

Energy Resources Council Meeting

Minutes

November 18, 2011

UW Conference Center, Salon F & G

7:45a.m. – 1:30p.m.

ERC Members Present:

Ron Harper, Tom Lockhart, Carl Bauer, Paul Lang, Indy Burke, Kit Jennings, Paul Matheny, Dave Palmerlee, N. Maha Mahasanen, Rob Hurless (Governor's representative)

ERC Members Absent:

Tom Buchanan, Rob Wallace and Jim Kleckner

SER Staff in Attendance:

Mark Northam, Mary Byrnes, Diana Hulme, Don Roth, Shannon Dahl, Ron Surdam, Cath Harris, Nadia Kaliszewski

Others Attending:

Don Richards, Brent Hathaway, Jane Caton, Stephen Easton, Bill Gern, Mike Massie, Erin Stoesz

Action Items from Meeting:

1. Minutes of August 26, 2011 - Approved
2. Mark to request from Don Richards regular updates on legislative and budget issues effecting SER or the ERC to keep the ERC informed.
3. WYCUSP –motion passed allowing CMI to conduct two injectivity tests with water in the Madison and in the Weber and to complete the well as a microseismic monitoring well.
4. ERC to provide feedback on metrics to evaluate the value and progress of SER, Mary will email two documents with a request for feedback.
5. Mary to send Kit Jennings the report prepared by Don Richards reviewing the reporting structure and responsibilities of the ERC, CCTF and SER.
6. SER will supply notebooks and materials one week in advance of meetings in the future.
7. ERC members are requested to copy all members when contacting Mark so all stay informed.
8. ERC requested Steve Easton to reflect and consider modifying the Law Review Symposium title of “Energy, Extraction, Environment – Corporate Social Responsibility in the Extractive Industry”
9. Tom Lockhart and Kit Jennings will relay ERC and CCTF feedback regarding pending legislation.
10. Maha Mahasanen to send resignation letter to Ron Harper, Tom Lockhart, Rob Hurless and Governor.

Agenda:

1. Minutes – August 26, 2011 – for approval
2. Don Richards - Legislative update on draft bills
3. WYCUSP – revised budget, update and review of report submitted to Legislature
4. Hydraulic Fracturing Forum - Feedback and Report

5. Value proposition Metrics - work session
6. Feedback on Strategic plan with industry – report and discussion
7. Board of Trustees – Discussion of Value Proposition & Strategy
8. Update - Academics, Master of Energy Econ
9. Energy Regulations, Law and Policy Initiative
10. Other Business – Budget and Calendar of 2012 meetings
11. Adjourn

Legislative update on draft bills: (Tab 2 – ERC notebook. *Note I will add LSO 29*)

Don Richards presents legislation that is pertinent to SER

- LSO 91: Extends the \$1.6 M research funds allocated to in-situ recovery of uranium by two years. This legislation provides for a reversion date of June 30, 2015.
- LSO 29: Nuclear and hybrid energy system related projects, is a concept developed by the Business Council. The bill contains matching funds, and contemplates a joint effort with INL, DOE, as well as a provision to bring in other entities such as College of Business, College of Engineering, and/or SER. Time line of two years is contained in this bill.
- LSO 55: Advanced Conversion Technologies Task Force Amendments: Renames the Clean Coal Task Force to the Advanced Conversion Technologies Task Force, and extends the sunset date from June 30, 2013 to June 30, 2015. This legislation also revises the direction of the CCTF, to evaluating research proposals of conversion technologies and renames the Clean Coal Research Account to Advanced Conversion Technologies Research Account..
 - The council requests that legislation is clarified regarding legal matters, organizational liability, immunity clause, and legal representation of the CCTF as currently named and moving forward as the Advanced Conversion Technologies Task Force
 - The council also requests legislative clarification of accounting of CCTF grants, reports and responsibilities for a clear transition of existing CCTF projects as the CCTF becomes the ACTTF under this legislation.
- LSO 54: Advanced Conversion Technologies Study – this legislation charges the Advanced Conversion Technologies Task Force to issue a request for proposal for a mineral to liquid fuel commercial facility feasibility study, report and provide for a matching fund program. The bill provides a \$10M appropriation, with a sunset date of June 30, 2016 for the appropriation. The legislation also calls for the applicant to demonstrate their financial and operational ability to begin construction of a commercial scale minerals to liquid fuels conversion facility within two years of completion from the front end engineering and design study.
 - The ERC cautioned that this legislation will not produce a successful outcome due the time line and appropriated amount of money for the FEED study.
 - ERC members described other options to provide an successful business environment to meet the legislation’s goal of siting a minerals project including coal and natural gas to fuels plant in Wyoming:
 - Production credit allowances
 - Expedited permit process
 - Guaranteed base product floor price
 - ERC and SER discussed that to carry out the legislation a consultant firm would need to be hired to conduct a review of the RFP responses. Reviewer resources at UW do not exist and this review is not a task the ACTTF can carry out on their own. An appropriation of \$250,000 would be required to hire a consulting firm.
 - Overall, ERC concluded that this legislation will not deliver the intended outcome.
- Representative Lockhart and Senator Jennings will share the feedback of the ERC and CCTF to address all the issues brought forth and will request that LSO 54 not move forward.

