



Washington County Action Proposal

One of our group's goals is to work with the Washington County Board of Commissioners to take proactive action to mitigate the risks of the phenomenon known as "Peak Oil".

By Peter Lunsford, Group Co-Coordinator

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Introduction

Recent data suggests the world has reached or surpassed “Peak Oil”.

This presents the County and its municipalities with an unprecedented risk management problem with far reaching and very serious implications. County residents and the business community will be looking to local government officials to provide the leadership necessary to mitigate these risks.

WASHINGTON COUNTY PEAK OIL stands ready to assist the Board of Commissioners in understanding the issue, its many implications, and initiating the tasks ahead. We offer to assist the County by providing guidance and information, findings, solutions, and recommendations adopted by other cities and municipalities.

Problem Statement – Peak Oil

A statement of the problem known as “Peak Oil”, in broad terms, is that point in time when global petroleum production technologically reaches a maximum peak of production which is followed by an irreversible decline in production, endlessly reducing supplies. The global peak also represents the point where production is no longer able to meet the global consumption demand, thereby resulting in an ever-increasing shortage of petroleum and its products to the world.

The world, its economy, and all of its individual entities have become inextricably dependent upon cheap and abundant petroleum. Virtually all industries, products and services, and the very growth and stability of economic activity, rely heavily on uninterrupted supplies at reasonable costs. Due to the enormous scale of petroleum use in the world (particularly in the United States,) along with the modernization and rapid industrialization of numerous countries such as China and India and countries which did not previously utilize large quantities of oil, demand is now outstripping supply, worldwide, for the first time in our history.

For demand to exceed supply, in a continually broadening dynamic, implies significant, perhaps catastrophic economic consequences across the board unless extraordinary transformations occur in transportation, raw materials, and the cultural mindset of the populace.

This situation presents unprecedented challenges to our County, and especially so to our municipalities and government agencies, to mitigate the enormous economic, transportation, and food impacts, and numerous other related implications that will result as a consequence of this phenomenon. Regardless of the precise timing of the peak in oil production, extreme action is now required.

Previous Options

“All the major recessions of the past 35 years were preceded by sharp increases in the price of oil. The energy crises of the 1970s provide a preview of the impact of peak oil. U.S. oil production peaked in 1970 and started a decline, which continues to this day. We turned to imports to make up the shortfall.

OPEC used this growing dependency for political purposes, cutting production 6-7% in 1973 and tripling prices. As a result:

- ◆ GNP growth fell from 4% in 1960-73 to 1.8% in 1973-82;
- ◆ productivity growth dropped from 2.5% in 1966 to less than 1% in 1979;
- ◆ unemployment rose from 4.8% in 1972 to 8.3% by 1975;
- ◆ inflation was 8.8% for the decade; and
- ◆ take home pay dropped 6% from 1973 to 1979.

High prices stimulated energy conservation and development of more expensive, harder-to-get supplies from places like Alaska and the North Sea, and eventually OPEC was forced to reduce prices.

However, this time there's no major new resource areas to develop. The impacts could be deeper and last longer than they did after U.S. oil production peaked."¹

WASHINGTON COUNTY PEAK OIL Proposal

We propose a call to action for Washington County to immediately research and initiate broad mitigating strategies to minimize the effects of peak oil on our residents, business community, food supplies, transportation infrastructure, and government entities throughout the County, and to publicly encourage significant conservation and preparation tactics.

This call to action would include;

- ◆ Establishing a County Energy Depletion and Sustainability Programs Office (This office should work closely with the current Washington County Recycling office.)
- ◆ Making a public statement (Resolution) acknowledging recognition of peak oil and its implications as a very serious concern affecting the County, its business community and its citizens.
- ◆ Implementation of significant conservation strategies across the board, for residents, businesses, transportation, land use, and government services.
- ◆ Developing an "Energy Descent Action Plan" that covers food, education, transportation, land use, youth & community, housing, economy and jobs, health, waste, and energy -- developing a "vision" for Washington County for these areas representing 15 and 40 years out, given projected energy shortfalls, then working backwards to define how to meet that vision.
- ◆ Coordination with Metro and the municipalities within the County to develop, enhance, and deploy region-wide mitigation strategies, and County-wide approaches.
- ◆ Directing the County Office of Emergency Management to establish strategies, plans, and tactics to deal with energy shocks (sudden and unexpected shortages of energy or sudden calamitous price shocks.)
- ◆ Establish broad and visible education campaigns for residents and businesses throughout the County addressing both awareness of the issue and solutions.
- ◆ *The Oil Depletion Protocol*: Join Portland by signing the *Oil Depletion Protocol*² and actively encourage all other municipalities within Washington County to join. This is an international agreement that promotes cooperation to reduce dependence on oil and petroleum. By agreeing to reduce oil imports and exports by a specified amount each year, about 2.6 percent, signatories will help mitigate the negative consequences of an over-reliance on cheap oil and help prepare for a global decline in the world's oil supply.
- ◆ Demonstrate leadership by example by "powering down" the County Government's consumption of petroleum products.

