Recommendations of the President's Task Force on Sustainability – Spring, 2009

Task Force Membership: Eric Algoe, Laurie Anderson (Chair), Julia Brooker, Gene Castelli, Karen Crosman, Amy Downing, Jann Ichida, Steve Ishmael, Jim Krehbiel, John Krygier, Kim Lance, Bart Martin, Sara Nienaber, Jim Peoples, Carol Poling, David Robbins, Chris Setzer, Shari Stone-Mediatore, Jack Stenger, Chuck Stinemetz, Paula Travis, Barb Wiehe, Tom Wolber

Charge: The President's Task Force on Campus Sustainability is charged with developing recommendations that will lead to a culture of sustainability on the Ohio Wesleyan University campus. Specifically, the task force will examine the President's Climate Initiative and develop a roadmap for fulfilling commitments made in the initiative and recommend a timeline for specific actions Ohio Wesleyan University can take to become more environmentally friendly. The task force will present its recommendations to the president prior to the end of the spring semester, 2009.

Recommendations: Overview

The President's Task Force on Sustainability recommends the following actions to achieve a more sustainable, environmentally responsible campus community:

1. The Task Force is generally supportive of President Rock Jones signing the Presidents Climate Commitment. However, we recognize positive and negative aspects to OWU's participation in this program, and see some significant issues that should be considered before signing:

Positives

- A. Based on the response to a petition circulated among students and faculty in Fall 2008, 50% of our student body is in favor of joining the Climate Commitment. Sustainability and environmental responsibility are clearly issues that many of our current students, and probably our prospective students, care about, and signing the Climate Commitment would be a highly visible, concrete response to these student concerns. Other campus constituencies also want to "do the right thing" for the environment.
- B. OWU would join a group of 623 other colleges and universities who have signed the Climate Commitment and could take advantage of networking and collaborative approaches to achieving significant emissions reductions. OWU would also join this group in encouraging and supporting the development of new energy technology by creating a clear demand for sustainable energy products.
- C. Historically, OWU has not been as aggressive as some other institutions at pursuing environmental sustainability at the campus level. The Climate Commitment would provide a motivator, a focal point, and a clear message to our constituents that we are changing our approach on environmental issues.

D. Energy efficiency improvements may result in long-term institutional savings, although the head of Buildings and Grounds cautions that past efforts to save money through improved efficiency have not resulted in as much savings as hoped.

Negatives and cautions

- A. Ohio Wesleyan will be *very unlikely* to successfully meet the criteria of the Climate Commitment and make meaningful, long-term changes to the environmental management of the campus without the leadership of a Sustainability Coordinator. The Task Force feels that the Climate Commitment, combined with other sustainability initiatives we may want to pursue, will make enough complex and consistent demands on the campus community that we need a full-time person to lead, organize, and coordinate these activities. It would be inappropriate, for example, to sign the Climate Commitment and assume that the current Buildings and Grounds staff could undertake all the monitoring and equipment upgrades required without additional staffing and financial resources. We envision that the Sustainability Coordinator would be supported and assisted by a committee composed of faculty, staff, students, administrators, trustees, and alumni. The Institutional Structure Working Group also discussed creating a part-time Sustainability Coordinator position as an interim strategy. Please see Appendix 1 for details.
- B. The President's Climate Commitment specifies *carbon neutrality* as the ultimate goal of the signatories of the Commitment. Our research for this Task Force and combined professional experience indicate that true carbon neutrality is not possible with current energy technology. This language has caused concern for some Task Force members. However, conversations with current signatories to the Climate Commitment suggest that this language is used to motivate campuses to act boldly and decisively in reducing greenhouse gas emissions, and represents a philosophical rather than absolute goal. Each campus is allowed to design an emissions management plan that fits their resources and regional constraints. If we use carbon neutrality as an aspiration rather than a mandate, it is likely that we can craft a plan that will be reasonable for OWU to pursue and result in a reduced carbon footprint.
- C. The President's Climate Commitment is not free. Significant investments to upgrade our energy efficiency and perhaps purchase offsets may be required, and we may need to reduce services in certain buildings in order to save energy (e.g., buildings could be closed earlier). This could affect some aspects of academic programs. The majority of the campus must agree that these are appropriate trade-offs in return for maximizing sustainability. Our emissions management plan can be designed to phase these changes in slowly to spread out costs and allow transitions, but the campus community should know that there will be some impact on resources and services.
- 2. We recommend that until a Sustainability Coordinator is hired an interim Sustainability Committee be appointed or elected to allow us to progress on sustainability issues and take advantage of the momentum generated by this year's Sagan National Colloquium. This Committee would provide support and coordination for sustainability efforts already underway on campus, serve as an archive for sustainability ideas, and be a contact point for any member of

