

## **Energy Resources Council Meeting**

Approved Minutes

May 23, 2014

Energy Innovation Center

8 a.m. – noon

### **CALL TO ORDER:**

The meeting was called to order at 8:05 a.m. by Chairman Paul Lang.

### **ATTENDANCE:**

#### **ERC Members Present**

Paul Lang, Carl Bauer, Jim Anderson, Cindy Crane, Jeane Hull, Indie Burke and David Emery.

#### **ERC Members Absent**

Tom, Lockhart, Tom Botts, Rob Wallace, Dick McGinity and David Palmerlee

#### **SER Staff in Attendance**

Mark Northam, Mary Byrnes, Diana Hulme, Don Roth, Rob Hurless, Abby Scott, Trish Steger

#### **Others Attending**

Chris Boswell, Khaled Gasem, Ben Blalock, Krista Laursen, Elizabeth Lyons, and Jay Jerde

### **AGENDA:**

- 1) Approval of Agenda
- 2) Approval of Minutes from March 28, 2014
- 3) College of Engineering Tier One Update
- 4) Fund Raising Strategies
- 5) Division Updates
- 6) Carbon Management Institute
- 7) LNG Study
- 8) Idaho National Lab
- 9) Nielson Energy Fellowships
- 10) Financial Update
- 11) New Business/Directions for Next Meeting
- 12) Adjournment

### **MEETING DETAILS BY ITEM:**

## Approval of Agenda

*Amendments:* Chairman Lang added Site Survey to Item 6 and Adjournment to Executive Session to Item 12.

*Action:* A motion was made by Senator Anderson to accept the agenda with the changes and seconded by Mr. Bauer. Motion passed without objections.

## Approval of Minutes – March 28, 2014

*Action:* A motion was made by Ms. Crane to accept the minutes from the March 28, 2014 meeting as presented; action seconded by Mr. Bauer. Motion passed without objection.

## College of Engineering Tier One Update

*Summary:* Dr. Gasem deferred reporting to Dr. Northam. Dr. Northam provided an overview drafted by Richard Horner who was unable to attend the meeting. UW continues its dialogue with Schlumberger. A faculty member and a senior research member will participate in a reservoir modeling seminar to be held in June. Mario Ruscev, chief technology officer at Baker Hughes, visited UW to discuss potential collaboration and endowment of a chair in petroleum engineering. Twenty-one pre-proposal submissions have been received by the Research Cluster program. Nine have been selected to move forward. Areas of focus include fields of energy - oil, gas and coal, mathematics, computational science, and water resource management. Dr. Gasem has directed the College Leadership team to begin the hiring process for faculty, staff and post-doctoral researchers. Ms. Laursen led the development of a new Engineering Building Level 1 planning summary format to develop a prioritized matrix of spaces and capabilities. A final agreement will be attained during the Engineering Building Scope Requirements workshop scheduled for June 17<sup>th</sup> and 18<sup>th</sup>, 2014 on the Laramie campus. A preliminary design for the High Bay Research Facility has been selected; next stage scoping and design exercise will allow the team to gather critical information about facility constructability and expected commissioning costs. A review of the Enzi STEM (science, technology, engineering and mathematics) building and the High Bay building to formulate an integrated vision with the Energy Innovation Center has been completed. Faculty contributed a spectrum of ideas regarding the spaces' need to effectively support expanded teaching and research for the new engineering building. This information is also being assimilated into the integration vision. The Task Force has accepted the UW implementation plan based upon the following strategic designations: Areas of Excellence (international and national recognition) will be atmospheric research, Niche Areas (education and research growth areas) continues to be unconventional reservoirs, advanced energy technologies and energy conversion/delivery, and computational science and engineering, and Focus Areas (fertile research areas requiring further evolution) will be water resources and biological and biomedical engineering.

*Comments:* None

### **Fund Raising Strategies**

*Summary:* Chairman Lang introduced Ben Blalock, UW Foundation. Mr. Blalock reported that the task force had recently met in Casper, Wyoming to roll out their future plans. Mr. Horner is preparing a marketing report for the numerous buildings, which will help to explain to the public the integration aspects and the industry relationships. Mr. Blalock said the fundraising efforts made by the School of Energy Resources (SER) have created a major shift in how the university raises significant funds. The future potential is extremely opportune and will be the driving force for the continued development UW. The next meeting will be in Gillette on June 23<sup>rd</sup> and June 24<sup>th</sup>, 2014, which will include a tour of the coal mines. An invitation to attend was extended to the board.

*Comments:* Dr. Burke asked if the research funds would be channeled through the research office or the foundation; Dr. Northam confirmed the funds would go through the research office. Mr. Blalock added that a research component was essential for these gifts to be successful.

