NWRTC
Northwest Regional Technology Center
@PNNL

Pacific Northwest
NATIONAL LABORATORY

OPPORTUNITIES

Events current at time of publication. Have a virtual resource or event to share? Email us!

- March 10–12 – Critical Infrastructure Protection & Resilience North America
- April 13–16 – Preparedness Summit
- May 12–14 – Critical Minerals and Materials Science Summit
- May 11–12 – SMR and Advanced Reactor 2026
- July 19–23 – Pacific NorthWest Economic Region 2026 Annual Summit
- August 10–13 – National Homeland Security Conference
- August 12–14 – Fire-Rescue International 2026
- October 24–27 – International Association of Chiefs of Police Annual Conference and Exposition

CONTACT

Want to know more? Visit us at pnnl.gov/projects/nwrtc. Contact the NWRTC with questions and comments at nwrtc@pnnl.gov.

AROUND THE REGION IN HOMELAND SECURITY

The Northwest Regional Technology Center (NWRTC) is a virtual resource center, operated by Pacific Northwest National Laboratory (PNNL), that supports regional preparedness, resilience, response, and recovery. The center enables homeland security solutions for emergency responder communities and federal, state, and local stakeholders in the Northwest.

PNNL POWERS BIOTECHNOLOGY, GRID OPERATIONS, NUCLEAR SCIENCE THROUGH GENESIS AI FOR SCIENCE MISSION

PNNL has joined collaborators across the nation to develop and deploy artificial intelligence to vastly accelerate the speed of discovery for science, energy, and national security. The Genesis Mission, led by the Department of Energy (DOE) for the nation, brings together all 17 DOE national laboratories in a race to harness AI for national priorities. As a multi-disciplinary laboratory with a workforce addressing many types of scientific questions, PNNL brings a valued and unique wide-angle lens to the Genesis AI landscape.

For example, PNNL will bring its expertise in AI and electric grid modernization to the Genesis Mission. The U.S. power grid is the backbone of the nation's economic engine, and its sheer complexity makes it an almost perfect test case for taking advantage of the power of AI to provide just-in-time data and analysis. As a key component of the Genesis Mission, a grid-focused multi-lab endeavor is among the most closely tied to boots-on-the-ground commercial operators.

Today, grid operators rely on firsthand experience and limited data to make operational decisions. The proposed national AI platform for energy systems operators is designed to evolve continuously, learn securely, and support operators in real time with adaptive, reliable intelligence. The massive endeavor is led by the National Laboratory of the Rockies, with Argonne National Laboratory and Oak Ridge National Laboratory serving as co-leads, and support from six additional laboratories including PNNL as a core technical contributor.

To learn more, see the PNNL news release.

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MAPPING THE FUTURE OF DATA CENTERS

A new Data Center Atlas offers free access to data center location and infrastructure data once limited to proprietary datasets, allowing users to explore and project a nationwide map of facilities and the systems that power them. The public tool offers detailed, downloadable information about the national distribution of data centers and projections of new data center locations.
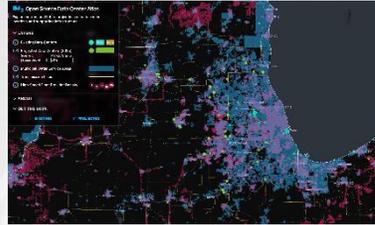
The Data Center Atlas is available to the public at https://im3.pnnl.gov/datacenter-atlas. Users can explore current data center locations, infrastructure overlays, and growth projections or download the full dataset for further analysis.

See the PNNL article to learn more.

PANEL ADDRESSES FENTANYL THREAT

Hosted by New York Congressman Josh Riley, the recent "Fighting Fentanyl: Saving Lives and Keeping Our Communities Safe" roundtable event focused on combating the opioid epidemic. PNNL's Kabrena Rodda was an invited participant in the panel "Working with Law Enforcement: Fentanyl Interdiction and Federal Policy Responses," which included local police departments, addiction and public health officials, and representatives from national laboratories.

"The impact of fentanyl and other synthetic opioids touches us all," said Rodda. "Achieving success against it will require establishing actionable, proactive drug surveillance that can detect and stop the flow of new analogs before they hit our communities. To do that, we'll need a collaborative effort from everyone, working together to share the information we have with public health authorities, and we need to empower them with the data exploitation tools necessary to make it actionable."

Researchers at PNNL have decades of experience conducting experiments and analysis on biological threats, as well as chemical and nuclear forensics, to support responses to a variety of emerging threats. For example, PNNL scientists created a contactless system to detect fentanyl and other harmful substances and have established new laboratory standards and assessments for field-portable detection products.

To learn more, see the PNNL staff accomplishment.

MICROGRID TESTBED FOR MARITIME, COASTAL ENERGY TECHNOLOGIES

A new microgrid testbed for energy technology development and testing is now online at the PNNL-Sequim campus. The testbed infrastructure streamlines the lengthy process for in-water testing of new marine energy and ocean technologies—potentially saving developers months and thousands of dollars per project—and by enabling research on the use of microgrids to support maritime businesses and coastal energy resilience.

The testbed also brings together multiple research efforts and projects funded by different state and federal agencies into an interconnected system. The system enables real-world performance evaluations of new energy technologies and how these technologies interact on a controlled microgrid.

See the PNNL article to learn more.

For more information, contact Director Ann Lesperance (ann.lesperance@pnnl.gov | (206) 528-3223) or Deputy Director Rachel Bartholomew (rachel.bartholomew@pnnl.gov | (509) 371-6906) or visit pnnl.gov/projects/nwrtc.

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