



Ten Percent in 2010

An Action Plan for Energy Efficiency and Environmental Stewardship

January 12, 2010

INTRODUCTION

We will strive to be efficient in energy use, careful in controlling waste and conscientious in using environmental “best practices” in Port development and operations. We will support the creation of future-oriented jobs by businesses that respect or improve the environment. – From the “Foundations for Our Success,” Port of Bremerton Three-Year Strategic Operating Plan, 2009-2012.

If we are to be a leader in encouraging clean technology job creation, we must begin with good environmental stewardship at home. – CEO Cary Bozeman, Aug. 11, 2009.

The Port’s commitment to environmental stewardship is longstanding and has been demonstrated in important ways throughout its operations.

- Environmental practices at the Port’s marinas, airport and industrial park have earned the highest level of recognition in the five-county Puget Sound region’s EnviroStars program. “No other government agency in Kitsap County has demonstrated a commitment comparable to what the Port of Bremerton has done in achieving a five-star rating in each of its three operations,” said Niels Nicolaisen, coordinator for the county’s EnviroStars program.
- The Port has demonstrated leadership in Low-Impact Development practices, incorporating principles of water infiltration and pervious surfaces into the design of its road and paving projects.
- The Port’s newest tenant, General Dynamics subsidiary Electric Boat, resides in a building with many environment-friendly features in its design and construction. It is LEED-registered and potentially LEED-certifiable. There are currently no LEED-certified industrial buildings in Kitsap County.
- The Port has been an active community partner in efforts to promote sustainability and environmentally-responsible practices in land use and development. Staff has developed knowledge of sustainability principles, and one staff member is now a certified sustainable building adviser. It has worked closely with Olympic College in development of curricula in environmental programs, and has sponsored internships to provide students with hands-on learning opportunities.
- Staff has taken a leadership role in Kitsap Economic Development Alliance’s Clean Tech Working Group, and other initiatives related to the environment and sustainability.

SO WHERE DO WE GO FROM HERE?

As significant as these accomplishments are, new steps should be taken if the Port is to continue to be viewed as a leader in environmental stewardship. Our starting point is a commitment to improving energy efficiency throughout Port operations, while beginning the transition to renewable forms of energy that will be the foundation of the clean energy economy of the future.

OUR GOAL IS THIS: Achieve a 10 percent reduction in energy use and expense by improving practices and behaviors throughout our operations. We will seek to achieve additional reductions through cost-effective investments in building efficiencies.

Why do we need to do this?

- *It is necessary as our state, nation and world move toward reducing and regulating carbon emissions:* Government policy is moving increasingly toward regulations and taxes to discourage consumption of fossil fuel while providing incentives for transition to renewable energy sources.
- *It is important as a matter of doing right by the environment:* Greenhouse gas emissions are believed by most scientists to be a major contributor to climate change. Improving energy efficiency is considered the most effective way of making an immediate impact on greenhouse gas emissions while renewable energy sources are developed.
- *It is fiscally responsible because energy efficiency is good for the bottom line:* Saving on annual energy costs can free up resources for other uses and/or reduce reliance on taxes.
- *It fulfills our pledge to “walk the talk” on environmental stewardship:* We must show leadership if we are to be credible and competitive as a job creator in the clean energy economy of the future. Already, Washington’s governor has set a goal of making state government carbon-neutral by 2020. The governments that lead instead of follow will be that ones that attract investors in the clean energy economy.

THE FINANCIAL BOTTOM LINE

In approaching this initiative, we’ve begun with the premise that we must remain within our budget, and we must remain true to our long-term pledge to reduce reliance on property taxes to fund our operations. The steps we’ve identified aim to lower our operating costs, now and in the future, by achieving efficiencies in our everyday practices and by making use of state, federal and utility grant funds, our recently-secured federal appropriation for clean technology and a variety of other incentives.

The opportunity for energy savings is significant: The Port's 2009 electric bill alone is estimated at about \$151,600. Total energy and resource management expenses for 2009 – including all fuel sources, water, sewer, and solid waste -- are estimated at \$244,500. Reducing these expenses by 10 percent represents a potential savings across the board of \$24,500, and we believe there is potential to do significantly better than this. Not only do we save money, but we achieve a corresponding reduction in greenhouse gas emissions that makes us a better steward of the environment.

These figures do not include the business/industrial properties we own, but which we lease to tenants who pay the utility bills. Nor does it include the electricity costs we pass through to our boaters at the Port Orchard Marina. We are limited in how much we can influence the efficiency practices of our tenants. But by making the buildings we lease to them more energy-efficient, we make our properties more affordable, more competitive in the market and more valuable as a long-term holding.

