



**Cascadia
Campus Climate
Conversation
(C4)**

**October 25th
2016**

Resource Guide

On October 25th, 2016, Cascadia will host its very first Campus Climate Conversation. Students, faculty, and staff will gather for discussion about our individual and collective responsibilities to address climate change, to learn about Cascadia's climate change activities and to discuss and prioritize additional strategies to reduce the school's overall carbon footprint.

The Conversation is founded on the premise that attaining sustainable change will come from continued education and collaboration from the entire campus. Complex decisions regarding future climate contributions are more likely to be comprehensive and effective, when met by a convergence of students, staff, and administration. Living in this age of climate consequences, we believe it is important to recognize our personal and institutional responsibilities to improve our impact on the local and global environment. This campus dialogue offers a means for engagement, education and taking responsibility for our social and ecological impacts, now and into the future.

A Deliberative Process

This campus conversation is designed to be both educational and 'deliberative,' meaning students, staff, and faculty will interact with one another in small groups to share views and ideas. Deliberation creates space that facilitates two-way forms of communication, or dialogue, where new ideas, synergies, and inspiration can be created that improve people's ability to deal with complex challenges. The purpose is to enhance learning, collective action, and expand problem-solving capacity.

"Ideally deliberation is a means to identify problems and develop solutions through brainstorming and (perhaps) consensus decision making; the aim is the process, with solutions at most emergent. It promises production of widely acceptable solutions that probably were not on participants' agendas before the deliberative exercise. As with collective action, deliberation can foster shared commitment and responsibility, creativity, confidence, and challenges to the status quo" (Johnson, 2012)

The Role of Colleges and Universities in Addressing Climate Action

Colleges can play a particularly valuable role in addressing climate change. As large institutions they can account for a significant percentage of a community's greenhouse gas emissions. The energy used each day by students and employees to commute, to heat and cool buildings, and to power every other function of the school, all adds up to create a large "carbon footprint." But colleges can also set policies to manage their immediate impact on local environments. Moreover, as an economic engine, an incubator of innovation, and as a resource for research, education, and community outreach, colleges develop the leaders, strategies, and relationships capable of influencing policies and practices at the national and international level.

Campus Conversation Goals

1. Educate our campus community about climate change, Cascadia's Climate Action Plan and the College's activities in support of it.
2. Inspire ongoing commitment, engagement and collaboration across campus.
3. Consider and prioritize solutions for reducing the institution's carbon footprint, particularly related to transportation emissions.

Participating in the Climate Dialogue

Students, faculty, staff and administration are encouraged to attend from across the college. If you and your class or office intend to participate, please let Abigail Lynam (alynam@cascadia.edu) know so that we can anticipate the number of attendees. If you intend to bring your class, we can also help the class prepare. BASSP students are available to visit your class prior to the event to lead the students through some preparation activities. This could be five minutes of introduction or 30-60 minutes of learning activities.

Preparation for the Dialogue

- Read the Resource Guide in its entirety (approximately 15 mins)
- Log onto [EarthDeeds Carbon Footprint](#) calculator and track your transportation emissions for the quarter (5 mins)
- Review the additional (and optional) preparation materials. See page 11 of this document or the website for details. www.cascadia.edu/discover/active_learning/climatetalk.aspx

Participation

Ideally anyone participating in the event will be able to attend the event in its entirety (11-2:30pm). However if you are only able to attend part of the event, the options are as follows:

- Everyone is welcome to attend from 11-1pm with the aforementioned preparation.
- If you or a class can only attend the second half of the event (1-2:30), please prepare in the above mentioned ways, and in addition, read the guest speaker transcripts (these will be posted on the website as soon as they are available) so that you can participate more fully in the dialogue.
www.cascadia.edu/discover/active_learning/climatetalk.aspx (live 9/26)

