

Energy Resources Council Meeting

MINUTES

Friday, November 16, 2012
Garden Ballroom – Hilton Garden
Laramie, Wyoming

ERC Members Present:

Ron Harper, Tom Lockhart, Kit Jennings, Carl Bauer, Dave Palmerlee, Rob Hurless (Governor's representative), Jeane Hull, Jim Bowzer (via telephone), Paul Lang, Indy Burke, Rob Wallace

ERC Members Absent:

Tom Buchanan, Martha Wyrsh

SER Staff in Attendance:

Mark Northam, Mary Byrnes, Diana Hulme, Don Roth, Cath Harris, Nadia Kaliszewski, Pam Henderson, Bob Ballard, Abigail Mellinger Scott

Others Attending:

Wendy Lowe, Wanda Burgett, Chris Spooner, Vijay Sethi

Action Items from Meeting:

1. Minutes of August 24, 2012 – Approved

Agenda:

- 1) Minutes from August 24, 2012
- 2) EIC Update – Diana Hulme
- 3) SER Staff Hiring – Mark Northam
- 4) Joint meeting with UW Board of Trustees
- 5) Strategic Areas of Concentration
 - a. Implementation – Mark Northam
 - b. Fundraising – UW Foundation
- 6) ERC – SER: Review of Accomplishments – Ron Harper
- 7) Budget Review – 1st Quarter Report and 8% Reduction – Mark Northam
- 8) Carbon Management Institute Update
- 9) In-Situ Recovery of Uranium Research Program – Diana Hulme
- 10) Outreach – Mary Byrnes
- 11) Calendar of 2013 meetings
- 12) Executive Session
- 13) Other Business

Chairman Ron Harper called the meeting to order at 8:00 a.m.

Minutes from August 24, 2012 - Approved

Action Taken: A motion to accept the minutes from August 24, 2012 was made by Carl Bauer, seconded by Kit Jennings. It passed unanimously.

EIC Update – Diana Hulme

Work continues on the Energy Innovation Center (EIC), with offices ready for occupancy by the second week of December. Furniture will be delivered on November 26. The anticipated move-in date for SER and Enhanced Oil Recovery Institute (EORI) personnel will be the week of December 10 with occupancy on December 13 and 15, respectively. The Peabody Energy Advanced Coal Technology laboratory and the Enhanced Oil Recovery Research laboratory will be ready for occupancy in January 2013, with full occupancy expected by mid-January. Dr. Piri's laboratory is expected to be finished in late April or early May, depending on the progress of the electrical and mechanical systems. The anticipated delivery date of the 4-wall CAVE is January 21, 2013, with installation complete by February 15, 2013.

SER Staff Hiring – Mark Northam

Position of Assistant Research Scientist to provide support to the SER Deputy Director of Research is in the hiring stages with an expected start date of January 15th. There are seven faculty searches underway for Energy Accounting, Energy Finance, Geomechanics, Petrophysics, Petroleum Systems, High-Temperature Catalysis, and Drilling Engineering. Additionally there are 2 pending searches to fill the following: Oil & Gas Law and Energy Regulation, Policy and Law Initiative.

Strategic Areas of Concentration

Mark Northam updated the council on the advancements of the strategic areas of concentration reviewing the plans for unconventional reservoirs and advanced conversion technologies, identifying opportunities underway in the EIC and tying into the tier one status of the College of Engineering and applied sciences. Phase II and III of Rock Characterization Lab are fully funded and under development in the EIC. Level I design work for the Energy Engineering Research Facility has begun in conjunction with the overall Engineering Complex Redesign project.

Chris Spooner discussed upcoming donor announcements to be made public in early 2013 and \$10.9 in new commitments from 6 oil and gas companies against the \$15 million state match have been achieved.

