

Utilities and Transportation Commission

Sustainability Plan

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2. Sustainability Policy Statement

Sustainable development is an ideal that promotes the continuous improvement of the quality of life of a given community over time. Although the idea had been around for some time, the concept was formalized in a 1987 report prepared by the UN's World Commission on Development and the Environment. The report, titled "Our common future," also known as the Brundtland Report after the chairperson of the Commission, defines sustainable development as 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs.' Consequently, a development process is sustainable if improvements in the quality of life can be continued over time while not decreasing the resources base (the aggregate of the natural, human-made, and social capital) and, if possible, increasing both the social and the critical natural capital.

Sustainable development embraces a three dimensional ethical component. An ethic of intra-generational fairness requires that all persons currently alive have the same right to pursue their own happiness and should be provided with the instruments and resources to do so. It affords a respect to nature and the natural environments. But the essence of sustainable development is that future generations be left with as much of a stock of capital assets as the current generation has received.

A given community improves its quality of life by means of its economic activities or practices. To promote sustainability those practices need to be ecologically possible and maintainable over time, economically gainful, and socially adoptable over the long run. Activities are ecologically possible when human practices are adapted to biological and physical processes. They are economically gainful when they are efficient in facilitating production and protection of resources, and they are socially adoptable when human groups

value the practices and individuals incorporate them as part of their routine behavior.

For activities to be ecologically possible and maintainable over time, renewable resources should be harvested at a rate that allows them to be replenished, non-renewable resources should not be depleted faster than the development of substitute technologies occurs, and waste disposal rates should not exceed the waste sinking capacity of the environment. To ensure a non-diminishing social capital, human knowledge, values, beliefs, and initiatives should be respected, acknowledged, and recorded to make available for the future.

Consequently, it is essential that all members of the society (i.e. individuals, corporations, public agencies) adopt certain behaviors and follow certain rules that allow for environmental constraints and social considerations into economic decision-making processes.

The Washington Utilities and Transportation Commission is committed to fulfill its responsibilities under Executive Order 02-03. Within its jurisdictional boundaries, it will promote the sustainable development of the state of Washington by: (1) protecting and contributing to the health, safety, and general well being of current and future residents of the state of Washington and of the Commission's own employees, (2) contributing to a healthier natural world through environmentally friendly internal practices, (3) supporting actions by local communities aimed to achieve the same goals, and (4) contributing to a healthy Washington economy.

Understanding that sustainable development is people-based development, the Commission will: (1) continuously encourage and adopt employees' initiatives and ideas that lead to new or improved internal activities; (2) adopt the three Rs policy of reusing, reducing, and recycling; and (3) periodically review current supply sourcing, energy, water use, and transportation practices.

3. Long Range Goals

Commission operations can change to incorporate the long-range goals identified in Executive Order 02-03. In particular, we intend to focus our efforts on institutionalizing sustainability as an agency value. We believe this is the best way to achieve lasting results in decreasing the Commission's environmental footprint. We will continue to follow Department of General Administration guidelines for purchasing:

1. Institutionalize sustainability as an agency value.
2. Raise staff awareness about the cumulative impacts of our business activities and the availability of alternatives.

3. Eliminate the purchase of products containing persistent, bioaccumulative toxics (PBTs).
4. Reduce by 25% greenhouse gases emitted through facility use.
5. Reduce greenhouse gases emitted through vehicle use as much as possible.
6. Eliminate wasteful practices and maximize the reuse and recycling of all materials and products.
7. Purchase recycled and remanufactured products whenever practicable.
8. Recognize and reward progress and achievements.

4. Describe Current Practices and Assess Opportunities

To help in our first steps toward evaluating our current good practices and look for new opportunities, we used the Green Office Guide, which is published by the City of Portland's Office of Sustainability. Our evaluation of current practices and opportunities is organized to match that publication. The Commission spent over \$62,000 for the 2003 fiscal year for energy, amounting to 730,000 kW-hours. We broke down our energy use by area (lighting, heating, etc) based on the percentages given in the Green Office Guide.