AGENDA

Tuesday, October 25th, 11:00am - 2:30 pm. Mobius Hall Event Center

11:00	Participants arrive, and sit at assigned table Complete pre-deliberation survey
11:10	Welcomed by Cascadia - President Murray Brief itinerary and synopsis of event/ why we are having this conversation Review of Goals & Activities & Introduction of Speakers
11:25	Speakers John VanLeer, Cascadia Faculty: Climate Literacy - Why does it matter?, Tyson Kemper, UWB Grounds and Building Supervisor: Cascadia and UWB Climate Action - What's it going to take? Social Costs of Climate Change.
12:10 - 12:40	Q & A with Speakers and Participants : BASSP Students moderate
12:40 - 1:00	Small Group Reflection - Q : What surprised you about what you heard from the speakers? What is our individual responsibility to address climate change? What about Cascadia's responsibility?
1:00 - 1:20	Break & Refreshments
1:20	Small group discussion (6 plus moderators and note-takers) Question #1 : How highly should Cascadia prioritize moving toward carbon neutrality? Should that involve moving up the carbon neutrality date? Question #2 : Of the following options, how important is each and how might we achieve them?: <ul style="list-style-type: none"> ● Carbon offsetting – paid for by Cascadia and/or additional parking fees? ● Integrating carbon onsetting service learning projects (sustainability related service projects) into Cascadia's classes ● Green fee to go towards campus and community related sustainability projects? Question #3 : What are the individual actions that Cascadia students, staff and faculty can take to reduce their overall carbon footprint?
2:10	Report out from small groups Each table presents a synthesis of desired solutions Discussion surveys are handed out
2:25	Closing Remarks and Next Steps Collect post-deliberation survey

Background

Cascadia College’s Climate Action Plan:

Cascadia’s Climate Commitment (CCC) was adopted in 2010 and is set to achieve carbon neutrality by 2099. Under this plan and in keeping with WA state requirements, Cascadia will lower its emissions 15 percent below 2005 levels by 2020 and 57.5 percent below 2005 levels by 2050. Cascadia completed greenhouse gas (GHG) emission reports in 2005, 2009, 2012 and will soon complete one for 2015.

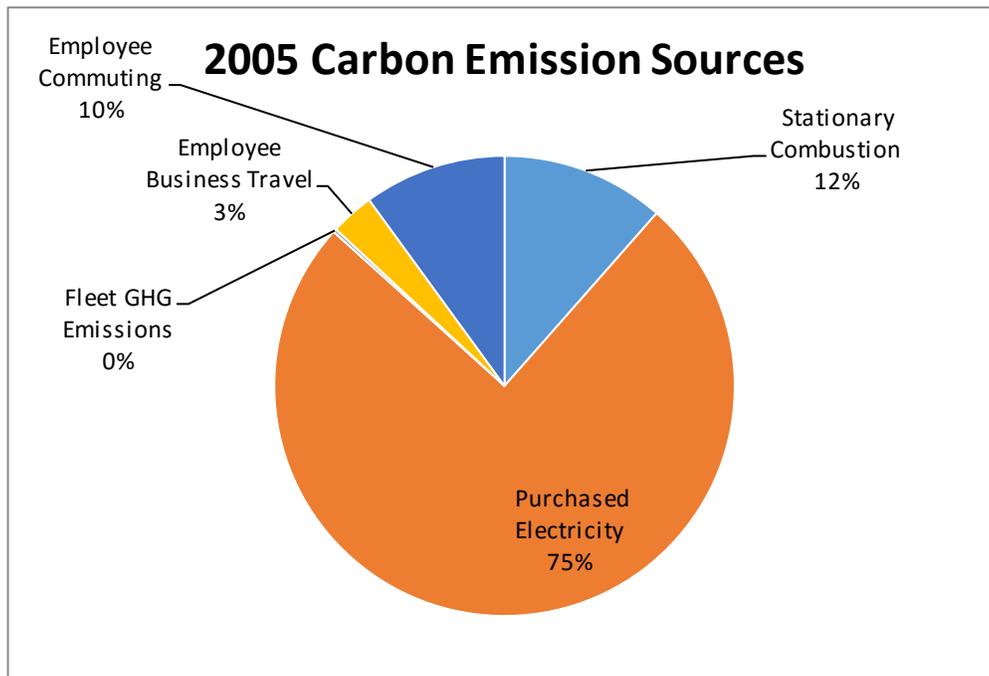
If one excludes commuting related emissions Cascadia has already met and exceeded the 2020 goal with a GHG reduction of 24%, a significant accomplishment achieved through widespread energy conservation measures. However, commuting related emissions have risen by over 60% since 2005 in spite of an increase in the use of alternative transportation.

