

Environmental Stewardship Committee

Draft meeting notes

December 7, 2010

Present: Robert Shibley, chair; Mary Alice Coffroth, Graduate School; Beth Del Genio, Office of the Provost; Michael Dupre, University Facilities; Sam Guercio (for Tom Furlani), Information Technology; Carol Kobrin, Health Sciences; James Nadbrzuch, Student Affairs; Alan Rabideau, Undergraduate Education; Kenneth Tramposch, Research, and Jean Wactawski-Wende, Strategic Strengths.

Excused: Michael Alcazaren, Undergraduate Student Association; Massimo Betello, Graduate Student Association; Thomas Furlani, Information Technology; Erin Moscati, UB Green; Joseph Raab, University Facilities; Jim Simon, UB Green; Dan Vivian, Procurement Services;

Also present: Bradshaw Hovey, office of the Campus Architect; Paul Stephan, Student Association Environmental Department.

Review of Minutes. Notes from the November 2, 2010 meeting were circulated by e-mail. The notes were approved for posting on the ESC website.

Introductions. The committee welcomed Mary Alice Coffroth, Professor of Geology and Director of the Bachelor of Science in Environmental Geosciences. Professor Coffroth will be replacing Marilyn Morris on the committee and representing the Graduate School. This brings to a total of three the members of the committee who are mainly faculty-as-faculty, Shibley noted, providing new energy to the research and teaching components of climate action plan implementation.

Draft memo to the University Planning Board. Shibley re-presented a draft memorandum to the University Planning Board that explains the committee's approach to implementation of the UB climate action plan and provides a top-level one/three/five year plan for moving action items in the CAP. Approval of the memorandum by the planning board is crucial to establishing the CAP and implementation plan as university-wide policy and is a prerequisite to other policy changes including the ESC proposal to retain some utility savings for reinvestment in conservation and other climate action projects. Shibley proposed that the committee review the memorandum on a paragraph-by-paragraph basis, not as an English exercise but as a check for content.

- Perhaps the second sentence – “This will be accomplished through a combination of energy conservation, replacement of energy from carbon-based fuels with energy from renewable sources, and – as a last resort – through the purchase of carbon offsets – investments in conservation or renewable energy outside of UB.” – is too restrictive, Wactawski-Wende suggested. A broader array of actions should be highlighted as part of the overall effort.
- Mike Dupre noted that Renewable Energy Certificates (proof of purchase for wind, solar, and other forms of renewably-generated electricity – known as RECs) will be an important part of how we reach our goal of carbon neutrality. Conservation will only get us part of the way there and the anticipated increase in total building space will put upward pressure on demand even as we become more efficient.

- Ken Tramposch noted that the memorandum says that we have made a commitment and it will cost a lot. It doesn't account for what the benefits are for UB to pursue this goal. That should be included.
- Jim Nadbrzuch said he liked the fact that the memo emphasizes the costs to be borne but noted that one of the missing pieces is an acknowledgement of the role that cultural change must play in achieving the goal. Shibley agreed: we're not dancing around the cost issue any more.
- Jean Wactawski-Wende asked if energy is the only issue at hand in the CAP implementation. Shibley said the plan is broader than just energy. It includes other sustainability-related issues and the university's academic program. However, the climate/carbon challenge being what it is, the major focus remains on energy, specifically fossil-based fuels.
- Alan Rabideau asked what the intent behind the sentence is "if we spent enough money on renewables and offsets we could hit the target next year." It reflects the university's reluctance to invest in things that neither achieve real energy savings nor drive the emerging markets in renewable energy, Bradshaw Hovey explained. Offsets in particular are of uncertain value and might serve only to make us feel good about our progress and at a substantial cost. Rabideau suggested that the sentence might become less vague.
- Nadbrzuch noted that the issue of offsets highlights the choices we face between spending money and changing behavior and culture on campus. If we fail to do the latter, we will depend heavily on the former to reach our goal.
- Rabideau asked if there is a possibility that the next UB President will rethink our endorsement of the American College and University Presidents Climate Commitment. Shibley said there is and Beth Del Genio agreed. Then we ought to describe this as an opportunity to be embraced, Rabideau replied, rather than an albatross around our necks.

