



**CITY OF KIRKLAND**  
**Department of Public Works**  
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## MEMORANDUM

**To:** David Ramsay, City Manager

**From:** Erin J. Leonhart, Public Works Facilities & Administrative Manager  
Van Ingram-Lock, Public Works Management Analyst  
Daryl Grigsby, Public Works Director

**Date:** July 24, 2007

**Subject:** GREENHOUSE GAS EMISSIONS REDUCTION TARGETS  
GREEN POWER PURCHASES

### RECOMMENDATION

It is recommended that Council proceed with the next step of the Mayors' Climate Protection Agreement by approving a resolution adopting Greenhouse Gas Emissions Reduction Targets for the municipal government and community. It is also recommended that the City participate in the Green Power Partnership through Puget Sound Energy starting in 2008.

### BACKGROUND DISCUSSION

By signing the Mayors' Climate Protection Agreement, the City of Kirkland committed to helping reverse global warming by reducing greenhouse gas emissions. To help accomplish that goal Kirkland joined the International Council for Local Environmental Initiatives (ICLEI) and began following the ICLEI milestones:

- Conduct a greenhouse gas emissions inventory and forecast to determine the source and quantity of greenhouse gas emissions in the City;
- Establish a greenhouse gas emissions reduction target;
- Develop an action plan with both existing and future actions which when implemented will meet the local greenhouse gas reduction target;
- Implement the action plan; and
- Monitor and report progress.

Earlier this year, Public Works staff conducted greenhouse gas emissions inventories for Kirkland's municipal government and the Kirkland community. The results of these inventories were reported to Council at the Environmental Stewardship Study Session on May 8<sup>th</sup>. The next step in this process is establishing greenhouse gas emissions targets.

Emissions Targets

With the help of ICLEI and the Puget Sound Clean Air Agency, staff analyzed target options, taking into consideration the following:

- The goal in the Mayors' Agreement – 7% below 1990 levels by 2012 (Kyoto Protocol);
- Confidence in inventory data – most confident in 2005 data, especially for municipal operations;
- “What if” analyses using ICLEI software; and
- Targets set by other organizations (see table below).

<b>TABLE 1 CO<sub>2</sub> REDUCTION TARGETS – OTHER WASHINGTON JURISDICTIONS</b>		
JURISDICTION	% Below Baseline Emissions	TARGET YEAR
Seattle – Short Term	7% below 1990	2012
Seattle – Long Term	80% below 2007	2050
King County	80% below 2007	2050
Bellingham – Short Term Gov't	64% from 2000	2012
Bellingham – Long Term Gov't	70% from 2000	2020
Bellingham – Short Term Community	7% from 2000	2012
Bellingham – Long Term Community	28% from 2000	2020
Bellevue	7% below 1990	2012
Olympia	2% per year – until 1990 levels reached	-

Community data provided/collected has been more consistent after 2000 than what was provided for 1990 and 1990 data for municipal operations were not available. For these reasons, a goal related to 1990 emissions levels was not recommended.

Green Power

Staff also reviewed the impacts (both financial and on emissions) of becoming a Green Power Partner through Puget Sound Energy. Citizens have been inquiring about the City of Kirkland's intentions of investing in Green Power, joining the cities of Bellingham and Olympia. The Green Power Partnership is a program in which companies and agencies pay a premium for renewable energy generated from resources such as solar or wind. There is a detailed Green Power guide on the U. S. Environmental Protection Agency website: [http://www.epa.gov/greenpower/pdf/purchasing\\_guide\\_for\\_web.pdf](http://www.epa.gov/greenpower/pdf/purchasing_guide_for_web.pdf). The cost and carbon dioxide equivalent reductions related to purchasing Green Power for City facilities would initially be:

<b>TABLE 2 GREEN POWER PURCHASE</b>		
PERCENT PURCHASED	APPROX. COST	CO <sub>2</sub> REDUCTION
100% Facility Power (over 3 million kilowatt hours/year)	\$20,000/year	24%
50% Facility Power	\$10,000/year	12%
25% Facility Power	\$10,000/year	6%

The charge for Green Power purchases over 1 million kilowatt hours/year is \$0.006 per kilowatt hour. For purchases under 1 million kilowatt hours/year, the charge is \$0.0125 per kilowatt hour. Reducing dependence on energy of any variety is the most environmentally sound goal so staff will continue pursuing ways to reduce energy usage in facilities with equipment retrofits and behavioral changes independent of choices about purchasing Green Power. As usage decreases, the total cost of Green Power would decrease.

