gas pipeline** that would be at least 16 inches in diameter and 5 or more miles in length, whether or

not it is to be constructed in more than one city or county, is and should be subject to site certification.

- Any **crude petroleum, liquified natural gas, or liquid geothermal energy pipeline** that would be at least 6 inches in diameter and 5 or more miles in length, whether or not it is to be constructed in more than one political subdivision, is and should be subject to site certification.

- What distinguishes energy facilities from other industrial facilities not subject to state level siting regulation is not so much that they cause greater, lesser or different impacts but that they will be interconnected with a complex system the reliability and efficiency of which must be maintained for the public benefit and may be built in more environmentally sensitive areas.

C. Types of Facilities: Conclusions.

With respect to types of facilities issues affecting energy facility siting, the Task Force concludes:

- The types of facilities subject to EFSC jurisdiction under the existing energy facility siting law should remain unchanged.

IX. SCOPE OF AUTHORITY

A. Scope of Authority: Background

Supersiting Authority and Coordination With Local Government and Other State Agencies. The existing energy facility siting law confers upon EFSC broad authority to regulate the siting of defined energy facilities. Concurrent with that authority is the requirement that EFSC apply the standards and regulations of state and local agencies that would normally apply to such facilities in the absence of one-stop permitting. The one-stop permitting process changes who makes the ultimate decision as to whether these standards and regulations are met. It does not alter the substantive requirements except where linear facilities pass through more than one jurisdiction or more than three land use zones in any one jurisdiction. In that circumstance, EFSC may choose not to apply local land use laws and instead apply statewide planning goals.

***One-Stop Permitting*.** The existing energy facility siting law makes available to applicants a "one-stop" permitting forum. In considering an application for a site certificate, EFSC evaluates the applicant's ability to comply with permitting requirements of other state agencies and local governments. EFSC's determinations with respect to such compliance then become binding on the affected state agencies or local governments, as provided at ORS 469.401(3).

B. Scope of Authority: Findings. With respect to scope of authority issues affecting energy facility siting, the Task Force finds:

- EFSC provides a one-stop permitting forum for applicants seeking to site energy facilities. In evaluating applications for site certificates, it is EFSC that determines whether an applicant has demonstrated compliance with permitting requirements normally administered by local governments and other state agencies. While EFSC consults with such local governments and other agencies during evaluation of the application, its final decision is binding on all affected agencies and localities. [NOTE: This authority does not extend to air quality and water quality permits normally issued by ODEQ under federally delegated programs because federal law delegates those responsibilities to designated state agencies other than EFSC.]

- While there may be some dispute about the appropriateness of EFSC's "supersiting" authority which preempts or binds cities, counties and state agencies, there is no dispute whatever that EFSC should have such authority with respect to two matters: (1) linear energy facilities, such as pipelines and transmission lines, traversing two or more cities or counties, and (2) radioactive waste for which no other state agency or local jurisdiction exercises authority.

The argument that such authority should also extend to energy facilities whose impacts are indistinguishable from other industrial facilities may be less compelling but has been rationalized on the basis that some energy facilities will be interconnected with a complex system the reliability, stability and efficiency of which must be maintained for the benefit of all users. (See Table 3, Land Use Comparison, prepared by Cogan Owens Cogan for inclusion in the *Energy Facilities Siting Task Force: Report on Land Use Issues*, for a depiction of the relative impacts of various types of industrial and commercial facilities, including a modern 500-megawatt thermal generating facility.)

- Some local jurisdictions may not possess the expertise to review and approve certain types of energy facilities, particularly wind energy facilities regardless of size. The Association of County Planning Directors has suggested the Office of Energy could help alleviate this problem by developing a model energy facility siting ordinance for use by local governments.

