Clean Coal Task Force Meeting Minutes
Laramie Hilton Garden Inn
UW Conference Center, Salon F&G
August 26, 2011
1:21 p.m. – 2:26 p.m.

CCTF Members Present:
Ron Harper, Tom Lockhart, Paul Matheny, Paul Lang, Kit Jennings, Carl Bauer

CCTF Members Absent:
Jim Kleckner, Rob Wallace, N. Maha Mahasenan

SER Staff in Attendance:
Mark Northam, Mary Byrnes, Diana Hulme, Cath Harris, Pam Hendersen

Summary of Action Items:
• The Clean Coal Task Force (CCTF) asked School of Energy Resources (SER) staff to determine the balance remaining in the Clean Coal Research Account (CCRA) taking into account removal of the funding obligation to two projects awarded to Lawrence Livermore National Laboratory (LLNL) in 2010 and reconciliation of any outstanding invoices from the terminated CIRIS Energy project funded in 2009.
• Senior Assistant Attorney General, Jane Caton, who has been assigned as counsel to the CCTF, and University of Wyoming (UW) General Counsel representative Susan Weidel, are drafting an MOU between the CCTF and UW identifying each party’s role in managing the Clean Coal Program. Jane Caton will work with the CCTF members to review the draft MOU and Susan Weidel will work with UW.
• SER staff will work on establishing a recordkeeping protocol for the Clean Coal Program proposals, document files and final reports.
• Currently, the Clean Coal Task Force (CCTF) will sunset on June 30, 2013. CCRA funds appropriated in 2010 revert a year later on June 30, 2014. Legislation is being drafted, with guidance from the Minerals Committee, to revise the CCTF sunset date to coincide with that of the CCRA, or June 30, 2014. However, rather than have the sunset dates for the CCTF and CCRA coincide on June 30, 2014, the CCTF would like to recommend to the Minerals Committee that the CCTF remain in effect for one full year following the sunset date of the CCRA (presumably to June 30, 2015 provided the CCRA sunsets on June 14, 2014) to provide oversight until all projects have been completed.
• The CCTF will continue to work with the Minerals Committee to revise the statutory language that prohibits the use of Wyoming state funds to match awards from the CCTF. This has put UW faculty at a competitive disadvantage when applying for CCRA funds as they are prohibited from using their state-derived salary as in-kind matching funds.
• In discussion about how to manage the remaining CCRA funds, the CCTF members agreed on the need to be thoughtful and conscientious about ensuring these funds are managed responsibly,
accordance with the legislation, and in a manner that results in the greatest benefit to the State of Wyoming. As such, the CCTF made the following recommendations regarding funds returned by two applicants:

- The funds returned to the CCTF from the CIRIS Energy project (~$4.7 million) have a sunset date of June 30, 2012. Given the short duration of these funds, the CCTF recommended that SER staff wait until the Wyoming legislature meets and decides whether to extend the sunset date before issuing a new RFP.
- Funds previously committed to two projects awarded to LLNL for a total amount of $1 million have a sunset date of June 30, 2014. The CCTF asked SER staff to explore ways to deploy some or all of these funds in accordance with the legislation and report back to the CCTF at the next meeting.

- The CCTF directed SER staff to summarize the clean coal projects that have commercialization and/or job creation potential for report to the Minerals Committee at their next meeting on September 12-13, 2011 in Casper.

**Agenda and Background information:**
The meeting was called to order at 1:21 p.m.

Chair Ron Harper asked for a motion to accept the agenda as written. A motion to accept the agenda (Attachment A) was made by Tom Lockhart, seconded by Carl Bauer and passed unanimously.

**Agenda Topics**

1) **Approval of the Minutes from May 27, 2011 and August 5, 2011**

**Action Taken:** A motion was made by Tom Lockhart and seconded by Kit Jennings to accept the minutes from the May 27, 2011 and August 5, 2011 meetings (Attachments B and C) The motion passed unanimously.

2) **Budget**

**Summary:** As of the May 27, 2011 meeting, all but $134,000 of the CCRA had been committed to research projects. A contract with CIRIS Energy was terminated on August 8, 2011 returning approximately $4.7 million dollars to the CCRA. There is still an outstanding invoice from CIRIS Energy that will need to be paid before the exact amount of funds remaining in that account are known. In addition, commitments of $500,000 each awarded to two projects with Lawrence Livermore National Laboratories (LLNL) have been rescinded returning $1 million to the CCRA. SER staff estimates that between the CIRIS Energy and LLNL funds, there will be approximately $5.7 million remaining in the CCRA.

**Action Item:** When the final invoice is received from CIRIS Energy, SER staff will “true-up” the CCRA account and report the total remaining funds and respective reversion dates to the CCTF.
3) Action Items from the May 27, 2011 Meeting

a. Wyoming Attorney General Representation
   **Summary:** Jane Caton, Senior Assistant Wyoming Attorney General from the Contracts Division, was introduced to the CCTF. She has been assigned as counsel to the CCTF from the Wyoming Attorney General’s Office. Susan Weidel, from the UW Office of General Counsel, is working with Jane to draft a memorandum of understanding (MOU) between the CCTF and UW. The MOU will clarify the roles and responsibilities of the CCTF and UW.