To continue to reduce emissions and meet future carbon emission reduction goals, Cascadia will continue to pursue efficiency, conservation, and waste-minimization efforts. However, to close the gap between campus emissions and carbon neutrality, Cascadia will need to pursue other strategies such as purchasing carbon offsets and additional energy conservation measures.

Cascadia’s Carbon Emissions

Cascadia’s carbon emissions (excluding student commuting) were 2,055 metric tonnes of CO2 in 2005, and

	2005	2009	2012		2005	2009	2012
Metric Tons CO2	2,055	2,240	1,557	MT CO2/Student FTE	1.31	1.07	0.64
Change from 2005		9%	-24%	Change from 2005		-19%	-51%



Examples of Cascadia's Climate and Sustainability Actions

Programs:

- Bachelor of Applied Science in Sustainable Practices first cohort of 17 students started in 2015. Second cohort of 20 students started in 2016.
- Sixth year of graduating students from the Environmental and Sustainable Technologies program

Energy Conservation:

- Completed a series of energy conservation projects including installing computer energy management software, installation of reflective window film, replacement of lighting fixtures, installing 2 electric vehicle charging stations and solar panels to power them, etc.
- Recommissioned CC1 and 2 and received LEED EB certification for both buildings
- Installed a photovoltaic array on CC-3
- Received LEED Platinum Certification of CC3
- Established a policy of budgeting to pay for carbon offsets to neutralize carbon emissions associated with international recruiting activities.
- Created utility dashboard to display real time energy consumption data in buildings.

Transportation:

- Promoted alternative transportation and commuting behavior changes by increasing daily parking rates and not increasing UPASS rates.

Campus Grounds

- Second academic campus in the nation to receive Salmon safe certification.
- 58 acres of the campus represents one of the largest urban wetland restorations in the Pacific Northwest. Planted over 100,000 plants from 1998 to 2002
- Campus wastewater (all runoff) is filtered and treated through the holding tanks, bioswales, and the wetlands.

Sequestration

Cascadia's wetlands reduces net carbon emissions through carbon sequestration. Preliminary research indicates that the Wetlands provide a carbon offset that could be included in Cascadia's emissions inventory.

Challenges to Achieving Cascadia’s Climate Action Plan Goals

One of the biggest challenges to reducing GHG emissions on our campus are the emissions associated with transportation. This is an expected challenge for a commuter college in a state where 50% of carbon emissions are transportation related. Carbon emissions from commuting at Cascadia have risen by over 60% since 2005 in spite of efforts to increase the use of alternative transportation. Options for addressing commuter emissions include reducing the number of single occupancy vehicles used to get to campus, increasing the use of public transportation, and carbon offsetting or onsetting to mitigate for currently unavoidable emissions.

There are also challenges associated with limited parking on campus and insufficient public transportation options. A Cascadia/UWB committee is working on transportation solutions including some of the following:

- Carpooling social networking site
- More hybrid and online classes
- Increase in parking fees to discourage use of SOV drivers, and to potentially help pay for carbon offsets
- Further subsidization of bus-passes to encourage use of public transport
- Annually tracking all transportation-related emissions for students, faculty and staff

Strategies for Reducing Cascadia’s Carbon Footprint

“The best available climate science finds that atmospheric carbon dioxide levels must be reduced from the current global annual mean concentration of 397 ppm to 350 ppm by 2100 in order to achieve climate stabilization and protect our oceans from catastrophic acidification.” Dr. James Hanson

Should Cascadia move up its Carbon Neutrality (net-zero carbon emissions) date from 2099 to 2050? And if so, what are the strategies to meet this goal?

