

DECEMBER  
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UNIVERSITY  
OF WYOMING

School of  
Energy Resources

**QUARTERLY  
NEWSLETTER**

Vol. 1, Issue 1

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## LETTER FROM THE EXECUTIVE DIRECTOR

To the SER community,

What a year. Given the challenges, I am exceptionally proud of what the School of Energy Resources team has accomplished. I am grateful to be part of a team that pours their hearts into their work, zoom call after zoom call, to deliver for our students and the beautiful state of Wyoming.

The staff and faculty involved with SER's academic program have demonstrated enthusiasm and dedication during a year like no other (hopefully). While moving quickly to online classes in the spring semester was a challenge, our faculty didn't miss a beat. With the spring experience, in the fall semester most of SER's classes were administered online with success. Our students have adjusted and are continuing to strive toward their educational goals. SER also completed an academic strategic review that demonstrated a strong foundation on which we build – as well as specific, new unique academic opportunities that are now being pursued.

As you can see, SER has upped its game in outreach with the hire of Christine Reed. Under Ms. Reed's leadership, SER is increasingly connected to our stakeholders. SER is launching this external newsletter so we can keep in touch with our collaborators across the state and beyond and we welcome your feedback on this first edition.

The SER research program continues to be strong, although some areas are experiencing COVID-related schedule delays. Select highlights include commencement of the CarbonSAFE Phase III program, led by the Center for Economic Geology Research. This flagship project is critical to developing a robust carbon capture, use and storage industry in Wyoming. The Center for Energy Regulation and Policy Analysis is moving forward with federally-funded new hires while simultaneously providing real time support to Wyoming officials and the Wyoming Energy Authority. The Center for Carbon Capture and Conversion (fka Carbon Engineering) has built and is commissioning bench-scale processes to create new products from coal and CO<sub>2</sub> and recently celebrated its first federally funded project focused on creating novel products from coal.

The Enhanced Oil Recovery Institute, Wyoming Energy Authority, Center of Innovation for Flow through Porous Media and SER are pursuing a collaborative approach to support Wyoming oil and gas producers. These examples are among the many activities underway and opportunities on the horizon that SER and its collaborators are passionate about pursuing.

Our team is laser-focused on delivering value to Wyoming and, while we face many challenges, I believe the future for SER, UW and Wyoming remains bright. We very much look forward to continued engagement in 2021.

Sincerely,



Holly Krutka



## ACADEMICS

### Tim Considine Appointed as SER Interim Academic Director

Dr. Tim Considine was appointed as the Interim Director of Academic Programs for the School of Energy Resources. In his role, he oversees all of the student recruiting, advising, as well as manages the core faculty for the programs and the curriculum.

In addition to his administrative duties, Dr. Considine is a Professor of Energy Economics and teaches courses for both program concentrations in the Energy Resource Management and Development Degree.



### Kris Koski Steps into Professional Land Management Program Director Position

Professor Kris Koski took over as the new director of the Professional Landman Program in the summer of 2020. The concentration is accredited by the American Association of Professional Landmen (AAPL).

Professor Koski joined the School of Energy Resources faculty in the fall of 2017 where he teaches the core legal courses for the ERMD degree. In addition to his teaching, Professor Koski maintains an active oil, gas, minerals and land legal practice to stay in tune with industry developments. He is a proud Wyoming native with a strong energy background and who greatly enjoys working with SER's students.



(Top) Dr. Tim Considine;  
(Left) Professor Kris Koski

### Giving Day

The School of Energy Resources participated in the campus-wide Giving Day extravaganza! SER directed its fundraising efforts towards enhancing the experiential learning opportunities for the students in the ERMD degree, as well as bolstering scholarships. During the 24-hour giving campaign, SER raised \$2,600 from 16 donors. SER hopes to increase support and donors for the program in the coming years.



- SER General Fund to be used for Experiential Learning Opportunities
- SER General Scholarship Fund



Students learning about how a rig operates on-site with Extraction Oil & Gas.