WYCUSP – revised budget, update and review of report submitted to Legislature:

(Tab 3 – ERC Notebook)

Mark noted that the national/global appetite for funding carbon management projects is diminishing and the WYCUSP project may find the requirement to match funding a struggle.

Ron Surdam: Discussed the future trend that CO2 emission will increase and the tremendous reserves of natural gas, coal, oil located within the state. Wyoming will be under tremendous pressure to continue to be a leading fossil fuel exporter and he discussed the potential value of WY-CUSP to Wyoming.

Ron reviewed an alternative plan which he had proposed to the Joint Minerals Committee:

Alternative Plan for Phase 2:

Obj 1- identify and evaluate “natural” CO2 production sweet spots in each of the Laramide basins in order to increase the availability of natural CO2 for EOR.

Obj 2: Develop an integrated energy development strategy for each Wyoming Laramide basin, with special emphasis on the spatial distribution of coal extraction, coal-to-liquids/syngas facilities, “natural CO2 production sweet spots, enhanced oil recovery opportunities, water availability, and CO2 and natural gas storage sites.

Discussion:

The ERC reviewed the alternative report and concluded that they only support finishing Phase 1 of the project and preserve and gain the valuable national research derived from this field. The ERC also discussed meeting all the regulatory requirements and noted through a letter from the UW Board of Trustees their support to complete Phase 1 of the project. The ERC noted that they do not, generally, support the alternative plan proposal.

ACTION: Motion made by Paul Lang to move forward on adopting the following language: (motion carried)

Reason for motion:

1. Change from completion of an injector to a monitoring well.
2. Approval of two injectivity tests – one in the Madison and one in the Weber – with water and not CO₂.
3. Approve temporary plug and abandon.

Perform small-scale water injection test (*not* CO₂) to provide critical information about the formations ability to receive fluids – test will be integral to the completion of the WY-CUSP Phase I site characterization as follows:

The RSU # 1 well will be completed by 1) cleaning the well bore, 2) running two Drill Stem Tests (Weber and Madison Formations) to comply with Class I UIC regulations, 3) do two injectivity tests : 1 in the Weber and 1 in the Madison Formations to demonstrate the suitability for injection into the formations, 3) hang a suite of geophones in the well, 4) complete well as a microseismic monitoring well.

Revised Estimated budget is \$3.3 million. (This budget is a revision from the authorization provided during the Special ERC meeting of July 28, 2011 of \$3.4 million.)

Northam asked whether the well was now going to be completed as something other than an injector. Surdam explained that the Drill Stem Tests (DST) were being conducted to meet regulations prior to injection, that the injectivity tests would be conducted to interrogate the reservoir away from the well bore, and that the temporary abandonment of the well as a microseismic monitoring well would preserve the ability for us to re-enter the well at a later date to finalize the construction of the injection equipment. This approach preserves the well but avoids several million dollars of expenditure for equipment that is not needed until injection commences

Motion passed unanimously.

Board of Trustees – Discussion of Value Proposition & Strategy:

Minutes of this meeting will be supplied by the President's office. .