B. Scope of Authority: Conclusions

With respect to scope of authority issues affecting energy facility siting, the Task Force concludes:

- EFSC should continue to provide for developers of energy facilities under its jurisdiction a one-stop permitting forum, taking into account the concerns of all affected local governments and other state agencies. Furthermore, developers should retain the option to elect Path A (land use decision at the local level) or Path B (land use decision by EFSC on application of substantive land use criteria of the local government). Oregon's land use planning process has reached a level of maturity not present when EFSC was created. Current statutes define a unique relationship between EFSC authority and local government planning responsibilities. When an applicant elects Path B and an application for Site Certificate is submitted to EFSC, the affected local jurisdictions submit to EFSC their "applicable substantive criteria". This allows the local jurisdictions to have significant control over land use while allowing the centralized siting process to include local substantive land use criteria. This appears to the Task Force to be a good compromise between the importance of local land use criteria and the state's desire for a comprehensive expedited review. It also signals to local jurisdictions that if they wish to optimize their impact on the siting process, they should focus on ensuring that their local land use plans accurately reflect local interests and priorities. EFSC should retain the authority to override local land use laws and instead apply statewide planning goals with respect to energy facilities.

- Because some local jurisdictions may not possess the expertise to review and approve certain types of energy

facilities, the legislature should require and fund development of a model energy facility siting ordinance for use by local governments in sitingenergy facilities. This function should be coordinated by EFSC, involving appropriate state agencies as well as city and county representatives.

D. Scope of Authority:

Recommendation. With respect to scope of authority issues affecting energy facility siting, the Task Force recommends:

Require and fund development of a model energy facility siting ordinance for use by local governments in siting energy facilities. This function should be coordinated by EFSC, involving other appropriate state agencies as well as city and county representatives.

TABLE 3

Land Use Comparison
Oregon Department of Energy State Energy Facility Siting Task Force

Facility	Size	Cost	Zoning	Number of Employees	Typical Impacts	State/Federal Coordination	Local Land Use Approval
Electronics Manufacturing Plant Example: Sony Optical Systems Plant, Springfield	334,000 sq. feet 38.64 acres	$51 million	Campus Industrial - allowed use	400	Parking (800 spaces required); impervious surface impacts; point source and non-point source emissions	Lane Regional Air Pollution Authority; OEDD (grants); utilities	Permitted outright; site plan review
Paper/Pulp Plant Example: Port Townsend Paper, St. Helens (applied for permit but did not locate) - estimates	10 - 40 acres	$200 - $800 million	Heavy Industrial	400 - 800	Traffic; water quality; air quality; hazardous materials impacts; other potential off-site impacts as identified	Water and air pollution permits (DEQ); federal permits through DEQ	Conditional use permit required for facilities requiring state permits; site design review
Regional Shopping Center Example: Washington Square	50 - 60 acres 1.2 million sq. feet	$100 + million *	General Commercial	1,200 - 2,000 (seasonal changes)	Traffic: 8.5 million cars per year	Potential effects on air quality in a non-attainment area	Permitted outright; site plan review
Sanitary Landfill Example: Deschutes County proposed new landfill	80 - 150 acre footprint on 350 acre site	$6 million - first cell; built-out could exceed $50 M.	Best potential sites located in Surface Mining Zone (SM)	7 - 8	Potential impacts to sensitive wildlife species; air and water quality effects; traffic a non-issue due to isolated location	DEQ water quality, operating permits required	Requires conditional use permit in EFU or zone exception in SM zone
Food Processing Plant Example: Specialty Foods, Morrow Co.	30,000 sq. feet; 12 acres	$1 - 1.5 million	Industrial - allowed use	12 - 80 (depending on season)	Traffic impacts on high-speed road - required turning lane; water availability; odor	None	Permitted outright

* if built today

Source: *Report on Land Use Issues,*
Cogan Owens Cogan, June 20, 1996

TABLE 3 (cont.)