What are other Colleges in the region doing?

Evergreen State College’s carbon neutrality date is 2020, Shoreline and Everett Community College’s carbon neutrality dates are 2030, and Bellevue and Edmonds Community College’s are 2050. To help these schools advance towards these goals they are taking a variety of approaches, including the following:

- ❖ Evergreen State College, Edmonds Community College, and Bellevue College have all created green fees (included in student fees) that contribute to a fund awarded to students and faculty who are working towards sustainable initiatives on campus.
- ❖ Edmonds Community College, Bellevue College, and others have utilized the Washington State Agency Commute Trip Reduction Program, as well as partnering with other local agencies to offer affordable transportation alternatives. Some examples are reduced ORCA Cards, bike sharing, and ride-sharing. In the 2013 public Transportation Project Updates, Bellevue College showed an increase in the amount of transit from just over ten percent in 2009 to thirty percent in 2013. The amount of drivers commuting alone dropped from sixty five percent to forty five percent.

- ❖ Many colleges have a dedicated sustainability staff position to monitor and support campus sustainability projects.

Other examples in WA state and beyond:

- WA state requires reducing emissions 50% below 1990 levels by 2050. California recently passed legislation to reduce GHG to 40% below 1990 levels by 2030.
- King County Climate Collaborative targets a reduction of countywide sources of greenhouse gas emissions of 25 percent by 2020, 50 percent by 2030, and 80 percent by 2050.
- The city of Seattle is aiming for a 58% reduction of GHG emissions by 2030 over the 2008 baseline. According to a report released September 2016, Seattle's emissions are on a downward trend, dropping 6 percent between 2008 and 2014, despite a building boom and a 13 percent surge in population. The biggest source of the city's greenhouse emissions (66%) are combustion of transportation fuels.

Carbon Offsetting:

Renewable energy purchases, efficient operations, and enhanced sustainability processes will not result in a zero-emission Cascadia, nor (because of anticipated enrollment growth and associated facilities) will they suffice to reduce emissions 36 percent below 2005 levels by 2035. Cascadia's Climate Action plan envisions the College purchasing renewable energy credits and carbon offsets to close the gap to attain those objectives. The long-term objective is to continue to reduce campus carbon emissions and decrease the reliance on offsets to attain carbon neutrality.

A carbon offset represents one metric ton (2,205 lbs) of CO₂ equivalent that has either been removed from the atmosphere or prevented from being released. Offsets are "created" by quantifying the emission reductions of specific project activities that go beyond business-as-usual, whether they are based on removing GHG's or based on preventing the release of GHGs. Regardless of the project activity type, every offset represents the same amount of CO₂ equivalent, which allows offsets to be compared, bought, or traded like any other product.

Note: We say "CO₂ equivalent" because there are several types of GHGs such as methane, chlorofluorocarbons (CFCs), and so on. Each type of GHG has a different severity of impact on the climate, called the global warming potential. Humans emit more CO₂ than any other GHG by far, so other gases are converted to equivalent amounts of CO₂ by using multiplication factors.

By purchasing carbon offsets Cascadia will meet its Climate Action plan goals and comply with State law. Cascadia's goal is to reduce carbon emissions to 15% below 2005 levels by 2020 and 36% below 2005 levels by 2035. We have made great progress in reducing carbon emissions through a variety of strategies – 2014 carbon emission levels were 21% below 2005 levels, but only if one excludes commuting from the equation. Carbon emissions from commuting have risen by over 60% since 2005 in spite of efforts to increase the use of alternative transportation. Funding this action plan will immediately achieve the 2035 goal of reducing campus carbon emissions by 36% below 2005 levels. Purchase of carbon offsets can also be phased in over time. The cost of carbon offsets varies from \$2-\$12 a ton.

