

**Vermont College and University Climate Commitment Meeting**  
Thursday August 14, 2008  
East/West Room, Miller Information Commons, Champlain College  
9:30am-3:30pm

\*The list of people present at the meeting can be found in the document 8-14\_attendace.doc\*

Gioia Thompson:

Hoping the Office at UVM can help continue this conversation (campus sustainability)

Catching up on VCEG and VCSN

We are all struggling with our GHG inventories and climate action plans

Some people have deadlines- Sept 15 for ACUPCC

1<sup>st</sup> Talk about the actual process of doing GHG inventories

2<sup>nd</sup> Talk about ACUPCC and what it means to those who have signed up and those who have considered signing up

Roundtable to hear what everyone is doing

Afternoon: discuss details of inventorying; it's strange for each institution to come out with different methods, and maybe we want to report to the state.

Do we want a VT way of approaching this?

What we want coming out: want to be clear about VCSN, whether we want to meet on a regular basis, OoS could look for grant funding and work on this.

Introductions

Gioia:

Thank you to Champlain for hosting, Greg and Zach for helping to organize, Sodexo

VCEG and VCSN: Zach Mangione and Greg Strong

VCEG 4 yrs old

Originally conceived as a grant project to reach out to Vermont's campuses, focusing on energy efficiency and renewable energy. Putting together energy teams at colleges made up of students, working with faculty and staff to address these issues.

\*See vceg.ppt for power point presentation\*

Grant goals:

1) Improve the efficiency of 50,000 square feet of Vermont college and university conditioned space.

2) Create and facilitate two statewide workshops per year regarding energy efficiency, renewable energy, and sustainability projects implemented on Vermont college and university campuses.

3) Compile and disseminate educational, network, and event resources related to energy efficiency, renewable energy, and sustainable practices on Vermont's campuses.

Compile and disseminate educational, network, and event resources related to energy efficiency

Help connect people to grants and other resources

\$5,000-10,000 grant from the Department of Public Service

Works closely with Efficiency Vermont

At a crossroads

Went over some accomplishments at VT colleges in the past year

- CEF
- 2 new sustainability coordinators in the state
- Climate Change Endowment Investment Strategy
- Formation of 4 campus working groups
- VT Tech joined climate registry
- World Learning and Castleton signed ACUPCC
- Sustainability incorporated into first-yr orientation

Where to we go from here:

- Southern part of the state, less engagement, probably because of the distance.

Gioia and Greg:

\*See climate8-14.ppt for power point presentation\*

3 scopes of greenhouse gas emissions

- 1) Emissions from the direct activities of the campus
- 2) Emissions from utility production not at the institution
- 3) Indirect emissions including agriculture, transportation, waste disposal

More info: [www.ghgprotocol.org](http://www.ghgprotocol.org)

or [www.cleanaircoolplanet.org](http://www.cleanaircoolplanet.org)

If every in the world measured scope 1 and scope 2, no one would have scope 3

Priority should be for everyone to get scope 1 and scope 2

In this case, you could say that fugitive emissions of refrigerants are not being included in our ghg inventory because they are considered de minimis, i.e., too small a fraction of the whole to be worth the bother of recording and addressing at this time. Different protocols are considering whether the de minimis threshold should be at 3% or 5%. The protocol that Middlebury is using requires full accounting for all scope 1 emissions, including getting all the paperwork lined up, before making a determination about whether a specific source will be considered de minimis. At UVM I'm not interested in going to all the trouble to get the paperwork done for things we already know are de minimis.

Inventory issues: protocol, defining scope of campus, defining timeframe, repeatability, document rigor, audiences, alliances, emissions factor, normalizing factors/GHG intensity (square ft, students, total population, research dollars)

Intensity reductions or absolute reductions

1990 as goal for reductions- From Kyoto: bring back GHG emissions to 1990 levels (so you have to know what those levels were)

ACUPCC- American College and University Presidents' Climate Commitment

AASHE- American Association for Sustainability in Higher Education

\*A complete list of abbreviations and acronyms can be found in abbreviations.xls\*

Higher education can play a really important role in moving this conversation ahead in our society.