A. Lighting. The typical office uses about 29% of its energy consumption for lighting. During the 2001-2002 energy crisis, the Commission invested significant time and money into a number of actions to decrease our energy consumption, particularly in the lighting arena. We were successful in decreasing our consumption, but some of the practices have not proved to be socially sustainable. For example, turning off all lights in the hallways was too extreme. Because of the energy reduction efforts we have already made, we estimate our energy use for lighting is now close to 20% of our total. The Commission uses about 146,000 kW-hours, which, according to the Bonneville Environmental Foundation's CO₂ calculator, produces about 29,000 pounds of greenhouse gases.

Current Practices

1. Recent lighting retrofit replaced ceiling fixture ballasts in both Commission buildings with T-8 lamps.
2. Occupancy Sensors were installed in some conference rooms and all private offices.
3. Dimmable ballasts are in use in Room 206.
4. Exterior lighting in both parking lots use photocells to control "turn-on" and "turn-off" time.

5. Exterior lighting uses high pressure sodium.
6. Lights in vending machines have been turned off.

Future Opportunities

1. Permanently lit exit sign could be retrofitted for compact fluorescent lamp.
2. Occupancy Sensors could be installed in remaining conference rooms, copy rooms, supply rooms, break rooms.
3. Dimmer switches for existing ballasts could be installed in areas with lots of natural light.
4. Task lighting throughout both buildings should be upgraded to either T-5 or compact fluorescent lamps.

B. Office Equipment. The Commission uses a broad combination of office equipment to meet our work needs. Assuming that about 40% of our energy use is to operate this equipment, we consume 292,000 kW-hours, and produce about 57,000 pounds of greenhouse gases in this area.

Current Practices

1. Some office equipment is "energy-star" compliant.
2. Sixteen out of thirty-five printers (46%) have duplexing capability.
3. All copiers have duplexing capability.
4. Make full use of official Washington State Surplus Property opportunities to reduce waste.
5. Provide central area in agency to exchange small office supplies like binders.
6. Provide proper maintenance and cleaning of break room refrigerator coils.

Future Opportunities

1. All office equipment should be purchased with consideration of "energy star" status.
2. Computers and monitors could be set to enable sleep modes during idle periods of the day.
3. Educate employees that it is good to turn off computers when one is away from them for four hours or more.
4. Evaluate energy savings for flat-panel monitors to see if they justify the extra up-front expense.
5. Purchase fastest available printers.

6. Purchase duplexing-capable printers and set default print settings to duplex on network and individual workstations.
7. Set default copying to duplex.
8. Evaluate addition of fax modem to network.
9. Ban non-energy-star personal small appliances. (auto-shut-off feature for coffee makers, energy-star rating for refrigerators, etc.).
10. Educate employees about plug drain (fact that appliances draw power even when they are not turned on).
11. Add vending miser to all vending machines.
12. Investigate methods to reduce packaging of office equipment. (Send back to company for recycling?)
13. Conduct waste audit to identify other opportunities to reduce or recycle waste.
14. Research potential for using e-bay or other methods to get rid of items that are not able to go to State Surplus.

C. Paper Products. On average, each employee here uses 40 sheets of paper each workday. (See Table 2 for background information.) We spend about \$12,000 dollars each year to buy this paper. We also spend about \$5,000 each year on recycling. If we assume 40 cases of paper weigh one ton, we buy 8.5 tons of paper every year. Before we even open the ream, the paper has already consumed 96,000 kW-hours, produced 48,000 pounds of greenhouse gases (CO₂ equivalents), and used 175,000 gallons of water. Switching to 100% recycled paper would reduce energy usage by 35%, carbon dioxide by 29%, water usage by 41% and 100% for wood usage.

Current Practices

1. Use office paper recycling services.
2. Provide recycling containers at every desk.
3. All copiers have duplexing capability.
4. Agency Records Center has decreased paper use by circulating filings electronically.
5. Agency makes all formal documents available over the website.

Future Opportunities

1. Educate employees about paper costs, encourage review and editing on screen.

2. Educate employees about book-marking web pages or making them available off-line instead of printing them.
3. Provide fax cover sticky notes by all fax machines, and a sign to encourage employees to use them instead of a cover sheet.
4. Change printer and copier settings to duplex.
5. Select recycled, chlorine-free paper.
6. Review use of other paper products (envelopes, notepads, toilet paper, paper towels, file folders) for chlorine-free alternatives.
7. Consider switching use of heavily-colored paper to pastels for ease of recycling.
8. Switch to 30% recycled paper after considering cost.