Facility	Size	Cost	Zoning	Number of Employees	Typical Impacts	State/Federal Coordination	Local Land Use Approval
Sewage Treatment Plant Example: City of McMinnville	14 acres	$33.6 million	Yamhill County Exclusive Farm Use (EFU 40)	14 - 20	Clean Water Act requirements on impacts to wetlands, groundwater and sensitive species	Permitted through DEQ and required to reduce phosphorous discharges into Yamhill River; met federal guidelines	Conditional use with county Planning Director approval; hearing upon request - none requested
500 Mw Thermal Generating Facility Example: Hermiston Generating	17 acres	$300 (±) million (est.)	Industrial	26	Air quality, aesthetic impacts	Federal clean air act through DEQ permit requirements	Conditional use permit

Information Sources:

1. Electronics Manufacturing Plant: City of Springfield Economic Development Planning staff
2. Paper Plant: No paper or pulp mills have been sited or constructed in Oregon during the last ten years. Information is based on proposed Port Townsend paper and existing Boise Cascade pulp plants, obtained from DEQ and City of St. Helens planning personnel.
3. Regional Shopping Center: Washington Square General Manager.
4. Sanitary Landfill: Deschutes County Solid Waste Department.
5. Food Processing Plant: Port of Morrow.
6. Sewage Treatment Plant: City of McMinnville planning and engineering staff.
7. Thermal Generating Facility: Pacific Energy Systems

Source: *Report on Land Use Issues,*
Cogan Owens Cogan, June 20, 1996

X. PROCESS FOR REVIEW AND APPROVAL

A. Process for Review and Approval: Background

Notice of Intent. Generally, an applicant for a site certificate must first file with EFSC a **notice of intent** to file an application for site certificate. The notice of intent must contain sufficient detail to enable EFSC to issue a public notice describing the proposed site and facility and to enable OOE to prepare a **project order** establishing the statutes, administrative rules, EFSC standards, local ordinances, application requirements and study requirements to be addressed in the site certificate application. After filing of the notice of intent, publication of the public notice, and receipt of comments in response to the public notice, but prior to issuance of the project order, OOE may hold a pre-application conference with state agencies and local governments that have regulatory or advisory authority respecting the proposed facility. The project order is then issued as a means of providing the applicant with specific guidance on the required contents of the application for site certificate.

Application for Site Certificate. After issuance of the project order by OOE, **application** to EFSC for a site certificate may be made. Copies of the notice of intent and application are forwarded, accompanied by a deadline for comments and recommendations, to the following:

- Department of Environmental Quality
- Water Resources Commission
- State Fish and Wildlife Commission
- Water Resources Director
- State Geologist
- State Forestry Department
- Public Utility Commission
- State Department of Agriculture
- Department of Land Conservation and Development
- Any other state agency that has regulatory or advisory authority with respect to the proposed facility
- Any city or county affected by the application

After consideration by all affected state agencies, cities and counties within the specified deadlines, and after completion of its own review, OOE determines whether the **application is complete** and notifies the applicant of that determination. If OOE determines that the application is complete, OOE notifies the applicant and issues a public notice announcing its determination of completeness. That is when a clock starts ticking on the time within which EFSC must approve or reject an application (see *Deadlines* below).

OOE Issuance of Draft Proposed Order and Public Hearing. Based on its review of the application for site certificate and comments and recommendations received from state agencies, cities and counties, OOE will issue a **draft proposed order** on the application. EFSC will then schedule one or more **public hearings** on the application in the affected area and elsewhere, as it determines necessary, and issue a public notice describing the date, time and location of the

hearings, describing the proposed facility and its anticipated effects, including other housekeeping details, and notifying the public that "failure to raise an issue in person or in writing prior to the close of the record of the public hearing with sufficient specificity to afford the decision maker an opportunity to respond to the issue precludes consideration of the issue in a contested case." ORS 469.370(2)(e). In other words, any person, other than the applicant, wishing to participate as a party in the contested case with respect to the application for site certificate must raise the pertinent issue and make that issue a matter of public record during the public hearing(s) on the application.