the campus community who has concerns about sustainability. An important role for this committee would be to work with student groups such as the WCSA Environmental Committee, the Environment and Wildlife Club, and the Tree House. This committee may also work on drafting the campus emissions plan in the event that the President's Climate Commitment is signed. The Executive Committee and OWU Administration can determine whether this is an ad-hoc, appointed, or permanent committee. However, the committee *should not become a long-term substitute for a Sustainability Coordinator*. Some people on the Task Force have expressed an interest in serving on this committee. Their names are listed on page 4 of this document.

Overview of the President's Climate Commitment

The President's Climate Commitment has four major requirements:

- 1. Provide an institutional structure to implement and support sustainability policy (within two months of signature).
- 2. Measure campus greenhouse gas emissions (within one year of signature) and develop an action plan to eliminate or offset 100% of these emissions (action plan within two years of signature, 100% climate neutrality by date specified in the plan).
- 3. The action plan must include the incorporation of sustainability into the curriculum.
- 4. While the action plan is in development, the campus must initiate two of seven possible tangible actions to improve campus sustainability.

The Task Force was split into four working groups focused on each of these requirements: Institutional Structure Working Group (Chair: Karen Crosman)
Immediate Actions Working Group (Chair: John Krygier)
Curriculum and Visibility Working Group (Chair: Shari Stone-Mediatore)
Emissions and Action Plan Working Group (Chair: Amy Downing).

The activities and findings of each working group are summarized in the attached appendices. The recommendations of the task force were crafted from the working group activities. Overall, we believe that the most significant barriers to achieving the goals in the Climate Commitment are associated with our institutional structure (hence our need for a Sustainability Coordinator) and the costs and technical details of substantially reducing our emissions (hence the discussion of carbon neutrality above). The incorporation of sustainability into the curriculum, while not trivial, has a starting foundation with our Environmental Studies Program and ample opportunities will likely present themselves if the new Arts and Sciences initiatives go forward. In terms of the tangible actions requirement, four of the seven options seem viable immediately or within a short time-frame (waste reduction, public transportation, energy star appliances, and LEED or equivalent certification for new construction), suggesting that it would be relatively easy for OWU to meet this charge of the President's Climate Commitment. Please see the appendices for details.

Other ideas and activities of the Task Force

The Task Force has taken an active role in exploring the feasibility of Buildings and Grounds taking over the campus recycling program, at the urging of President Jones. Laurie Anderson, in her role as Task Force Chair, met with Dennis Wall of Buildings and Grounds on April 23, 2009 to discuss specific needs for a viable recycling program. Notes from this meeting were circulated to Chris Setzer and President Jones on April 24, 2009.

The Task Force also recognizes that the campus has many sustainability initiatives underway now, including an effort to make community bikes available for student transportation, a food waste reduction program, a plan to seek a LEED Silver certification and use geothermal heating in the new natatorium, and a campaign to reduce the purchase of bottled water by the campus community. As part of the Sagan National Colloquium, student projects have included a local foods initiative, a composting program, a community garden, and a sustainable lawn care initiative. WCSA has formed a new Environmental Committee which has organized a web page to coordinate sustainability efforts across campuses and Dr. John Krygier has archived many sustainability ideas and activities in an ongoing blog (http://greenowu.wordpress.com). The Task Force wants to make sure these ongoing efforts are supported, maintained and publicized.

In addition, some members of the Task Force are enthusiastic about connecting campus environmental projects more strongly to our local community, and working with partners such as the city government, local schools, and/or local environmental groups. Building these partnerships is likely to be a focus of the future Sustainability Committee, and may be a useful dimension of the theory into practice component of the new Arts and Sciences Curricular Initiative.

