OREGON'S FIRST GEOTHERMAL COMBINED HEAT AND POWER PLANT DEDICATION

Kristina Hakanson Maupin and John W. Lund, Oregon Institute of Technology
Photographs by Kristina Hakanson Maupin

Oregon Institute of Technology (OIT) dedicated its new geothermal electric generation project in a ceremony on April 20, 2010. The event was followed by tours of the power plant located on the southeast corner of the campus adjacent to the existing geothermal wells.

This "small" power plant is the first geothermal combined heat and power plant in Oregon, and the only geothermal electric plant currently operating in the state. It is also the first geothermal power plant in the world to operate on a campus from a resource directly underfoot. It has a maximum installed capacity of 280 kilowatts gross power utilizing existing geothermal wells on the campus.

The emcee for the event was John W. Lund, Professor Emeritus and Director of the Geo-Heat Center who outlined the geothermal development on campus from 1959 to present. Other speakers at the event were: Oregon State Representative Bill Garrard; Bob Simonton, Assistant Vice Chancellor for Capital Programs, Oregon University System; and Peter West, Director of Energy Programs for Energy Trust of Oregon. Mr. West presented a check for $487,000 from the Energy Trust of Oregon to help cover the cost of the geothermal plant. Funding support was also provided by the Oregon University System, Oregon Department of Energy and a "Blue Sky" grant from Pacific Power. The Klamath Union High School Jazz Band performed before and after the event.

Dave Ebsen, OIT Director of Facilities along with staff members, Scott Keiffer and Don Depuy, were instrumental in insuring that the plant was operational in time for the dedication.

The OIT campus has been entirely heated with geothermal energy since the early 1960s, saving approximately $1,000,000 per year in heating costs. These wells produce 600 gallons per minute (38 liters per second) of 192 to 196˚F (89 to 91˚C) water. After the geothermal water passes through the power plant and 15 to 20˚F (8 to 11˚C) is extracted, the water is then used to heat campus buildings before it is injected into wells on the lower part of campus. The power plant produces net electricity from 150 to 200 kW, depending upon the season, which is either used on campus or fed into the Pacific Power grid.

A second "big" geothermal power plant is planned, too. The 1.0 to 1.2 megawatt proposed project will utilized a 5,300-foot (1,600-meter) deep well drill on campus in 2009. The big project is expected to be complete in 2012.

John Lund, Director of the Geo-Heat Center

Bill Garrard, Oregon State Representative

Bob Simonton, Assistant Vice Chancellor, Oregon University System

Right: Presentation of the check from Energy Trust of Oregon. From left to right: Peter West, OIT President Chris Maples, John Lund, OIT Interim Vice President for Finance and Administration Mary Ann Zemke, OIT Geo-Heat Center Assistant Director Toni Boyd, OIT Director of Facilities Dave Ebsen, and Bob Simonton.

The power plant inside the building.

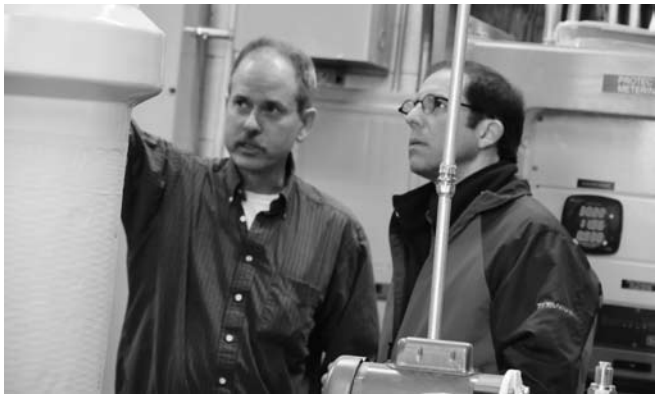
Klamath Union High School Jazz Band led by Drew Langley.

John Lund describing plant operation to Bob Simonton, with State Senator Doug Whistett and Brian Brown in the background.

The power plant building with cooling tower.

Toni Boyd conversing with a visitor about the power plant.

Dave Ebsen discussing the power plant operation with Brian Brown.



Scott Keiffer describing the plant operation with Peter West.

Don Depuy conversing with Mike Ronzello about the power plant.

Pratt & Whitney representative Mike Ronzello.

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