MOVING FORWARD

Leadership from the top -- commissioners and staff -- is essential for an organizational culture of efficiency and sustainability. This initiative is intended as a starting point for communicating our values and goals, and demonstrating our commitment to well-defined objectives.

Communicating and reinforcing this commitment will need to be a continuing responsibility of the Port's leadership team.

Success also will require the involvement of our employees in identifying operational and behavioral practices that can help make us more efficient. In most organizations, many such efficiencies can be found that require little or no new expense, and employees often know best how to identify them. We must encourage leadership and initiative at all levels of our operation to achieve the results we want.

As we improve our everyday practices, we need to conduct efficiency evaluations of our facilities to identify building investments that can save energy use -- and costs -- for the long run. Our federal appropriation provides a potential source of funds to obtain matching grants from Puget Sound Energy for energy efficiency projects. PSE offers grants of up to 50 and 70 percent for qualifying cost-effective projects, and we need to take advantage of the availability of those grants.

It will represent important progress to achieve these two objectives alone – improving operational practices and making investments in cost-effective building efficiencies. The action plan that follows, however, offers additional steps and a more comprehensive approach to fulfilling the Port's leadership pledge.

OBJECTIVES AND ACTION PLANS

Here are our most immediate objectives and the steps we need to take to achieve them:

Objective 1: Achieve energy savings by improving efficiency practices in each of our core businesses and by investing in efficiencies in the energy systems of buildings the Port occupies.

Action Plan:

- 1. Establish a baseline (the past three years) of current energy use from all fuel sources:*
We have completed development of the first two years, 2007 and 2008, and will compile data for 2009 once final December information is available.
- 2. Involve workforce in identifying efficiencies:* In some workplaces, efficiency savings of up to 10 percent have been achieved by improved behavioral and operational practices alone. Non-managerial employees are often the best source for identifying ways to save in consumption.
- 3. Establish targets for reducing consumption and identify metrics for measuring results:*
Achieving a 10 percent reduction within two years is considered a modest goal. An aggressive efficiency program that includes equipment and building retrofitting could achieve reductions significantly beyond this.
- 4. Partner with other Kitsap governments in a grant-funded Shared Resource Conservation Manager (RCM) to assist with metrics, managing and monitoring:* The Port has been successful in creating a partnership application with three of the county's four municipalities for a Shared RCM grant from Washington State University, and is in a favorable position for such a grant. The WSU grant would be supplemented by additional RCM funding from Puget Sound Energy, making the shared cost to local government minimal and easily offset by the potential energy savings.
- 5. Invest in energy retrofitting and other efficiencies in the Terminal/Administration building:* An energy efficiency design study, recently completed by a Washington State University graduate engineering class, recommended an investment of \$39,000 in efficiency improvements, not including labor costs or HVAC replacement. We intend to seek state General Administration grant funds and PSE grant funds to finance cost effective lighting efficiency improvements. We have budgeted funds for HVAC replacement and will pursue the up to 70 percent grant funding which PSE offers for cost effective HVAC projects. Additional funds, if needed, for the terminal project could possibly come from our clean technology appropriation.

Objective 2: Achieve energy efficiencies at Port-owned, tenant-occupied business/industrial properties.

Action Plan:

1. *Evaluate our tenant-occupied properties to identify greatest opportunities for energy savings:* We know, for example, we can achieve major efficiencies by retrofitting and replacing the existing lighting system in our building currently housing Safe Boats. Other significant opportunities are likely elsewhere among our eight Port-owned industrial buildings.

2. *Leverage our federal funds to obtain matching PSE grants for investing in efficiency projects in the tenant-occupied properties:* PSE has estimated that a new lighting system alone in the Safe Boats building would reduce energy consumption by 42 percent. PSE would fund half the estimated \$85,000 investment, and projects an annual electricity savings of \$22,000.

3. *Facilitate energy efficiency outreach program to help our tenants, whether in Port-owned or tenant-owned properties, achieve additional reductions:* PSE is willing to conduct informational sessions with our tenants to help them achieve savings, whether through improved behavioral and operational practices or grant-supported building investments.

Objective 3: Consider possibilities for the Port to generate a portion of its own power from renewable sources, lowering annual energy costs and reducing greenhouse gas emissions.

Action Plan:

1. *Explore the feasibility of a small-scale solar project, and the potential for taking advantage of an array of new state and federal incentives and funding sources.* Recently-enacted state legislation has created a cost-recovery program providing payments of up to 54 cents for each kWh of energy produced by a qualifying solar project. An additional 9-cent benefit is available through an incentive known as net metering. The purchase of solar equipment has also been granted a 100 percent exemption from state sales tax. At the federal level, tax incentives have been created to encourage business and private participation in community solar projects similar to the Sakai Middle School project on Bainbridge Island.

