

November | 2023

SCHOOL OF ENERGY RESOURCES STUDENTS THRIVE IN INDUSTRY INTERNSHIP PROGRAMS

Students in the School of Energy Resources (SER) Energy Resource Management and Development (ERMD) program have seen a substantial uptick in mentorship and professional experiences through industry internship programs.

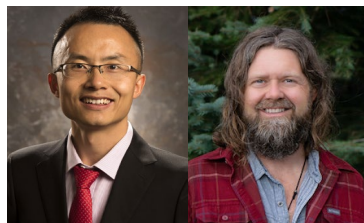
During the summer of 2023, many students in both the Professional Land Management (PLM) and Energy and Environmental Systems (EES) concentrations benefited from industry-led internships to gain valuable hands-on experience and forge important relationships with professionals in the energy field.

Internships are vital for growth, development and workforce success to students and employers alike. They allow students to put the knowledge and competencies learned in college into practice, while providing companies with the ability to train and test potential new hires for critical skills.

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UW NUCLEAR ENERGY RESEARCH CENTER SELECTS FACULTY SCHOLARS

The Nuclear Energy Research Center (NERC) at the University of Wyoming has selected faculty members **Xiang Zhang** and **Wes Eaton** to receive funding under the Faculty Scholars Program.



The program, supported by a grant from the Nuclear Regulatory Commission's (NRC) University Nuclear Leadership Program and funds from the Wyoming Legislature, focuses on developing new areas of nuclear-focused research and supporting junior faculty advancement.

Selected through a competitive proposal process, Zhang and Eaton were recognized for their efforts in expanding nuclear-related research in the respective disciplines — and their potential to make important contributions to Wyoming and to the development of a robust community of researchers and students working in nuclear energy on campus. [Continue Reading >>>](#)

HIGHLIGHTS

Research Centers of Excellence

- SER adjunct faculty member **Erica Belmont** and research faculty affiliate with the **Center for Carbon Capture and Conversion (CCCC)** was featured in a spotlight with Carbon Direct for her work and research on combustion and pyrolysis.
- **Center for Economic Geology Research (CEGR)** Director **Fred McLaughlin** and Research Scientist **Madeleine Lewis** participated in a Federal Pore Space Workshop hosted by SER Professor of Law **Tara Righetti**. The workshop brought together representatives from different federal agencies to discuss guidance on how to value grants of rights of pore space for geologic sequestration.
- **CEGR** Program Manager **John Jiao** and Research Scientist **Ying Yu** presented at the American Institute of Chemical Engineers (AIChE) Annual Conference in Orlando, Fla. on results and findings from a recent publication, "A Case Study from Wyoming the Dry Fork Station CarbonSAFE Project: The Effects of Wettability Variations on CO₂ Storage Capacity Assessment."



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UW SELECTED TO LEAD FOURTH CARBONSAFE PROJECT IN SOUTH-CENTRAL WYOMING

The U.S. Department of Energy (DOE) has selected the University of Wyoming School of Energy Resources (SER) to lead a fourth major carbon capture and storage project under the Office of Fossil Energy and Carbon Management's Carbon Storage Assurance Facility Enterprise (CarbonSAFE) Initiative.



The planned \$11.2 million Williams Echo Springs CarbonSAFE project aims to conduct a storage complex feasibility study to develop a saline carbon dioxide (CO₂) storage hub for current and future industries in the Echo Springs area of south-central Wyoming.

To be conducted in collaboration with midstream natural gas company Williams, the two-year study plans to permit and drill a deep stratigraphic test well and interpret the resulting data, models and documents for further site development.