## Academic Strategic Review

In the fall of 2020, the Academic Program underwent a strategic review under the direction of UW Professor Emeritus, Dr. David Whitman. The purpose of the review was to gauge the current successes of the program, as well as to identify any unrealized opportunities.

At the conclusion of the extensive review, it was determined that the School of Energy Resources is meeting the requirements of its statute in terms of providing an interdisciplinary undergraduate program that is meaningful to the State of Wyoming. Additionally, the degree has a high level of satisfaction from the students who graduate based on the high placement of graduates into jobs or graduate school and their self-reported camaraderie and access to outstanding teaching faculty and a great advising program.

In addition to activities already under way, this review provided some suggestions for increasing enrollment, as well as some suggestions for curriculum modifications that would, possibly, improve the student experience.

The School of Energy Resources looks forward to implementing feedback from the report to boost the visibility of the degree and continue to grow the program.

## Student Highlights

### SER Graduate Student Ellen Polites

In its mission to advance energy research and education, the School of Energy Resources (SER) helps fund graduate students all over campus. Under the expertise and guidance of dedicated SER faculty members in their home departments, the research conducted by graduate students compliments and enhances some of the most cutting-edge energy projects taking place in the state of Wyoming.

UW graduate student Ellen Polites is one such student. Though housed in the UW Department of Geology and Geophysics, the research Polites is working towards for her master's thesis is part of the greater research endeavor spear-headed by the Center for Economic Geology Research (CEGR), the CarbonSAFE project.

Originally from York, Penn., Polites attended Penn State University for her undergraduate degree in geosciences. Under the supervision of Professor John Kaszuba in the geology department, Polites conducts experiments to see how the rocks react with CO<sub>2</sub> and fluid. [READ MORE>](#)



## Faculty Highlights

### UW's Grana Teaches New Diversity Course in Geosciences

In an effort to address and combat some of the implicit bias that is limiting diversity in the classroom and the field of geosciences, SER Professor Dario Grana created a new one-credit course to provide students with the opportunity to explore the topic.

The course, titled "Diversity and Inclusion in Geoscience," began this fall. Students had the chance to interact with a diverse group of scientists; learn about the challenges that underrepresented minorities have to face in academia, their career paths and research projects; and diversity, equity and inclusion initiatives that they promoted. [READ MORE>](#)



» Pictured Above: Graduate Student Ellen Polites (top) works on CCUS in the UW Geology and Geophysics Dept., (bottom) Professor Dario Grana.

## UW Professor Selected as John and Jane Wold Centennial Chair in Energy

The University of Wyoming has named Professor John Kaszuba as the recipient of the John and Jane Wold Centennial Chair in Energy.

A UW School of Energy Resources (SER) professor in the Department of Geology and Geophysics, Kaszuba specializes in the area of fluid-rock interactions.

Established in 1990, the Wold Chair boasts a rich history as the first fully funded endowed academic chair at UW. The mission of the Wold Chair is to advance energy-related research and teaching for the benefit of Wyoming, with a focus on recipients who demonstrate a dedication to student instruction.

Named to honor the legacy of John and Jane Wold, the chair recognizes their leadership in energy development and their love for the state. Earlier this year, the Wold Foundation made a generous gift to enhance the prominence of the endowed chair, making it one of the university's most prestigious awards.

**READ MORE>**

## UW School of Energy Resources Faculty Members Produce Study with U.S. Energy Association

Professor Tara Righetti, in the University of Wyoming College of Law and School of Energy Resources (SER), and Kris Koski, an SER associate lecturer, co-wrote an energy industry study with the United States Energy Association (USEA).

The collaborative study is titled "Study on States' Policies and Regulations per CO<sub>2</sub>-EOR-Storage Conventional, ROZ, and EOR in Shale: Permitting, Infrastructure, Incentives, Royalty Owners, Eminent Domain, Mineral-Pore Space, and Storage Lease Issues."

The study evaluates laws, policies and regulations governing CO<sub>2</sub>-EOR (carbon dioxide-enhanced oil recovery), associated CO<sub>2</sub> storage operations, and geologic storage across 12 states and onshore federal lands.

