

THE Core SAMPLE

Internal Newsletter of the School of Energy Resources

March | 2023

UW SER TO HOST ACADEMIC WORKSHOP TO PROMOTE NUCLEAR-RELATED RESEARCH OPPORTUNITIES

R E N E W

Research Explorations for Nuclear Energy in Wyoming
Academic Workshop

“Research Explorations for Nuclear Energy in Wyoming” (RENEW) is the topic of a free academic workshop from the Nuclear Energy Research Center (NERC) in the University of Wyoming’s School of Energy Resources (SER) Thursday and Friday, April 13-14.

The conference, sponsored by SER and the Rocky Mountain Power Foundation, takes place in the UW Conference Center at the Hilton Garden Inn from 8 a.m.-5 p.m. April 14. A networking reception is scheduled 6-8 p.m. April 13 in the SER Energy Innovation Center.

Led by NERC co-Directors **Tara Righetti** and **Caleb Hill**, the event will bring together experts in advanced nuclear energy topics from federal agencies, national labs and higher education institutions with the aim of facilitating discussions on emerging research needs, partnership opportunities, challenges and best practices in nuclear research, and resources available to researchers.

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BLACK HILLS CORP. VICE PRESIDENT SPEAKS AT UW MARCH 20

Marne Jones, vice president of electric utilities at Black Hills Corp., discussed Wyoming’s energy future from a utility’s perspective from noon-1 p.m. Monday, March 20, in the Energy Innovation Center’s Encana Auditorium at the University of Wyoming.

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HIGHLIGHTS

Research Centers of Excellence

- Research Scientist Selena Gerace in the *Center for Economic Geology Research (CEGR)* and *Center for Energy Regulation and Policy Analysis (CERPA)* was interviewed by *Wyoming Public Media* to discuss her work on a summary of survey results examining the feelings of Wyoming's citizens about different types of energy.



[Listen Here >](#)

- *CEGR* Research Scientist **Charles Nye** will be speaking at the 2023 CPNR Water Symposium in Thermopolis on April 10.



[Register Here >](#)

- The *Hydrogen Energy Research Center (H₂ERC)* recently hired **Dayana Zhappassova** as an assistant research scientist specializing in energy economics. Full profile in next issue!



- *H₂ERC* Director **Eugene Holubnyak** was featured in an interviewed in the *Journal of Petroleum Technology*. [Read Here >](#)



To submit news and updates email: Christine.reed@uwoy.edu



School of Energy Resources

SER'S YING YU PUBLISHED ARTICLE ON WETTABILITY VARIATION AND ITS IMPACT ON CO₂ STORAGE CAPACITY AS PART OF THE WYOMING CARBONSAFE PROJECT

UW School of Energy Resources (SER) Research Scientist **Ying Yu** in the Center for Economic Geology Research (CEGR) recently published an article in *Fuel*, a prominent research and technology journal and leading source for fuel science.

The article entitled, “Wettability variation and its impact on CO₂ storage capacity at the Wyoming CarbonSAFE storage hub: An experimental approach,” examines the wettability behavior in selected target storage formations to determine if it would affect the formation’s carbon dioxide (CO₂) storage capacity.



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UW'S NATION LABORATORY DAY TO FEATURE MULTIPLE SER SPEAKERS AND RESEARCH PROJECTS

The University of Wyoming is co-hosting a National Lab Day in conjunction with the U.S. Department of Energy (DOE). The event will be held April 12-13, 2023, and was created for participants to learn about and explore opportunities for partnerships with DOE national laboratories.

The event will introduce the national labs with panel discussions on topics, such as energy, environmental science and computing.



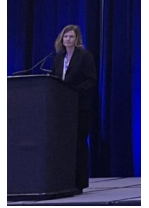
Researchers in the School of Energy Resources (SER) will lead multiple breakout sessions featured on the agenda covering areas of expertise and active projects.

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HIGHLIGHTS

Research Cont.

- **CEGR** Program Manager **Erin Phillips** was a featured speaker at the *Innovations in Climate Resilience Conference* hosted by Battelle. CEGR Research Scientist **Lily Jackson** attended as well.



- Principal Investigators and students in the **Center for Carbon Capture and Conversion (CCCC)** presented their work at the Carbon Energy Innovation Summit honoring **Richard Horner**.

- **Phil Chrisopherson**, CEO of Energy Capital Economic Development in Gillette, Wyo. dedicated the high bay of the Wyoming Innovation Center in honor of **Richard Horner**.



- The **Center for Air Quality (CAQ)** is part of a proposal that has been selected for award negotiations from the Department of Energy (DOE) to conduct research accurately depicting methane emissions and greenhouse gases emitted from oil and gas supply chains in Wyoming and Colorado basins.

- **Cowboy Clean Fuels, LLC** announced that technology developed in the **Biogenic Natural Gas Research Center** will be scaled up to a commercial-scale project launch in the Powder River Basin (“PRB”) of Wyoming since the company recently completed Series A financing to advance renewable natural gas commercialization plan.

UW STUDENT WORKS TO ADVANCE HYDROGEN FEASIBILITY WITH SER AND WILLIAMS

A feasibility study led by energy infrastructure company Williams — in conjunction with the University of Wyoming's School of Energy Resources (SER) — is advancing with the help of a UW undergraduate student.

In 2021, Williams received a nearly \$1 million grant from the Wyoming Energy Authority (WEA)

to complete a feasibility study to evaluate water access, compatibility and asset integrity in support of green or blue hydrogen. Additionally, Williams pledged \$500,000 over five years to support a new center at SER dedicated to applied hydrogen research and to grow a hydrogen industry in Wyoming.