Weakness: many people don't know what they have signed on to

So now, we have to do the education

560 campuses signed, and now it's going international

If an institution believes that climate change is the issue of the century, this commitment is one (though not the only) way to address it.

Not just about the facilities end, but also education is very important.

Other documents: Tallories (tall-wah) Document- another climate commitment (signed by Castleton, Middlebury, UVM did not sign). Tallories is a place in France, where they developed a 10-point declaration of how we might live more sustainably. Much broader than ACUPCC.

More info can be found at [www.ULSF.org](http://www.ULSF.org)

Downside from signing the commitment: tons of calls from consultants

One of the goals of ACUPCC: create a strong enough climate, that Fed Gov't will step up and provide funding to support these initiatives, some foundations are interested in supporting as well.

What ACUPCC entails: complete emissions inventory, w/in 2 years set target date for climate neutrality, take immediate steps to reduce GHG emission (short list of actions), integrate sustainability into education experience, making information publicly available.

Need for public availability is a challenge; not all institutions want to make their information available, opens door for public criticism.

Short-term actions: 7 of them; have to choose at least 2. Example: inclusion of investing question; excited students at UVM

Approved Climate Action Plans, but no examples of a climate action plan that fits with the implementation guidelines

Timeline of ACUPCC: sign, 2 months to have a group delegated to the responsibility of addressing ACUPCC, 1 yr: GHG inventory, 2yrs: Climate Action plan, and pick 2 of the 7 options in the mean time

Consequences for not meeting the timeline: shame

How do we define climate/carbon neutrality: will change over time

Oceans absorb 1/3 of carbon, trees absorb 1/3, so do we want to only reduce by 1/3?

Definition of climate neutrality according to ACUPCC "no net greenhouse gas emissions" can use offsets

Where do you draw the box around your institution?

Don't get discouraged by the murkiness, because that is part of the process

It takes about 12% of people to drive change.

Innovators, early adopters (2<sup>nd</sup> people to jump on board)

Take a break and be back the following questions answered for your institution and written on a giant sheet of paper:

1. Name of your institution:
2. Where is your institution in regards to GHG inventorying?
3. What is your method of inventorying?
4. Where does your institution stand on ACUPCC
5. List 2 key questions or issues you would like to see addressed today
6. Please briefly describe measures taken by your institution to mitigate GHG emissions and promote climate related teaching, research, and outreach

Reports from Institutions:

### Green Mountain College

Jesse Pyles- Sustainability and Service Learning Coordinator

- GHG inventory completed, being polished
- Clean Air Cool Planet
- Charter Signatories to ACUPCC
- Questions
  - Where did you put contract fuel for transportation?
  - Can we successfully compare scope 1 and scope 2? Maybe shed scope 3 for now?
- Mitigation measures taken
  - Efficiency (new windows, replacing steam pipes on campus)
  - Offset (Cow Power Program the CVPS)
- Teaching, research, outreach measures taken
  - Student labor: use students on sustainability council and in classes to inform the climate action plan.
  - Student Campus Greening Fund
  - Ecoreps
  - Not much research

### Saint Michael's College

Heather Ellis, Sustainability Coordinator

- 3 students did a GHG inventory for 06/07; working on a 2000-2008 GHG Inventory
- Using Clean Air Cool Planet
- Have not signed ACUPCC, but hopes to speak with president about this
- Questions:
  - How do we weigh working within the state with our activities with larger consortiums (like NECSC)
  - How do you start the conversation with the administration?
- Mitigation measures taken
  - Partner with Efficiency VT: replacing old light fixtures
  - Light bulb swapping
  - All new appliances Energy Star
  - Free CCTA pass