D. Heating and Cooling. The Green Office Guide suggests that about 39 percent of our energy use is for heating and cooling costs. This means we consume about 285,000 kW-hours, producing 56,000 pounds of greenhouse gases. Updating our HVAC system should have a large effect on our energy consumption.

Current Practices

1. Use programmed thermostats to turn HVAC on and off.
2. Regularly maintain HVAC to ensure efficient operations.
3. Insulation, caulking and weather-stripping have been installed and maintained.

Future Opportunities

1. Building owner is offering to upgrade the HVAC to an energy-efficient model.
2. Building owner has offered to install outside air economizers at our cost.
3. Window films and/or shades could be installed that help keep out the heat in the summer to reduce cooling costs.

E. Water. Our indoor water use stays fairly constant over the year. However, our irrigation water costs get as high as \$500 a month in the summer. Clearly, our greatest impact would be to change our watering practices.

Current Practices

1. Water heater temperatures are set at 120 degrees.
2. Excellent maintenance of water system to quickly repair leaks.

Future Opportunities

1. Request smaller water heaters when replaced by building owners.
2. Pursue low-flow faucets, showerheads, and toilets.
3. Request gardening service water infrequently but deeply.
4. May need to request that certain water-dependent plants be replaced with drought-resistant plants.

- F. Cars and Parking.** The Commission currently owns 35 vehicles, driving 520,000 miles per year. We also reimburse employees for about 48,000 miles each year. Greenhouse gas production from these vehicles, all standard fuel, assuming seventy percent trucks and sport-utility vehicles, is 610,500 pounds. This is our single largest contributor to greenhouse gas production. The driving we do consumes about 30,000 gallons of fuel.

Current Practices

1. Free transit passes are available to all employees.
2. Active commute-trip-reduction program to encourage employees to use alternative transportation.
3. Bike parking, showers, and lockers are available for bike riders.

Future Opportunities

1. Agency currently subsidizes employee parking. Enhance efforts to encourage employees to use alternate transportation.
2. Agency owns 35 vehicles. Consider purchasing alternative fuel or diesel vehicles for replacement.

G. Employee Well-Being

Current Practices

1. Annual Health and Wellness Fair
2. Annual Flu Shots
3. Quarterly Blood Drive

Future Opportunities

1. Conduct audit of cleaning products to identify hazardous or dangerous chemicals in use in the building.
2. Review chemical use with gardening service to identify hazardous or dangerous chemicals in use around the building.

5. Objectives for Biennial Plan

A. Lighting

1. By September 2004, install Occupancy Sensors in remaining conference rooms, copy rooms, supply rooms, break rooms.
2. By September 2004, evaluate installation of dimmer switches for existing ballasts in areas with lots of natural light.

B. Office Equipment

1. Beginning October 2003, all office equipment will be purchased with consideration of "energy star" status.
2. By October 2004, educate employees on the following: (a) enabling computers and monitors to use sleep mode, (b) turn off computers when away from them for four hours or more, (c) plug drain, or the fact that appliances draw power even when they are not turned on, (d) how to enable duplexing at individual desktops.
3. By March 2005, evaluate energy savings for flat-panel monitors to see if they justify the extra up-front expense.
4. Beginning October 2003, purchase duplexing capable printers.
5. By March 2005, evaluate fax alternatives.
6. By March 2004, investigate methods to reduce packaging of office equipment.
7. By March 2004, conduct waste audit to identify other opportunities to reduce or recycle waste.

C. Paper Products

1. By June 2004, educate employees about paper costs, encourage review and editing on screen, encourage book-marking web pages or making them available off-line instead of printing them.
2. By June 2004, convert all copy and printer paper to at least 30% post-consumer recycled paper.

D. Heating and Cooling

1. By June of 2004, work with building owner on upgrade of the HVAC to an energy efficient model.
2. By June of 2004, work with building owner to pay for installation of outside air economizers.