People on the current Sustainability Task Force who are willing to serve on a Sustainability Committee in 2009-2010

Laurie Anderson Gene Castelli Karen Crosman Amy Downing Jann Ichida John Krygier Jim Peoples Carol Poling Jack Stenger Chuck Stinemetz Barb Wiehe Tom Wolber

Appendix 1- Report of the Institutional Structure Working Group – Submitted by Karen Crosman, edited by Laurie Anderson

Members: Julia Brooker, Karen Crosman (Chair), Bart Martin, David Robbins

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Working group charge: This group will focus on creating an institutional structure for implementing sustainability policy. The group will consider whether we need an administrator in charge of this issue, the composition and size of a permanent committee, how that committee would be created (by election or appointment), and how the current task force will evolve into a permanent committee.

The Institutional Structure Working Group met twice in which we reviewed our charge and discussed examples of institutional structures on other campuses designed to carry out sustainability efforts. Specifically, the group reviewed the sustainability institutional structures of Albion, Denison, DePauw, Furman, Kenyon, Oberlin, and Ohio University among others and found a variety of models. Most had made the decision to add a 'sustainability' position to coordinate a diverse set of sustainability activities on their campus with many also looking to infuse the curriculum with sustainability content. The most frequent position title is Sustainability Coordinator which is filled by an administrator or faculty member working with a permanent committee or task forces (or both) who report to the university president or another college officer in most cases. One campus has its Sustainability Coordinator reporting to the university's assistant vice president of facilities. The annual salary for these positions ranges from \$40K to \$80K.

One of the most comprehensive efforts in sustainability occurs at Furman University with its Office Sustainability and Environmental Education. Established in summer 2008, the Furman office is to coordinate four areas: curriculum, co-curriculum, campus assessment and communication with a four member staff (director, environmental liaison, environmental associate and administrative coordinator) who are slated to be housed in the campus' new LEED certified building. Furman has established the requirement that each student take one course "addressing humans and the natural environment." Oberlin's current (and first) Sustainability Coordinator who has served in the position since February 2007 offered his advice that a campus' sustainability efforts should involve a permanent structure, have a clear chain of command and follow a transparent process in its activities.

A possible interim option for OWU could be a part-time Sustainability Coordinator The Institutional Structure Working Group discussed this possibility, recognizing that there might already exist an opportunity to take a current part-time person in the sciences and add the sustainability component for a full-time position. This possibility, teamed with Sustainability Committee, could advance our efforts until such time that resources are available for a full-time Coordinator.

Based on the Working Group's review of other campuses, the desire for campus-wide participation and the infrastructure of OWU, the group recommends:

* establishing a permanent structure such as a Core Committee or Council to signal OWU's commitment to addressing sustainability issues as a campus and as a member of the larger Delaware community

- * staffing the committee with a full-time coordinator to report to the Provost or President (or sharing a position with other Ohio Five campuses, although most have already established such a campus position)
- * populating the committee with representation from all groups on campus to include two from each constituency of faculty (elected or appointed by mechanism established by the Executive Committee), administrators (sub VP level appointed by the President), staff (one each from Clerical Council and Wage Council) and students (appointed by WCSA or by another mechanism chosen by the students, as WCSA members can be overwhelmed with other tasks) with ex-officio representation from each of the following or their designee: President, Provost, Vice President for Finance, Vice President for University Relations, Vice President for Student Affairs, Vice President for Strategic Communication and Enrollment, and Director of Building and Grounds
- * exploring collaborative involvement of city and other community representatives on issues of mutual interest through task forces or other mechanisms
- *Committee members will have staggered terms to ensure continuity of effort, with students serving one year terms and other members serving two or three year terms.
- * The scope of the work to be addressed by the committee will be determined by the requirements of the Presidents Climate Commitment, if signed, as well as other aspects determined by the committee. Committee members will align in relevant subcommittees and appoint temporary task forces if needed to address specific aspects of the Committee's charge.
- * The Committee will develop specific goals and submit an annual assessment and progress report to the President

The Institutional Structure Working Group also offers the following for consideration:

- * The hiring of an Environmental Economist brings a unique perspective to OWU's efforts on sustainability with the degree of this person's involvement to be determined.
- * OWU should consider instituting an "E" environmental course requirement with the course approval process, analogous to current "Q" requirement.
- * OWU should consider establishing an Environmental Venture Fund to seed student-led sustainability projects with funding to be sought from alumni or external grants.
- * OWU should consider funding of some portion of sustainability efforts through student fees such as used for technology. Such a funding source perhaps in the range of \$25 each semester will provide a stable source of support and carry a mandate to demonstrate results.
- * OWU should consider involving alumni with an interest in sustainability, perhaps in an advisory group role.