The solutions to mitigate the risks of "peak oil" are virtually the same as the solutions to mitigate global warming -- the solutions include massive reductions in the use of fossil fuels and the changes that support such a transition.

¹ Peak Oil Task Force Report, Appendix 2, by John Kaufmann, Oregon Dept. of Energy

² <http://www.oildepletionprotocol.org/theprotocol>

- ◆ ***Mayors Climate Protection Agreement:*** We would strongly urge Washington County to join Ashland, Beaverton, Corvallis, Eugene, Gresham, Lake Oswego, Lincoln City, Oregon City, Portland and 400 other cities by signing the *Mayors Climate Protection Agreement (U.S.)*, and encourage all other municipalities within Washington County to do so. This agreement is a pledge to take local action to significantly reduce greenhouse gas emissions in our community.
- ◆ ***World Mayors and Municipal Leaders Declaration on Climate Change:*** We would strongly encourage Washington County to join Ashland, Corvallis, Eugene, Multnomah County, Lake Oswego and Portland by endorsing the *World Mayors and Municipal Leaders Declaration on Climate Change*. Under the Agreement, participating cities commit to take following three actions:
 1. Strive to meet or beat the Kyoto Protocol targets in their own communities, through actions ranging from anti-sprawl land-use policies to urban forest restoration projects to public information campaigns;
 2. Urge their state governments, and the federal government, to enact policies and programs to meet or beat the greenhouse gas emission reduction target suggested for the United States in the Kyoto Protocol -- 7% reduction from 1990 levels by 2012; and
 3. Urge the U.S. Congress to pass the bipartisan greenhouse gas reduction legislation, which would establish a national emission trading system
- ◆ ***Cities for Climate Protection Campaign (CCP):*** We would strongly encourage Washington County to join Ashland, Corvallis, Multnomah County and Portland in their support of ICLEI's [International Council for Local Environmental Initiatives] *Cities for Climate Protection Campaign*³. This campaign assists cities to adopt policies and implement quantifiable measures to reduce local greenhouse gas emissions, improve air quality, and enhance urban livability and sustainability.

Implementation First Steps

We recommend the first step be a Resolution passed by the County Board of Commissioners, acknowledging the peak oil phenomenon and its implications, and establishing a formal approach to the problem, including the establishment of a Programs Office within the County to specifically address energy depletion and sustainability mitigation strategies. The resolution can be modeled after the resolutions passed by Portland, San Francisco and Oakland, Austin, Franklin Town, NY, and Bloomington, IN, to put in motion the activities needed to begin mitigation efforts.

However, establishing an independent citizen's task force to research findings, assess the impacts of peak oil, and develop a list of recommendations is not the approach we propose, for two reasons:

1. this would largely and unnecessarily duplicate the work already done by Portland and other cities upon which the County can capitalize, and,
2. the extraordinary amount of time required to organize such a task force and await recommendations⁴ is a luxury the County cannot afford, given the evidence that peak oil is or has already occurred.

Rather, it is proposed that a facilitated intensive conference be held to include appointed residents, business leaders, educators, transportation and government officials to assess the data already developed by Portland and other cities, establish its applicability to Washington County, and quickly determine if there are issues relevant to the County not addressed by these existing findings and recommendations. An effective County-wide strategy should be derived from such a conference.

³ <http://www.iclei.org/index.php?id=800>

⁴ The average time-frame for implementing a task force, conducting the research and proposing recommendations to officials is estimated to be nine months.

Summary

In 2005, the U.S. Department of Energy commissioned a study on the implications of a peak in world oil production. The study is commonly referred to as *The Hirsch Report*, formally entitled, "*Peaking of World Oil Production: Impacts, Mitigation, & Risk Management*". The report suggests three scenarios in terms of implications of a global peak and the time it will take to gear up to mitigate such risks. They are:

- ❑ Waiting until world oil production peaks before taking crash program action leaves the world with a significant liquid fuel deficit for more than two decades.
- ❑ Initiating a mitigation crash program 10 years before world oil peaking helps considerably but still leaves a liquid fuels shortfall roughly a decade after the time that oil would have peaked.
- ❑ Initiating a mitigation crash program 20 years before peaking appears to offer the possibility of avoiding a world liquid fuels shortfall for the forecast period.

Current world oil production data indicates that the peak in global oil production has indeed been reached, and without the above-mentioned advance warning. This is a clarion call for immediate and urgent action.

Without significant and immediate changes in our approaches and requirements for transportation, our demand for petroleum products to generate electricity, fertilizers, pesticides, and thousands of other products used by citizens every day, catastrophic economic conditions and food supply issues will certainly impact Washington County. With a significant agriculture sector and large suburban commuting population, petroleum shortages and sharp price increases will have unavoidably profound effects on our County's economy. How we prepare our citizens, businesses and government sectors for those effects will impact whether we experience a soft landing, hard landing, or a disastrous crash.