- Biodiesel shuttle
- 3 degree challenge, turning down thermostats in all buildings
- Building a new alumni relations building-LEED certified
- On-site composting program
- New hybrid car
- Teaching, research, outreach measures taken
  - Orientation Programming
  - RA/RD training
  - Student green-up club
  - Go green welcome kit for all first year students, with reusable mug, CCTA guide, compact fluorescent bulb
  - New sustainability coordinator (Heather)
  - Recycling
  - Bookstore giving free tote bags to students
  - Sustainability web page <http://www.smcvt.edu/sustainability/>

#### Goddard College

Judy Fitch, Dean of College Planning and Community Life

- Sustainability team organized by faculty member completed 06-07 Inventory
- Formula at [www.eia.doe.gov/oiaf/factors.html](http://www.eia.doe.gov/oiaf/factors.html)
- Signatory of ACUPCC in 2007
- Unique challenge at Goddard: No year round students, low-residency program- makes them very staff dependent
- Questions:
  - How can we best collaborate for best practices and for staff training?
  - How can we be unified as a constituency to influence gov't?
- Mitigation measures taken
  - Received \$23,000 VT Public Service grant for a feasibility study for a wood chip plant
  - Campus master plan=sustainable
  - Biofuel dorm/vehicle experiment
  - Biofuels experiment
  - Light bulbs exchanged (1000+)
  - Composting
  - Recycling
  - Electric Vehicles
- Teaching, research, outreach measures taken
  - Curriculum: Masters in Socially Responsible Business and Sustainable Communities
  - Cross-curriculum discussions with faculty, depts, imbedded social responsibility

#### Middlebury College

Environmental Affairs Website: <http://www.middlebury.edu/administration/enviro/>

Jack Burne, Director of the Office of Sustainability Integration

Shalyn Getz, Billie Borden (students)

- GHG inventory crafted by students and updated yearly over the last 3 years.

- Used CACP to do a 1990-2000 inventory back in 2002.
- Revised to hybrid method 2005, WRI, EPA Climate leaders. Trying to set up a job responsibility to routinely do inventory. Drafted a how-to guide for inventorying. Created a set of reporting guidelines.
  - Using graphics to try to connect people's actions to GHG emissions. Hires a student each summer to use the how to guide, and update the inventory.
  - Footprint: about 30,000 metric tons, 90% is heating, cooling, cooking;
  - Rule: anything that they own or primarily control is part of inventory
  - Measure commuting, but don't report it. Who lives where, how miles is that, estimate how much the drove.
  - Inventory done by OSI- data provided by various depts. Done June-Oct by student work study w/ Director OSI
- ACUPCC signed May '07
- Questions
  - Is there a better way to more accurately estimate commuting footprint?
  - How could we express the per capita footprint of the campus in ways that foster change?---get more specific so groups of people can have more ownership of their footprint (ex: students in this commons, facilities)
- Mitigation measures taken
  - Woodchip plant coming on line that will displace ½ of heating oil usage. Experimenting with willows as a source of fuel (better than corn). Boil water to make steam, and equipment from Woodchip Tech in Burlington
  - Willow pilot for biomass plan
  - CFLs
  - New construction guidelines- LEED silver minimum.
  - 2016 is the carbon neutrality resolution.
  - Master Plan with sustainability as a core.
  - Buy Cow Power from CVPS.
  - Finished implementation plan for 2016, and waiting for presidential approval
- Teaching, research, outreach measures taken
  - Env Studies major since the mid 1960s. Core faculty-12 and 45 affiliated faculty
  - Lots of examples of interaction between initiatives and class work and back into DM process

Castleton State College

Prof Ann Chiesa, Biology Staff Assistant

Natalie Brassill, Americops VISTA and Sustainability Coordinator until Sept 1, 2008

- 1990-2006- GHG inventory, done in a service learning class with Paul Derby updated it for 07 in the same class, and will continue yearly.
- CACP
  - Hardest part, collecting commuter data, used surveys
- ACUPCC Signatories
- Questions
  - What is the best method for collecting commuter data?
  - How do you advertise to students and others about the work that is being done?
- Mitigation measures taken

