

Potential measures to reduce greenhouse gas emissions
Public Discussion Document - INTRODUCTION - Dated June 9, 2009
Developed by the Climate Action Committee (CAC) of Jefferson County and City of Port Townsend

The list presented in the Potential Measures worksheet has been endorsed by the CAC merely for the purpose of further discussion and refinement and is not recommended for adoption. The list is comprised of 31 measures taken from a longer list of over 60 ideas brainstormed during CAC meetings and submitted by government staff and the general public. The recommended measures are not listed in a prioritized order of implementation. Some of the measures may not be practical, feasible or desirable. It is anticipated that the document will be further modified as new ideas and emerge.

Some of the original ideas in the longer list of potential measures were not included here for several reasons. For some, it was thought that their impact would be too difficult to measure. Others were very specific and included in more general measures listed here. There are many measures that are already being implemented to some extent in our government entities and in this community, and these may or may not be listed here. They are all part of our effort to reduce our carbon footprint.

The list offers very rough estimates for potential impact, cost, benefit and barriers of these measures, using the following scale:

Impact: GHG reduction potential (High, Medium, Low)

Cost: Implementation cost per ton, for maximum options (0=none, \$=Low, \$\$=Medium, \$\$\$=High)

Benefit over time: Estimated financial payback (0=no financial benefit, += benefit outweighs cost, ?=not sure)

Barriers: Number and strength of implementation barriers (Low, Medium, High)

Measurability: Do we have baseline & can we measure impact? (H=Yes, M=Maybe, Low=No)

Measures within each section are sorted by: Impact, Cost and Benefit

Glossary of Terms:

LEED: Internationally recognized certification system that measures how well a building or community performs across all the metrics that matter most: energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts. www.usgbc.org

Built Green: Certification offered by Jefferson County Home Builders Association. www.jeffcobuiltgreen.com

Passive House: A concept that represents today's highest energy standard with the promise of slashing the heating energy consumption of buildings by an amazing 90%. www.passivehouse.us

FIRST: Financing Initiative for Renewable and Solar Technology, developed and implemented in Berkeley, CA and under consideration for WA. www.ci.berkeley.ca.us

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See INTRODUCTION page for important background information

#	Action / Measure	Impact	Cost	Bene	Barriers	Meas	Feedback / Comments
Section 1 - City and County Government Operations: Leading by Example							
<i>Note: Could also pertain to business & industry</i>							
1.1	Build all new buildings and develop sites to at least a LEED Silver criterion.	H	\$\$	+	L	H	
1.2	Implement vehicle trip reduction policy incorporating teleconferencing, telecommuting and alternative work schedules, where practical.	H	\$	+	M	H	
1.3	Use electric-vehicle or bicycles whenever possible (e.g., meter reading, building inspection).	H	\$\$	+	L	H	
1.4	Conduct energy audits for each city or county owned building to develop and implement a plan to reduce energy consumption. (E.g. insulation, windows, high-efficiency infrastructure, air or ground source heat pumps, furnaces, variable-speed pumps and ultra-efficiency motors, etc.)	H	\$\$	+	L	H	
1.5	Replace low-efficiency and high-emission vehicles with fuel-efficient & low-emission vehicles as soon as possible.	H	\$\$\$	+	M	H	
1.6	Install photovoltaic panels on existing buildings and for stand-alone lighting on streets and parks, where appropriate and productive.	H	\$\$\$	+	L	H	
1.7	Establish a reduced idling policy for vehicles.	M	0	+	L	H	
1.8	Replace incandescent lights with compact fluorescent lights or LEDs in buildings and street lights and reduce number as appropriate.	M	\$	+	L	H	
1.9	Create incentives for employees to reduce emissions in their daily commute. (e.g.: subsidized bus passes, covered parking & showers for bicyclists or pedestrians, awards for carpools, etc.)	M	\$	0	L	H	
1.1	Purchase products with the lowest possible energy footprint and lifecycle emissions, including embedded energy in production and transportation.	L	\$?	M	M	
1.11	Use wetland wastewater treatment as an alternative to traditional methods, both in Port Townsend and in other areas of the county where water quality can be preserved.	L	\$\$?	H	L	
1.12	Require government departments and encourage all local businesses to become certified by the Green Business program of Jefferson County Health. (The areas in this program incorporate many of the measures listed in this document.)	L	0	+	L	L	

