THE OREGON MODEL FOR SUSTAINABLE DEVELOPMENT

Adopted July 2011
Campus Planning and Real Estate - July 18, 2011

The following four Campus Plan amendments replace the UO Sustainable Development Plan. All references to the UO Sustainable Development Plan in the Campus Plan will be omitted.

1. *Replace the policy refinement text that refers to the Sustainable Development Plan under Campus Plan Policy 10: Sustainable Development (p. 49) with the following:*

The Oregon Model for Sustainable Development

The University of Oregon Model for Sustainable Development will address the unique aspects of campus buildings and landscapes by focusing on what matters most:

ENERGY, WATER, AND PEOPLE

All development projects—new buildings, major remodels, and associated landscapes that are subject to State Energy Efficiency Design (SEED) Type 1 requirements—shall adhere to the university's *Oregon Model for Sustainable Development.*

This Model intentionally focuses on new development projects. It is one of many strategies the university must implement to achieve its overall sustainability goals. The policy is designed to have a planning cycle of ten years and should be reevaluated no later than the ten years after adoption.

GOALS FOR NEW DEVELOPMENT:

ENERGY: The University of Oregon will cap the total campus energy use from new development projects. This goal will be achieved by taking a systematic campus-wide (as opposed to building-by-building) approach. New development projects will be required to achieve a state-of-the-art energy performance level—an Advanced Energy Threshold. Also, energy-savings measures will be implemented in existing facilities to offset the resulting energy needs generated by the new projects. This will result in a **net zero increase in campus energy use from new development.**

WATER: The University of Oregon will **improve the quality of campus stormwater** emitted into the region's waterways campus-wide by focusing on areas that contribute the most to the degradation of water quality—campus streets and parking lots. New development projects will be required to treat the equivalent amount of stormwater runoff as required by city code; however, some of the area treated will be shifted outside the project site to address campus areas with relatively low water quality—streets and parking lots.

PEOPLE: The University of Oregon will ensure **sustained energy conservation habits.** New development projects will be required to develop a plan and implement educational/training opportunities about the building and/or landscape with a goal of sustaining a shift in occupant behavior.

In addition, all new development projects must achieve Leadership in Energy and Environmental Design (LEED) Gold certification.

ENERGY GOAL: Net Zero Increase in Campus Energy Use from New Development

Advanced Energy Threshold (AET)

All new development projects must fund and meet the Advanced Energy Threshold (AET), which is defined as 35% more efficient than the Oregon Energy Code requirements (compared to the SEED requirement of 20% more efficient).*

The AET will ramp up to a higher standard over time as recommended by a small council of knowledgeable individuals led by Campus Planning and Real Estate.

Projects are encouraged to use an integrative design process to achieve and go beyond the required AET and study ways to achieve net zero energy use for the building. Projects that are an additional 5% better than the AET do not have to pay their share (10%) of the cost to implement energy savings measures in existing buildings. Additionally, if a project goes beyond the AET plus 5%, it may apply for funds from the Central Energy Fund (refer to the section below for more information about the Central Energy Fund). Allocation of funds would be determined on a case-by-case basis. These options are designed to provide an added incentive to pursue excellence in energy efficiency design.

**A project is not restricted by SEED program rules once it has met the 20% SEED requirement.*

Energy-saving Mitigation Measures in Existing Buildings

Energy-savings measures will be implemented in existing facilities to offset the resulting purchased energy needs generated by the new development project. This will achieve a net zero increase in campus energy use from new development.

Funding will be shared by new development projects (10%) and the Central Energy Fund (90%).

Central Energy Fund: Individual projects are not responsible for coordinating and implementing required energy conservation measures in existing buildings. The project will deposit its share of the funding (10%) into the Central Energy Fund, which will be funded and administered centrally. The amount owed by the project will be determined by establishing an average cost to implement energy conservation measures campus-wide ($ per mmbtu or one million British Thermal Units). Campus Operations will manage the fund and appropriately implement measures needed to mitigate new energy use from new development projects. Over time, the Central Energy Fund will be funded through energy savings. During the ten year cycle of this policy (in particular in its early years) it is expected that the fund will create an energy savings "bank," from which auxiliaries can borrow (see below).

Auxiliary Projects: The strength of this policy resides in the campus-wide (versus siloed) approach. Auxiliaries will benefit from, and be a part of, the shared goal of a net zero increase in campus energy use from new development. However, funding and management structures must be accommodated. Auxiliaries are self-funded and pay their utility bills directly; therefore, new auxiliary development projects will achieve a net zero increase in campus energy use by fully funding and implementing conservation projects within their own facilities (i.e., Student Affairs, Athletics, etc) unless it is not possible due to an unreasonable* cost. If the cost is unreasonable,* the Central Energy Fund (central funds) will use some of its "banked" energy savings or pay to implement measures in non-auxiliary facilities to achieve net zero energy use. The auxiliary will incur an energy "debt" equal to the amount of energy saved through the Central Energy Fund measures. If future building projects within the auxiliary result in energy savings (e.g., a building demolition or remodel), the energy savings will go towards "paying" back its energy "debt."

