

Portland Community College Sustainability Achievements

June 2017



Left: Willow Creek Center earned a LEED Platinum rating due in part to its proximity to mass transit.

Right: The historic 1911 German American Society building was renovated for use as the offices for Southeast Campus administration and Community Education.

OVERVIEW

Thanks to the 2008 voter-approved bond measure, Portland Community College is increasing classroom space, updating equipment and technology, expanding workforce training, renovating aging buildings and constructing new energy-efficient buildings. A leading feature of this \$374 million capital improvement program is the college's commitment to sustainability and its Climate Action Plan. This plan includes a 50 percent reduction in energy use per square foot, a target PCC has already surpassed by 15 percent.

The Bond Program has also ensured that all new and renovated buildings achieve a minimum certification of LEED Silver; to date PCC has received multiple Platinum, Gold and Silver ratings. One of its Platinum awards is Newberg Center, the first net-zero, carbon-neutral higher education building in Oregon and the second in the United States.

PCC also promotes sustainability by restoring historic structures, such as the Willamette Building for the Downtown Center and the iconic 1911 German American Society building at Southeast Campus. In turn, this fosters development and a sense of community.

Outside its buildings, the Bond Program has undertaken several projects to protect environmentally sensitive areas, including constructing a new stormwater detention pond at Sylvania Campus and restoring wetlands at Rock Creek Campus.

Solar Projects at Portland Community College:

Rock Creek Campus

- 2,100-panel, 500-kWh solar array is one of the largest ground-mounted arrays in the Portland metro area
- Produces an average of 571,000 kilowatt hours (kWh) a year and projected to save \$1.5 million in campus energy costs over the next 25 years

Willow Creek Center

- 106-kWh rooftop solar array produces an average of 131,000 kWh a year

Newberg Center

- 75-kWh rooftop array and 25-kWh bi-facial panels currently produce more than 107,000 kWh a year

Other features at PCC campuses that promote energy-efficiency and sustainability include:

Exposed concrete slab construction and concrete shear walls that act as thermal mass to help maintain even indoor temperatures

Automated lighting controls to minimize electric light use

Natural ventilation and cooling, including operable windows, skylights and light shelves, window shades and ceiling fans, plus louvers that exchange air through roof stack ventilation turbines

Radiant hydronic heating and cooling systems that pump water through overhead or in-floor panels

Heat recovery ventilators that warm outside air by capturing heat from the building's interior common spaces when the outside temperature is below 55 degrees

Highly insulated walls and roofs that, with the above listed features, contribute to significantly less energy consumption than comparable buildings

Updates to many of the older HVAC and electrical systems to reduce energy usage

Rainwater harvesting systems that direct rainwater to toilets

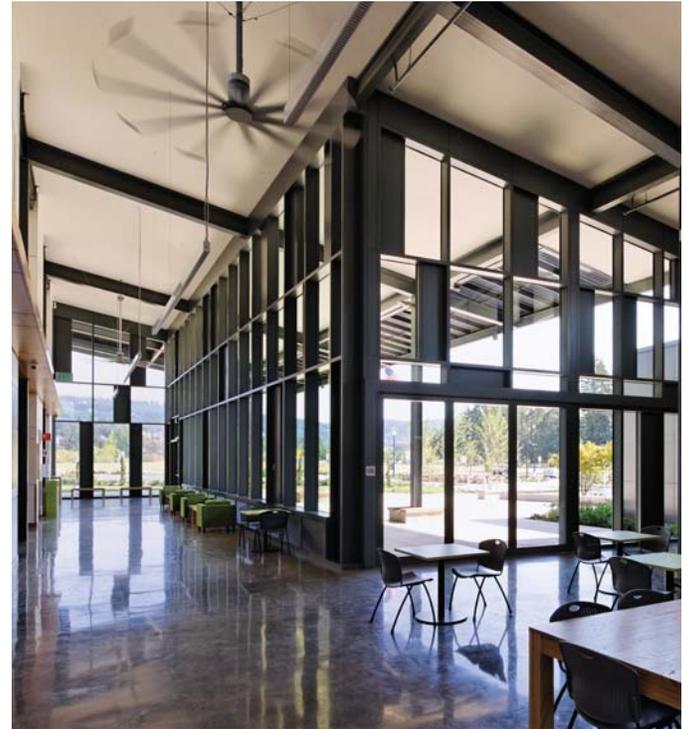
Lower energy-consumption dehumidification system to transfer heat from Sylvania Campus' pool area to the water, thereby reducing the strain on the boiler system

Reusing or repurposing older furniture; new furniture certified by **Forest Stewardship Council**

New equipment certified by **Energy Star**



Farm animals from PCC's vet tech program help "maintain" Rock Creek Campus' solar array site.



Ceiling fans and window blinds regulate temperature at Newberg Center, two of the features that should help the building reach its net-zero goal.

PCC is as committed to building livable communities as it is to building sustainable facilities. Conscientious land use efforts include:

Developing sites near mass transit

Proximity to mass public lowers single-passenger auto use and creates a sense of community. PCC Willow Creek adjoins TriMet's Willow Creek Transit Center with its MAX Light Rail service, while the purchase of the college's Downtown Center was greatly influenced by its strategic location near many modes of transit.

Conserving space and promoting neighborhood cohesiveness

At Cascade Campus, an underground parking facility was constructed below Cascade Hall, the new academic building, and Student Union.

Incorporating commercial space in new buildings

Willow Creek Center and the new Southeast Campus Student Commons and Library include ground-floor retail tenants, which help catalyze healthy community development in the surrounding neighborhood and business district.

CONTACT INFORMATION

For more information on the PCC Bond Program
Visit bond.pcc.edu or call the Helpline at (971) 722-8454