Joint meeting with UW Board of Trustees

Ron Harper provided the introduction and discussed the contributions of SER since its inception. Mark Northam then discussed the significant accomplishments of SER since the last BOT meeting. Mark detailed the progress being made with SER's Energy Resource Management and Development Degree as well as the joint MBA in Energy Management with the College of Business. With respect to research, Mark discussed the accomplishments of the CCTF, the progress being made with advanced conversion feasibility research, the temporary delay in the deployment of Advanced Conversion Funding, the NCAR/Wyoming Super Computing Center (and its impact on SER's mission), and highlighted some of the research work being done by Po Chen, Felipe Pereira, and Dimitri Mavriplis and Jay Sitaraman. Mark also provided a faculty update noting that SER is now interviewing for MBA Energy Faculty positions. He is also looking to fill a position for the developing Energy Regulation, Policy, and Law Initiative with the College of Law. Mark briefly discussed the Energy Innovation Center and the outreach efforts of SER

including a few points on the China conference and the Power Generation conference. Mark finished his talk by discussing the implementation of SER's Strategic Areas of Concentration plan, SER's strategy for new faculty hires, fund raising and partners, and the Energy Engineering Research Facility planning efforts.

ERC – SER: Review of Accomplishment Document

Ron Harper discussed the development of the document, *The School of Energy Resources: A brief overview of history and resources*. He asked that ERC members look over the document and suggest any additions or edits. It is planned to release the final document to the Legislature, Board of Trustees, the Governor and other statewide elected officials in early January 2013.

Budget Review – 1st Quarter Report and 8% Reduction

Mark Northam updated the council on the monthly budget review process and proposed how the 8% reduction would take effect. Largely the 8% reduction would come out of future matching grants intended for deployment across campus.

Carbon Management Institute Update

The Carbon Management Institute (CMI) inserted a progress report into the briefing book for this meeting about the characterization of the Rock Springs Uplift reservoir as a geologic CO₂ storage site. All available surface data and most of the available subsurface data pertaining to the storage reservoirs, confining layers, and structural setting have been collected.

Two hundred and ninety meters of high-quality core, a specialized log suite, fluid samples, and a diverse set of analytical laboratory measurements and petrographic observations were retrieved from the stratigraphic test well. As a result, velocity-porosity relations established from log data for different rock types have allowed CMI to use seismically-derived interval velocities for porosity estimates along targeted stratigraphic intervals. From these relations, 3-D spatial distribution volumes for reservoir and confining layer properties (property models) were constructed that yield an improved understanding of geological heterogeneity at the targeted CO₂ storage site.

In the fourth quarter of 2012, the stratigraphic test well (RSU #1) will be re-entered in order to retrieve vital data, including drill stem tests, fluid/gas samples (isotopic data), and injectivity tests for both the Madison Limestone and Weber Sandstone. Once these tests are complete, geophones will be installed and the well will be completed as a monitoring well.

In-Situ Recovery of Uranium Research Program

Diana Hulme reported that SER released a request for proposals (RFP) for the In-Situ Recovery of Uranium (ISRU) research program in June 2012 and received six proposals. Of the original \$1.6 million appropriated to the program by the Wyoming Legislature in 2009, SER had a remainder of \$578,614 to spend on the 2012 RFP. After a competitive review, SER awarded all of these remaining funds to three projects. Awards were made in November 2012. Funded projects are to be completed by 2015, and will be investigating issues related to water management, treatment, and disposal; uranium recovery and ore body characterization; and aquifer restoration.

Outreach

Mary Byrnes discussed the the *Power Generation and the Environment: Choices & Economics Trade-Offs* symposium which was held October 1-2, 2012 in Teton Village, Wyoming. The

symposium convened nationally acclaimed academic professionals, research scientists, policy makers, industry stakeholders, and the public to examine the economic feasibility of technological and policy options available to reduce carbon dioxide emissions from traditional power generation. Speakers addressed the challenges industry faces in developing solutions that balance economic feasibility and maximum technical performance. Scholars and industry experts examined the regulatory environment needed to advance fossil fuel combustion and alternative energy technologies. The event consisted of 17 paper presentations in five sessions. Conference attendance totaled 100 participants from 14 states and three international countries including the United Kingdom, Denmark, and Italy.

Mary also noted that SER is preparing for a coal industry roundtable event, "Powder River Basin Coal: Domestic Challenges & International Opportunities," on December 13, 2012 in Gillette, WY.

Calendar of 2013 meetings

- March 22, 2013 – Hilton Garden Inn
- May 17, 2013 – Energy Innovation Center
- August 23, 2013 – Energy Innovation Center (Clean Coal Symposium August 22)
- November 15, 2013 – Energy Innovation Center & Joint Meeting with BOT

Executive Session – SER Personnel

Meeting adjourned at 12:00p.m.

Respectfully Submitted:

Ron Harper
Chairman

Tom Lockhart
Vice-Chairman