We can organize and prepare the citizenry and business communities to both reduce their energy consumption and prepare themselves for a much lower energy-intensive world. But preparation will take considerable time, education, investment and effort, and will also require considerable conservation tactics, cultural change, and financial expenditure. For every day that we delay, we risk compounding the negative impacts of our position and increasing the costs of the effort. Time is of the essence.

Risk mitigation can also have another meaning: economic opportunity. There are hundreds or thousands of opportunities available to the County which should actively be investigated and, if suitable, invested in. Economic opportunities that will protect our residents, our food and water supplies, and our economy, should be at the top of that list.

- End -

Appendix 1 – The Portland Peak Oil Resolution

RESOLUTION

Establish a Peak Oil Task Force to assess Portland’s exposure to diminishing supplies of oil and natural gas and make recommendations to address vulnerabilities. (Resolution)

WHEREAS, global reserves of oil and natural gas are finite and sufficient substitutes are unlikely to be available in the immediate future; and

WHEREAS, U.S. oil and natural gas production have peaked and are now in decline, ensuring our nation’s continued and growing dependence on oil and natural gas imported from politically unstable regions; and

WHEREAS, a growing body of energy industry experts believe that the world has already arrived at, or will soon arrive at, the peak of global oil production, which will be followed by an inevitable decline in available supply thereafter; and

WHEREAS, global demand for oil and natural gas continue to increase; and

WHEREAS, following the global peaks of oil and natural gas production, the interaction of decreasing supply and increased demand will cause the price of oil and natural gas to become more volatile; and

WHEREAS, the United States Department of Energy’s National Energy Technology Laboratory has stated that, “The problems associated with world oil production peaking will not be temporary, and past ‘energy crisis’ experience will provide relatively little guidance. The challenge of oil peaking deserves immediate, serious attention, if risks are to be fully understood and mitigation begun on a timely basis”; and

WHEREAS, the City of Portland and its citizens and businesses depend on oil and natural gas for their economic welfare and their most critical activities, including transportation and food supply; and

WHEREAS, a large majority of money spent on fossil fuels leaves Oregon and provides no local economic benefit, while many of the solutions to lessening dependence on fossil fuels result in local jobs and substantial economic benefits;

WHEREAS, Portland residents and businesses are not currently aware of the full implications of an impending decline and will greatly benefit from an objective source of information on this topic; and

WHEREAS, the City of Portland has adopted the *Local Action Plan On Global Warming*, the success of which depends upon reducing carbon dioxide emissions from burning fossil fuels; and

WHEREAS, the City of Portland has a national reputation for planning and actions aimed at maintaining the City's social values, equity, and quality of life and can take a leadership role in what may become one of the greatest political economic and societal issues of the next half century; and

WHEREAS, the Oregon Department of Energy and METRO share the City's concerns about the uncertainty of future oil supplies and has offered to provide technical assistance in assessing the local implications of peak oil;

NOW, THEREFORE, BE IT RESOLVED, a Peak Oil Task Force will be established to assess Portland's exposure to diminishing supplies of oil and natural gas and make recommendations to address vulnerabilities. The Task Force will be lead and staffed by the Offices of Sustainable Development and will coordinate with the Office of Transportation and the Bureau of Planning. It will include up to 11 members representing a broad range of community and business interests.

BE IT FURTHER RESOLVED, the Task Force's charge is:

- a. To acquire and study current and credible data and information on the issues of peak oil and natural gas production and the related economic and other societal consequences;
- b. To seek community and business input on the impacts and proposed solutions;
- c. To develop recommendations to City Council in this calendar year on strategies the City and its bureaus can take to mitigate the impacts of declining energy supplies in areas including, but not limited to: transportation, business and home energy use, water, food security, health care, communications, land use planning, and wastewater treatment. These recommendations will be considered as amendments to the Local Action Plan on Global Warming when it is revised in 2007 and integrated into citywide long term strategic planning; and
- d. To propose methods of educating the public about this issue in order to create positive behavior change among businesses and residents that reduce dependence on fossil fuels.

Adopted by the Council,
Commissioner Sam Adams
Commissioner Randy Leonard
Commissioner Dan Saltzman
Commissioner Erik Sten
Mayor Tom Potter
Prepared by: Brendan Finn
May 10, 2006

GARY BLACKMER
Auditor of the City of Portland
By Deputy

Appendix 2 – Portland Peak Oil Task Force Recommendations

RECOMMENDATIONS: ACT BIG, ACT NOW

The Task Force findings illustrate the profound economic and social vulnerabilities that could result as fuel supplies cease to be abundant and inexpensive. The magnitude of this issue led the Task Force to explore bold and far-reaching solutions. The Task Force is unified in urging strong and immediate action.

The Task Force recommends preparedness on two different levels. Most of the recommendations seek to reduce Portland's exposure to rising fuel prices, anticipating the economic and lifestyle adjustments that will be needed in the future. Other recommendations prepare Portland to maintain community stability as volatile energy markets trigger conditions ranging from emergency shortages to longer-term economic and social disruption.

