

**Warren Wilson College  
Climate Action Plan  
Greenhouse Gas Reductions Task Force  
December 2, 2008  
DRAFT**

**POSTED FOR COMMENT UNTIL DECEMBER 10<sup>TH</sup>.  
PLEASE EMAIL YOUR COMMENTS/QUESTIONS TO MARGO  
FLOOD, [mflood@warren-wilson.edu](mailto:mflood@warren-wilson.edu).**

**Long term goal:** Reduce WWC's overall greenhouse gas emissions to 80% less than its 2007 levels by 2020.

**Phase 1: Achieve 40% carbon emissions reduction from 2007 levels during 2009 to 2014**

**Goals**

- 25% total reduction in electric use campus-wide at 5% per year, from 2009 to 2014, based on a combination of behavior changes and retrofits. Electricity is currently 43% of our carbon footprint. This will result in a **11% carbon reduction from the 2007 level.**
- 50% total reduction in transportation carbon footprint from 2009 to 2014 based upon fleet upgrades, use of alternative transportation, and voluntary carbon offsets for faculty/staff business and commuter travel, international programs, service learning, and student driving. Transportation is currently 20% of the College's total carbon footprint. This will result in a **10% carbon reduction from the 2007 level.**
- 20% reduction in natural gas carbon emissions based on gradual upgrades of heating/cooling systems to geothermal and high functioning systems. Currently natural gas is 25% of our carbon emissions. This will result in an **18.75% carbon reduction from the 2007 level.**

**Result**

**Phase 1 plans will result in a 40% reduction in carbon emissions by 2014 from the 2007 level.**

**Phase 2: Proposed 40% Carbon Emissions Reduction from 2014 for the period 2015 - 2020. Plans to be developed.**

## Strategies

### Operating Principles and Policies

- Develop Emissions Pattern Language to fully engage community in implementation plans.
- Publish and fulfill pledges made to ACUPCC.
- Publish Pattern Language commitments.
- Publish up to date global carbon realities.

### Scope

- The operational boundary for *direct* emissions as recommended in ISO 14064 is defined by what we own or control which contributes to the College's direct responsibilities and benefits.
- All campus buildings except faculty/staff housing.
- Entire WWC community – faculty, students, staff, volunteers.
- Measurement of all greenhouse gas emissions.
- Measurement of carbon sequestration via the WWC forest.
- Partnerships campus-wide with faculty, students and staff to effect changes.
- Continued alliance with City of Asheville, and other regional partners like Progress Energy and Sustainability Alliance of the Mountains, to share best practices and contribute WWC data to a regional GHG databank.

### Behavior Change

- Behavior Change subcommittee chaired by Stan Cross.
- Martha Knight Oakley and Kathryn Burleson to conduct baseline survey at start of spring semester, 2009.
- Behavior change strategies to flow from survey.
- Student Life to assist in dorm conservation plans.
- Village B will be a model dorm. (Gideon Burdick in lead role).
- Spidel will serve as model classroom building (Gretchen Whipple in lead role).
- Campus Greening crew to assist with research and development of conservation tools.
- Energy saving green office practices and green event protocols distributed campus wide.
- Policies of Local Food Task Force to support emissions plan.

### Retrofits

- Suggestions include temperature setbacks in buildings during breaks; distribution of power strips campus wide to claim the 10% savings in “phantom” energy; motion detector lights in hallways; greater use of ceiling fans; relamping of ceiling fluorescent fixtures to one tube; community limit of electric use during peak load hours; replacement of all incandescent light bulbs; shutting down computers when not in use; and converting to laptop computers (50% less energy usage).
- Participation in the Clinton Climate Initiative highly likely (visibility, comprehensive ESCO audit, performance contracting process for affordable retrofits)  
<http://www.clintonfoundation.org/cf-pgm-cci-home.htm>.
- Campus-wide energy audit preliminary to strategic plan.

## Renewables

- Engage in community discussion about the appropriateness of wind turbines or extensive solar arrays for WWC.
- Consider development of a WWC Renewables Fund as a transient mechanism to a carbon neutral campus.
  - Voluntary tax-deductible fund for faculty, students and staff to offset their transportation carbon footprint through contributions to WWC to be used solely for expansion of renewables.
  - Use of a web-based calculator to determine appropriate investment for CO2 offset (Vermont's 10% challenge has agreed to share their tool).
  - Use of accepted standards for equivalency.
  - Dedication of funds to expansion of WWC's grid-tied solar array.
- Serve as a demo site for a renewables company.

### **Monitoring**

- Climate Action website monitors the plan.
- Greenhouse Gas Emissions Task Force provides oversight for implementation and monitoring of goals.
- Measurement of greenhouse gas emissions through the annual greenhouse gas inventory standardized to Clean Air-Cool Planet.
- Review of goals occurs annually.
- Visualization tools developed to display progress towards climate neutral goals including maps, posterage, website, and web-based, real time KW monitoring of campus buildings.
- Regular community updates on progress.
- Annual progress published.

### **Funding**

- Include a budget line for climate neutrality in any future College campaign for such upgrades as the college fleet, energy audit, building retrofits, expansion of renewables.
- Measure the ROI of gradual retrofits and devote funds accrued from energy savings to a budget line for continued retrofits.
- Include college-owned campus staff and faculty housing in the energy audit plan.