Appendix 2 – Report of the Emissions Action Plan Working Group – Submitted by Amy Downing, edited by Laurie Anderson

Members: Eric Algoe, Laurie Anderson, Amy Downing (Chair), Jim Peoples, Carol Poling, Chris Setzer, Barb Wiehe, Tom Wolber

Working group charge: This group will focus on the charge in the Climate Commitment that requires measurement of our campus greenhouse gas emissions and drafting a plan for eliminating or offsetting 100% of those emissions (climate neutrality). This group will take a first pass at generating a ball-park estimate of OWU emissions using an online carbon footprint calculator, identify major strategies for emissions reduction, determine if climate neutrality is feasible, and on what time scale.

Our working group focused on obtaining a preliminary estimate of our carbon emissions using the Clean Air-Cool Planet Campus calculator. We then investigated carbon reduction plans of other institutions who have already signed onto the President's Climate Commitment to determine some strategies that might work at OWU. Finally, members of the committee attended a Carbon Neutrality Webcast which provided some additional insight.

Clean Air-Cool Planet Campus Carbon Calculator overview:

- The committee generated a preliminary estimate of OWU's annual carbon emissions using the calculator. Chris Setzer provided the majority of the necessary data.
- The calculator and the Climate Commitment breaks down carbon sources into 3 Scopes: Scope 1 All direct emissions from sources owned and controlled by OWU

OWU uses natural gas and distillate oil to fuel our boilers which produce steam to heat our buildings. We also purchase fuel for our vehicle fleet.

Scope 2 - Indirect emissions from sources we purchase for on-campus consumption.

OWU purchases electricity from AEP to power campus.

Scope 3 - Other emissions created by our institution

For example, solid waste and landfilling, student, faculty and staff commuting, travel paid for and reimbursed by institution (e.g. admissions, conferences, study abroad travel), transport and delivery losses from purchased Scope 2 energy, etc.

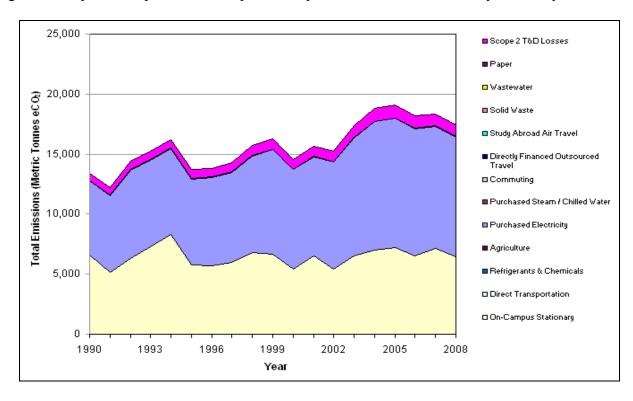
- The American College and University President's Climate Commitment requires an inventory of all Scope 1 and 2 emissions, and a report of Scope 3 emissions from commuting and directly financed air travel. The Climate Commitment encourages institutions to include any additional Scope 3 emissions that are large and can be meaningfully influenced. Scope 3 emissions are largely optional, and are not the primary target for reduction and neutralization under the President's Climate Commitment.
- All major sources of carbon output from Scope 1 and Scope 2 are included in the preliminary OWU carbon calculator. Our group also estimated a small portion of Scope 3 emissions (mileage reimbursed for personal vehicle use to conduct OWU business). Much work remains to document other important Scope 3 emissions.

