

## 2008 Environmental Issues Committee Final Report

### Summary:

In April 2007 University of Oregon President Dave Frohnmayer signed the American College and University President's Climate Commitment (ACUPCC). The University of Oregon is now preparing a Climate Action Plan (CAP) to guide its emissions reduction work. The complete document is due in October 2009. Work on the CAP is currently proceeding along two parallel tracks. Under the direction of Steve Mital, Director of Sustainability, specific recommendations for actions are being developed with input from staff, faculty and students whose technical expertise includes the central plant maintenance, heating and cooling buildings, transportation, and purchasing. These recommendations will largely respond to the question of how to reduce emissions. The Environmental Issues Committee (EIC) evaluated normative concerns and its work responds to the question of which emissions the University should be responsible for under the CAP, what our goals ought to be, and how we should measure our progress. The following document describes an emissions classification framework which includes the responsibility the UO has in each of the listed areas, and recommendations for actions to reduce emissions in alignment with the ACUPCC. This report contains a list of goals but not an associated timeline along which to achieve those goals (except for Class I emissions as defined on the following page).

### Classifying Emissions: (from the Carbon Disclosure Project's website)

Due to the international explosion of concern over climate change and its causes governments and businesses have begun to develop emissions profiles for their activities. A commonly accepted framework for quantifying greenhouse gas (GHG) emissions soon became necessary. Several years ago the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) released Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition). It is now the standard method for classifying and quantifying carbon emissions. The Protocol defines three "scopes" for carbon emissions accounting in order to distinguish between "direct" and "indirect" emissions, to promote transparency and consistency and to ensure, as far as possible, that no two companies account for the same emissions.

**Scope 1** - Scope 1 emissions occur from sources that are owned or controlled by a company, such as combustion facilities (e.g.: boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares etc), combustion of fuels in transportation (e.g.: cars, buses, planes, ships, barges, trains etc), and physical or chemical processes.

**Scope 2** - Scope 2 emissions are from the generation by another party of electricity that is purchased and consumed by the company. This is described as "purchased electricity."

**Scope 3** - Scope 3 covers all indirect emissions (other than from purchased electricity) that occur from sources that are not owned or controlled by the company. Examples include extraction, manufacture and production of purchased materials, transportation of

purchased fuels and use of sold products and services, business travel and employee commuting in vehicles not owned or controlled by the company, and emissions associated with waste management.

The WRI/WBCSD GHG Protocol considers the quantification of Scope 3 emissions as optional when preparing an overall corporate GHG inventory, as do similar protocols such as the U.S. Environmental Protection Agency's Climate Leaders program. One reason for this is that one company's Scope 3 emissions are another company's Scope 1 or Scope 2 emissions. If everyone were implementing the full GHG Protocol (including Scope 3 emissions), it would result in the same emissions being counted a number of times. In addition, a company is not likely to be regulated on its Scope 3 emissions in the future, whereas it might be for its Scope 1 and Scope 2 emissions.

### **University of Oregon Classification of and Responsibility for Emissions:**

The table on the following pages is influenced by the WRI/WBCSD protocol. We organized the UO's emissions into four categories. Class I emissions translate into scope one and scope two emissions. Class II, Class III and Class IV emissions each represent a piece of scope three emissions. During the 2007-08 academic year, the EIC defined each emissions class and provided examples of sources of emissions for each class. Recommendations for the UO's responsibilities for each emissions class are then given followed by recommended goals, actions, measurement units, and monitoring requirements.

### **EIC Committee Chair for 2008-09**

Professor Art Farley was nominated by outgoing committee chair Chuck Kalnbach to chair the Environmental Issues Committee for the 2008-09 academic year. Committee members present at the June 12th meeting unanimously supported the motion and Professor Farley accepted the position.

### **EIC issues for 2008-09 Academic Year:**

During the 2007-08 academic year the EIC identified and resolved numerous important questions related to the UO's climate action plan. The EIC will address the following questions that it did not have time to deliberate when its monthly meetings resume in the Fall '08.

1. Buildings owned by UO and leased by UO will be included in the GHG emissions report? Should buildings that UO leases to others be included in the GHG emissions report?
2. What criteria should be used to determine which types carbon offset projects are acceptable?
3. What criteria should be used to determine which carbon offset organizations the UO should work with?
4. Can UO claim carbon offset credits for our commuter programs?
5. How broadly should Class III emissions be interpreted? Do they include emissions from fan travel to sporting events, graduation ceremonies, conferences and lectures? Or is it limited to commute travel from current faculty, staff, and students?

