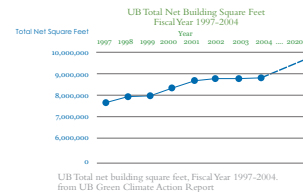


# Environmental Stewardship

## The Campus Plan & Climate Neutrality

On March 6, 2007, UB President John B. Simpson signed the American College & University Presidents Climate Commitment (ACUPCC). The signing of the Commitment signaled **UB leadership's recognition of the seriousness of global climate change and demonstrated an institutional commitment to helping lead the way towards interdisciplinary solutions.** The ACUPCC obliges UB to develop a plan within two years to achieve climate neutrality as soon as possible. **Climate neutrality** is defined as "...having no net greenhouse gas (GHG) emissions, to be achieved by minimizing GHG emissions as much as possible, and using carbon offsets or other measures to mitigate the remaining emissions."



### Growth Requires Energy

Between 1997 and 2004, 897,191 gross square feet of new building space were added to the University at Buffalo. Each building requires electricity and natural gas—both major sources of UB's greenhouse gas emissions.

**UB 2020 is projecting University population and program growth that may require upwards of 3,000,000 additional gross square feet.**

How can we reconcile UB's dual goals of building growth and climate neutrality?

### What can the Campus Plan do to help UB achieve this goal?



#### What is the Issue?

- UB's annual average greenhouse gas emissions are equivalent to the emissions produced from over 25,000 cars! Almost 75% of UB's greenhouse gas emissions are from purchased electricity and natural gas use for heating.

#### What is UB already doing?

- Currently six percent of UB's electricity purchases are now environmentally sustainable, primarily from wind power.

#### How can the Campus Plan help?

- Utilize data produced by the Facility Condition Assessment to recommend the strategic retrofitting of buildings that are not performing efficiently.
- Consider cogeneration, thermal storage and renewable energy sources to reduce purchased electricity, and to visibly demonstrate UB's commitment to reducing its carbon footprint.



- Each new UB building requires electricity and natural gas—both major sources of UB's greenhouse gas emissions.

- UB adheres to and strives to do better than state mandates that require all new buildings be LEED Silver or higher. In 2002, Creekside Village Apartments on the North Campus became the first LEED certified building at UB.
- In 2004, UB produced its High Performance Building Guidelines, stating unequivocally its commitment to sustainable building design, construction and renovation for all future projects.

- Growth strategies will stipulate fundamentally sustainable planning principles in terms of building orientation, massing, and siting.



- Campus transportation is the second largest source of greenhouse gas emissions at UB.

- This fall, UB created "Bicycling UB," a program that offers incentives and amenities to encourage bicycle use.
- UB has partnered with GBNRTC to create a regional transportation advisory group to explore opportunities for expanded mass transit.

- Provide alternatives to single-passenger vehicle travel by maximizing and optimizing transit options to all campuses.
- Develop a transportation plan that creatively manages and accommodates future parking and traffic demands while reducing their environmental impacts.



- UB must remain committed to playing a leadership role in developing environmentally sustainable solutions to achieve its goal of climate neutrality, and to inspire other local and comparable institutions do the same.

- In 2006, UB was named one of the top ten College and University Green Power Partners by the U.S. Environmental Protection Agency.
- In 2007, UB President Simpson signed the American College & University Presidents Climate Commitment (ACUPCC).

- The Campus Plan will offer both big ideas and practical solutions to support and demonstrate UB's leadership as stewards of the environment.



- Landscape is among the most demonstrable forms of sustainability, it can illustrate the means by which energy is produced, re-used, recycled; the medium in which ecology and society merge. Landscape is the most telling of what a place is or is not doing to help the environment.

- For over a decade UB has allocated space for natural regeneration. Reducing their maintenance carbon footprint and allowing soils and plants to sequester carbon, provide habitat and forage, and reduce storm water volumes.

- The Plan will help to better illustrate UB's cutting edge involvement in green energy production, energy demand reduction, and ecological awareness.
- Smart open spaces, reforestation, and revitalized outdoor venues from quads to lakes will be emblematic of the new UB.

### Sustainable Transportation Alternatives

The UB Green Climate Action Report provides a rough estimate that UB students, faculty and staff commuted a total of more than 79 million miles annually between FY 1997-2004.

**An expanded public transit system in the Buffalo-Niagara region would provide an attractive alternative to single-passenger vehicle commuting.** The Greater Buffalo Niagara Regional Transportation Council's (GBNRTC) Draft 2030 Long Range Plan calls for two "High Quality Transit Improvements" connecting Buffalo to its northern suburbs. The "Amherst Corridor" would extend transit service from the UB South Campus to North Campus and the Crosspointe business park in central Amherst. The second expansion would run north from Main Street towards the city of Tonawanda. These expansions could be in the form of light rail expansion, bus rapid transit, or express bus service.

Is this far-reaching vision attainable? **Some of UB's peer institutions have witnessed—and participated in—regional transit planning that connected public university campuses to existing or new transit networks.** Here are some examples.

- Edmonton, Alberta** Light Rail Transit (LRT): A planned expansion was approved by 69% of the community. It will connect all three **University of Alberta** campuses to each other and to downtown Edmonton. Almost 20% of the capital costs were funded through gasoline taxes.
- Salt Lake City, Utah** "TRAX" Light Rail: The light rail system includes a dedicated "University Line" with seven stations. 17% of total ridership is comprised of **University of Utah** students, faculty, and staff; 33% of University commuters use public transit.
- Seattle-Tacoma, Washington** Sound Transit Light Rail: Three light rail extensions are underway. The main line will connect downtown Seattle to the **University of Washington** and to Sea-Tac Airport. A second line will connect the University to the northern suburbs. The project is funded through federal grants and a 0.5% sales tax increase.
- Sacramento-Davis, California** Metropolitan Transportation Plan (MTP): The 28-year transportation plan calls for a four-pronged light rail extension to be implemented between 2010 and 2025. One extension will connect **The University of California at Davis** to the regional transit network. A 0.5% sales tax will pay for all regional transportation projects, including highways, local roads, and transit.



An elevated TRAX station in Salt Lake City



4.3 mile extension from current University of Washington campus