Summary of OWU's preliminary results from the Carbon Calculator:

• <u>OWU's Scope 1 emissions</u> come primarily from the fuel we purchase for our boilers. This accounts for 6,500,000 metric tons of carbon emissions in 2008. Our fuel sources

- consist primarily of natural gas (a relatively clean energy) and to a lesser extent distillate oil (not as clean). OWU stopped using coal (a fuel with high carbon emissions) in 1999.
- OWU's Scope 2 emissions come primarily from our purchased electricity which accounts for 9,800,000 metric tons of carbon. The OWU vehicle fleet and directly financed outsourced automobile travel (reimbursed mileage for OWU business) are negligible sources of carbon emissions as is illustrated by their almost undetectable contribution to Figure 1 (the slightly thickened black line between the blue and pink areas).
- OWU's scope 3 emissions are largely unaccounted for in the preliminary OWU carbon calculator estimates. Transport and delivery losses of Scope 2 energy sources are estimated by the calculator (indicated by pink area in graph). Data for other important Scope 3 emission sources are not readily available due in part to OWU's accounting practices. For example, to obtain an estimate of about half of air travel data will require hand-processing three-plus file drawers full of paperwork. The omission of OWU financed air travel in the carbon calculator is likely to be a significant omission. On other campuses such as Macalaster, Oberlin, and Middlebury, air travel accounts for between 6 and 20% of total campus emissions. OWU commuting data for faculty, students, and staff are also not available, although commuting is likely to be a relatively small contribution to OWU's total carbon emissions.
- The total OWU carbon footprint for Scope 1 & 2 is \approx 17,000,000 metric tons. Other similarly-sized small liberal arts colleges with reliable data have higher emissions for Scope 1&2: Middlebury \approx 27,000,000, Oberlin \approx 44,500,000, Macalaster \approx 21,000,000.

Figure 1: Graphical output of OWU's preliminary carbon emissions inventory, February '09



Strategies for Carbon Emissions Reductions at other institutions:

• The committee reviewed Action Plans and other documents for the following institutions that have signed onto the President's Climate Commitment: Oberlin, MacCalaster, College of the Atlantic, Middlebury, and Williams College. Members of the committee also attended a 'Webcast' titled "Achieving carbon neutrality on college campuses". From these sources, the key carbon emission reduction strategies have been indentified, in order of recommended implementation:

Conservation of energy

Increasing efficiency

Purchasing direct renewable energy

Purchasing local offsets

Purchasing offsets

Purchasing renewable energy credits (climate-e or green-e certified)

• Timelines for achieving carbon neutrality are extremely variable. Some examples:

Middlebury, Oberlin, Carleton – Carbon neutrality planned within 10 years, using a combination of energy efficiency improvements, changes in energy sources, and carbon offsets.

Williams, Yale - 10% below 1990 emission levels by 2020

UCLA- carbon neutral 'as soon as possible' (very open ended)

UC-Boulder – making reasonable progress towards a climate neutrality goal

• Specific strategies for carbon emissions reduction at other institutions include:

Energy conservation programs (e.g. computer use education, lowering thermostat set points, energy star appliances, insulation, LEEDs certification, modernizing heating systems, etc.), hydrogen fuel cell technology, biomass burning, purchasing 'green' energy such as hydroelectric or wind, purchasing carbon offsets, dorm and other campus competitions to reduce energy use

Most likely strategies for reducing OWU's Carbon Emissions:

- Updating heating systems in older buildings
- Energy conservation education
- Behavioral changes e.g., reviewing building hour policies
- Implementing a policy for maintaining the square-footage of the institution at current levels

Emission subcommittee's discussion of the Pros and Cons of signing the Climate Commitment: Pros

- 1. Signing the commitment is the right thing to do for the environment.
- 2. Energy conservation will likely result in long-term institutional savings.
- 3. The Commitment will help organize & motivate OWU's progress towards sustainability.
- 4. The Climate Commitment leaves a lot of flexibility in developing a timeline for neutrality.

Cons

- 1. OWU will never be able to become truly carbon neutral unless we purchase carbon offsets. We will always need to heat and power our buildings.
- 2. Some of the stipulations in the program are rather specific. OWU might prefer to make different choices and prioritizations to increase our sustainability.

A word about carbon offsets:

We could become climate neutral tomorrow if we decided to purchase offsets for our carbon emissions. OWU currently has about 17,300 metric tones of carbon in Scope 1 & 2. The current carbon offset market has offsets as cheap as \$8 per ton but can range to \$20 per ton and more for reliably high quality offsets. To become climate neutral, OWU could pay between \$138,400 per year (assuming \$8/ton) to \$346,000 per year (assuming \$20 per ton) in carbon offsets. The Emissions Working Group, and most other signees of the President's climate commitment believe that carbon offsets should come only after all other attempts to reduce and neutralize emissions have occurred. The carbon offsets market is just emerging and the quality of many offset programs has yet to be determined. Paying offsets to a company completely removed and disconnected from OWU may be an inappropriate and irresponsible use of OWU's limited resources, at least in the short term. If OWU were to engage in carbon offset programs, we discussed making those programs local, such as helping local homeowners or schools weatherize their homes or buildings. These local offsets would probably be 'expensive' per ton of carbon offset, but they would have other community and institutional benefits.