2. *Explore potential grant funding for a renewable project from Puget Sound Energy:* PSE has offered this incentive when a community or organization partners with the utility on a Green Power Challenge with a preset goal for program participation. PSE has expressed interest in possibly providing a grant to the Port towards purchase of a renewable system based on tenant participation in a challenge program.

Objective 4: Participate in PSE's Green Power program and provide incentives for our tenants to participate.

Action Plan:

1. *Use a portion of Port's energy efficiency savings, once verified, to buy Green Power:* The purchase of Green Power credits is a way to offset a portion of the Port's greenhouse gas emissions and demonstrate environmental leadership.

2. *How it works:* PSE purchases renewable energy credits from regional renewable energy facilities on the Port's behalf. This guarantees that electricity from wind, solar and biomass facilities is delivered to the regional power pool (the grid). Electricity from renewable energy facilities reduces the need for electricity generated from non-renewable sources like fossil fuels, creating measurable environmental benefits.

3. *Levels of participation:* The Port could participate for as little as \$100 a month; it would require an annual energy efficiency savings of less than 1 percent to make up that cost.

4. *Encourage tenants who benefit from efficiency projects to use a portion of their verified savings to purchase Green Power:* This could become part of a Green Power Challenge, as suggested previously in Objective 3.

Objective 5: Continue to promote sustainability practices beyond energy efficiency.

Action Plan:

1. *Participate in Washington Public Ports Association's Green Ports Initiative:* Port staff is actively involved in development of this plan, which, upon completion, will focus on: 1) stormwater management, 2) tenant business practices, 3) in-water and uplands materials management, 4) habitat enhancement, 5) air quality, and 6) communications and accountability. We will want to strive to meet newly-developing Green Port certification standards.

2. *Strengthen recycling, reuse and solid waste practices:* The Shared RCM program includes initiatives for making improvements in these areas.

3. *Supplies and materials:* Give preference whenever possible to green, recycled and local to further reduce the Port's carbon footprint.

Objective 6: Continue to participate in community partnerships encouraging development of a clean technology job sector for Kitsap.

Action Plan:

1. *Support goals of Kitsap Economic Development Alliance's Clean Technology Working Group:* Port leadership has been active in supporting the group's three primary goals of workforce development; recruitment and retention; and community awareness
2. *Encourage or require contractors on Port energy efficiency or renewable energy projects to provide workforce training opportunities:* This could take the form of training opportunities for Port staff, internship opportunities for Olympic College students or partnership with Olympic Workforce Development Council.
3. *Continue support for and involvement in Olympic College's curriculum development:* Staff is involved in two advisory committees on curriculum development -- in environmental studies and manufacturing technology.
4. *Maintain involvement with other organizations interested in developing the clean technology sector:* Work to support common goals with the Washington Clean Tech Alliance, West Sound Technology Association, Clean Technology Trade Alliance, West Sound Utility District and others.
5. *Explore possibilities for clean technology partnerships with the military:* The Navy has set a goal to reduce its carbon emissions by 20 percent by 2020, and to derive 25 percent of its energy from renewable sources by 2025. It is aggressively pursuing energy efficiency projects in its facilities and has pledged to continue investing in energy research and development. As the Port pursues its interest in developing a defense contractor campus, this could be an area of untapped potential.

CONCLUSION

Most of the initiatives described in this plan are not new to the Port's planning process or organizational values. They reflect commitments expressed throughout the Three-Year Strategic Operating Plan adopted by the Port's Board of Commissioners six months ago. This document seeks to bring focus to those commitments and generate action plans that can help move them from concepts to realities.

The suggested actions represent both a playbook and a menu of options from which to choose. There is a compelling case for some of the recommendations, especially those related to

achieving savings through energy efficiency. Others require additional study to determine their feasibility, such as seeking community partners in a solar energy project.

But all of these actions are offered with the premise that they should be financially achievable with little or no new cost to the Port. They primarily involve the potential use of federal, state, and utility funds and incentives. As national and state policy continue to support the move to a clean energy economy, new and evolving incentives and grant opportunities are likely to develop, and we must be aggressive in monitoring and pursuing them.

The steps outlined in this plan also represent only a beginning.

A transformation is underway worldwide in how we generate and use energy for economic development while also protecting our climate and environment. This transformation will continue in ways we can't foresee or predict. The only certainty is the change itself, and that the economic development winners will be those that lead rather than sit on the sidelines as this change occurs.

The Port may be just one small local government doing its part. But in doing so, it also has an opportunity to show leadership and commitment in responding to the challenges of the future. This plan seeks to start us on that path.