The report -- in collaboration with West Virginia University colleagues -- is a strong example of faculty research directly supporting Wyoming's economy and the energy industry, and will help legislatures and policymakers to understand legal and regulatory challenges to more integrated and widespread implementation of CO<sub>2</sub> storage. **READ MORE>**



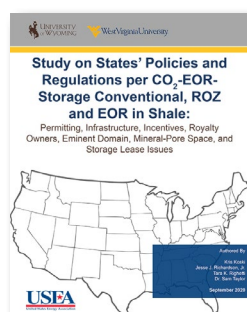
UW Professor John Kaszuba (above, right) examines laboratory samples with a student.



John and Jane Wold are tremendous donors and supporters of energy research in Wyoming.



SER Professor Tara Righetti teaches energy law for the UW College of Law



**DOWNLOAD REPORT**

## RESEARCH

### UW Research Explores Wyoming Residents' Acceptance for Energy Development

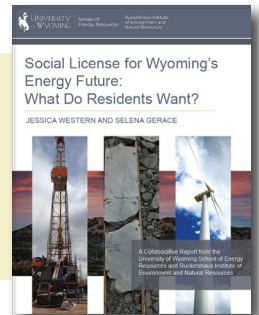
A new study from the University of Wyoming's School of Energy Resources (SER) and the Ruckelshaus Institute of Environment and Natural Resources explores Wyoming residents' perspectives of energy development, including "social license," or the level to which Wyoming residents support or oppose different forms and amounts of energy development.

The researchers also examined Wyomingites' values and vision for the state's future.

The research was led by Jessica Western, a research scientist with the UW Haub School of Environment and Natural Resources, who has a background in human dimensions of natural resources and collaborative approaches to natural resource problem-solving; and Selena Gerace, an SER assistant research scientist.

The full report, titled "Social License for Wyoming's Energy Future: What Do Residents Want?," determined results indicates that Wyoming residents do grant social license for most energy development types with the clear understanding that market forces are creating change, and the state needs to quickly adapt to be economically resilient. **READ MORE>**

**DOWNLOAD REPORT**



### Official from the Office of Fossil Energy at the U.S. Department of Energy Visits the School of Energy Resources

The School of Energy Resources (SER) was delighted to host Deputy Assistant Secretary (DAS) for Clean Coal and Carbon Management, Lou Hrkman in October. DAS Hrkman is an official in the U.S. Department of Energy's (DOE) Office of Fossil Energy.

The visit to SER comes at a time when the Research Centers of Excellence are making great strides in their efforts to advance fossil fuel energy innovation, including several projects funded by the DOE. DAS Hrkman visited the various labs within the Energy Innovation Center (EIC), and toured the new High Bay Research Facility with Dr. Mohammad Piri and Dr. Lamia Goual to witness the developments in the Center of Innovation for Flow Through Porous Media.

**READ MORE>**



≡  
DAS Lou Hrkman looks at  
CarbonSAFE data with CEGR  
Director Scott Quillinan

# Center for Energy Regulation and Policy Analysis

## New Hires

The School of Energy Resources (SER) welcomed two new researchers to its team, Selena Gerace and Jada Garofalo.

Selena will be working as an Assistant Research Scientist with a joint appointment in CEGR and CERPA. She will be researching energy economics, policy, and doing public outreach as part of the Plains CO<sub>2</sub> Reduction (PCOR) Partnership grant.

Jada will be extensively researching the new Wyoming House Bill 200 which seeks to regulate public utilities in the state, as well as working on a comprehensive examination of the new Biden Administrations' energy policies and what they will mean for Wyoming. **READ MORE>**



(top) Selena Gerace;  
(left) Jada Garofalo

## Working Paper Platform

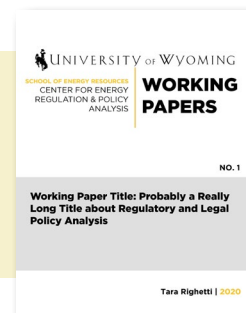
The Center for Energy Regulation & Policy Analysis launched a new section of its website dedicated to housing "working papers" currently in production through the Center.