Reduce Portland's exposure: The Task Force proposes cutting oil and natural gas consumption in half, transforming how energy is used in transportation, food supply, buildings and manufacturing. It proposes strategies to maintain business viability and employment in an energy-constrained marketplace.

Strengthen community cohesion: However well Portland succeeds in its energy transition, it will not be able to isolate itself from global energy crises or the resulting economic implications. The Task Force sees the potential for profound economic hardship and high levels of unemployment, and it recommends having plans in place to adapt social and economic support systems accordingly. Similarly, contingency plans are needed for fuel shortages that may last for months or years, well beyond the time considered in existing emergency plans.

The Task Force recommends a comprehensive package of actions, proposing strategies to initiate institutional change and to motivate action by households and businesses. The recommendations propose major changes for Portland, but the Task Force believes their implementation can have a positive social and economic impact as local residents and businesses spend less on imported fuels and redirect dollars into the local economy. This presents a significant economic development opportunity for Portland.

While all the recommendations are important, *achieving a significant reduction in oil and natural gas use* is a necessity for easing the transition to an energy-constrained future.

1. Reduce total oil and natural gas consumption by 50 percent over the next 25 years.

Leadership builds the public will, community spirit and institutional capacity needed to implement the ambitious changes. Leadership is needed to build partnerships to address these issues at a regional and statewide level.

2. Inform citizens about peak oil and foster community and community based solutions.

3. Engage business, government and community leaders to initiate planning and policy change.

Urban design addresses the challenge at a community scale.

4. Support land use patterns that reduce transportation needs, promote walkability and provide easy access to services and transportation options.

5. Design infrastructure to promote transportation options and facilitate efficient movement of freight, and prevent infrastructure investments that would not be prudent given fuel shortages and higher prices.

Expanded efficiency and conservation programs shape the many energy choices made by individual households and businesses.

6. Encourage energy-efficient and renewable transportation choices.

7. Expand building energy-efficiency programs and incentives for all new and existing structures.

Sustainable economic development fosters the growth of businesses that can supply energy-efficient solutions and provide employment and wealth creation in a new economic context.

8. Preserve farmland and expand local food production and processing.

9. Identify and promote sustainable business opportunities.

Social and economic support systems will be needed to help Portlanders dislocated by the effects of fuel price increases.

10. Redesign the safety net and protect vulnerable and marginalized populations.

Emergency plans should be in place to respond to sudden price increases or supply interruptions.

11. Prepare emergency plans for sudden and severe shortages.

Each of these 11 major recommendations is accompanied by a series of action items detailing how it can be implemented.

NEXT STEPS

A number of the recommendations imply the need for a central program to coordinate goal setting, tracking and communications. Other recommendations are policies, programs or projects to be implemented by specific bureaus or groups of bureaus. The Task Force

proposes that a team of city staff be appointed to translate these recommendations into a funded, operational course of action.

Acting on this report, however, does not need to await further study or analysis. City bureaus can immediately look for ways to incorporate these energy concerns and impacts into ongoing planning activities and educational programs around sustainable development. City Council can challenge bureaus to align their investments and activities with the recommendations outlined in this report.

Finally, the Task Force members would like to express their willingness to continue assisting the City of Portland as it engages City staff and the public about peak oil and Portland's energy future.

Appendix 3 – The Austin Peak Oil Resolution

RESOLUTION NO. _____

WHEREAS, U.S. oil and natural gas production has peaked and is now in decline, increasing pressure toward continued and growing dependence on imported sources of oil and natural gas; and

WHEREAS, a growing body of energy-industry experts has concluded that we are now experiencing, or will soon experience, the peak of global oil and natural gas production; and

WHEREAS, following the global peak of oil and natural gas production, the interaction of decreasing supply and increasing demand will cause the price of oil and natural gas to become more volatile; and

WHEREAS, volatile price signals of petroleum scarcity may not allow for smooth market adjustments and effective mitigation efforts in the private sector; and

WHEREAS, the City of Austin and its citizens and businesses depend on oil and natural gas for their economic welfare and vital activities, including transportation and food supply; and

WHEREAS, many Austin residents and businesses are not currently aware of the issues and challenges surrounding the decline of U.S. and global oil and natural gas production and would benefit from an objective source of information on this topic;

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF AUSTIN THAT:

1. the Austin City Council supports the undertaking of a City-wide assessment study to inventory city activities and their corollary resource requirements, and to evaluate the impact of a decline in petroleum and natural gas availability in each area, with the aim of developing a comprehensive energy depletion risk assessment and action plan;
2. the City Manager is directed to create an Energy Depletion Risks Task Force to assess the City's exposure to diminishing supplies of oil and natural gas and to make recommendations to address any vulnerabilities that may result;
3. the Task Force shall be composed of representatives of those City departments affected by oil and gas depletion as well as community and business leaders, and the City Manager shall report the makeup of the Task Force to City Council within eight weeks;
4. the Task Force's charge shall be to:

