

Board of Trustees Update: March 2024

SER's Mission: Energy-driven economic development for Wyoming

SER Administration: SER's budget request (listed below) appears to remain in tact at the writing of this update:

- \$2 million increase in standard budget to increase personnel focused on rare earth elements, critical minerals, financial administration and outreach
- \$17 million for a solvent extraction demonstration to create Wyoming coal-derived asphalt binder in Campbell County
- \$2 million matching funds
- \$2 million for continued nuclear energy capacity building across UW

SER Academics:

- SER and CEPS are actively working on our feasibility studies for our proposed nuclear certificates, although these will only be presented to the BOT if we are able to raise an endowment sufficient to support the execution of these certificates. We have also finalized an offer for a new SER Assistant Professor of Soil Science and Reclamation with Dr. Jennifer Bell to begin in Fall 2024.

SER Outreach:

- SER Outreach released the final quarterly newsletter summarizing activities in the winter months and supported the research Centers of Excellence with outreach activities related to projects.
- Upcoming events for the spring semester include:
 - Hydrogen Energy Seminar Series Webinar
 - Three Distinguished Speaker Series Presentations
 - CORE-CM Annual Forum in Billings, MT – April 24, 2024
 - Rocky Mountain Professional Landman Conference – April 29, 2024

SER Research: The SER research program leads and supports a wide array of Wyoming-focused research programs to ultimately drive increased state revenue and graduate students with expertise important to Wyoming.

- Wyoming's first Environmental Assessment (EA) for Class VI wells (needed for CO₂ injection) was released for public comment. This analyzed impacts of commercial-scale storage near Dry Fork Station in Gillette as part of the Wyoming CarbonSAFE project. No comments objecting to the project were received (unlike a similar EA in North Dakota).
- DOE authorized funding the Wyoming Class VI Database project – a \$2M collaboration between SER, the Wyoming Department of Environmental Quality and the State Geological Survey to publish a verified geotechnical database to help expedite Class VI Injection well permit compilation and review.

- CERPA (Center for Regulation and Policy Analysis) has recently published three white papers: (1) Proposed Multi-Pollutant Emissions Standards (analyzing EPA’s electric vehicle proposed rule); (2) Wyoming’s Class VI Regulation and Managing the Risk of Dedicated CO₂ Storage; and (3) Headed West: The Challenges and Opportunities Facing Wyoming Natural Gas Exports to Decarbonizing Western Markets. In addition, CERPA has posted on its website an interactive tool to assist Wyoming stakeholders in complying with Federal requirements for Community Benefit Plans.
- CERPA continues to provide policy support to the Governor’s Office and the Wyoming Energy Authority on proposed rules while closely monitoring energy-related proposed bills being considered by the Wyoming Legislature.
- H2ERC (Hydrogen Energy Research Center) was informed that the collaborative proposal with the Bureau of Economic Geology ARPA-E proposal “Sustainable H₂ Production from Abiotic Catalyst-Enhanced Stimulation of Iron-Rich Rocks” was selected for funding. The funding level is at \$1.7M
- CCCC (Center for Carbon Capture and Conversion) and Western Research Institute (WRI) continue to advance solvent extraction research, scale-up and engineering design – this process is used to convert Wyoming coal into asphalt binder. The solvent extraction pilot plant construction is almost complete at the UW Lutz building and should have the shakedown and start up performed in April 2024. This will allow the team to provide much needed testing quantities for potential industrial partners in both the roofing and paving industries.
- The fast pyrolysis field demonstration plant in Gillette is moving forward. CCCC is working with Wood to procure several large pieces of equipment with long lead times. The construction contract for the pyrolysis work was approved in January (thank you!). Construction will start in March or early April, pending Wyoming weather.

Enhanced Oil Recovery Institute (EORI):

EORI Mission: The mission of EORI is technical collaborative work directly with the oil and gas industry in the State. Our focus is minimizing potentially stranded oil reserves and adding revenue to the State of Wyoming through additional severance taxes from increased production.

- EORI finalized the selection of proposals for the first EORI Cost-Share RFP (Request for Proposal) focused on improving oil recovery in Wyoming fields. Review and technical support for the selection included members of the EORI Technical Advisory Board (TAB). A proposal from Merit Energy for an advanced polymer pilot in the Big Horn Basin was selected. The total award for this pilot is \$200,000. Final paperwork is being completed and work should begin in the 4th Quarter 2024. 1 or 2 additional EORI RFPs are in development for 2024.
- Focused Technical Work:
 - 3 DOE Funded Projects
 - Unlocking the Tight Oil Reservoirs of the Powder River Basin
 - WY Trails Carbon Hub – CO₂ Pipeline Feed Study
 - Developing CO₂ – EOR and Associated Storage within the Residual Oil Zone Fairways of the Powder River Basin
 - Regional Geology
 - Minnelusa formation incorporating 3D Seismic to improve development and recovery in
 - Muddy formation including a Muddy core brine study at Piri Tech
 - Industry Collaborative Projects

- York North Field (Minnelusa, Powder River Basin) - Improved development plan
 - Skull Creek Field (Muddy, Powder River Basin) - NGL EOR project
 - Kitty Field (Muddy, Powder River Basin) - improved recovery (waterflood and CO₂)
- IT and Data Technology Highlights
 - The new Wyoming Pipeline Infrastructure Viewer is live and public facing on the EORI website. All online map applications and connected data from old WPA servers moved to the new EORI cloud servers (Geocortex server and ArcGIS server).
 - The new Website Subscriber Portal for the interactive online maps has reached Phase 1 completion and is ready for preliminary testing. The anticipated rollout date is 2nd QTR 2024.
- Moving forward with hiring for the following “Open” EORI positions;
 - 2 Sr. Geologist positions
 - Office Assistant position
 - Manager of Strategic Partnerships position (formerly Outreach Coordinator)
 - Deputy Director position
- Community and Industry Engagement
 - EOR Insights (Platform for Interactive Industry Meetings) featured Leo Giangiacomo on February 15-16 with a 2-day conventional well Log Interpretation Course. Thirty people participated in the free, 2-day course held in Casper.