Intended as a platform to solicit academic feedback prior to publication, the working paper series features articles, book chapters, and reviews in various stages of completion in the area of energy regulation and policy. Papers in the series have not yet undergone the peer review process. **READ MORE>**

## Quarterly Newsletter

The Center for Energy Regulation & Policy Analysis launched a quarterly newsletter covering energy regulation and policy analysis for the state of Wyoming. **SUBSCRIBE>**

**DOWNLOAD PAPER**



## Call for Proposals

The Center for Energy Regulation & Policy Analysis is seeking academic proposal submissions for the Virtual Symposium on the Law and Economics of Energy Regulation which will take place June 5, 2021. The symposium will be geared toward energy regulatory policy issues affecting the future of fossil fuels and nuclear power, and will include a keynote speaker and scholars presenting papers on the law and economics of energy regulation. More details can be found in the full proposal announcement. Please submit completed proposals prior to the February 1st deadline to [serforum@uwyo.edu](mailto:serforum@uwyo.edu).

**PROPOSAL ANNOUNCEMENT>**



## Center for Economic Geology Research

### CarbonSAFE

#### PHASE II

The Center for Economic Geology Research (CEGR) completed a 9.1 square mile 3-D seismic survey centered on Dry Fork Station as part of Phase II of the CarbonSAFE project.

#### PHASE III

On Oct. 1st, the Center for Economic Geology Research officially launched Phase III of the CarbonSAFE project. Funding for Phase III of the project was approved in April of this year where SER and its partners on the project received a \$15.4 million award from the U.S. Department of Energy's (DOE) National Energy Technology Laboratory.

Phase III project objectives are to finalize site characterization, complete Class VI permitting to construct, integrate Membrane Technology and Research, Inc.'s (MTR) CO<sub>2</sub> capture assessment, and conduct National Environmental Policy Act (NEPA) analyses to advance towards the eventual commercialization of a large-scale (storing 50 million metric tons of carbon dioxide within a 30 year period) CCUS project at Dry Fork Station. **[READ MORE>](#)**



The CarbonSAFE project is located at the Basin Electric Dry Forks Station in Gillette, Wyo.

## Center for Carbon Capture and Conversion

### Proprietary Coal Conversion Process Moves into Pilot Plant Test Phase

The Center for Carbon Capture and Conversion has moved its proprietary coal conversion process into a pilot plant test phase. Three pilot plants (pyrolysis, solvent extraction and CO<sub>2</sub> Conversion) were recently completed and are now being commissioned. The pilot plants, once fully operational, will produce feedstock intermediates, to assess the long term performance of products being made from Wyoming coal. Results will also be used to establish the design, further scale up, integration of these processes into a coal refinery field demonstration facility, which is planned for 3 years' time.

### Agreement Established with Atlas Carbon, LLC

The Center for Carbon Capture and Conversion has reached a research and technology master agreement with Atlas Carbon, LLC. The agreement is to work together on developing technologies that can convert Wyoming Powder River Basin coal into value-added non-energy and fuel products, bringing together UW's proprietary thermo-chemical process technology for conversion of coal into wide ranging intermediate materials that can be converted into end products, and Atlas Carbons, proprietary technology for making activated carbon.



## OUTREACH

### SER Launches Blog

In an effort to keep the public up-to-date on energy news at the University, the School of Energy Resources has launched a blog. The Blog will feature important student and faculty accolades, advancements in the research Centers of Excellence, as well as serve as a platform for important announcements, requests for proposals, and research opportunities.

Subscribe to the blog and never miss a post! Alternatively, you can follow the School of Energy Resources on social media platforms for updates. **READ MORE>**

### New Hire

The School of Energy Resources recently hired a Publications and Outreach Coordinator, Christine Reed in September 2020. The general purpose of this position is to provide leadership and support to SER administration and staff in the following areas: Communications & Outreach, Publications, Public Relations, Event Planning, and Media Intelligence. Christine came to the School of Energy Resources after 10½ years at the UW College of Law as the Director of Communications.



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