#	Action / Measure	Impact	Cost	Bene	Barriers	Meas	Feedback / Comments
Section 2 - Community-wide Transportation: Moving People and Goods More Efficiently							
2.1	Develop a program to promote ride-sharing, walking and biking; such as Whatcom County's Smart Trips program.	H	\$	+	L	H	
2.2	Increase use of more fuel-efficient vehicles (e.g. hybrid & electric vehicles and scooters) with incentives for retiring high-emission vehicles and other strategies.	H	\$\$	+	M	H	
2.3	Develop a commuter-friendly transit plan and increase service.	H	\$\$	+	L	H	
2.4	Reduce transportation energy needs by promoting the purchase of local goods and services.	M	0	+	L	M	
2.5	Institute on-street parking fees and/or other strategies to increase use of transit, ride-sharing, biking and walking. Reduce or eliminate off-street parking requirements in order to increase density and further promote transportation choices.	M	\$	+	M	M	
2.6	Increase consumption of local food in facilities with central cafeterias; such as schools, hospital and housing. Promote sustainable local organic farming and permit farm produce stands in more locations.	M	\$	+	M	L	
2.7	Provide strategically placed recharging stations and priority parking for electric vehicles.	M	\$	+	L	H	
2.8	Increase non-motorized transportation infrastructure by fully implementing existing plans in PT and completing plans for other areas in the county. Build "complete streets" with facilities for pedestrians and bicycles.	M	\$\$\$	+	M	M	
2.9	Implement reduced-idling ordinance.	L	0	+	M	L	

#	Action / Measure	Impact	Cost	Bene	Barriers	Meas	Feedback / Comments
Section 3 - Community-wide Stationary Sources: Energy Efficiency in Our Buildings, Homes and Industry							
3.1	Implement a city and county energy code for commercial and residential construction that exceeds current WA state code (e.g. greater insulation, passive solar, Passive House and small footprints) and require new buildings, site development and substantial remodels to meet at least a LEED Silver or similar level for Built Green (or in another green building standard).	H	\$\$	+	M	H	
3.2	Establish low-interest loan and energy assistance programs that reduce energy consumption (e.g., weatherization, heating, ventilating and air conditioning improvements, and renewable energy) for both existing and new housing.	H	\$\$	+	L	H	
3.3	Provide and/or promote incentives for carbon-reducing design & retrofit of buildings (e.g. passive solar, solar-thermal, solar-photovoltaic, heat pumps, wind, and other renewable-energy systems.) One example is the FIRST program.	H	\$\$\$	+	L	H	
3.4	Increase use of energy audits in homes and businesses by requiring sellers to provide a recent (within 5 years) audit and encouraging owners to conduct audits periodically.	M	\$	+	L	H	
3.5	Encourage increased urban density through code revisions for items such as setbacks, height restrictions, cluster and mixed-use development.	M	\$	+	M	M	
3.6	Reduce energy used by outdoor lighting by minimizing their number and other methods, such as motion sensors, high-efficiency bulbs, etc.	L	\$	+	M	L	
Section 4 - Community-wide Waste Management: Re-use, Recycling and Disposal							
4.1	Reduce trash through incentives and other measures. (e.g. Require waste recycling especially for construction sites; increase pick-up services for reuse, upcycling and recycling; and encourage reduced use of packaging, especially for building materials.)	M	\$	+	L	H	
4.2	Increase composting of all food and yard waste through a variety of measures (e.g. neighborhood composting centers, worm bins, etc.)	L	\$?	L	L	
4.3	Encourage relocation or deconstruction and recycling of structures to be demolished.	L	\$?	M	M	
4.4	Increase adaptive reuse of buildings.	L	\$\$?	M	L	