Expected outcomes from the study include confirming which of the six stacked formations at Echo Springs can safely, securely and economically store at least 50 million metric tons of CO₂ indefinitely. The project also seeks to leverage a viable CO₂ source and the existing pipeline transportation infrastructure in the region to prove its imminent viability. [Continue Reading >>>](#)

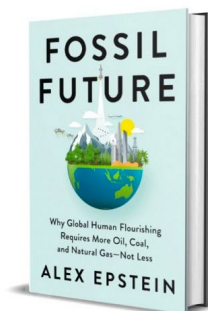
BESTSELLING AUTHOR ALEX EPSTEIN SPEAKS AT UW NOV. 30

The University of Wyoming School of Energy Resources (SER) and the College of Engineering and Physical Sciences hosted New York Times bestselling author **Alex Epstein** for a public presentation and book signing Thursday, Nov. 30, in the Engineering Education and Research Building atrium.

A prominent advocate of fossil fuels, Epstein is the author of "The Moral Case for Fossil Fuels" and "Fossil Future: Why Global Human Flourishing Requires More Oil, Coal and Natural Gas — Not Less." He makes the case that fossil fuels are needed for developing nations to achieve cost-effective energy.

A philosopher and energy theorist, Epstein regularly speaks in favor of expanding fossil fuels. He attended Duke University where, for two years, he was editor and publisher of The Duke Review. He has since testified before Congress on a number of occasions and is the founder and CEO of the Center for Industrial Progress, a for-profit think tank.

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HIGHLIGHTS

Research Cont.

- **CEGR** Research Scientist **Selena Gerace** helped to facilitate interactive, public workshops Nov. 17-18 in collaboration with the Haub School of Environment and Natural Resources. The meetings were meant to solicit input regarding the BLM's Rock Springs Resource Management Plan. Additionally, she has been involved in task-force meetings that will develop recommendations to be delivered to Governor Gordon and the BLM in January.
- **Nuclear Energy Research Center (NERC)** co-director **Tara Righetti** moderated a panel, "Nuclear Energy in 2023: Where We Are and What's Ahead," hosted by the Environmental Law Institute (ELI).
- **Center for Energy Regulation and Policy Analysis (CERPA)** Director **Kara Fornstrom** participated in a panel discussion hosted by the Committee on Earth Resources (CER) about the "Collaborative Development of Subsurface Pore Space in Multi-Use Basins."

Academics

- SER Professors **Tara Righetti** and **Kris Koski** wrote an Amici Curiae in support of the respondent in an oil & gas lease dispute case before the Colorado Supreme Court, *Board of County Commissioners of Boulder County, Colorado, Petitioner v. Crestone Peak Resources Operating LLC, Respondent*. The opinion issued by the court agreed with the Amici Curiae and arguments set forth by the respondent and can be [read here >](#)

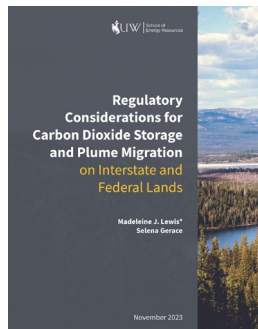


CERPA RELEASES PAPER ON CARBON DIOXIDE STORAGE AND PLUME MIGRATION ON FEDERAL LANDS AND ACROSS STATE LINES

The Center for Energy Regulation and Policy Analysis (CERPA) in the School of Energy Resources (SER) released a resource paper exploring challenges posed by carbon dioxide (CO₂) plume migration when permanently store in the subsurface.

Entitled, Regulatory Considerations for Carbon Dioxide Storage and Plume Migration on Interstate and Federal Lands, the paper identifies and analyzes the scope of legal and regulatory concerns arising from the potential for interstate CO₂ storage by looking at the current regulation and permitting structures in Wyoming's neighboring states as well as the challenges posed on federal lands.