### **Division Updates:**

#### **Academics**

*Summary:* Dr. Roth reported enrollment continues to increase. Approximately 80 students are expected in the bachelors program for the fall semester. The majority of these students will be in the Landman program. The program is on track to graduate 10-20 students per year. Attrition is low and excellent efforts have been made in guidance as well as recruitment. Nineteen of the current 20 graduates have been placed in a job in the industry of their choice. The internship program with corporate partners has proved to be very valuable in job placement. Dr. Roth concluded his report by announcing three professors: Dr. Maohong Fan, Dr. Po Chen and Dr. Sitaraman have received promotions by the UW Board of Trustees at its recent May meeting.

*Comments:* Chairman Lang asked if starting salaries for newly placed students are competitive. Dr. Roth responded affirmatively. Starting salaries are approximately \$70- 80,000. Dr. Burke said traditionally the programs have had difficulty in attracting women and asked if there were any plans to promote the programs differently in the future. Dr. Roth said many efforts are being made, such as outreach to Women in Science and K-12 programs to generate interest and demonstrate visibility of the programs. Dr. Crane asked if new internship programs were being acquired and Dr. Roth confirmed that opportunities are always being sought.

#### **Research**

*Summary:* Ms. Hulme informed the board that two of the Centers of Excellence, Unconventional Reservoirs and Photo conversion and Catalysis, have signed their memorandums of agreement. Photo Conversion and Catalysis is starting two new solar projects on the fourth floor of the Energy Innovation Center, which will promote student involvement through demonstrations. The Center for Economics and Public Policy is expected to sign its memorandum shortly. There has been a change of leadership in this center. Dr. Tim Considine has stepped down as director to pursue more of his individual research, but he will continue to be active in the center. Dr. Rob Godby is the new director. SER has provided a large investment in this center, but there has not been a big enough return. SER is encouraging more applied research within in the College of Business and is working with the center to increase its outside funding. As the center reinvents itself, greater involvement with the state is anticipated. The Center for Fundamentals of Subsurface Flow is starting a mentoring program, teaming its undergraduate students with a post-graduate student or faculty member. The 3-D Visualization Center's new manager, Emma Jane Alexander, arrives on June 30, 2014 and will assume her responsibilities in July. There are three graphics art interns from the art department who are currently assisting with a project to create a 3-D mapping model of the UW Laramie campus. This project will be an excellent recruiting tool, and the physical plant, facility planning and real estate office have expressed interest in using their project as well.

*Comments:* Ms. Crane asked how the memorandum of agreements were drawn up and Ms. Hulme said they were a standard template that was modified slightly for each center's specific needs. The basic six-page document outlines SER's responsibilities to the center for the exchange of funds and the reporting requirements expected by the centers. The centers have been very appreciative of the memorandums. Dr. Northam said the centers still need to become more self-sufficient and aware that the SER funds are merely seed funds. Chairman Lang requested an example of the memorandums be provided to the board.

## Outreach

*Summary:* Ms. Byrnes relayed to the board that the draft of the annual report will be made available on August 8, 2014 before the ERC Board meeting for review. Approval of the plan will be sought at the August 23<sup>rd</sup> meeting. The final version is due on September 12. It will follow the same format as previous years. Ms. Byrnes referred the board to the list of speakers and events provided in the notebook and reviewed several of the items listed. The board was reminded in particular of the upcoming Clean Coal Symposium. SER is exploring the possibility of hosting the CNEC Conference 2015 in Jackson Hole, Wyoming. Dr. Jean Garrison, UW Global Studies, will be presenting at the August ERC board meeting.

*Comments:* Chairman Lang asked about the K-12 program efforts. Dr. Roth responded the energy programs and the STEM programs in particular are being better organized through SER efforts. The Summer Institute is coming up in mid-June and several events have taken place with the Science Posse.

## Carbon Management Institute

*Summary:* Dr. Northam assisted by Mr. Bauer began his report by providing a brief background on the formation of the Carbon Management Institute, which is currently a Center of Excellence and then launched into an overview of the new vision for the institute. Under the direction of interim director Carl Bauer, plans for the institute include expansion of activities with an emphasis on carbon capture and management beyond coal, as opposed to the previous mission of coal carbon storage or sequestration. It is imperative that future action assures the marketability of Wyoming natural resources by creating a safe environment for discussion of carbon emission and solution, which will provide information to the governor and legislature to inform their energy message. It will be guided by economics, and policy investigation/analysis. It is possible the name of the institute will change to Institute for Carbon Management or something similar that would assist with recognition of the shift toward a broader mission. This broader mission will be more inclusive, especially in regard to public policy and economics, and may integrate many more departments within the university, the legislature, industry and the public. Dr. Northam provided a PowerPoint that outlined a possible structure for the institute.

*Comments:* Chairman Lang requested a status update on the search for a new permanent director. Dr. Northam and Mr. Bauer responded that a position description for the permanent director is in development and authorization is under way with the UW Human Resources to begin the search. The successful candidate will have a strong technical background and be environmentally knowledgeable. It may be that the candidate will be chosen from the growing list of resumes provided for other current positions. The workforce searches continue to be challenging, and it may take some time to fill key positions. Dr. Burke pointed out that the change from a center of excellence to an institute provides for a permanent structure within the university and asked if this was an intentional change. Dr. Northam affirmed this was the intent. Senator Anderson expressed his support and enthusiasm for the planned changes, but in particular for the economic benefits to be derived. Ms. Hull questioned the new name for the institute and Dr. Northam assured her the title was still under review and it was understood that the name should reflect the full intent of the expanded mission.