As part of the study, UW student **Jacob Schneider**, of Cincinnati, Ohio, created a modeling story map to help Williams identify the best site for the possible location of a hydrogen electrolysis plant.



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SER RESEARCHERS PRESENT ON ENVIRONMENTAL JUSTICE TOPICS RELATED TO EMERGING CRITICAL MINERAL INDUSTRIES

The School of Energy Resources (SER) was represented by three researchers at the National Environmental Justice Conference (NEJC) & Training Program in Washington D.C. that was held March 7-9.



NEJC is a Non-Profit

Organization that brings together community members, academia, the private sector and state and local officials, as well as federal and state government representatives to examine the state of environmental justice and share best practices.

SER Project Manager **Erin Phillips** in the Center for Economic Geology Research (CEGR) was accompanied at the event by **Selena Gerace** and **Maddie Lewis**, both research scientists in the Center for Energy Regulation and Policy Analysis (CERPA) and CEGR. The trio facilitated a workshop related to the environmental justice (EJ) challenges and opportunities associated with developing critical mineral industries in the United States.

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HIGHLIGHTS

Academics

- Professor **Tara Righetti** traveled to Oslo, Norway to attend a meeting of the technical committee for revision of the ISO standard on geologic storage.



- Ph.D. student **Sophie Stuart** under the supervision of Professor **John Kaszuba**, will be the featured speaker in front of the Wold Foundation on April 17. She will address her work on REE and critical minerals associated with PRB coal.



- **Isaac Mantenelli**, will present his M.S. master thesis defense in Friday, April 14. He is in the Kaszuba Research Group.

General Announcements



- Energy Resources Council member **Rep. Don Burkhart** wrote and op-ed piece in *Cowboy State Daily* emphasizing Wyoming's leadership with solutions reducing CO₂ emissions while diversifying our energy capabilities.

[Read Here >](#)

SER'S RIGHETTI SELECTED TO SERVE ON WHITE HOUSE CEQ TASK FORCE



SER Professor of Law and Occidental Chair in Energy and Environmental Policies, **Tara Righetti**, is one of seven representatives selected from Wyoming to serve on the White House Council on Environmental Quality (CEQ) task forces. In their capacities, they will provide recommendations to the Federal government on how to ensure that CCUS projects, including carbon dioxide pipelines, are permitted in an efficient manner, reflect the input and needs of a wide range of stakeholders, and deliver benefits rather than harms to local communities.

A recognized leader for her contributions to the field of CCUS policy and governance, both domestically and abroad, Righetti will serve on the *Carbon Dioxide Capture, Utilization, and Sequestration Federal Lands and Outer Continental Shelf Permitting Task Force*, alongside **Lily R. Barkau**, Wyoming Department of Environmental Quality; **Eric Bingham**, Sweetwater County Land Use Director, Green River Wyoming; **Affie Ellis**, Senator, State of Wyoming; and **Matthew J. Fry**, Great Plains Institute.

Rusty Bell, from the Office of Economic Transformation in Gillette, Wyoming and **Rep. Scott D. Heiner** will serve on the *Carbon Dioxide Capture, Utilization and Sequestration Non-Federal Lands Permitting Task Force*.

[Read More >>>](#)

VISIT IDAHO NATIONAL LAB!

Lab visit will take place
Wednesday,
Aug 16, 8:00 AM -
Friday, August 25 6:00 PM

REGISTRATION DEADLINE:
April 10, 2023 by 8 AM

Faculty & Staff

AUGUST 2023 IDAHO NATIONAL LABORATORY (INL) TREK

Collaborate with INL on your research or course material! Idaho National Laboratory houses an exceptional array of scientific expertise, equipment and vision to help shape extraordinary new technologies into practical, everyday uses. Though we are diverse in our research, all our missions call for us to advance human knowledge to make a safer, cleaner world with a higher standard of living for everyone.

During this trek, we will drive to Idaho Falls, Idaho to attend an initial reception with INL representatives and tours on the following day. This is an exceptional opportunity to experience the world class facilities INL houses, learn about their operations, and build valuable contacts!

Where: Idaho Falls, Idaho (INL)
TIME: Wednesday, Aug 16, 8:00 AM - Friday, August 25 6:00 PM
Survey Due April 10th by 8 AM

TO REGISTER FOR THIS TREK COMPLETE THE SURVEY USING THE QR CODE

REGISTER NOW!

For more information and/or questions email: tgrabner@uwyo.edu

IMPORTANT DATES

- Distinguished Speaker Series - Doug Wicks (Department of Energy Waste to Energy)
April 10, 2023
- Energy Vault Student Competition Presentations and Awards
April 11, 2023
- UW National Lab Day
April 12-13, 2023
- RENEW Academic Workshop
April 13-14, 2023
- AAPG CCUS Conference - Houston & Alumni Event
April 24-27, 2023
- Rocky Mountain Professional Landman Conference
May 5, 2023
- SER Graduation Reception
May 13, 2023
- SER Spring Commencement Ceremony
May 13, 2023

SER BIRTHDAYS!

MARCH

- Maddie Lewis, March 3
- Tara Righetti, March 3
- Marie Dudgeon, March 17
- Christine Reed, March 31

PLEASE SHARE CURRENT OPEN POSITIONS AT SER:
RESEARCH ADMIN ASSISTANT >
GEOPHYSICIST RESEARCH SCIENTIST, SENIOR >