Question: Who should bear this cost? and How? Could there be a carbon offsetting fee added to parking passes?

Carbon Offsetting Pro's and Con's

Pro's	Con's
<ul style="list-style-type: none"> • Since GHGs can go anywhere in the atmosphere, it does not matter where the reduction takes place from the stand point of climate change • Offsets provide a way to balance unavoidable carbon emissions for the University and its individual faculty, student, and staff • The College, and its individual faculty, students and staff, can become carbon neutral sooner as we work towards lowering our emissions through conservation measures • May catalyze off-campus change in environmental or societal arenas that could accrue greater benefit vis a vis payments for ecosystem services 	<ul style="list-style-type: none"> • Allows the College and individuals to pay for their pollution rather than encouraging behavioral change • Buyers may feel less motivated or less responsible to enact long lasting change • Difficult to discriminate between carbon offsets produced by differing certification standards • Only effective if the project has permanence, is additional (goes above and beyond business-as-usual), and does not simply shift carbon emissions from one place to another • Provides no cost saving benefits unlike other strategies for carbon neutrality • May not simultaneously meet other sustainability goals on campus

Carbon Onsetting:

In addition to purchasing carbon offset credits, is the option of including carbon onsetting into Cascadia campus learning activities. Carbon onsetting involves assessing an individual or institution's carbon footprint and rather than simply purchasing offset credits, students can contribute funds and/or service hours to account for their impact. These funds or service hours go towards local and campus-based sustainability projects.

Onsetting offers the following benefits:

1. **Support of Small, Local Sustainability Projects:** This can include projects that do not directly mitigate carbon emissions but have meaning to participants and their local communities, such as creating local food systems, preserving biodiversity, and fighting for climate justice.
2. **Increased Efficiency:** By avoiding costs associated with third-party verification, traders, consultants, and other middlemen, at least 85% of funds can be sent to the projects.
3. **A Positive Story:** Rather than guilty indulgences, onsetting says, "Let's be grateful for what fossil fuels have allowed us to accomplish; let's recognize and internalize the environmental costs in burning these fuels; and now let's pay-it-forward to help create sustainable and resilient communities and ecosystems."
4. **Connecting to Real Impacts:** Rather than pricing carbon based on market forces, onsetting organizations, such as Earth Deeds, prices emissions based on the best scientific estimate of their actual

- costs. Doing so helps users understand and respond to the real impacts of their emissions.
5. **Trust in the process:** All transactions are transparent, use of funding is local and visible, and concerns around additionality become irrelevant.

Cascadia College could integrate transportation emissions tracking into particular classes such as College 101. After calculating the transportation-related emissions, students and faculty could participate in campus and local sustainability service projects to account for the carbon impact of being a student on campus.

Sustainability Fees:

Green fees (as they are often called) are per credit or per student fees that are used to support sustainable initiatives on campus. Examples of the fees are \$1 per credit, or \$15 per student, per quarter. These fees provide funding for projects such as food gardens, carbon offsetting, renewable energy, educational events, and other campus sustainability projects. If Cascadia College had 4,000 students attend in 2016 with a \$10 sustainability fee per student, it would raise \$40,000 towards sustainability and climate action projects!

Regional Examples

Edmonds Community College, which initiated a per credit fee, used these funds to create a Campus Community Farm, beehive managers, and a Farm-to-Campus program. (<https://sites.google.com/a/email.edcc.edu/campus-green-fund/process>)

Bellevue College's Student Environmental Sustainability Fund (at \$1 per credit), started in 2008. Some recent projects include education about bicycle maintenance, food and garden, as well as a compost expansion. <http://www.bellevuecollege.edu/sustainability/who/sesf/proposals/>

Evergreen State College has a Clean Energy Committee Award that is derived from a \$1 per credit Clean Energy Fee that started in 2005. Some of the projects include a Bike Share Program, an edible food forest, and wetland restoration.