E. Water

1. Before March 2004, request gardening service water infrequently but deeply for next irrigation season.

F. Cars and Parking

1. Evaluate all potential means to reduce impacts in this area. The Sustainability Team will guide a study of purchasing hybrid vehicles.
2. Starting October 2003, all vehicles scheduled for replacement must accept alternative fuels (natural gas or biodiesel). Focus on evaluation of purchasing alternative fuel or diesel vehicles for replacement.
3. Enhance efforts to encourage employees to use alternative modes of transportation.

G. Employee Well-Being

1. By October 2004, the Commission will conduct audits of cleaning products and chemical use.

6. *Roles and responsibilities*

- Each individual employee in the agency will be responsible for identifying sustainability efforts in their area. These ideas will be e-mailed or written and sent to the sustainability team.
- The team will share the ideas with the senior management team, and then identify sections or positions that should implement them.
- The Senior Management Team will allocate resources for ideas that have been evaluated and recommended by the sustainability team.
- The Sustainability Team will identify an implementation strategy that involves all stakeholders in any sustainability initiative.

7. *Communication and Education*

We will begin our education efforts at the Agency ASK Meetings. After announcing the sustainability plan at the September 2003 ASK meeting, we requested employee involvement in an ongoing way. We hope that by paying

attention to what employees suggest, they will embrace sustainability as a lifestyle.

Future communication and education activities planned by the sustainability team include:

- Showing videos about sustainable lifestyle choices every other month.
- Establishing an intranet site available for posting ideas and links.
- At monthly team meetings, one education activity will be identified and implemented (beyond the videos). This information will be recorded in meeting minutes in the Discussion Database.

8. Performance Measures and Continuous Improvement

This plan is for the fiscal biennium for July 2003-June 2005.

We will maintain data about paper use on a fiscal year basis.

We will report our average paper used per employee.

We will report vehicle miles and employee numbers.

The team will use the Bonneville Environmental Foundation's CO₂ calculator to convert vehicle miles and energy use into pounds of CO₂ equivalents (available at www.b-e-f.org).

In order to maintain movement toward sustainability, we intend to choose two items from any of the future opportunity areas each month until the plan revision in 2005.

Baseline Data Report – October 31, 2003

Table 1 - Agency Vehicle Information (June 02-July 03)			
Vehicle Type	Fuel Type	Count	Miles Driven/Year
Agency Owned Vehicles	Unleaded Gas and some Flex Fuel	35	519,966
Personally Owned Vehicles	Various	Unknown	47,717
Motor Pool	Flex Fuel – Gas/Ethanol	N/a	0
Total			567,683
Miles/Year/Employee			3,379

Table 2 - Copy Paper Consumption (3 year average)			
Paper Type	Percentage of Recycle	Amount (Cases)	Amount (Pages)
White 8 ½ x 11	0%	327	1,633,000
Colored 8 ½ x 11	0%	6	30,000
White 8 ½ x 11, 3-hole	0%	1	6,000
White 8 ½ x 14	0%	6	29,000
White 11 x 17	0%	1	6,000
Total		341	1,704,000
Pages/Employee/Day			39

Table 3 - Utilities and Transportation Commission Office Sites			
Building	Address	Sq. Ft.	No. Employees
Chandler	1300 Evergreen Park Dr SW	37,107	120
Heritage	1400 Evergreen Park Dr SW	15,647	48
Total	(includes 13 agency-assigned employees)	52,754	168

Table 4 - Summary of Greenhouse Gas Production		
Source	CO ₂ equivalents	Reduction goal
Lighting	29,000 pounds	2,500
Office Equipment	57,000 pounds	15,000
Paper Products	48,000 pounds	15,000
Heating and Cooling	56,000 pounds	15,000
Facilities Subtotal	190,000 pounds	47,500 pound reduction
Vehicles	610,500 pounds	
Total	800,500 pounds	

Table 5 - Greenhouse Gas Production Factors from GREET (Argonne National Lab)		
Source	CO ₂ Equivalent Factor	Percentage Reduction
Conventional Gasoline	401	0%
Ethanol Blend (FFV)	382	5%
Methanol Blend (FFV)	369	8%
Hybrid Gas/Electric	289	28%
Electric Stand-alone	0	100%