- a. acquire and study current and credible data and information on the issues of oil and natural gas production and depletion and the related economic and societal implications;
- b. seek community and business input on the proposed planning and response measures;
- c. coordinate with appropriate county, state, and federal agencies;
- d. develop recommendations for the City Council to include in the City's long term strategic planning with respect to strategies the City can take to mitigate the impacts of declining energy supplies in areas including, but not limited to, transportation, business and home energy use, water, food security, health care, communications, land use planning, and wastewater treatment; and
- e. propose methods for educating the public about this issue in order to create proactive behavior change among businesses and residents and reduce dependence on fossil fuels;
- f. issue its final report to City Council on these matters within nine months of the date of this resolution;

5. the City Manager shall, after issuance of the Task Force's report, make recommendations to the City Council regarding the necessary funding and direction to City departments for the development of a contingency plan for dealing with any crisis stemming from oil and natural gas shortages; and

6. the Task Force's charge shall expire after issuance of its final report to City Council.

ADOPTED: June07, 2007 ATTEST: <signed>
Shirley A. Gentry
City Clerk

Appendix 4 – The San Francisco Peak Oil Resolution

RESOLUTION

Resolution acknowledging the challenge of Peak Oil and the need for San Francisco to prepare a plan of response and preparation.

WHEREAS, World oil production is nearing its point of maximum production (“Peak Oil”) and will enter a prolonged period of irreversible decline leading to ever-increasing prices; and

WHEREAS, The United States has only 2 percent of the world’s oil reserves, produces 8 percent of the world’s oil and consumes 25 percent of the world’s oil, of which nearly 60 percent is imported from foreign countries; and,

WHEREAS, The decline in global oil production threatens to increase resource competition, geopolitical instability, and lead to greater impoverishment; and,

WHEREAS, national oil companies own 72% of remaining oil reserves and 55% of remaining gas reserves, and resource nationalism is increasingly dominating decisions of oil and gas development and trade relationships; and,

WHEREAS, The availability of affordable petroleum is critical to the functioning of our transportation system, the production of our food and of petrochemical-based consumer goods, the paving of roads, the lubrication of all machinery, and myriad other parts of the economy; and,

WHEREAS, San Francisco is entirely dependent on external supplies of petroleum, including the crude oil processed in Bay Area refineries; and,

WHEREAS, Price signals of petroleum scarcity are likely to come too late to trigger effective mitigation efforts in the private sector, and governmental intervention at all levels of government will be required to avert social and economic chaos; and,

WHEREAS, The Department of Energy-sponsored study on mitigation of Peak Oil demonstrated that a twenty-year lead time is required for effective mitigation, while current measures supported by the federal government will replace only three weeks worth of gasoline consumption by 2012; and,

WHEREAS, Alternative sources of transport fuels from coal and natural gas both require high energy inputs and increase total carbon emissions, and biomass-based fuels compete with soil fertility, impacting agricultural sustainability; and,

WHEREAS, Substitution of petroleum with other fossil fuels threatens even greater damage to water, air, oil, and species diversity through the extraction and combustion; and,

WHEREAS, North American production of natural gas has already peaked, and 46% of California's electricity supply is generated from natural gas; and,

WHEREAS, San Francisco has demonstrated leadership in confronting challenges of environmental quality and energy security, promoting environmental and economic equity, and has a rich diversity of citizens committed to maintaining San Francisco's long-term viability; now, therefore, be it

RESOLVED, That the Board of Supervisors of the City and County of San Francisco acknowledges the unprecedented challenges of Peak Oil; and, be it

FURTHER RESOLVED, That the Board of Supervisors supports the adoption of a global Oil Depletion Protocol to provide transparency in oil markets, control price swings, address issues of equity in access to remaining oil resources, and provide a framework of predictability within which municipal governments can adjust to increasing oil scarcity; and be it

FURTHER RESOLVED, That the Board of Supervisors supports the undertaking of a city-wide assessment study in order to inventory city activities and their corollary resource requirements, evaluating the impact in each area of a decline in petroleum availability and of higher prices, with the aim of developing a comprehensive city plan of action and response to Peak Oil; and, be it

FURTHER RESOLVED, That the Board of Supervisors urges the Mayor to provide funding and direction to city departments for the development of a response plan.

Appendix 5 -- About ICLEI

International Council for Local Environmental Initiatives: Once municipalities join ICLEI-US and make the commitment to participate in the Cities for Climate Protection[®] (CCP) Campaign, ICLEI provides experienced staff, software tools, and a wide variety of programs and technical assistance to help local governments reduce greenhouse gas emissions in an effective, efficient manner.

Benefits of Participation

ICLEI provides local governments that participate in the CCP Campaign with access to the following resources:

- Software products and associated training to assist with the quantification of greenhouse gas reductions and other benefits of climate protection planning.
- Access to a professional network of peers through listservs, newsletters, conferences, and workshops.
- Toolkits, online resources, case studies, fact sheets, policy and practice manuals, and guides on approaches that other local governments have successfully used to reduce greenhouse gases.
- Training workshops for staff and elected officials on how to develop and implement effective long-term emission reduction strategies.
- Technical assistance in designing and implementing actions to reduce greenhouse gas emissions.
- Notification of relevant grant opportunities.
- Assistance in publicizing local climate protection successes.