Led by CERPA Associate Research Scientist **Madeleine Lewis**, the paper adapts portions of her previously published article, "The Space Between Us: Transboundary Challenges of Geologic Carbon Storage in Interstate and Federal Pore Space," and expands upon it for a Wyoming-centric analysis with co-author and fellow SER research scientist, **Selena Gerace**. [Continue Reading >>>](#)



GREATER GREEN RIVER BASIN AND WIND RIVER BASIN CORE-CM PROJECT HOSTS SECOND ANNUAL FORUM

The School of Energy Resources (SER), along with project partner Colorado Northwestern Community College (CNCC), hosted the second annual forum for the Carbon Ore, Rare Earth, and Critical Mineral (CORE-CM) project in the Greater Green River Basin and Wind River Basin (GGRB-WRB).



The event was held at CNCC's Craig, Colo. campus, as well as online.

With over 60 people in attendance, the day-long forum provided updates and overviews of the varying tasks on the project, as well some featured keynote presentations and an open discussion session to plan for future phases of the project.

The GGRB is a geologically unique basin that predominantly lies in southwest Wyoming and northern Colorado. Rich in hydrocarbons, the basin has been a focal point of development for the oil and gas, trona, and coal industries.

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HIGHLIGHTS

Academics Cont.

- SER Professor of Law and Occidental Professor of Energy and Environmental Policies **Tara Righetti** spoke at Louisiana State University as the Liscow Distinguished Lecturer, presenting to law students on her work on UIC well classifications.
- SER Professor of Law **Tara Righetti** presented on the "Pathways to Decarbonizing the Extractives Sector" panel at the International Bar Association annual meeting in Paris, France.



Outreach

- SER Executive Director **Holly Krutka** attended the Western Governors' Association (WGA) winter meeting Nov. 6-8 in Jackson Hole, Wyoming. Dr. Krutka provided an update on the research activities at SER as well as the ongoing projects and tenant updates at the Wyoming Integrated Test Center.



- U.S. Sen. **John Barrasso**, R-Wyo., ranking member of the Senate Committee on Energy and Natural Resources, mentioned UW research when he gave remarks at a full committee hearing examining opportunities and challenges in deploying CCUS and DAC technologies on federal and nonfederal lands. [READ TRANSCRIPT >](#)



TYLER BROWN JOINS CENTER FOR ECONOMIC GEOLOGY RESEARCH

The School of Energy Resources (SER) is pleased to welcome **Tyler Brown** to the research team in the Center for Economic Geology Research (CEGR).

A structural geologist and geochemist, Brown brings extensive experience in data analysis and lab management in support of the research efforts led by SER.

Originally from Tuscon, Ariz., Brown earned his undergraduate degree from Northern Arizona University in Geology and Geophysics. He then migrated to Wyoming where he earned his Ph.D. in Geology from the University of Wyoming. Throughout his education, he also gained practical industry experience through internships with Marathon Oil Corporation, ConocoPhillips, as well as with the United States Geological Survey.

In his new role as a research professional, he will be primarily working with the critical mineral and rare earth element team to conduct the resource assessment for the Carbon Ore, Rare Earth and Critical Mineral (CORE-CM) project in the Powder River Basin. He will also be contributing to a mine-scale modeling project as well as supporting the team with upcoming funding opportunities.

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KIMMIE TAKAKI RETURNS TO SCHOOL OF ENERGY RESOURCES AS EXECUTIVE BUSINESS MANAGER

The School of Energy Resources (SER) is pleased to announce the return of **YeonShim Kimberly (Kimmie) Takaki** to the financial team as an executive business manager.

Takaki has extensive experience as a seasoned accountant with a proven track record of increasing end-to-end accounting and financial transparency. Her reputation for excellence in accounting and finance procedures, as well as in budget management and grant administration make her an asset to the financial team.

In her new position, Takaki manages the finances for the recently acquired Wyoming Integrated Test Center, and oversees the extensive budget and project portfolio for SER's Center for Carbon Capture and Conversion (CCCC).

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MARYAM LAKJAA JOINS SCHOOL OF ENERGY RESOURCES TO ADVANCE MOWRY PROJECT

The School of Energy Resources (SER) is pleased to welcome **Maryam Lakjaa** as a Research Professional in the Center for Economic Geology Research (CEGR).