Preparing for the Dialogue

The October 25th, 2016 Campus Climate Conversation will engage the campus community in a dialogue on the following questions:

Question #1: How highly should Cascadia prioritize moving toward carbon neutrality? Should that involve moving up the carbon neutrality date? What would it take to do this and who is responsible?

Question #2: Of the following options, how important is each and what strategies can we use to achieve them?:

- Carbon offsetting – paid for by Cascadia or additional student or parking fees?
- Integrating carbon offsetting service learning projects (sustainability related service projects) into Cascadia's classes
- Instituting a Green fee to go towards campus and community related sustainability projects?

Question #3: What are the individual actions that Cascadia students, staff and faculty can take to reduce their overall carbon footprint?

Thank you for considering these topics and questions! Your thoughts and ideas are important to making these goals a reality!

Preparation

1. Read this resource guide in its entirety. Consider the 3 questions.
2. Visit the [Earth Deeds website](#) to calculate your transportation carbon emissions for one quarter
3. For anyone only able to attend the second half of the event (the deliberation), please make sure to read the transcripts of the guest speakers, available here soon and on the event website (live 9/26)
www.cascadia.edu/discover/active_learning/climatetalk.aspx

BASSP students are available to visit Cascadia classes to help them prepare for the event. This can be a 5 minute announcement or a 30-60 minute introductory learning exercise. If you are interested in this, please contact Abigail Lynam alynam@cascadia.edu

Additional Preparation Activities and Materials

- 1) **Climate Change Literacy:** Build a base of knowledge about what is known about the causes and impacts of climate change. The first two videos that are provided by Earth Deeds provide a quick synopsis of the case supporting the causes of climate change.
 - a. [Part 1 - What is climate change?](#) (4 mins)
 - b. [Part 2 - Where are we heading?](#) (6 mins)
- 2) **Understanding Local Impacts in the Puget Sound:** Learn about what some of the local impacts of climate change will be in the Pacific Northwest, how to adapt to those expected changes and what we can do to change course with regards to climate change at a local level. The article [Adapting to Change](#) is helpful in illustrating

some of the specific impacts in the Pacific Northwest. https://cig.uw.edu/wp-content/uploads/sites/2/2014/11/Adapting-to-Change-booklet_final.pdf

- 3) **Local Impacts Learning Exercise:** As an example of understanding regional impacts, quantify projected streamflow changes and discuss the impacts that they will have on northwest Salmon. The supplementary article that is intended to be used with this activity is Climate Variations – Salmon in BC. This activity gives an example of why we cannot wait to act for the impacts of climate change to present themselves. For those of us that value natural resources such as healthy fisheries and wildlife, the impacts when they present themselves may be even more overwhelming than they would be for ourselves. (Materials can be found in the following folder <https://www.dropbox.com/sh/hszjzsw3vtvd1gv/AABAkfMaHsdohbBYF5L3TLtXa?dl=0>)

4) **Additional Videos:**

Social Impacts of Climate Change

Climate Justice (20 minutes)

<https://www.youtube.com/watch?v=VAUfWwGukn4&feature=youtu.be&app=desktop>

Moving to Higher Ground; the Quinault Indian Nation's forced relocation (2 mins)

<https://www.youtube.com/watch?v=2Kfz7j04ppw>

Impacts in the Puget Sound

2015 University of Washington report on the climate change impacts in the Puget Sound region

http://cses.washington.edu/picea/mauger/ps-sok/ps-sok_cover_and_execsumm_2015.pdf

Al Gore's TED talk: The Case for Optimism on Climate Change (25 minutes)

http://www.ted.com/talks/al_gore_the_case_for_optimism_on_climate_change/transcript?language=en

Earth Deeds

[Part 3 - Responses to climate change](#) (5 mins)

[Part 4 - Offsetting Controversies](#) (5 mins)

The Organizing Committee thanks you for your participation!

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