Appendix 3: Report of the Curriculum and Visibility Working Group – Report submitted by Shari Stone-Mediatore, edited by Laurie Anderson

Members: Laurie Anderson, Kim Lance, Sara Nienaber, Chuck Stinemetz, Shari Stone-Mediatore (Chair)

Working group charge: This group will focus on the charge in the Climate Commitment that requires us to "integrate sustainability into the curriculum". This group will discuss how to do this meaningfully and appropriately, how this effort will intersect with other curriculum revisions on campus, and how existing programs, such as the Environmental Studies (ES) Program, will evolve in response to this effort. This group will also discuss how to make the sustainability curriculum visible and attractive to prospective students.

I. Suggestions for the ES program:

The curriculum group reviewed the environmental studies and environmental certificate programs at several other schools with strong programs. Based on examination of these programs and comparison to the OWU Environmental Studies program, we identified several elements that we thought could strengthen the OWU Environmental Studies curriculum. These elements centered on two general and related features:

- 1) more connections between theory and practice;
- 2) more solution-based learning.

We incorporated these ideas into the following idea for an ES capstone course:

-A two semester interdisciplinary capstone course. The first semester would be theoretical and focus on the theoretical tools to analyze environmental problems. The second semester would be solution-oriented and would center on a practical project.

Other key features of this capstone course are:

-The class would be interdisciplinary and would be taught by 2 faculty members from different disciplines.

-The practical-project component of the class would focus on a project that would improve the campus or local community. The project would build partnerships with local businesses, environmental groups, B&G, and other local people with practical knowledge relevant to the student projects. We could perhaps offer student labor assistance to businesses or organizations (a sort of student internship) in exchange for their technical help with practical aspects of the project. Advantages of such partnerships would include building greater ties between the university and the community, gaining greater knowledge of our local resources and the physical material and labor people on which/whom our own work depends, and learning practical skills from people with more practical experience.

-Projects could be related to and employ the skills from multiple possible disciplines. Examples include: Developing environmental education programs for local schools; working with Stratford to develop educational summer programs; weathering low-income homes; working with the city on green development; researching and/or political advocacy related to an environmental justice problem (perhaps with a local environmental justice group); developing gray-water recycling; investigating and writing grants for OWU environmental projects; environmental landscaping on campus; investigating the life-cycle of common campus products and make suggestions for more sustainable product use.

- We advocate for course-release time to allow faculty to develop these courses.
- II. Suggestions for promoting concern for sustainability throughout the campus.
- -Funds for faculty to develop a focus on sustainability in all or part of their classes (especially classes not currently part of the ES program). Funds could be used, for instance, for films, speakers, books, or conferences.
- -A "Practical Experience Requirement" for all students. Although not all practical projects would be directly related to environmental issues, the concern for practical and solution-oriented learning would be consistent with environmental values (e.g., awareness of the ethical effects of our activities, connection to our local communities) and would likely be interconnected with building a greener world.

Like the ES projects, these projects should involve partnerships with local businesses/activists/workers when possible, should connect academic learning with practical projects. Ideally, these should be more than mere internships with existing organizations but should be innovative and solution-oriented in ways that invoke leadership skills and that contribute to the well-being of the campus or local community.

III.Suggestion for a Green Institute.

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There are advantages to establishing an institute or center on campus to serve as a home our environmental-related projects; for instance, a Green Science Institute. This could provide a focus for various environmental-related courses and activities and could help attract funds from donors. It could offer a physical workspace for students and faculty to hold discussions, meetings, and workshops and provide a visible presence on campus that reflects our work in this area. A Green Institute could also be used in public relations as well as help to attract faculty and students.

We discussed the possibility of using Merrick Hall for this purpose. Advantages include: using the space for classrooms, workshops, and a "home" for environmentally-minded folks, reconstructing the building in environmentally efficient ways and using the construction as a learning experience, and using the building as a model of environmental efficiency.

