

Center for Renewable Energy Research and Environmental Stewardship August 25, 2010 Meeting Minutes

Present: Dr. Len Peters, Tom FitzGerald, Andy McDonald, Dr. Brian Clardy, Dr. Rick Clewett, Cam Metcalf, Kris Kimel, Deborah Clayton for Secretary Larry Hayes, John Wright, Susan Patton, and Dr. Don Colliver.

Also present: Kate Shanks, DEDI; John Davies, DEDI; Barbara Pauley, EEC; Karen Wilson, EEC; Dr. Mickey Wilhelm, U of L; Dr. Mahendra Sunkara, Conn Center; Andrew Marsh, Conn Center.

Not Present: Tony Wilder

Certification of Open Meeting

Dr. Len Peters

Approval of June 30 Meeting Minutes

Dr. Clardy made the motion to approve the minutes; Commissioner Clayton seconded. Motion passed with an abstention from Dr. Don Colliver.

Presentation from Dr. Sunkara

Dr. Sunkara discussed the work of the Conn Center Technical Advisory Committee. He reviewed the planning activities of the committee including the mission and research themes established by the committee. He also reviewed the Conn Center organizational chart.

Commissioner Clayton asked about planning for commercialization of IP and if someone will do a market analysis as part of that planning. Nucleus Kentucky is authorized by the UL president to develop a business incubator with the Conn Center which will provide opportunity to work with many businesses and get into the commercialization aspect.

Commissioner Clayton also asked about pre company formation. There is a desire to fund a business development person to communicate with business and industry. This is an important position to have to be able to identify partnerships.

There was also discussion about the Conn Center's relationship with Sud-Chemie and the catalyst work. Conn Center hasn't done anything with Sud-Chemie regarding biomass and biofuels yet. There was discussion of Alltech and ECU's CRAFT doing work in this field. Mr. FitzGerald noted that if the feedstock being used is wood then the Dept. for Energy Development and Independence or the Division of Forestry should be involved because of the potential impact on forest health. The Feedstock has not been identified. Mr. McDonald asked if research regarding the catalyst would be made public. Much of this work is proprietary.

Dr. Sunkara also discussed plans to invest in roll to roll manufacturing which is a nontraditional method of making lithium ion batteries and solar technologies. He is identifying faculty at UL that would be interested in using this technology.

Dr. Wilhelm noted that the planning meeting was productive and that the committee was educated in detail about what the Conn Center is working on which led to the development of the mission.

The Conn Center plans to hold a symposium in March on the research themes. Several board members offered suggestions for the symposium including involving small business representatives, universities, policy makers and those in the private and public sectors developing technology. Dr. Peters suggested that Dr. Sunkara stay focused since there is much work to do between now and the symposium in March.

The Board began a discussion of biomass and research related to the development of a bioenergy industry. Dr. Colliver suggested that Dr. Sunkara connect with researchers at the UK College of Agriculture. Mr. FitzGerald noted that we should consult with those responsible for the resource before selecting a technology path. Mr. Kimel suggested we not follow one resource but instead support exploration of all renewables and let the market dictate which are developed. Dr. Peters discussed the research market and noted that Conn Center researchers are responsive to that market.

CRERES Planning Work Group

Mr. Kimel reviewed the work of the planning work group established during the June 30 meeting and distributed a handout with topics to be discussed by the Board and a proposed initial focus area description. He explained that the board needs to set its short term agenda as that the work group discussed some organizational matters as well. One option for the agenda is development of a Renewable Energy and Efficiency Assessment. This sparked discussion on various topics related to the activities of the CRERES.

Mr. Kimel explained the concept of the assessment and that we need to understand what works and what doesn't work. Dr. Colliver asked what the definition of viable is in terms of deciding what works in Kentucky. Mr. Kimel explained that one of the filters he uses is that technology will change. The status quo is not always useful.

Ms. Patton stated that we need a strategy for the board so that we can potentially advise the Conn Center and help with activities of the Conn Center such as the renewable energy symposium.

Mr. Clewett reviewed the CRERES statute and noted that CRERES has a broad mandate.

Dr. Peters discussed the CRERES/Conn Center relationship. The University of Louisville and the cabinet have a memorandum of understanding that the university will carry out the function of CRERES and the university may want to use the Conn Center to do this.

Mr. FitzGerald noted that the Conn Center can help us to understand the technical market and that the Kentucky Pollution Prevention Center (also at the University of Louisville) can assist with developing the potential for renewables and efficiency.

Dr. Colliver pointed out that there are other groups in the state that can advise the board and these groups need to work together collaboratively.

Dr. Peters explained the history of CRERES and the difficulty of getting the Center off the ground.

Mr. Kimel said that CRERES can make recommendations to the Conn Center and the Ky. Dept for Energy Development and Independence.

The Board turned their attention to the handout that described the assessment task.

Mr. Kimel suggested the Board begin by assessing energy efficiency.

Dr. Clewett recommended the Board begin with a wind assessment since not much work or research has been done in Kentucky.

Mr. Metcalf said that CRERES could be the advisory board for the Kentucky Renewable Energy Consortium.

Mr. Kimel explained the concept of an alternate reality game which makes use of social media and is a collective intelligence tool. Dr. Peters thought that since energy efficiency progress is made through the actions of a diffuse group that energy efficiency would better fit the collective intelligence model. Mr. FitzGerald encouraged Mr. Kimel to develop a proposal for the alternate reality game. Later in the meeting, Dr. Peters suggested that we develop an electronic discussion group as a means of collecting ideas from people. Mr. Kimel stated that it would be best to fully implement the collective intelligence model instead of managing a discussion group.

Mr. FitzGerald discussed the need to track all the work that is being done in Kentucky with regards to renewable energy and efficiency research and development. Dr. Peters asked Ms. Clayton if the Cabinet for Economic Development manages a database that can assist the Board with this task. There is a database of companies but not universities. Mr. FitzGerald stressed the need to consolidate what research is being done in Kentucky. Dr. Peters explained that attempts he made in the past to do this in other states were unsuccessful because managing such a database is labor intensive.

There was discussion of the costs associated with conducting the Renewable Energy and Efficiency Assessment and a proposal needs to be developed that includes potential donors. Dr. Sunkara noted that the Conn Center could help with this. Mr. FitzGerald requested that the assessment include workforce development needs. Dr. Colliver agreed and explained the new Power Engineering program at UK. Mr. Wright requested that he participate in this work since he has seen bad assessments based on poor data.

Action items

- 1.) Plan to do an assessment on wind energy. This is one piece of a larger task which includes assessments of all renewables and efficiency. The Board needs to develop a proposal for this assessment in order to find funds necessary to conduct the assessment.
- 2.) Mr. Kimel will develop a one page proposal for the alternate reality game.
- 3.) Ms. Clayton will provide information to the board regarding the database that the Cabinet for Economic Development maintains.

Other Business

The board discussed that CRERES statute calls for a chair and co-chair to be elected. Dr. Peters appointed a nominating committee which includes Ms. Clayton, Mr. Kimel and Dr. Clardy. The committee will nominate individuals for chair and co-chair and an election will be held at the next meeting. Ms. Clayton will convene the group.

Mr. FitzGerald stated that the chairs of the board should reach out to legislators and that the February meeting should be held in Frankfort so that legislators can be educated about the assessment.

Next Meeting

November 3

Agenda items:

- 1.) Review assessment proposal
- 2.) Hold elections for chair and co-chair
- 3.) Review collective intelligence proposal
- 4.) Discuss database mining
- 5.) Conn Center update including progress on the symposium