

# **Advanced Conversion Technologies Task Force Meeting**

Minutes

Friday, November 20, 2015

University of Wyoming Energy Innovation Center

Laramie, Wyoming

**ACTTF Members Present:** Tom Lockhart (Vice-Chair), Senator James Anderson, Carl Bauer, Tom Botts, Cindy Crane, David Emery, Jeane Hull, Rob Wallace, Rob Hurless

**ACTTF Members Absent:** Paul Lang (Chair)

**SER Staff in Attendance:** Mark Northam, Diana Hulme

**Others Attending:** None

**Agenda:**

- 1) Approval of Agenda
- 2) Approval of Minutes from the August 21, 2015 meeting
- 3) Technology Commercialization
- 4) CCTF 2012 project update
- 5) 2007 Clean Coal interest funds
- 6) Update on ITC – Rob Hurless and Carl Bauer
- 7) New business/Direction for next meeting
- 8) Adjourn

**Summary of Action Items from Meeting:**

1. Approval of agenda – A motion was made and seconded to accept the meeting agenda as presented. The motion passed unanimously.
2. Approval of Minutes from the August 21, 2015 meeting - A motion to approve the minutes from the last meeting on August 21, 2015 was made and seconded. The motion passed unanimously.
3. Technology commercialization - Technology commercialization was not discussed during this meeting. No action was taken.
4. Maohong Fan 2012 project update – A motion was made and seconded to allow Dr. Fan to spend the remaining matching funds by the project end date and return the remaining unmatched \$173,000 of ACTTF funds to the State of Wyoming. The motion passed unanimously.
5. 2007 Clean Coal interest funds – A motion was made and seconded to have SER work with the College of Engineering to find the needed \$46,000 of matching funds to balance the budget for Dr. Fan’s project to date, and allow Dr. Fan to spend the remaining matching funds by the project end date and to return the remaining unmatched \$173,000 of ACTTF funds to the State of Wyoming. The Task Force agreed unanimously. SER staff will draft a termination letter on behalf of the Task Force for Dr. Fan’s project so that the remaining \$173,000 of Clean Coal funds can be returned to the State.
6. Update on ITC – An update was provided. No action was taken.
7. Clean Coal Research Fund Symposium – August 20, 2015 – No action taken.

8. New business/Direction for next meeting – (New business) A motion was made and seconded for the Task Force to draft a letter to the Governor to suggest allocation of \$2 million of the \$9 million pre-FEED study appropriation to the School of Energy Resources for the coal refinery project or commercialization assistance for carbon capture technologies. The motion passed unanimously. (Direction for next meeting) The next meeting will be held in 2016 in Laramie. No action taken.
9. Adjourn – A motion was made and seconded to adjourn. The motion passed unanimously.

#### **MEETING DETAILS:**

##### **1. Approval of Agenda**

*Summary:* A motion was made and seconded to accept the meeting agenda as presented. The motion passed unanimously.

*Action Taken:* The motion passed unanimously.

##### **2. Minutes from August 21, 2015 Meeting**

*Summary:* A motion to approve the minutes from the last meeting on August 21, 2015 was made and seconded. The motion passed unanimously.

*Action Taken:* The motion passed unanimously.

##### **3. Technology Commercialization**

*Summary:* Technology Commercialization was not discussed during this meeting.

*Action Taken:* No action taken.

##### **4. CCTF 2012 project update**

*Summary:* Diana Hulme reported that four projects are left in the Clean Coal Program, which ends June 30, 2016. Dr. Maohang Fan's project is behind schedule because Dr. Fan is still short \$46,000 of matching funds needed to meet the statutory requirement of a dollar-for-dollar match of non-state funds to the Clean Coal funds he has already spent. SER has been working with the Dean of the College of Engineering to identify \$46,000 of non-state, non-federal (private funds) to fill the matching fund shortage for Dr. Fan's project. SER could possibly use Nielson funds for this as well. SER will continue to work with the College of Engineering Dean's Office to find the required matching funds.