*Action:* Mr. Bauer asked that the board provide authorization to expend \$70,000 on a project to examine the practice of reclamation for mines and determine if it is the best practice for closed and abandoned wells. He felt this would be an important study for the institute and also assist in its determination to act in an environmentally concerned capacity. Dr. Burke has written a proposal for this type of study and is willing to undertake the project. A copy of the proposal was presented to the board. Senator Anderson voiced his support for this type of study. Mr. Bauer and Dr. Burke recused themselves from the vote and Chairman Lang excused them from the meeting during final deliberation of the matter. Ms. Hull moved to approve the expenditure of \$70,000 to undertake the proposal as presented. Motion was seconded by Mr. Emery. The motion passed unanimously.

## LNG Study

*Summary:* Mr. Hurlless reported that the LNG initial study was completed and provided to Governor Mead for his review. On May 12, 2014 the governor unveiled the study to the public. Additionally, Governor Mead hosted a meeting with approximately 20 private sector stakeholders to discuss the validity of undertaking this project and the next steps that will be needed to execute a plan. An additional meeting is tentatively planned for Gillette to continue market discussions.

*Comments:* None

## Idaho National Lab

*Summary:* The School of Energy Resources has been asked to join the Idaho Falls National Lab to share resources and leverage mutual benefits. SER is still determining what its contribution to this partnership will be. If it is not an in-kind contribution, the cost would be approximately \$100,000 to buy in. Benefits to UW are the possible gain of a two-plus-two nuclear engineering degree offered to UW students at the Wyoming tuition rate. This degree program, offered through Idaho State, would save UW millions of dollars that creating such a program would cost. Idaho State would like to have access to UW's computational science and engineering programs. The partnership would also provide access to analytic tools not currently available at UW and could provide for an exchange of experts and faculty that will assist in the plan to achieve Tier 1 status. Dr. Northam plans to visit the Idaho National Lab on June 16, 2014.

*Comments:* Chairman Lang asked Dr. Northam if the benefits outweighed the contributions and what would be the next steps toward completing the partnership. Dr. Northam affirmed the potential for UW to have access to the nuclear engineering degree alone more than justified the partnership. The next steps include convening the partners to finalize the agreement and hold a signing ceremony. This would be followed by a visit of faculty who may be interested in research or use of facilities. It is anticipated that the partnership will be finalized by the end of August 2014.

## Nielson Energy Fellowships

*Summary:* Dr. Roth spoke briefly on the difficulty of attracting and retaining quality staff to UW. SER has developed a potential solution to assisting with the retention via the development of the Nielson Fellowships. A draft of the policy was presented for the board's review.

*Comments:* Dr. Burke commended SER for this innovative approach. Chairman Lang also offered his support of this effort and said the overall draft presented a great deal of clarity. However, he also asked that the performance metrics be rewritten for better clarification specifically in regard to year-one performance expectations.

## **Financial Update**

*Summary:* The School of Energy Resources is on target for expenditures for the end of the year. Final allocations to fully expend the budget include an upfront payment to cover the IT needs for the new GPU cluster, additional reaction lines for Dr. Fan's lab, and a pumping system for the Piri lab. SER will pay \$345,000 in expenses that exceeded the EIC construction building. This final building payment will complete all outstanding invoices for the building. \$1.4 million is available in expendable gift funds. The board was reminded that many of these gifts have specific allocation to various projects. The budget for the Strategic Centers of Excellence is on target for expenditure by its deadline of 2016. The Clean Coal fund is also projected to meet its completion targets. Dr. Northam mentioned SER had received a thank you letter from Dr. Dewey for SER's project contribution. Dr. Dewey's letter provides an excellent example of the broad application and impact that these start-up funds can provide to UW.

*Comments:* None

## **New Business/Directions for Next Meeting**

*Summary:* Mr. Hurless introduced Jay Jerde and Elizabeth Lyons from the Wyoming Attorney General's Office. Mr. Jerde informed the board that the Attorney General's Office recognized the need for a point of contact to assist the taskforce and as such it has appointed Ms. Lyons to assume this responsibility going forward. The board welcomed Ms. Lyons.

Ex-officio board member David Palmerlee has assumed a new position with the UW Board of Trustees, and Dave True has been named to sit on the ERC. Mr. True will join the board for the next meeting, which will be held August 22<sup>nd</sup> and 23<sup>rd</sup>, 2014.

## **Adjournment**

The board adjourned the regular meeting to go into executive session for the purpose of discussing personnel matters at approximately 11:30 a.m.; the board concluded the meeting at 12:05 p.m.

Respectfully submitted:

---

Paul Lang  
Chairman

---

Tom Lockhart  
Vice-Chairman