In addition, the communities that participate in CCP also benefit from the actions that they take to reduce greenhouse gas emissions through:

- Financial savings in reduced utility and fuel costs to the local government, households, and businesses.
- Improved local air quality, contributing to the general health and well being of the community.
- Economic development and new local jobs as investments in locally produced energy products and services keep money circulating in the local economy.

Getting Started

Local governments begin participating in the CCP Campaign by passing a resolution pledging to reduce greenhouse gas emissions from their local government operations and throughout their communities. Each local government sets its own emission reduction target and develops a Local Action Plan outlining actions that the city will pursue to meet its target.

After passing the resolution, the local government designates a staff member and an

Date: July 25, 2007

elected official to serve as the city's liaisons to ICLEI. The liaisons then receive welcome packets from ICLEI that include a detailed Toolkit. This toolkit leads the local government staff person step-by-step through the 5 Milestone process.

The 5 Milestones

The methodology underlying the 5 Milestones of the CCP Campaign provides a simple, standardized means of calculating greenhouse gas emissions, of establishing targets to lower emissions, of reducing greenhouse gas emissions and of monitoring, measuring and reporting performance. ICLEI has developed a software tool that helps cities comply with the methodology. The 5 milestones are:

1. Conduct a baseline emissions inventory and forecast. Based on energy and waste data, the city calculates greenhouse gas emissions for a base year (e.g., 2000) and for a forecast year (e.g., 2015). The inventory and the forecast capture emissions from all municipal operations (e.g., city owned and/or operated buildings, streetlights, transit systems, wastewater treatment facilities) and from all community-related activities (e.g., residential and commercial buildings, motor vehicles, waste streams, industry). The inventory and forecast provide a benchmark against which the city can measure progress.
2. Adopt an emissions reduction target for the forecast year. The city passes a council resolution establishing an emission reduction target for the city. The target is essential both to foster political will and to create a framework to guide the planning and implementation of measures.
3. Develop a Local Action Plan. The local government develops a Local Action Plan that describes or lists the policies and measures that the local government will take to reduce greenhouse gas emissions and achieve its emissions reduction target. Most plans include a timeline, a description of financing mechanisms, and an assignment of responsibility to departments and staff. In addition to direct greenhouse gas reduction measures, most plans also incorporate public awareness and education efforts. The development of the Local Action Plan should include strong public input and involvement in order to build the consensus among stakeholders required to implement measures.
4. Implement policies and measures. The city implements the policies and measures contained in their Local Action Plan. Typical policies and measures implemented by CCP participants include energy efficiency improvements to municipal buildings and water treatment facilities, streetlight retrofits, public transit improvements, installation of renewable power applications, and methane recovery from waste management.
5. Monitor and verify results. Monitoring and verifying progress on the implementation of measures to reduce or avoid greenhouse gas emissions is an ongoing process. Monitoring begins once measures are implemented and continues for the life of the measures, providing important feedback that can be

use to improve the measures over time. ICLEI's software provides a uniform methodology for cities to report on measures.

Technical Assistance

ICLEI provides cities that participate in the CCP Campaign with a range of technical assistance. Some of the assistance is available for free to participating local governments. Other assistance is available for hire from ICLEI. In general, ICLEI offers assistance in four discrete categories.

- **Inventory Assistance.** ICLEI can assist local governments in conducting their baseline emission inventories and their emission forecasts, helping the city understand how and from whom to collect the necessary data. Alternatively, ICLEI can conduct the entire inventory and forecast on behalf of the city, presenting the results to city staff, elected officials and the community as and when requested by the city. If you would like assistance with conducting your inventory, please contact us.
- **Measures Identification and Quantification Assistance.** ICLEI can assist local governments in identifying potential measures that the city can take to reduce greenhouse gas emissions. ICLEI can also help the city quantify the emission reductions and other benefits (financial, quality of life) from the full range of possible policies and measures. If you would like assistance in identifying measures or quantifying the impact of measures, please contact us.
- **Policy Assistance.** ICLEI provides case studies, fact sheets, agenda reports, sample resolutions, policy frameworks, model ordinance language, and links to key technical information that can assist local governments implement a wide range of measures.
- **Software Assistance.** ICLEI can answer most of your questions regarding the use of the CACP software. If ICLEI cannot answer your question, we will refer you to the developer of the software.