OOE Issuance of Proposed Order and Contested Case Hearing. After its review of the application, the draft proposed order, and any testimony given at the public hearing(s), and after consulting with other affected agencies,al or rejection of the application. OOE will then issue a public notice of the proposed order and **contested case** hearing. That notice will set a date for the prehearing conference and specify a deadline for requests to participate as a party [though that invitation will extend only to persons who raised pertinent issues prior to close of the record for the public hearing(s)]). If no person requests party status to challenge OOE's proposed order, that proposed order will be forwarded to EFSC and the contested case hearing will be concluded. If any person who raised an issue during the public hearing(s) requests party status, EFSC will conduct a contested case hearing on the application. Pursuant to ORS 469.370(5), issues that may be the basis for a contested case hearing are limited to those raised on the record of the public hearing(s), unless:

- OOE failed to perform its duties with respect to issuance of public notice and notification to prospective parties of requirements pertaining to achieving party status as set forth in ORS 469.370(2) and 469.370(3).

- The action recommended in OOE's proposed order, including any recommended conditions of the approval, differs materially from the action recommended in OOE's draft proposed order, in which case only new issues related to such differences may be raised.

After conclusion of the contested case, EFSC will issue a **final order** approving or rejecting the application based on its own standards, and any other statutes, rules, or local ordinances determined to be applicable to the proposed facility in the project order. Approval results in issuance of a **site certificate**. EFSC may also amend or reject the proposed order, provided it gives public notice of its hearing to adopt a final order and provides to the applicant and any party an opportunity to comment on material changes to the proposed order or material changes to conditions of approval resulting from EFSC's review. EFSC's order approving or rejecting the application is a final order for purposes of appeal.

Deadlines. EFSC must approve or reject an application for site certificate within the following periods following the date on which the application is filed (the date on which OOE notifies the applicant its application has been found complete):

- 24 months for a nuclear installation or thermal power plant (other than a combustion turbine power plant or geothermal-fueled power plant) with a name plate rating greater than 200 megawatts
- 9 months for a combustion turbine power plant, geothermal-fueled power plant, or underground storage facility for natural gas
- 6 months for expansion of an existing industrial facility to include an energy facility, expansion of an existing energy facility to achieve a nominal electric generating capacity of between 25 and 50 megawatts, or addition of injection or withdrawal capacity to an existing underground storage facility for natural gas
- 12 months for any other energy facility

EFSC must provide expedited processing of an application for site certificate for an electric energy facility with a generating capacity of less than 100 megawatts at the request of the applicant. In such a case, the applicant does not file a notice of intent but instead files a request for **expedited review**. Upon approval of that request, OOE will issue a project order, and, if there are no persons requesting party status in the contested case, EFSC will approve or reject the application with 6 months after it is filed. If there are persons requesting party status, EFSC will approve or reject the application within 9 months after filing.

EFSC's failure to comply with these deadlines "shall *not* result in the automatic issuance or denial of a site certificate". ORS 469.370(11)

EFSC is required to specify in the site certificate the date by which construction of the proposed facility must begin. Furthermore, before construction of a thermal power plant may begin, the applicant must show evidence of a sales contract with an energy supplier or suppliers for at least 80-percent of the output from the proposed energy facility (above and beyond that portion of the output to be used by the applicant). ORS 469.370(12)

The statute also provides that if the proposed energy facility has been or will be reviewed by a federal agency under the National Environmental Policy Act, EFSC will conduct its site certificate review, to the maximum extent feasible, in such a way as to be consistent with and not to duplicate the federal agency review. ORS 469.370(13).

B. Process for Review and Approval: Findings. With respect to process for review and approval issues affecting energy facility siting, the Task Force finds:

- The process for review of a site certificate application is initiated upon issuance by OOE of a project order in response to the applicant's notice of intent to file an application or the applicant's request for an expedited review. The project order is intended to identify all of the standards and applicable local and state ordinances and regulations, together with the agencies ordinarily responsible for administration of those ordinances and regulations, to be addressed in the application for site certificate.