Appendix 4: Report of the Immediate Actions Working Group – Submitted by John Krygier via greenowu.wordpress.com, edited by Laurie Anderson

Members: Gene Castelli, Jann Ichida, Steve Ishmael, Jim Krehbiel, John Krygier (Chair), Jack Stenger, Paula Travis

Working Group Charge: This group will focus on the charge in the Climate Commitment that requires us to choose two of seven types of immediate actions that we must implement while our major plan is in development in order to comply with the Commitment. This group will discuss which actions are most feasible and appropriate for our campus. In addition, this group will discuss actions we can take to "green" the campus regardless of whether we sign the President's Climate Commitment, and assign priorities to those actions.

<u>Feasibility of options for immediate actions to undertake upon signing the President's Climate Commitment:</u>

All signatories to the President's Climate Commitment are required to "initiate two or more of the following tangible actions to reduce greenhouse gases while the more comprehensive plan is being developed."

- a. Establish a policy that all new campus construction will be built to at least the U.S. Green Building Council's LEED Silver standard or equivalent.
- b. Adopt an energy-efficient appliance purchasing policy requiring purchase of ENERGY STAR certified products in all areas for which such ratings exist.
- c. Establish a policy of offsetting all greenhouse gas emissions generated by air travel paid for by our institution.
- d. Encourage use of and provide access to public transportation for all faculty, staff, students and visitors at our institution

- e. Within one year of signing this document, begin purchasing or producing at least 15% of our institution's electricity consumption from renewable sources.
- f. Establish a policy or a committee that supports climate and sustainability shareholder proposals at companies where our institution's endowment is invested.
- g. Participate in the Waste Minimization component of the national RecycleMania competition, and adopt 3 or more associated measures to reduce waste.

The following statements regarding each of these potential actions are extracted or paraphrased from John Krygier's blog at greenowu.wordpress.com. Please visit this very informative blog for further details on each of these options.

a. Establish a policy that all new campus construction will be built to at least the U.S. Green Building Council's LEED Silver standard or equivalent.

Meek Aquatics and Recreation Center: As part of the Remembering Mr. Rickey Campaign, OWU intends to construct an approximately 25,000 square foot indoor natatorium to be named the Meek Aquatics and Recreation Center utilizing a geothermal heating and cooling system. The natatorium includes a 25-yard, 10 lane pool with a diving well. The facility design calls for an interior glass wall for the mechanical room to showcase the geothermal aspects of the building which will be further highlighted by an informational kiosk. The introduction of geoexchange technology will provide the opportunity to examine operating and maintenance costs, energy efficiency and occupant comfort levels. Findings from the geothermal test wells found the building site is suitable with 90 wells to be installed at a depth of 240 feet. *OWU will be seeking LEED Silver certification for this facility*.

b. Adopt an energy-efficient appliance purchasing policy requiring purchase of ENERGY STAR certified products in all areas for which such ratings exist.

An impediment to adopting an Energy Star purchasing policy is determining who orders appliances on campus (the orders are placed by a diversity of offices). The additional cost of Energy Star appliances is also an impediment. Energy Star appliance purchasing could be an immediate action if an accurate inventory of appliance purchasers is compiled, if contractors supplying appliances on campus (washers/dryers and room refrigerators in residential halls) are required to supply Energy Star appliances, and funds for the additional costs of such appliances secured. Please see http://greenowu.wordpress.com/category/energy-star-appliances/ for further details on this potential action.

c. Establish a policy of offsetting all greenhouse gas emissions generated by air travel paid for by our institution.

To implement OWU-funded air travel (from where, to where) must be compiled. Information from the Emissions Working Group indicates that obtaining these data is not currently easy to do. However, this semester, in response to the inquiries from the Sustainability Task Force, the

Accounting office has instituted a new policy requiring air travel to be reported to a separate account number for the purpose of tracking emissions related to air travel.

d. Encourage use of and provide access to public transportation for all faculty, staff, students and visitors at our institution.