Hydraulic Fracturing Forum:

The ERC provided feedback on the forum:

- Facilitators used in the future must be very clear on their purpose and for this type of event need to be leaders rather than facilitators. SER and other co-sponsors must demonstrate leadership of the event.
- Greater review process managed by SER and co-sponsors of submitted materials

Mark noted that there were over 400 attending the conference and the facilitation of the event was sent out via an RFP of which no Wyoming companies applied.

Values Proposition Metrics: (metrics to be used to measure accomplishments including with respect to RFP's

(Handout will be emailed out to the ERC for their feedback in the essence of time.)

ACTION: Mark requested the ERC to suggest metrics to articulate the return on investment per all aspects of SER.

Feedback on Strategic plan with industry – report and discussion:

Mark reported that the new strategy has been very well received and matching fund commitments from industry have been obtained, conditional to state match. Additionally visiting faculty opportunities and better communications about Energy Resource Science degree program have also been well received. In follow up to these discussions the ERS degree program will be renamed to Energy Resources Management and Development. The new title is intended to remove discrepancies about the degree program and will resonate with industry.

Academics, Energy MBA program

Brent Hathaway, Dean of Business School, reviewed the Energy MBA program.

Goals

- Expand existing MBA degree program to include an option for Energy Emphasis
- Establish UW COB as a leading graduate business school with an available emphasis on energy across its resident Masters –level programs.

Proposed Implementation

- Partnership of SER and College of Business
- SER fund up to 3 positions (mix of visiting and permanent)
- Increase energy case studies to 25% in core MBA curriculum
- Develop energy Summer Experience opportunities
- Add energy electives in second Fall Semester (MBA w/Energy Concentration)
- Offer optional second Spring Semester with intense energy focus (MBA w/ Energy Distinction)
 - SER to provide student stipend and tuition in early years
 - Collaboration with energy sector partners to add relevancy
 - Executive certification

Brent explained that a comprehensive strategic plan was developed with COB consisting of over 200 hours invested with input from a deep range of top energy executives.

The first step is to make it a “focus” option with an MBA, next step would be to make it a more full-blown.

Graduates of these program are viewed to be those with technical degrees that have been in industry for 3-5 yrs, coming back perhaps funded by industry to get this MBA to move into mid-level management positions. Some will be straight through from undergrad.

It was suggested that this program should maximize distance learning opportunities.

Competition comes from Duke, Stanford, Texas, and DU. UW has a tremendous the ability to be a leading school in the country with this program.

Energy Regulations, Law and Policy Initiative: (Tab 5 ERC Notebook)

Steve Easton, dean of the College of Law, reviewed the new initiative and the importance of legal, regulatory issues in energy and creating a working relationship with SER and the College of Business would be very beneficial. A director for the initiative would be hired that brings years of experience in industry. This person is viewed to teach a business-law course, and with background in taxation and regulatory experience. Ideally this person would teach how to do research in the energy law field, pairing law students with business school students. It is believed that 8-10 students would be involved in the first round.

The goals of this initiative are:

- Develop interdisciplinary energy regulation, law and policy capabilities with the university as a resource for state government, the citizens and the energy industries in Wyoming.
- Establish a multidisciplinary learning opportunity for students, whereby such students will gain experience and expertise related to aspects of energy and natural resources industries.

Implementation – SER will fund the position for the Director who will work with an advisory committee to develop the initiative into the Center of Excellence – either a stand alone or with the Center of Energy Economics and Public Policy.

Other Business:

Maha- explained that due to extensive travel for his job he will be resigning his post on the ERC committee and he will submit a letter of resignation to Ron Harper, Tom Lockhart, Rob Hurless and the Governor with a suggestion for an appointed member. Ron Harper and council members thanked Maha for his service and excellent input on the council. Maha expressed that he has very much enjoyed his service and believes the ERC is a very valuable entity to provide guidance to the SER's important mission.

Next Meetings: These dates have been circulated and settled:

- March 30, 2012 at the College of Business
- May 18, 2012
- August 24, 2012
- November 16, 2012

Meeting adjourned at 1:30pm

Respectfully Submitted:

Ron Harper
Chairman

Tom Lockhart
Vice-Chairman