Dupre shared a graph depicting projected campus energy consumption and purchase of RECs. Our electricity consumption will increase over time, despite efforts to conserve, simply because the total volume of space to be heated, cooled, lit, and powered will continue to increase, especially in energy-intensive research buildings. By the year 2030, purchase of RECs to meet 100 percent of all electricity demand will cost UB \$4.7 million. Yet the total amount of energy saved through efficiency measures is already nearly that much. It is possible that the incremental cost of RECs can be offset by continued increases in efficiency. All of this should be considered in setting policy for the reinvestment of utility savings in efficiency measures. Meanwhile, grants over the next five years are mainly for demonstration scale projects for on-site or nearby generation (e.g. the NYPA wind on the water project).

- Expressed as an equation, then, Shibley suggested, the business case for investing in conservation is $A-C < B-D$ where A = current electricity purchases, B = future electricity purchases, C = current purchases of RECs, and D = future purchases of RECs. That is to say conserving energy while buying additional RECs is the road to cheapest acquisition of energy in an environment where the price of all kinds of energy is going up.
- Dupre said it is important in making the case to take credit for everything we have already done to save energy. Energy services contracts from the 1990s and 2000s reduced overall consumption by

15 percent on North Campus and 20 percent on South. We continue to enjoy those savings every year and should take credit for them. It will help us justify capturing utility savings to invest in the “high-hanging fruit” (projects with relatively longer pay-back periods), the low-hanging already having been “picked.”

- Del Genio said the memorandum, therefore, should include a short narrative on the issue of return on investment (ROI).
- Rabideau said he was troubled by the idea of making the business case on the basis of things we have already done. We should focus on what the ROI might be going forward. Senior leadership will be skeptical about giving weight to claims about past savings. Del Genio agreed: such claims will be scrutinized at the planning board or elsewhere. Shibley asked if it can be both/and past and current savings. Rabideau said we should certainly claim credit for past successes, but the strength of the argument is in the future.
- Dupre said he was willing in the past to make decisions about renewable energy purchases without seeking approval from more senior members of the leadership team. UB went from 6 percent renewables to 20 percent renewables on his say-so alone. Given the current budgetary climate, however, he would be uncomfortable doing the same to further increase the percentage of renewables in the UB portfolio.
- Maybe we shouldn’t use numbers – but only principles – in making the business case, Dupre suggested. Shibley countered that our credibility in making that case depends on being able to quantify what the savings are. We need to talk about costs and benefits. Isn’t that a number? Del Genio said we should beware of the scrutiny that such numbers will receive from the planning board. They are likely to be seen as speculative. Shibley said we might make the argument with reference to what is quantifiable but mostly expressed in concepts and principles.

The memorandum identifies five general areas in which savings can be made including:

1. Reduction of energy consumption in university buildings through investments in new technology and infrastructure;
 2. Conservation of energy through more efficient operation of buildings;
 3. Reduction in carbon emissions by reducing travel and by substituting renewable fuels for carbon-based fuels;
 4. Conservation of energy in computing through investments in energy-efficient technology, and;
 5. Reductions in energy use through the handling of all university materials, including purchase of more efficient equipment, re-use of furniture, equipment, and materials (because they hold embedded energy), and broader participation in recycling and the use of recycled products.
- Wactawski-Wende asked if the first item was intended to cover just investments in existing buildings or whether construction of brand new buildings was also implied. Shibley said the CAP and the campus plan both call for UB to target “Gold” LEED certification. We are reaching that target with the new engineering building, Greiner Hall, and the new Educational Opportunity Center. Perhaps there are “for examples” that will illustrate each of the five items. Del Genio said examples would make the points more concrete. Wactawski-Wende said the passage should be more explicit about including both new and old buildings.