Appendix 6 -- A (proposed) Resolution To Participate in CCP

**For Washington County, Oregon, to Participate
In the Cities for Climate Protection Campaign**

WHEREAS, scientific consensus has developed that Carbon Dioxide (CO₂) and other greenhouse gases released into the atmosphere have a profound effect on the Earth's climate; and

WHEREAS, in 2003 the American Geophysical Union adopted a Statement noting that human activities are increasingly altering the Earth climate and that natural influences cannot explain the rapid increase in near-surface temperatures observed during the second half of the 20th century; and

WHEREAS, in 2001, at the request of the Administration, the National Academy of Sciences (NAS) reviewed and declared global warming a real problem caused in part by the actions of humankind; and

WHEREAS, the 2001 Third Assessment Report from the International Panel on Climate Change (IPCC) and the 2000 U.S. Global Change Research Program's (USGCRP) First National Assessment indicate that global warming has begun; and

WHEREAS, 162 countries including the U.S. pledged under the United Nations Framework Convention on Climate Change to reduce its greenhouse gas emissions; and

WHEREAS, energy consumption, specifically the burning of fossil fuels, accounts for more than 80% of U.S. greenhouse gas emissions; and

WHEREAS, local governments influence communities' emissions by exercising key powers over land use, transportation, construction, waste management, and energy management; and

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; and

WHEREAS, the Cities for Climate Protection Campaign, sponsored by ICLEI Local Governments for Sustainability, has invited **Washington County** to become a partner in the Campaign;

NOW THEREFORE, BE IT RESOLVED, that **Washington County** commits to participate in the Cities for Climate Protection Campaign and, as a participant, pledges to take a leadership role in promoting public awareness about the causes and impacts of

climate change. **Washington County** will undertake the Cities for Climate Protection Program

5 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 jurisdiction;
- 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 to review progress; and

BE IT FINALLY RESOLVED, that **Washington County** requests assistance from ICLEI's Cities for Climate Protection Campaign (CCP) as it progresses through the milestones.

**Appendix 7 -- World Mayors and Municipal Leaders Declaration
on Climate Change**

*<http://www.iclei.org/index.php?id=2447>
Editors notes added in italics as required.*

Fourth Municipal Leaders Summit on Climate Change

On the Occasion of the
United Nations Climate Change Conference
(COP 11 and COP/MOP 1)
7 December, 2005, Montreal, Canada

1.0 We, mayors and municipal leaders from around the world meeting at the Fourth Municipal Leaders Summit on Climate Change submit a statement of solidarity as stewards of the Earth and agree that:

- Climate change is a major global challenge requiring urgent and concerted action and collaboration by all orders of government; and that,
- Climate change discussions, negotiations and actions are best informed by scientific evidence such as that provided by the Intergovernmental Panel on Climate Change⁵ (IPCC) with a particular focus on vulnerable continents and populations; and that,
- Municipal leaders have the extraordinary ability to change the current trend of global warming; and that,

If substantial cooperation is exercised among all orders of government the resulting actions can be leveraged to realize the deep reductions needed to move toward climate stabilization.

2.0 We, mayors and municipal leaders, recognize that:

2.1 Local governments play a critical role to effectively reduce human induced greenhouse gas emissions knowing that the sustainable CO₂ emission rate for human-kind is 0.5 tonnes eCO₂ per capita annually based on six billion inhabitants (IPCC).

2.2 Sustainable development and climate change are interdependent as articulated in the UN Millennium Development Goals.

2.3 Local policies and actions will meet or exceed targets set by sub national and national governments to effect deep reductions and lead other sectors to execute the same.

2.4 Climate change impacts like floods, drought, water availability and quality, extreme heat, air pollution and infectious disease pose grave danger to public health and many local governments are already experiencing these effects.

⁵ <http://www.ipcc.ch/>

2.5 The linkage between urban and rural communities driven by current development patterns offers opportunities to pursue poverty alleviation and mitigate inequitable impacts affected by climate change.

2.6 The buying power of local governments can accelerate the application and accessibility of clean technologies in the marketplace including renewable energy options. *The ICLEI⁶ Declaration of Commitment, 2006-03-03⁷, three months later, committed ICLEI members to sustainable procurement.*

2.7 The planet is warming. More severe and extreme weather events necessitate urgent action to ensure adequate mitigation and adaptation measures be taken to protect public health, strengthen infrastructure, apply appropriate urban and regional development plans, and advance economic development. *This included "promoting local agendas for peace and security; disaster risk by building more resilient communities and cities" in the ICLEI Declaration of Commitment, 2006-03-03.*

3.0 We, mayors and municipal leaders, commit to the following actions:

3.1 Implementation of policies and operational changes that, acknowledging the differential access to resources between cities in developed and developing countries, will achieve the emission reduction targets set forth in the International Youth Declaration of 30% by 2020 and 80% by 2050 based on 1990 levels, building upon the actions already taken by local governments that committed to a 20% reduction by 2010.