- Joining recycle mania
- Purchasing energy star products
- New campus center-LEED silver, taking the lessons from that building project and continuing to use them even though not currently pursuing LEED on any other new buildings.
- Recycling
- Green Campus Initiative
- Investigating Alternative Fuels; hybrid cars
- Metering buildings (working on the software)
- Teaching, research, outreach measures taken
  - Ecoreps
  - Sustainability working group made up of faculty, staff, students, administrators
  - Paul Derby- main professor in the sustainability network at school- using students to collect data and other projects.
  - Still in the beginning of bringing the idea of sustainability to Castleton's campus. Working on involving more faculty.
    - Interested in modeling UME's faculty outings

#### Vermont Technical College

Phil Petty, Interim director of the Center for Sustainable Practices

- Climate Registry- signed up as a founding member, and was surprised to find out that so few institutions of higher education were involved
- First inventory for it due in 2009
- Using the Climate Registry Information software as a tool
- In regards to ACUPCC- president chose not to sign on, but VTC is meeting most of the commitments anyway, so VTC will likely become a "back door" member some time in the near future.
- The measures taken by VT Tech is more extraspective instead of introspective; partially the result of needing grant money
- Questions:
  - Why aren't there more education institutions signed up to the Climate Registry?
  - How might we collaborate with one another, using the strength of experience, expertise, numbers to work in a mutually beneficial way?
- Mitigation measures taken
  - Campus Energy Reduction Task Force
  - Creating a mix-substrate food waste and manure methane digester to use for electricity generation. Don't have the money to build, or the permit. \$2-3 million project
  - Putting a biomass pellet boiler in the building that houses the ag program- demonstration site for experimenting with different kind of pellets.
  - Begun dorm room energy/appliance requirements
  - Market garden/ Wednesday farmers market on campus
- Teaching, research, outreach measures taken
  - Center for Sustainable Practices: faculty staff and student working together: promoting, educating people about, applying and demonstrating emerging technologies and practices

- Development of a diversified agriculture program, 2009 start date
- Energy auditor and weatherization training. Ran a 9-day intensive energy auditor training class (BPI training), trained 11 students. Plans to expand that to weatherization tech training. Earmark funding used to support this
- Sustainable Design and Technology Program (3 tracks: Green Energy, Green Sites, Green buildings)
- CVCAC/ service learning project to install solar hot air units in low income Vermonters homes
- Runs an anemometer loan program to check feasibility for wind turbines

#### Champlain College

Gabriel Calvi, New Sustainability Coordinator

Michel George, Associate Vice President of Campus Planning and Auxiliary Services

- Michelle is responsible for implementing the college's master plan, and sustainability is a big part of that

Tom Bonnette, Director of Physical Plant

- GHG Inventory- Greg Strong and Springhill Solutions
- Would like to do a Greenlines Inventory to compare the two (both use Clean Air Cool Planet)
- ACUPCC- President didn't want to sign it blindly, and wanted to start the inventory first
- Questions
  - What are the commonalities between institutions?
  - How should this network move forward?
  - Should we use LEED or another green building method?
- Mitigation measures taken
  - Facilities have been working on energy savings
  - Working on transportation management (carpooling, public transportation)
  - Food- Sodexo, part of VT Fresh, Tray-less dining
  - Green buildings- 4 new residence hall LEED or another guideline, LEED silver on some current projects
  - Operations- minimizing chemicals
- Teaching, research, outreach measures taken
  - Committed to sustainability from administrative levels and grassroots.
  - LEAD- student life program
  - Teaching-no majors or programs that tie in, but hoping to incorporate it into their CORE (general education curriculum) and business management classes

#### World Learning

Tony Drapelick, Director of Student Services, School for International Training

- World Learning is an umbrella organization- SIT is only one part of that
- Completed GHG inventory 5/08
- CACP and Middlebury's Carbon Neutrality Toolkit
  - Biggest transgressor- transportation
- Signed ACUPCC
- Questions