- The statutory deadlines for processing an application for site certificate do not become operative until OOE finds the applicant has responded to all state and local regulations identified as applicable to the proposed facility in the project order. Some industry representatives have taken the position that this "determination of completeness" may take longer than necessary. This complaint may stem from inconsistencies between the standards and the guidelines communicated to applicants under OAR 345, Division 21, Contents of Application. The clock starts ticking with OOE's determination of completeness, and a premature determination could result in inadequate information in the record on which to base findings sufficient for approval of an application. Alternatively, by taking longer to determine completeness, and preventing the start of the clock ticking, applicants may feel pressured to make concessions they would otherwise not make to avoid further delay in site certification.
- The existing energy facility siting law imposes upon EFSC certain guidelines and deadlines with respect to review and approval or rejection of an application for site certificate. The statute is silent however on the effect of EFSC's failure to act within the allotted time (other than to set forth explicitly that such failure "shall not result in automatic issuance or denial of a site certificate".
- ORS 469.370 requires that 80% of the output from a proposed thermal generating facility be under contract prior to commencement of construction.

C. Process for Review and Approval: Conclusions

. With respect to process for review and approval issues affecting energy facility siting, the Task Force concludes:

- Some industry representatives have complained that OOE may hold up the processing of an application for site certificate by its failure to find the application complete in a timely fashion. However, imposing upon OOE some deadline within which it must find completeness may only place applicants in the position of finding their applications must be denied because they contain inadequate information on which to base necessary findings. The Task Force concludes this complaint stems more from a lack of clarity and precision in what the applicant understands to be required in order to file an application, a possible deficiency in the regulations set forth in OAR 345, Division 21, Contents of Application. Furthermore, it should be noted there will always be tension between applicants and staff in arriving at a completeness decision. Therefore, this matter may be best addressed by encouraging EFSC to amend the guidelines in Division 21 to ensure that applicants are provided with clear and precise guidance as to the content of an acceptable application for site certificate.

- In the absence of a need standard, the requirement that 80% of the output from a proposed thermal generating facility be under contract prior to commencement of construction should be eliminated.

D. Process for Review and Approval: Recommendation.

With respect to process for review and approval issues affecting energy facility siting, the Task Force recommends:

Coupled with adoption of an interim statutory climate change standard and elimination of the need standard for proposed electric generating facilities, amend the existing energy facility siting law to eliminate the requirement that at least 80% of the output from a proposed thermal generating facility be under contract prior to commencement of construction.

EXHIBIT I

CONCEPTUAL FRAMEWORK AND RECOMMENDATIONS FOR A CLIMATE CHANGE STANDARD TO BE APPLIED IN SITING NATURAL GAS FIRED GENERATING FACILITIES INTENDED FOR BASE LOAD USE

MEMORANDUM

October 18, 1996

TO: **OREGON ENERGY FACILITY SITING TASK FORCE**

FROM: **Statutory Climate Change Standard Working Group Members**

Oregon Office of Energy
Philip Carver
Mike Grainey
Sam Sadler
David Stewart-Smith
PacifiCorp - Bill Edmonds
Stoel, Rives, for PacificCorp - Margaret Kirkpatrick
NW Environmental Advocates - Eugene Rosalie
Portland General Electric - Robert Hall
Renewable Northwest Projects - Peter West
U.S. Generating Co. - Peter Evans
Ball, Janik, for U.S. Generating Co. - Richard Whitman

Observers:
Northwest Power Planning Council
Ken Corum
Jeffrey King
Northwest Natural Gas Co. - Michael Hayward
EFSC - Steven Schell
Pacific Energy Systems - John Larson

The above named members, who participated in this Working Group, are pleased to submit to you the following recommendation for a statutory climate change standard. This recommendation was adopted by a complete consensus of the working group listed above.

Conceptual Framework And Recommendation For A Climate Change Standard to Be Applied in Siting Natural Gas Fired Generating Facilities[5] Intended for Base Load Use

The EFSC should develop standards for other types of fossil fuel plants using the principles cited in this report as a foundation for setting those standards.