Once the additional \$46,000 of matching funds is found, Dr. Fan's project budget will still have \$173,000 of Clean Coal money left to spend by March 31, 2016, but he has no other sources of matching funds for this remaining money and very little time to find additional match. To ensure Dr. Fan's project budget balances the Clean Coal spending with matching fund spending, Dr. Fan could use the remaining \$46,000 of matching funds to fund a graduate student or research scientist and do as much work as he can on the project by the March 31<sup>st</sup> end date. Mark stated that it may be difficult to find a graduate student at this point. Mark agreed with Diana that it is unlikely that Dr. Fan can find the additional

matching funds and he suggested termination of the project and return the remaining \$173,000 back to the State of Wyoming.

*Action Taken:* A motion was made and seconded to have SER work with the College of Engineering to find the needed \$46,000 of matching funds to balance the budget for Dr. Fan's project to date, and allow Dr. Fan to spend the remaining matching funds by the project end date and to return the remaining unmatched \$173,000 of ACTTF funds to the State of Wyoming. The Task Force agreed unanimously. SER staff will draft a termination letter on behalf of the Task Force for Dr. Fan's project so that the remaining \$173,000 of Clean Coal funds can be returned to the State.

#### **5. 2007 Clean Coal interest funds**

*Summary:* After many discussions over the last several Task Force meetings about how to deploy ACTTF 2007 interest funds in the amount of approximately \$247,000, the Task Force decided to return these funds to the State of Wyoming.

*Action Taken:* A motion was made and seconded for the Task Force to return any interest funds generated by the 2007 ACTTF funds to be returned to the State of Wyoming. The motion passed unanimously.

#### **6. Update on ITC – Rob Hurless and Carl Bauer**

*Summary:* Carl Bauer updated the ACTTF on the status of the Integrated Test Center (ITC). Basin Electric has agreed to provide a host site for the ITC – the Dry Fork Station in Gillette, WY. As a result, Jason Begger with the Wyoming Infrastructure Authority (WIA) is working on a memorandum of understanding (MOU) with Basin Electric. Basin Electric will oversee the construction and operation of the test bays. Initial work for the ITC will begin at Dry Fork Station in March 2016 to install a flue gas damper to divert a flue gas slipstream to the test bays. Additional agreements have already been executed between:

1. WIA and X-Prize (an MOU), who will be the first tenant of the ITC and will have access to five small test bays.
2. WIA and Tri-State (a cooperative agreement), who has agreed to contribute \$5 million of matching funds to the \$15 million of state funds.
3. WIA and the School of Energy Resources (a cooperative agreement) to establish a cooperative effort for construction, management, and operation of the ITC.
4. WIA is also working on a cooperative agreement with the National Rural Electric Cooperative Association (NRECA), who has agreed to contribute \$1 million of matching funds to the state's \$15 million.

Carl informed the board that the site should take about two years to build with roughly \$20 million currently available for construction and operation. There is also an agreement with Basin Electric to keep some infrastructure in place after the testing is completed because they would like to use the area for other activities. Diana and Carl have agreed to go up to Dry Fork Station around January 11<sup>th</sup> to ask questions to Dennis and check in on the site schedule. Carl added that Jason and Diana would be in touch regarding finances and details of this project.

*Action Taken:* No action was taken.

**7. New business/Directions for next meeting**

*Summary:* Mark Northam reminded the Task Force that there is still \$9 million appropriated to the Governor's office for a coal/natural gas-to-liquid pre-FEED study. The Task Force was named in this study to provide input upon request by the Governor regarding use of these funds. Mark asked for discussion of ideas the Task Force might have for the Governor's Office regarding the \$9 million. There was discussion of helping some of the technologies funded by the Clean Coal program with scale-up demonstrations of their technologies - particularly cryogenic carbon capture - or divert some of the funds to the coal refinery research. Considering the Task Force has a role in this effort, it was suggested the Task Force write a letter to suggest the Governor allocate \$2 million of the \$9 million to the coal refinery effort because it is of interest of the Governor.

*Action Taken:* A motion was made and seconded for the Task Force to draft a letter to the Governor to suggest allocation of \$2 million of the \$9 million pre-FEED study appropriation to the School of Energy Resources for the coal refinery project or commercialization assistance with carbon capture technologies. The motion passed unanimously.

**8. Adjourn**

*Summary:* The next meeting will be held in 2016 in Laramie.

*Action Taken:* A motion was made and seconded to adjourn. The motion passed unanimously.

**Meeting adjourned.**

Respectfully submitted:

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Paul Lang  
Chairman

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Tom Lockhart  
Vice-Chairman