Options – Targets and Green Power

On June 6<sup>th</sup>, a workgroup comprised of Councilmembers (Mayor Lauinger, Councilmembers Burleigh and Hodgson), citizen-at-large Nona Ganz and staff met with Amy Shatzkin of ICLEI and Elizabeth Willmott, King County's Global Warming Coordinator to discuss target setting principles, staff recommendations and the Green Power Program. The workgroup unanimously supported a 20% reduction in 2005 emissions by 2020 for the community and municipal government. The workgroup also supported the very long-term goal of 80% below 2007 levels by 2050 to be consistent with other regional entities. The staff recommendation includes these two goals in addition to a mid-range goal of 10% below 2005 levels by 2012 as a bench-mark and motivation.

The workgroup generally supported purchase of Green Power to set an example and support development of sustainable energy. There was no consensus about the amount of power to purchase and if it would be recorded as a reduction in emissions. The staff recommendation is to invest in Green Power for City facilities at the rate of 50%, starting in 2008, and record it as a reduction in emissions. This option will give us an opportunity to achieve emissions reductions from ongoing retrofits and behavioral changes while supporting the development of additional sustainable energy sources. Both of these actions demonstrate leadership and commitment to the environment.

The table below describes the staff and workgroup recommended option as well as two others – one that provides an aggressive interim goal for government operations in conjunction with 100% purchase of Green Power for City facilities and another that offers no purchase of Green Power.

<b>TABLE 3</b>			
<b>GREENHOUSE GAS REDUCTION TARGETS &amp; GREEN POWER PURCHASE OPTIONS</b>			
<b>OPTION</b>	<b>GREENHOUSE GAS REDUCTION TARGETS</b>	<b>GREEN POWER</b>	<b>NOTES</b>
1	Community & Government: Primary: 20% below 2005 levels by 2020 Interim: 10% below 2005 levels by 2012 Long-term: 80% below 2007 levels by 2050	Yes – 50% of Facility Power	<b>Recommended Option</b> Consistent Messaging Behavior/Operation Changes Green Power Leader
2	Community: 20% below 2005 levels by 2020 Government: 25% below 2005 levels by 2012 Long-term: 80% below 2007 levels by 2050	Yes – 100% of Facility Power	Inconsistent Messaging Limits Options for Reduction Green Power Leader
3	Community and Government: Primary: 20% below 2005 levels by 2020 Interim: 10% below 2005 levels by 2012 Long-term: 80% below 2007 levels by 2050	No	Consistent Messaging Behavior/Operation Changes No Green Power Support

### Budget Impacts

If Option 1 or 2 is selected, staff will return to Council during the mid-biennial budget process with a funding request for the Green Power premium listed in Table 2. Budget impacts/requests related to other greenhouse gas reduction measures will be derived from the upcoming action plan. The action plan could call for policy changes; operational changes; public outreach; and, in some cases, cost increases in operational and/or capital budgets. These are aggressive goals and it is likely there will be costs associated with reaching them. Staff will return to Council with more detailed information in our action planning effort.

### CONCLUSION & NEXT STEPS

This process is consistent with the City Council's Environmental Stewardship Philosophy and the Natural Resource Management Plan. Ongoing efforts are coordinated through the Green Team, who will be increasingly involved in the creation of the greenhouse gas reduction action plan, which is the next step in this process (and the third ICLEI milestone). The Council/staff workgroup that has participated in the first two steps will be reassembled to kick off the action planning process. The action plan will incorporate operational/behavior changes, outreach, legislative goals, etc. so City experts in the various areas will be involved in its creation. We will also work with Communications Program Manager, Marie Stake, to increase community involvement in the process. Staff plans to return to Council in early 2008 with a proposed action plan. Please direct any questions to Erin Leonhart.