**The cost to implement energy conservation measures in auxiliary facilities is deemed unreasonable if it has a simple payback period that exceeds ten years.*

WATER GOAL: Improved Quality of Stormwater

All new development projects will **treat stormwater run-off** from a portion of an existing street or parking area instead of treating the equivalent amount of relatively clean on-site, impervious surfaces, primarily defined as pedestrian surfaces such as sidewalks (especially those that do not drain directly into a stormwater pipe). The same amount of impervious surface will be treated, but the dirtier surfaces will receive greater attention.

For example, if a project site has 1,000 square feet of sidewalks that must be treated, the project would not be required to treat this area; instead, it would be required to fund 1,000 square feet of stormwater treatment for an existing campus street or parking lot.

The cost to treat existing streets and parking areas will be determined by establishing an average cost/square foot. The project is not responsible for implementing the off-site stormwater measures. Funds will be deposited into a central fund earmarked for stormwater treatment measures. Campus Operations will manage the fund and appropriately implementat measures needed to equal the required stormwater treatment from new development projects.

Projects should be designed to accommodate the potential to treat all of their stormwater in the future.

This goal will require coordination with the city (and in some cases may preclude implementation of this policy).

PEOPLE GOAL: Sustained Campus Habits

All new development projects will **fund educational/training opportunities** about the building and/or landscape with a goal of shifting occupant behavior to support energy use and other goals. Opportunities will consist of the following:

- **Training sessions and distribution of informational materials** designed for faculty and staff occupying the new building (and possibly the building receiving energy conservation upgrades) as well as building operations staff during the first two years of occupancy. Training may be in the form of a class or research project.

- An **electronic dashboard program** that provides real time energy use and other **permanent, integrated educational elements**, such as an informational kiosk or a series of plaques, highlighting key sustainable building and landscape strategies with a focus on behavior.

It is expected that implementation of the educational/training components will cost a minimum of $35,000 (about $10,000 for the training and distribution of materials and $25,000 for the permanent features). Smaller buildings, or low occupancy buildings, however, may require a smaller investment. .

Projects are not responsible for implementing the training sessions and distributing informational materials. Funds (estimated to be about $10,000) will be deposited into a central fund as directed by administration. Central administration will manage the fund and coordinate implementation. A project has the option to manage its funds and coordinate its own training sessions and distribution of informational materials as long as the activities meet the desired outcomes stated above.

LEED GOAL: Gold Certification

All new development projects must achieve LEED Gold certification.

Additional Related *Campus Plan* Amendments

2. *Add the following to the policy refinement text under Policy 10: Sustainable Development (p. 49):*

   Also refer to the following related policies:
   - Policy 2: Open-space Framework, in particular policy refinements addressing plant materials and the Campus Tree Plan
   - Policy 9: Transportation and related patterns

3. *Add the following patterns to the Pattern Summary under Policy 10: Sustainable Development:*
   - Materials and Operations
   - Pedestrian Pathways
   - Peripheral Parking
   - Quality of Light
   - Road Crossings
   - Campus Tree Plan Patterns: Environmental Mitigation, Healthy and Vital Tree Canopy, Long-lived Tree Sites, Site Specific Conditions, Tree Replacement Strategies

4. *Add the following to the policy refinement text addressing plant materials under Policy 2: Open-space Framework (pg 29 & 30):*

   - Select and position landscape materials to aid in achieving energy efficiency. Take advantage of trees to reduce cooling loads and use hedgerows or shrubbery to help channel cool summer breezes into the building. [*from SDP Site Benefits, Pg 7*]
   - Protect wetlands, wildlife habitats, and watersheds to the greatest extent possible.
   - Consider how the landscaped areas are linked to one another and create natural corridors for plants and birds. Integrate bird food sources and shelter. Tie these corridors in with the established open-space framework. [*from SDP Healthy Ecosystems, Pg 7 & 8*]
   - Use native or well-adapted species for landscaping when appropriate while recognizing the importance of a variety of plant materials necessary for instructional use. [*from SDP Healthy Ecosystems, Pg 7 & 8*]
   - Maintain an Integrated Pest Management approach, which carefully considers plant selection and design and minimizes use of herbicides, pesticides, fertilizers, and irrigation. [*from SDP Healthy Ecosystems, Pg 7 & 8*]
   - Work to preserve the integrity of the site, in particular trees, significant plant materials, and topsoil. First consider development on previously disturbed areas. [*from SDP Healthy Ecosystems, Pg 7 & 8*]

[End proposed *Campus Plan* text amendments]