<b>Class I: Physical infrastructure</b>		
<b>Definition</b>		Emissions that result from the daily operation of all UO owned or leased property.
<b>Sources</b>		UO Central Power Station, purchased electricity, refrigerants, vehicles owned by UO, emissions resulting from water treatment, delivery, and waste water management.
<b>EIC DRAFT Recommendations</b>	<b>UO Responsibility</b>	UO will take action to reduce these emissions as much as possible and neutralize the remaining Class I emissions by purchasing carbon offsets.
	<b>Goals</b>	Use 1990 as a baseline year. Reduce and offset emissions 20% below 1990 levels by 2010, 40% below 1990 levels by 2020 and 100% below 1990 levels by 2050. This allows UO to benefit from its existing efficiency work up through the first two interim timelines. These goals are more aggressive than current goals for state owned buildings that aim for stabilization by 2010, 10% reduction by 2020 and 50% reduction by 2050.
	<b>Actions</b>	Draft recommendations to be developed by Sustainable Buildings technical working group.
	<b>Measurement</b>	Measure carbon emissions for all buildings owned or leased by UO in absolute terms, per building square foot, and per full time student. Use only the second two measurements to gauge success. Imbedded emissions in water shall be estimated using figures provided by EWEB and the Metropolitan Wastewater Management Commission.
	<b>Monitoring</b>	Annual monitoring and reporting organized into three categories: 1) contiguous main campus properties and their associated vehicles, 2) all other properties in Eugene and their associated vehicles, and 3) all other properties and vehicles associated with those properties. Annual monitoring of second two categories to be completed when data becomes readily accessible.
<b>Class II: Direct transportation activities</b>		
<b>Definition</b>		Emissions resulting from travel conducted on behalf of and/or sanctioned by the University of Oregon.
<b>Sources</b>		Auto travel for university business, faculty and staff air travel, athletic staff and student travel, student travel to and from UO sanctioned study abroad programs.
<b>EIC DRAFT Recommendations</b>	<b>UO Responsibility</b>	UO will develop baseline Class II emissions profile, take action to reduce these emissions as much as possible, and neutralize the remaining Class II emissions by purchasing carbon offsets.
	<b>Goals</b>	Reduce business travel where appropriate. Encourage transportation modes that emit fewer emissions. Develop carbon offset programs for travel emissions.
	<b>Actions</b>	Work with Department of Administrative Services to develop appropriate monitoring program and increase MPG requirements for motor pool vehicles. Additional recommendations to be developed by Sustainable Transportation technical working group.
	<b>Measurement</b>	Measure carbon emissions in absolute terms and per user.
	<b>Monitoring</b>	Annual monitoring for vehicle miles. Annual monitoring for air miles once system is operational.

<b>Class III: Indirect transportation activities</b>		
<b>Definition</b>		Emissions resulting from travel to and from campus by current users that is not paid for by the University of Oregon. The exception to this rule is student travel to and from UO sanctioned Study Abroad program sites.
<b>Sources</b>		Daily commute travel.
<b>EIC DRAFT Recommendations</b>	<b>UO Responsibility</b>	UO will continue to provide and support safe low-carbon alternatives for automobile travel. However, UO will not be responsible for mitigating or offsetting commute related emissions. These emissions are not directly under UO control.
	<b>Goals</b>	Provide and support transportation alternatives for all faculty, staff, and students.
	<b>Actions</b>	Draft recommendations to be developed by Transportation Working Group.
	<b>Measurement</b>	Estimate carbon emissions per user.
	<b>Monitoring</b>	Conduct survey to estimate commute emissions every 5 years.
<b>Class IV: Goods and Services</b>		
<b>Definition</b>		Emissions resulting during any stage of the life cycle (manufacturing, processing, distribution, decay) of materials purchased for use by the University of Oregon.
<b>Sources</b>		Imbedded energy and greenhouse gas emissions in purchases (food, paper, computers, construction materials, etc).
<b>EIC DRAFT Recommendations</b>	<b>UO Responsibility</b>	UO will continue to support and enhance the Campus Recycling program (Reduce, Reuse, Recycle) and purchase wisely. UO will not be responsible to mitigate or offset remaining emissions associated with its goods and services as these are Scope 1 and 2 emissions from the businesses that manufactured and/or provided these goods and/or services.
	<b>Goals</b>	UO will consider embodied energy in all of its purchases and reduce these related emissions through smarter purchasing decisions.
	<b>Actions</b>	Draft recommendations generated by Purchasing working group.
	<b>Measurement</b>	To be developed as tools and procedures become available.
	<b>Monitoring</b>	To be developed as tools and procedures become available.