3.2 Establishing a system of accountability on these actions by reporting to the Conference of the Parties and Meeting of the Parties annually through 2012 detailing progress towards the targets. *The ICLEI Strategic Plan 2007-2012 specified the ecoBudget and ICLEI Triple Bottom Line report as mechanisms, and proposed ICLEI members use these to "calculate our ecological footprint" in time for "ICLEI World Congress 2009, to raise awareness of the footprint of ICLEI as a whole."*

3.3 Using uniform mechanisms to measure reductions for comparative analysis and verification. *See ISO 19011, ecological indicator and ISO 14064 specifically focused on GHG emission measurement.*

3.4 Improving and advancing the exchange of data monitoring, skills, technologies, methods, tools, public education and experiences to achieve emissions reductions, with specific reference to developing countries. *See best practice exchange⁸, the proposed "Civic Efficiency Collaborative", and the proposed first step: urban best practice exchange agreement⁹, 2005-12-08, which as of 2006-03 had not been approved by ICLEI.*

⁶ <http://www.iclei.org/index.php?id=391>

⁷ http://www.iclei.org/documents/Global/homepage/2006-03/ICLEI_Council_Declaration_of_Commitment.pdf

⁸ <http://openpolitics.ca/best%20practice%20exchange>

⁹ <http://openpolitics.ca/urban+best+practice+exchange>

3.5 Minimization of the dependence on fossil fuel energy through shifting to sustainable land use that:

- encourages public transit,
- diminishes the reliance on vehicular transport and single occupancy vehicle's.
- improves energy efficiency.

3.6 Advancing partnerships and collaboration with national and sub national governments, non-governmental organizations, corporate and industrial sectors, as well as non-governmental organizations and community groups, in order to multiply reduction potential.

4.0 We, mayors and municipal leaders, request that:

4.1 Local governments be recognized by the Conference of the Parties for the actions they have implemented and are continuing, tangibly to reduce greenhouse gas emissions. To this end, we request from the UNFCCC¹⁰ an allocation be granted to all Major Groups to strengthen and enhance an annual input process specific to local governments prior to future COP/MOP meetings.

4.2 National and sub-national governments: recognize the fundamental role of local governments in mitigating and adapting to climate change; partner with them to enhance their technical, human and financial capacity and legislative authority; and fully engage them when making strategic decisions on climate change policies.

4.3 Global trade regimes, credits and banking reserve rules be reformed to advance debt relief and incentives to implement polices and practices that reduce and mitigate climate change. *See monetary reform and trade reform.*

4.4 All national and sub-national governments commit to a process to negotiate an international climate change regime with deep reductions in greenhouse gas emission's enacted by 2012. *See Beyond Kyoto.*

4.5 National and sub-national governments ensure that local governments have the opportunity to participate in emissions trading in accordance with evolving domestic and international trading systems.

¹⁰ <http://unfccc.int/2860.php>

Appendix 8 -- The Oil Depletion Protocol

WHEREAS the passage of history has recorded an increasing pace of change, such that the demand for energy has grown rapidly in parallel with the world population over the past two hundred years since the Industrial Revolution;

WHEREAS the energy supply required by the population has come mainly from coal and petroleum, such resources having been formed but rarely in the geological past and being inevitably subject to depletion;

WHEREAS oil provides ninety percent of transport fuel, is essential to trade, and plays a critical role in the agriculture needed to feed the expanding population;

WHEREAS oil is unevenly distributed on the Planet for well-understood geological reasons, with much being concentrated in five countries bordering the Persian Gulf;

WHEREAS all the major productive provinces of the World have been identified with the help of advanced technology and growing geological knowledge, it being now evident that discovery reached a peak in the 1960s, despite technological progress and a diligent search;

WHEREAS the past peak of discovery inevitably leads to a corresponding peak in production during the first decade of the 21st Century, assuming no radical decline in demand;

WHEREAS the onset of the decline of this critical resource affects all aspects of modern life, such having grave political and geopolitical implications;

WHEREAS it is expedient to plan an orderly transition to the new World environment of reduced energy supply, making early provisions to avoid the waste of energy, stimulate the entry of substitute energies, and extend the life of the remaining oil;

WHEREAS it is desirable to meet the challenges so arising in a co-operative and equitable manner, such to address related climate change concerns, economic and financial stability, and the threats of conflicts for access to critical resources.

NOW IT IS PROPOSED THAT

A convention of nations shall be called to consider the issue with a view to agreeing an Accord with the following objectives:

- to avoid profiteering from shortage, such that oil prices may remain in reasonable relationship with production cost;
- to allow poor countries to afford their imports;
- to avoid destabilizing financial flows arising from excessive oil prices;
- to encourage consumers to avoid waste;
- to stimulate the development of alternative energies.

Such an Accord shall have the following outline provisions:

- The world and every nation shall aim to reduce oil consumption by at least the world depletion rate.
- No country shall produce oil at above its present depletion rate.
- No country shall import at above the world depletion rate.
- The depletion rate is defined as annual production as a percent of what is left (reserves plus yet-to-find).
- The preceding provisions refer to regular conventional oil—which category excludes heavy oils with cut-off of 17.5 API, deepwater oil with a cut-off of 500 meters, polar oil, gas liquids from gas fields, tar sands, oil shale, oil from coal, biofuels such as ethanol, etc.

Detailed provisions shall cover the definition of the several categories of oil, exemptions and qualifications, and the scientific procedures for the estimation of Depletion Rate.

The signatory countries shall cooperate in providing information on their reserves, allowing full technical audit, such that the Depletion Rate may be accurately determined.

The signatory countries shall have the right to appeal their assessed Depletion Rate in the event of changed circumstances.