- How do you determine the scope of campus in a way that provides valid comparative data with other (VT) institutions?
- How do you get good data for commuters? Is there a standard?
- Mitigation measures taken
  - Support \$/encourage use of smaller vehicles
  - Town bus
  - Busing, Composting (25 short tons/yr)
  - Experimenting with pellet stove use
  - Replacing windows
- Teaching, research, outreach measures taken
  - One major is in Sustainable Development, of which environment is one part
  - On campus conference on sustainability (3/08)
  - EWG- Environmental Working Group

University of Vermont

Gioia Thompson, Director of the Office of Sustainability

Office of Sustainability Graduate Fellows: Tatiana Abatemarco, Nell Campbell, Christina Erickson

- 1990-2007 Inventory Compete, August 2008
- Clean Air Cool Planet Calculator
- Charter Member of ACUPCC
- Questions:
  - Using eGRID vs. local emissions factors
  - Next steps for VCEG/VCSN
- Mitigation measures taken
  - LEED silver standard
  - BED-VGS efficiency program collaboration
  - Transportation demand management
  - Alternate fuels vehicles
  - Cleaner heating fuels
  - Fuel use reduced 25% through efficiency efforts. Chilled water plant to take the place of personal air conditioners.
- Teaching, Research, Outreach measures taken
  - Alternatives energy classes (ex. Forest carbon dynamics)
  - ENV5 295: Campus Sustainability
  - Climate Action Plan
  - Vermont Climate Collaborative
  - Network of Carbon Researchers
  - Focus the Nation
  - Carbonators

Efficiency Vermont

Gillian Eaton

- Works across the state, except for within the city limits Burlington
- Questions

- How do we leverage both support and collaboration with institutions who are involved in climate initiatives?
- What are the biggest barriers to successful implementation?
- Market initiatives: College and Universities Market Initiatives (Gillian is head of that)
  - 20 other market initiatives
  - What do the member of this market segment value?
  - What are the barriers that they face?
  - From there, strategize
- What we're doing:
  - Customized campus-specific projects: tech assistance, financial assistance, PR, presentations, pilots
  - State-wide initiative: longer-term market transformation, including curriculum development
  - Ex: meters at Castleton, projects on move-in days at institutions
- Wants to know what the full range of options are, and are ready to try anything that will have effects.

#### Johnson State College

Bob, Cassie, Jon

- Have not done a GHG inventory as of yet.
- Russ Weis (faculty) has been talking with Greg about contracting Springhill Solutions and also using a class to complete an inventory.
- Have not signed ACUPCC
- Questions:
  - How do we get our administration to sign ACUPCC?
  - How can we get students invigorated and maintain momentum in regards to sustainability projects?
- Mitigation measures taken
  - New windows in greenhouse
  - Maintenance of boilers
  - Put timers in areas that use a lot of energy
  - Composting in dining halls, starting composting in dorms and college-run apartments
  - CFL replacement
- Teaching, research, outreach measures taken
  - Green solutions Campus Club: Earth day event, Organic Community Garden, Online Climate Action Blog for students.
  - Students Against Nuclear Energy (new last semester): Attending DPS and Senate meeting

Chef Sandi Earl- works for Sodexo

Scones and muffins made from scratch, squeezed fresh orange juice.

No local juice company

Supplies Green Mountain Free Trade Coffee and Tazo teas

Produce: lettuce local, most comes from Pioneer Valley, which is based in Mass, but a collaborative of farms in New England. Local tomato

Question: during the school year do you do the same effort of signage?

Answer: yes. Signs up during school year. Get apples and cider from Champlain orchard and fair trade organic bananas.

Comment made about

It takes extra special care, changing gloves in between activities, effort to

Q: Suppliers? Does all of Sodexo do these practices?

A: No, Sodexo does this based on the desires of the school. Black River Produce, has the \$ million insurance and extreme HASAP standards, food tracking paperwork

VT Fresh Network. Use Hood, New England Company.

Local district (UVM, ST Mikes, Champlain, Plattsburg State) all had to agree in order to get Black River as an approved distributor.

Q: What happens with food waste in general and today's lunch?