The Standard to Meet

1. Amend the existing energy facility siting law to adopt a statutory climate change standard expressed as a reduction of CO_2 emissions of 17% below the emissions of the most efficient, combined cycle, combustion turbine, gas fired plant commercially demonstrated and operating in the United States (currently 7200 BTUs per kWh, new and clean). The percentage and the initial standard (0.70 net pounds of CO_2 per kWh[6] at an assumed 100% capacity factor) would be established in the statute. The statute would provide that the Energy Facility Siting Council (EFSC) could not change the percentage to be applied. The EFSC could change the net CO_2 per kWh standard after two years by finding that there is a new, more efficient plant in commercial use in the United States.

Ways to Meet the Standard

2. The standard can be met by any combination of efficiency, cogeneration or offsets from offsite mitigation that reduce emissions to the allowable standard.

3. Offsets may be demonstrated either through a "Performance Path" or through a "Monetary Path."

    A. Performance Path

    Under this path, the applicant would propose certain mitigation projects and would have to demonstrate the reduction in emissions they would produce. The site certificate condition would require implementation of the offset projects, but would not require actual achievement of the emission reduction. If EFSC finds in the siting process that the offset projects are inadequate to meet the standard, the applicant may fall back on the monetary path.

    B. Monetary Path

    Under the monetary path, the applicant would pay into a fund an amount of money deemed to pay for the offsets it needs to meet the standard. The statute would set the interim rate of $0.57 per ton of CO_2 for purchasing offsets through this Monetary Path. The EFSC would have authority to adjust the monetary offset rate up or down after three years based on empirical evidence of the cost of CO_2 offsets from projects and a finding that the standard will be economically achievable. Following the initial three

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1 "A natural gas fired facility means a facility that is intended to be fueled by natural gas except for infrequent periods when the natural gas supply is interrupted." (OAR 345-23-000(7) July 1994).

2 The calculations assume that there are 117 pounds of CO_2 per million BTU of natural gas fuel.

year period, EFSC may adjust the rate up or down no more than 50% in any two year period.

Once the applicant's site certificate is approved based on the monetary path, the applicant's payment would not be adjusted based on the actual performance of the projects funded with the money. The offset projects may reduce emissions beyond what was required for the plant to meet the standard or may not achieve the reduction in emissions needed to meet the standard. Either way, the applicant is not affected.

The details of the administrative management of the fund and of the process for allocating the moneys to projects will be worked out. The applicant should be allowed to participate in the selection process.

Principles to be Met by the Climate Change Standard
For New Fossil Fuel Generating Facilities

1. Promote plant fuel efficiency.

2. Promote efficiency in the resource mix.

3. Reduce net CO_2 emissions.

4. Promote cogeneration that results in CO_2 offsets.

5. Provide an incentive for innovative technologies and creative approaches to mitigation/reducing and avoiding CO_2 emissions.

6. Minimize transaction costs, making it easy to do either path.

7. Monetary offset rate under the monetary path should be set at a rate reflective of what could reasonably be expected to be achieved by available third party mitigation offsets.

8. Provide certainty on what mitigation is actually being implemented.

9. Provide a point of certainty for issuing the site certificate, allowing construction of the plant to go forward, while the mitigation measures are being obligated/implemented.

    a. Review of mitigation actions under either path should not jeopardize the validity of the site certificate.

    b. A decision against the applicant on a performance path appeal would, at worst, kick the applicant into the monetary path.

c. Create a wall between the review of the mitigation under the monetary path and the siting process; provide a mechanism for public interests to review what is being accomplished in the mitigation.

10. Allow either the applicant or third parties to implement the mitigation.

11. The process for changing or updating the standard must be specifically spelled out in the statute, with boundaries and criteria for the change. Allow EFSC to update the standard in a specific way that is bounded by statutory criteria based on how the initial number was created and evaluated.

12. There should be no change sooner than two years after the statute is enacted.

13. This standard is not intended to block/stop power generating plants from building in Oregon. The standard should be attainable and economically achievable.

14. Mitigation project proposals should have an accountable public review and input at various stages. The public review process of mitigation project proposals should not unreasonably lengthen the time of the implementation of the mitigation projects.

15. Implementation of the mitigation projects must correspond in some way with the emissions from the plant.

16. Provide for monitoring and evaluation of mitigation program performance.