RESOLUTION R-4659

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND  
ADOPTING GREENHOUSE GAS REDUCTION TARGETS.

WHEREAS, the City Council adopted the Natural Resource Management Plan on August 5, 2003 which contains the following Guiding Principles:

Natural resources are considered to be community assets that significantly affect the quality of life in Kirkland. In fact, human survival is dependent upon healthy natural systems.

Natural resources exist in complex, interrelated systems that need to be managed comprehensively in order to maintain the viability of each.

WHEREAS, scientific consensus has developed that carbon dioxide and other greenhouse gases released into the atmosphere have a profound effect on the Earth's climate; and

WHEREAS, in 2006 the U.S. National Climatic Data Center confirmed clear evidence of human influences on climate due to changes in greenhouse gases; and

WHEREAS, the U.S. Conference of Mayors endorsed the 2005 U.S. Mayors' Climate Protection Agreement initiated by Seattle Mayor Nickels and signed by 540 mayors in the United States as of June 2007 including the City of Kirkland's Mayor committing the City of Kirkland to its three main parts:

- a. We urge the federal government and state governments to enact policies and programs to meet or beat the target of reducing global warming pollution levels to 7 percent below 1990 levels by 2012, including efforts to: reduce the United States' dependence on fossil fuels and accelerate the development of clean, economical energy resources and fuel-efficient technologies such as conservation, methane recovery for energy generation, waste to energy, wind and solar energy, fuel cells, efficient motor vehicles, and biofuels;
- b. We urge the U.S. Congress to pass bipartisan greenhouse gas reduction legislation that includes 1) clear timetables and emissions limits and 2) a flexible, market-based system of tradable allowances among emitting industries; and

- c. We will strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution (reduce greenhouse gases to 7% below 1990 levels) by taking actions in our own operations and communities.

WHEREAS, the City Council authorized staff to join International Council for Local Environmental Initiatives (ICLEI), on behalf of the City of Kirkland, as a Full Member and participate in the Cities for Climate Protection Campaign. As a participant, the City of Kirkland pledged to take a leadership role in promoting public awareness about the causes and impacts of climate change by undertaking the Cities for Climate Protection Campaign's five milestones to reduce both greenhouse gas and air pollution emissions throughout the community, specifically:

- Conduct a greenhouse gas emissions inventory and forecast to determine the source and quantity of greenhouse gas emissions in the City;
- Establish a greenhouse gas emissions reduction target;
- Develop an action plan with both existing and future actions which when implemented will meet the local greenhouse gas reduction target;
- Implement the action plan; and
- Monitor and report progress.

WHEREAS, local government actions taken to reduce greenhouse gas emissions and increase energy efficiency provide multiple local benefits by decreasing air pollution, creating jobs, reducing energy expenditures, and saving money for the local government, its businesses, and its residents;

NOW, THEREFORE, be it resolved by the City Council of the City of Kirkland as follows:

Section 1. The City of Kirkland hereby adopts the following Greenhouse Gas Reduction Targets:

- a. Emissions 20% below 2005 levels by 2020 for both the Kirkland community and municipal operations with an interim goal of 10% below 2005 levels by 2012; and
- b. Emissions 80% below 2005 levels by 2050.

Section 2. The Kirkland City Council directs staff to provide reports, at least biennially, outlining the greenhouse gas emission performance compared to set targets.

Section 3. The Kirkland City Council directs staff to develop a long term action plan that will lead to the targeted reductions in greenhouse gas emissions for municipal operations and the community through capital investment, operational changes, program development and public outreach.

Passed by majority vote of the Kirkland City Council in open meeting  
this \_\_\_\_ day of \_\_\_\_\_, 2007.

Signed in authentication thereof this \_\_\_\_ day of \_\_\_\_\_, 2007.

\_\_\_\_\_  
MAYOR

Attest:

\_\_\_\_\_  
City Clerk