A: HASAT rules to follow, the food has to be thrown away. Will have in house composting in the kitchen this year.

Break out into groups: facilitator and question that is taken from

Greg: Discussion on facilities data, scope 1 and 2, and getting arms around what that data look like?

3 big questions:

- 1) How do you get started?
  - a. Various operational boundaries and organizational boundaries
  - b. Which scopes to use
  - c. Temporal boundaries
  - d. Find who owns your data!
    - i. Be persistent and concise to get data; don't make it hard for them. Brake it down into smaller pieces.
    - ii. A policy statement could help
    - iii. Facilities people, Finances (there is often more than one person who has the information)
    - iv. Bills
    - v. Leakage Rates
    - vi. Fleet Data
- 2) What are some good generalized formats and equivalencies?
  - a. BTUs
  - b. Per square ft
  - c. EPA website has equivalency data
  - d. Per student
- 3) Once you have the footprint, how do you start reductions/mitigation?
  - a. Once you have the equivalencies, you can start to look at particular buildings and see where you big problem area are and find the low-hanging fruit
  - b. Conservation
  - c. Technology
  - d. Renewable
  - e. Offsets
  - f. Cost benefit analysis

- 4) How do you make this process less painful every time?
  - a. Climate Registry
    - i. Inventory has to be redone every 3 years with third party verification
  - b. ACUPCC
    - i. Inventory has to be redone every 2 years

Jack: Discussion on Reporting GHG numbers: Who? How?

- 1) Assumed that there was a GHG inventory
- 2) Internal Reporting
  - a. Not making people feel guilty, encouraging positive contributions
    - i. Making it clear that there is a goal
    - ii. The institution has made it clear and is taking a leadership role
    - iii. Not being asked to make radical changes, but get educated and do your part.
    - iv. Celebrate the changes that are made
  - b. Inform Students, Staff, AND Faculty
    1. New employee orientation (Middlebury)
  - c. Consistency with language and symbols used to communicate inventory
  - d. Be really clear about what you are reporting on and why

Gioia: Discussion about normalizing, comparing

- 1) Comparing with other institutions
  - a. Scope 1 and 2 are the most realistic for sharing because the data is easy to secure
  - b. Scope 3 important data, but not easily comparable
  - c. Comparison lends itself to competition and self improvement, which are ultimately useful
- 2) Normalizing is considered a hassle, but there are obvious benefits

Nell: Discussion on scope 3 (commuting, air travel, etc.)—no takers

Bob: Technical questions—what are they? (groups joined)

- 1) eGRID vs local emissions factor
  - a. standardization
  - b. communication
  - c. Does using local numbers mean you are taking credit for something you haven't done?
  - d. maybe we report both?
- 2) Implementation
  - a. Buy in
  - b. Infrastructure
- 3) Organizational Development and Longevity
  - a. Challenges
    - i. Resistance
    - ii. Turn over
    - iii. Energy of a new idea vs. the sustainability of a project over the long term
  - b. Potential Solutions

- i. Collaboration of different groups within the institution and throughout the state
- ii. Training
- iii. Funding (competition as a danger, maybe this kind of collaboration needs to be continued by an outside group?)

Moving On:

Knowledge Management

How Do We Work Together

These meeting- keeping the conversation going

How many meeting a year- 2-agreed on

Networking is essential

Specificity of the focus, it might be nice to do another meeting where we show inventories and what state they are in and create a total footprint for all the colleges and universities participating

Regular meetings would help keep colleges and universities accountable (ACUPCC has a similar idea behind it)

UVM continuing the role of facilitating meetings

Potentially, shifting meetings around the state- cost sharing and fair

NECSC- once a year conference. If there are functional state networks, there is more opportunity to bring things to the regional or national level.

How do we avoid competition? Do we need a third party to oversee the collaborative aspect?

VCSN- website evolved from VCEG's desire to have a way allowing colleges in the state to communicate with each other virtually. Also, added resources.

Rubric is a nice tool, but the website itself seems onerous.

Timeline: when is the next meeting: January (brief presentations of inventories)