Because OWU is a residential college located in a smaller community with limited public transportation, fulfilling the President's Climate Commitment on public transportation is not as simple as providing bus passes to faculty staff and students. The bike sharing program outlined below is a one facet of a broader public transport program at OWU. Other ideas to investigate include:

- Biodiesel fueled campus shuttles (to reduce student driving on campus)
- Regional shuttles (cooperative project with Delaware Public Transport): regular shuttles between campus and Polaris, Easton, Columbus (OWU is promoted as being near a big city but access is very limited if a student does not have a car). Shuttles for faculty who live in Columbus and other northern suburbs, or ride sharing program.
- Rickshaws on campus: possibly more for PR: rickshaws on campus during selected hours; use for campus visitors and events; good exercise for students pulling rickshaws. Tie to bike sharing program?

The Bike Movement

The Bike Movement is a student initiative with the purpose of implementing a communal bike program. Once implemented, it will constitute a building force behind the greater theme of environmentalism. It has the potential to create real change at Ohio Wesleyan.

Our aim is to purchase 40 new Trek single-speed coaster brake cruiser bicycles and one tandem bicycle through Breakaway Cycling just off Sandusky. The price for each Trek cruiser bicycle is \$259.99. The tandem is \$649.99. We are buying aluminum frames so that the bikes will not rust. We will paint all the bikes a bright yet attractive yellow. The 40 bikes will come disassembled and Dan Negley, the owner of Breakaway Cycling, has agreed to train a few students how to properly assemble them (he has also given us factory price on the bikes). Public Safety has offered us Federal Work-Study positions so that students can get paid to assemble them. After the bicycles have been assembled, a student or two will be assigned to maintain the bikes, changing the flat tires, and any other minor problem under the Public Safety budget. Each bike will have a unique identifier (such as a number) so that we know if one is missing, has a flat to change later, etc.

For the operation of the program, students would be required to register for the program. This would involve taking an online bike and road safety course, somewhat similar to the set-up of AlcoholEdu. Additionally, to become a member of the communal bike program, a student would need to sign a waiver saying that she/he understood the terms of the program and was responsible for her/his well being while using the bicycle. The student would then be issued a standard key that would fit any of the locks of the bikes involved in this program (the key would be issued attached to a matching yellow wristlet so as to minimize the risk of losing it and

making it easily accessible). If a student loses his/her key, she/he will simply have to pay the cost of ordering a new key in order to become reinstated.

e. Within one year of signing this document, begin purchasing or producing at least 15% of our institution's electricity consumption from renewable sources.

Issues to investigate for this action include the potential for purchasing green power from current energy sources, collaboration with energy companies on solar, wind, or geothermal power initiatives, and campus solar energy projects proposed during the Sagan National Colloquium. Discussions in the Emissions Working Group suggest that there are currently limited options in Ohio for purchasing renewable energy from sources such as AEP, but these options may expand in the future.

f. Establish a policy or a committee that supports climate and sustainability shareholder proposals at companies where our institution's endowment is invested.

This issue needs more study on the costs and benefits of green investment.

g. Participate in the Waste Minimization component of the national RecycleMania competition, and adopt 3 or more associated measures to reduce waste.

Food waste reduction, recovery, and composting fits into the Waste Minimization category of the President's Climate Commitment. Given efforts already underway by Chartwells on campus, the existence of grant money to fund composting, and the potential for medium and long-term cost savings for the university, a focus on Food Waste seems to be a viable immediate action activity.

Overall goals of current efforts: Simplify the food waste stream

- Plastic and glass and some paper to recycling
- Redirect viable food for people, animals, industrial uses
- Remaining food waste, yard waste, and paper to composter
- Non-recyclable material to landfill

Challenges

- lack of composting facilities (changing)
- low Ohio disposal fees, thus cheaper to dump than to compost
- cost of self-composting (but **grants available**)

Current Food Waste Reduction at OWU

- Project Trim Trax: Tracking and reducing production and leftover waste at Smith POD
- Project Clean Plate: Tracking edible waste from students to lower waste and food costs
- Weekly food donations to Common Grounds Ministry
- STEP: Renewable Packaging for a sustainable future.
- recycle fryer oil

These efforts should be coordinated with an enhanced recycling program (Buildings & Grounds involvement needed)

Overall, the Immediate Actions Working group has found that

- four actions are viable immediately or within a short time-frame (waste reduction, public transportation, energy star appliances, and LEED or equivalent certification for new construction)
- three actions need more research (offsetting air travel, green investment, and purchasing renewable energy.

Thus it would be relatively easy for OWU to meet the immediate actions charge of the President's Climate Commitment.