Pacific Northwest NATIONAL LABORATORY

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Fact Sheet

Biological Sciences Facility and Computational Sciences Facility

Two facilities recently dedicated at Pacific Northwest National Laboratory will enable discoveries in biological, computational and subsurface science as well as developments in bio-energy, carbon sequestration and homeland security. The $77-million **Biological Sciences Facility** and **Computational Sciences Facility** represent the first new buildings on PNNL's campus since 1997. Combined, the two facilities house about 300 staff who support PNNL's research in biological systems science and data-intensive computing for the Department of Energy, the Department of Homeland Security, the National Institutes of Health and others.

The BSF and CSF are partially replacing laboratory and office space PNNL has been using on the south end of the nearby Hanford Site. That space must be vacated by 2011 to make way for the federal government's environmental cleanup activities at Hanford. The Cowperwood Company, a real estate development firm headquartered in New York City, privately financed the new buildings and is leasing them to Battelle, which operates PNNL for DOE.

BIOLOGICAL SCIENCES FACILITY

In the 72,000-square-foot BSF, scientists focus on gaining a fundamental understanding of biological systems that are needed to more effectively use micro-organisms for renewable bioenergy and carbon sequestration; prevent contaminants from moving through groundwater; and improve systems-level understanding of how low-dose radiation and other factors affect human health. The BSF houses state-of-the-art analytical equipment and powerful computing capabilities that enable scientists to combine experimental and computational approaches. For example, scientists are studying communities of microbes in hopes of predicting their behavior and then manipulating them to produce a valuable product or process such as renewable bioenergy.

COMPUTATIONAL SCIENCES FACILITY

In the CSF, a 73,000-square-foot facility, scientists develop solutions for the growing challenge of data overload - common to the scientific and national security communities. For example, a single scientific experiment can produce a terabyte of data - too much for a person to interpret. Intelligence analysts face similar challenges collecting and processing real-time data streams - from video to audio to text - they must analyze to better predict and detect threats PNNL researchers are leaders in the development of data-intensive computing solutions - a way to capture, manage, analyze and help users understand massive amounts of data using innovative computing hardware and software technologies The CSF includes 10,000 square feet of raised floor space to accommodate data-intensive and high-performance computing hardware and data storage solutions.

The two facilities are connected by a two-story transparent atrium that provides shared common spaces that allow researchers from both facilities to collaborate and share research ideas. The buildings have been designed to follow sustainable building practices.

For more information, contact

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ABOUT PNNL

Pacific Northwest National Laboratory is a Department of Energy Office of Science national laboratory where interdisciplinary teams advance science and technology and deliver solutions to America's most intractable problems in energy, national security and the environment. PNNL employs 4,650 staff and has been managed by Ohio-based Battelle since the lab's inception in 1965.

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