- Rabideau suggested that the third item was confusing – combining a reference to travel with one about renewable energy sources. Hovey agreed. There should be one reference to travel reduction and renewable fuels and a second reference to renewable sources in regard to buildings. Mary Alice Coffroth proposed that “transportation” would be clearer than “travel.”
- Nadbrzuch noted that issues of outreach and communication and teaching and research – both addressing issues of culture change – had been left out of the list above. Hovey said this was an effort to distinguish between action items with a direct impact on carbon reduction and those with an indirect contribution to the climate action effort.
- Wactawski-Wende asked if the CAP takes into consideration activities that lead to the transformation of our carbon footprint – i.e. building construction – as well as the transformed buildings themselves. Workers on the job in Cary-Farber-Sherman seem oblivious to loss of heating or cooling. Do we count that? Shibley said parts of the LEED program do address construction impacts (where products come from, if they preserve embedded energy) but others have questioned the overall value of LEED and clearly some forms of energy consumption are not counted.

The memorandum also listed representative recent accomplishments made by various units of the university under the direction of various subcommittees of the ESC. Shibley asked if these are the right ones or if others are missing:

1. A current building energy efficiency program – known as NYPA II – will generate annual savings of about \$631K through new lighting and improved heating and cooling equipment in a wide range of buildings.
 2. Parking and Transportation have instituted a range of new programs, including a new ZipCar franchise, mall-market shuttle service, a holiday bus home, and car-pooling which have combined to reduce resident automobile ownership by about a third.
 3. The Center for Computational Research has replaced older servers with new, more powerful, more energy efficient servers generating an annual savings of about \$80K.
 4. The Environmental Geosciences major is up and running, a new environmental module for UB 101 has been offered, and a new green technology incubator has been established with a focus on renewable energy technology.
- What about including the Solar Strand? Rabideau asked. Shibley replied: let’s get a shovel in the ground before we take credit for that. It’s coming along but it’s not there yet.
 - How far back do we want to go? Dupre asked. As previously noted, many of our achievements go back one or two decades. But at some point this becomes “history” not current work. Maybe we could include a figure for recurring annual savings at the same time we cite new achievements, Hovey suggested.
 - There are no recent achievements for the materials committee. The campus forums on the CAP and other awareness building have been achievements for the outreach and communications committee. They should be mentioned, too.

- Perhaps there can be a clearer parallel construction between the committees, their accomplishments, and their action items, Shibley said.
- Under the current action items, parallel construction also needs to be completed. Action items for the Research, Teaching, and Service subcommittee are also missing, and Information Technology is not mentioned separately.
- Rabideau suggested that we portray Center for Computational Research as a major research tool campus wide at the forefront of computing sustainably.
- All of this material is attached to the matrix. There is also another matrix behind the summary that goes into more detail, Shibley said. But it's still not enough detail to describe the business plan for each action. Maybe we will get there someday.
- Rabideau asked if there is a web presence for the University Planning Board. Not yet. The new web page will be up after the first of the year as part of revamping of the campus planning web site under the Web Content Initiative project.
- Shibley said committee members should send corrections and additions on the matrix. Meanwhile, staff will produce a new draft of the memorandum for circulation and review so that we don't have to wait until the next meeting to conduct an additional iteration.

Reports and updates.

Research, teaching, and service committee. Rabideau reported that the committee has lost a few members and added some new ones. They will be meeting regularly on the last week of the month in preparation for reports at the regular ESC meeting. In other developments:

- A Discovery Seminar on climate has been established for the spring 2011 semester and will be co-taught by Jason Briner, Rabideau, and others. It will be offered every semester from now on – in part to balance out other Discovery Seminars "" that take a more skeptical approach to climate science.
- We are not effectively coordinating across departments on sustainability-oriented seminars. So, beginning in 2011, we intend to assemble and package these as a series.
- We ARE a Task Force on Sustainability in Higher Education, meeting one of the first action items through the recasting of the subcommittee itself. We will be reaching out to Management, Law, Social Work, and Architecture and Planning to expand our membership.
- Faculty members have been drawn to the committee by the opportunity to work together during a time of challenge. Enrollments in environmentally-oriented majors are up in a range of departments and programs but growth is occurring without additional resources. A "train wreck" is looming as enrollments swell. We will join together to make the case for continued investment and coordination among these programs.