With expertise in data analytics, financial modelling, economics, Artificial Intelligence (AI), and reservoir engineering, Lakjaa will be working to support the Mowry Project — an SER-led effort to access vast, unconventional oil and gas resources locked away in a tight geological formation in the Powder River Basin.

A native of Meknes, Morocco, Lakjaa has an extensive, diverse, and distinguished educational background. By combining and applying her knowledge, Lakjaa hopes she can help unlock the potential of the tight shale reservoir to support energy-driven economic development in Wyoming.

In addition to her notable interests, Lakjaa is also fluent in multiple languages including French, Arabic, and English.

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ALI REZA ZANJANIJAM JOINS CENTER FOR CARBON CAPTURE AND CONVERSION

The Center for Carbon Capture and Conversion (CCCC) in the School of Energy Resources (SER) is pleased to welcome **Ali Reza Zanjanijam** to the research team.

A new research professional, Zanjanijam specializes in polymer engineering and will be working to advance coal-to-product developments in polymer materials.

Originally from Zanzan, Iran, Zanjanijam earned his Ph.D. in Polymer Engineering from Iran Polymer and Petrochemical Institute. He then worked as a postdoctoral researcher at the Athlone Institute of Technology in Ireland where he continued working on polymer composite materials. He came to the University of Wyoming in 2022 as a postdoctoral research associate in the College of Engineering and Physical Sciences. Working in the Chemical Engineering Department, he began experimenting on projects utilizing coal as a reinforcement in polymer materials in collaboration with faculty members affiliated with the CCCC.

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ENERGY RESOURCES COUNCIL CHAIRMAN CINDY CRANE APPOINTED CEO OF PACIFICORP

Chairman Cindy Crane of the Energy Resources Council (ERC) at the School of Energy Resources (SER) was recently appointed as the new CEO of PacifiCorp.

Crane takes the helm of the company with over 30 years of experience in the electric power industry.

In her returned role at PacifiCorp, she leads one of the region's largest electric utilities to provide reliable and affordable service to PacifiCorp customers across six western states and meet the challenges of today's changing operating, regulatory and economic landscape.

Crane's dedication to public service has extended far beyond her own career and has been an asset in guiding the energy-related activities at UW. Through her prowess, she contributes a unique business perspective on the diverse research and workforce demands of both Wyoming's private and public energy sectors as a member of the ERC.

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NORBERT LONGSWORTH JOINS FINANCIAL TEAM AT SCHOOL OF ENERGY RESOURCES

The School of Resources (SER) is pleased to welcome **Norbert Longworth** to the financial team.

Joining SER in September as a grant accountant, Longworth is working on all grant-related financial matters and cost-share activities under the supervision of SER Grants Manager, Cindy Ishkanian. The team manages over \$30 million of external funding for SER's robust research portfolio.

Hailing from Brooklyn, N.Y., Longworth earned his Bachelor's degree in accounting from Miles College, and recently completed his Master of Business Administration from the University of Alabama at Birmingham. He has previously worked in accounting positions at the University of Alabama, Friends of Caroline Hospice, and Miles College.

His prior positions combined with his education have equipped him with excellent analytical skills, and fluency in providing pre-award and post-award support.

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IMPORTANT DATES

- **Last Day of Classes**
December 8, 2023
- **SER Holiday Gathering**
December 13, 2023
- **Fall 2023 Commencement Ceremony**
December 16, 2023
- **Holiday and Winter Closure**
December 25 - January 2, 2023

SER BIRTHDAYS!

NOVEMBER

Fred McLaughlin, Nov. 9

Kara Fornstrom, Nov. 16

Scott Quillinan, Nov. 17

Ying Yu, Nov. 28

Reminder: If you want your birthday recognized, please update your information with Kristi Russow at krussow@uwyo.edu.

ENERGY JOKE

Applied for a job extracting coal but they said I didn't have the right experience. Never mined.

