

FORGING THE FUTURE

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News

See how we were featured in the [news](#), and read our [press releases](#).

Staff Accomplishments

[Nick Barilo](#)

Received Annual Merit Award from the DOE Hydrogen and Fuel

Renewable Fuel Options, Fish Tags, and Energy Forecasts: A Few of R&D Magazine's Favorite Things



R&D Magazine announced their finalists for the 2015 R&D 100 Awards, and three of them are from PNNL's Energy and Environment Directorate. From renewable fuel options, to injectable tags for tracking fish, and a new system that forecasts energy... [read more](#).

Electricity Infrastructure



[Perfecting Power Predictions](#)

Accurately forecasting future electricity needs is tricky, with sudden weather changes and other variables impacting projections minute by minute. A new forecasting tool delivers up to... [read more](#).

Cells Program.

Alison Colotelo

Selected for PNNL's Fitzner-Eberhardt Award.

Dave Conover

Elected to the ASHRAE Technology Council.

Dan Gaspar & Evgueni Polikarpov

Edited a new book on the energy-efficient lighting technology known as OLED.

Yuri Hovanski

Received Individual Distinguished Achievement Award from the DOE Vehicle Technologies Office.

Dawn Wellman

Appointed to the Hanford Advisory Board.

Major Shift in Building Codes

The most significant change in performance-based energy code compliance to happen in more than 25 years was approved by the ASHRAE Standard 90.1 committee. Now with fixed and independent baselines... [read more.](#)

Pathways to Technology Success

With support from several DOE-EERE offices, including the Fuel Cell Technologies Office (FCTO), PNNL tracks technologies that enter the market. FCTO just released another annual report that identified more than... [read more.](#)

Fixing Flicker and the Headaches that Follow

Flickering lights can be a huge distraction. Consumers don't want to trade efficiency for such lighting downfalls, especially when it has a potential impact on their health. A new standard strives to address these concerns by... [read more.](#)

Data Aggregation Protects Privacy, Enables Efficiency

The Better Buildings Energy Data Accelerator program is using the results of a 2014 PNNL study to help local governments engage utilities in sharing energy-efficiency data in multi-tenant buildings, while preserving privacy for... [read more.](#)

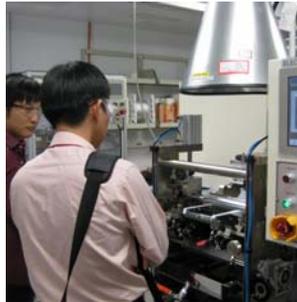
Yield Revealed: Field-to-Fuel Assessment

A first-of-its kind study includes detailed data from a comprehensive analysis,

Regional Smart Grid Project Wraps Up

Intelligent energy technologies - such as smart meters, innovative batteries, and voltage controls - can improve energy efficiency and reduce power costs, according to final results from... [read more.](#)

Energy Efficiency and Renewable Energy



Unique Battery Facility Now Open for Business

In many ways, better batteries drive better technology. To further advancements in battery research, PNNL now provides a unique battery manufacturing and testing facility... [read more.](#)

Small Business Voucher Pilot Program

Starting this fall, PNNL will participate in a new pilot program established by DOE-EERE that will help small clean energy businesses move their innovative ideas to the marketplace. The program seeks to... [read more.](#)

Yeast Raises the Biomass Bar

Yeast - the same ingredient used to make bread - is the single cell microorganism that powers the biomass industry. A PNNL researcher is working to create a guide for biomass manufacturers that... [read more.](#)

life-cycle assessment, and process development parameters for converting biomass feedstocks to upgraded biofuels. The study provides... [read more](#).

Environmental Health and Remediation



Under Pressure

While many of us feel that we work in a high-pressure environment, it is now a physical reality for researchers embarking on work in a new hyperbaric research facility. Six customized reactors simulate the pressure of deep ocean environments up to two kilometers in depth - the equivalent of 22 football fields. The information gathered will serve as a baseline for understanding the buoyancy and transport of oil released during... [read more](#).

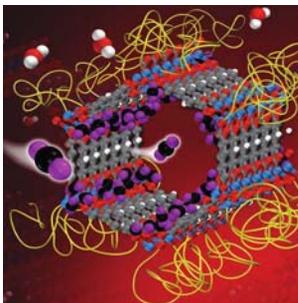
Tank Farm Data Rises from Ashes for Public Viewing

An addition to the PNNL-Hanford Online Environmental Information Exchange web application has been launched - PHOENIX Tanks. The new application provides transparent data, both current and historical, relevant to... [read more](#).

Seismic Safety Assured for Facilities at Hanford

Publication of the Hanford Sitewide Probabilistic Seismic Hazard Analysis represented the first step in a process to reassess the seismic safety of facilities on the Hanford Site and to establish design requirements for... [read more](#).

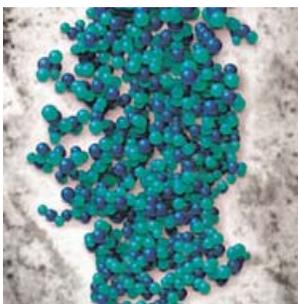
Clean Fossil Energy



Metal-Organic Frameworks Advanced for Industry

With high surface areas, thermal stability, and the ability to adjust pore size, metal-organic frameworks (MOFs) offer great promise for a variety of applications, including gas separation, gas storage, sensing, imaging, proton conduction, drug delivery, and catalysis. Despite their potential, one limitation with MOFs is their high affinity to absorb water. Researchers at PNNL have been leading a study on the modification of MOFs to... [read more](#).

Nuclear



Surrogate Material Studied for Nuclear Operations

Understanding the behavior of fuels and cladding materials during the operation of nuclear reactors is crucial to improving the economics and safety of nuclear power. But studying irradiated uranium dioxide, or urania, is extremely challenging and hazardous. Due to these barriers, there is an increasing interest in using a surrogate, called ceria, to complement post-irradiation examination of nuclear fuel. However, the differences between... [read more](#).

Next Generation of Nuclear Reactors

The future of nuclear reactors was discussed at the PNNL-hosted Nuclear Energy Advanced Reactor Technology Instrumentation & Control Program Review. The next generation of reactors are expected to be first deployed in... [read more](#).

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