- A proposal for a grant from the Environmental Protection Agency's P3 program (people, prosperity, planet) will be submitted to support a 2011-12 undergraduate project on campus renewable energy.
- The undergraduate major in Environmental Geosciences is now up and running, Coffroth reported. We have a nice web site and if there are items you would like linked from the site, please send them along.
- Shibley noted that one of the few things that trumps a business plan in the university is a strong academic plan. Efforts like that of the Sustainable Urban and Natural Environments in the Department of Architecture helps counter-balance the economic arguments that otherwise carry so much weight.
- Rabideau noted the renewed commitment to graduation rates and reduction in time to graduation is also an opportunity for programs in the environment. These programs draw committed students who typically make strong achievements.

Transportation committee. Jim Nadbrzuch reported that the committee had met recently and was working to elaborate the matrix. Some of the action items had been moved into the current year column. Some items had been moved to the five year and beyond column. Some items have been added. They are also establishing sub-groups to look at satellite lots, van pooling, and tracking air travel.

Nadbrzuch also noted the recent announcement – premature as it was – of a new Metro Rail pass agreement between the NFTA and UB. If final agreement can be reached, it will be a pilot program to run through August 2012. It will offer up to 3,000 passes for students, 300 for faculty and staff, and 100 day passes for travel on the light rail line between Downtown and South Campus for people who live within three-quarters of a mile of the Metro Rail. There are issues to be worked out both with NFTA and with employee unions through Human Resources. In any event, we can expect this experiment to have an impact on future negotiations with NFTA, positive or negative, depending on how it goes.

New business. Discussions about “the business case” and “return on investment,” Shibley suggested, beg some questions about how the work of the Environmental Stewardship Committee intersects with the broader process of resource allocation across the university. The structure of the ESC as an institutionally cross-cutting body both challenges and is limited by the prevailing process of goal-setting and budgeting on a unit by unit basis. At some point, either the work of the ESC calls for some kind of restructuring of how budgets are made and managed, or it risks failure because of an inability to influence that same process. How do we make stewardship cut across the institution at the same time individual units retain the flexibility to carry out their core mission? If at one moment we aspire to create an “all funds budget” do we not at the next moment find budgetary authority being retracted into the “silos”?

- It's not just a matter of budgets, Nadbrzuch offered. It's also about how university policy gets made and carried out.
- Rabideau noted that it also affects academic programming. Some programs cut across departments and even schools. We hope that it is still possible to get support for such programs – especially since they maximize institutional resources.

- Deans, Shibley suggested, can already sit down and work out such deals. The issue is more worrisome for the various vice presidents. One should appreciate how complicated their portfolios have become and how much has been carved out as a result of austerity budgets.
- University Facilities is the only place where climate action is anything close to being part of the core mission. Across the rest of the university the climate action mission needs to be woven into the rest of the flow of work.
- We don't expect to find a solution today, Shibley added. And the memo to the planning board may not make it through the first time around. But it is part of the process of addressing these structural and procedural issues with senior leadership.
- Resources are key to the whole effort, Nadbrzuch said. The next few years will be challenging because resources will be in short supply. We have suggested a policy for reinvesting utility savings in the climate action effort, but we haven't seen much movement on that. Transportation systems are expensive. Alternative fuels are too – triple the cost for alt-fuel buses. There are labor-management issues everywhere. And we have an unusual system in that it is paid for on the backs of students.
- As we move forward, Shibley said, we should remember that getting good at anything means picking some of the most important things to do and concentrating our efforts.