   **Action Item:** With the next week or two, Jane Caton will send a draft MOU to the CCTF and Susan Weidel will work on the draft with UW.

b. Recordkeeping protocol for CCTF proposals, files and final reports
   **Summary:** On August 22, 2011, SER staff met with Jane Caton, Senior Assistant Attorney General; Susan Weidel, UW General Counsel; Dorothy Yates, Office of Research Associate Vice President; and Farrell Rapp, Sponsored Programs Administrator to review the Clean Coal Program process and procedures. One of the items discussed was recordkeeping of proposals, file documents and final reports. It was suggested that the CCTF adhere to the same recordkeeping protocol as the UW Office of Research. This means keeping records for seven years, which aligns with the terms required for UW contracts attached to federal funds. It was also recommended that the records be kept in an electronic format.

   **Action Item:** SER staff will work on establishing a recordkeeping protocol for the Clean Coal Program proposals, files and final reports.

c. Legislative update on sunset dates for the CCTF (task force) and CCRA (account)
   **Summary:** Currently, the Clean Coal Task Force (CCTF) will sunset on June 30, 2013. CCRA funds appropriated in 2010 revert on June 30, 2014. Legislation is being drafted to revise the sunset date of the CCTF to June 30, 2014. However, rather than have the sunset dates for the CCTF and CCRA coincide on June 30, 2014, the CCTF would like to recommend to the Minerals Committee that the CCTF remain in effect for one full year following the sunset date of the CCRA (presumably to June 30, 2015 provided the CCRA sunsets on June 30, 2014) to provide oversight until all projects have been completed.

   **Action Item:** The CCTF will present a recommendation to the Joint Minerals Committee at their next meeting on September 12-13, 2011 in Casper, WY to revise the sunset date of the CCTF to one year following the sunset date of the CCRA.
d. **Legislative update to remedy the prohibition of the use of state funds as match**

**Summary:** Current statutory language prohibits the use of Wyoming state funds to match awards from the CCTF. This has put UW faculty at a competitive disadvantage when applying for CCTF funds as they cannot use their state-derived salary as in-kind matching funds.

**Action Item:** The CCTF will work with the Joint Minerals Committee for the 2012 session to revise the statutory language that prohibits the use of Wyoming state funds to match awards from the CCTF.

4) **Rescinded funding of CIRIS Energy and New CCTF RFP**

**Summary:** As discussed in the budget section above, the contract with CIRIS Energy was terminated on August 8, 2011 returning approximately $4.7 million dollars to the CCRA. Also, commitments of $500,000 to two projects belonging to Lawrence Livermore National Laboratories (LLNL) have been rescinded for a total of $1 million.

These funds could be redeployed through another RFP process but the funds associated with these two projects have differing reversion dates. The approximately $4.7 million returned by termination of the CIRIS Energy contract reverts on June 30, 2012. The $1 million previously committed to LLNL reverts on June 30, 2014. It would be difficult to issue a new RFP for the funds that revert on June 30, 2012 as the proposal selection process and approval by the CCTF and Joint Minerals Committee can take up to four months and it can take an additional four months to execute the contracts. With this timeline, researchers would have only two to three months to complete their projects before the funds revert.

As part of this discussion, the CCTF members all agreed on the need to be thoughtful and conscientious about ensuring these funds are managed responsibly, in accordance with the legislation, and in a manner that results in the greatest benefit to the State of Wyoming.

**Action Item:** The funds returned to the CCTF from the CIRIS Energy project (~$4.7 million) will have a sunset date of June 30, 2012. Given the short duration of these funds, the CCTF recommended that SER staff not issue a new request for proposals (RFP) to deploy these funds until the Wyoming legislature meets and decides a course of action for these funds.

**Action Item:** Funds previously committed to two projects awarded to LLNL for a total amount of $1 million have a sunset date of June 30, 2014. The CCTF asked SER staff to explore ways to deploy some or all of these funds in accordance with the legislation and report back to the CCTF at the next meeting.

5) **CCTF Contracts**

**Summary:** Dorothy Yates, Office of Research Associate Vice President, presented a timeline for issuing CCTF contracts (Attachment D). The funds for the CCRA derive from the federal
Abandoned Mine Land (AML) funds distributed to the Wyoming Department of Environmental Quality (DEQ) from the Office of Surface Mining (OSM). All applicants to the Clean Coal program must present matching funds equal to or greater than the funds requested from the CCRA. If an applicant uses federal funding as match, UW must find non-federal funds to swap with the federal AML funds because federal money cannot be used to match for other federal money. The UW Office of Research finds sources of state funding in the block grant to trade out or swap for the federal AML funds. Often, UW block grant funds budgeted to pay utilities are swapped with the AML funds. The process of obtaining the AML funds from DEQ, estimating the amount of money that needed for the swap, and execution of the swap takes approximately eight weeks. After the swap process is complete, the Office of Research can work with the CCTF applicant to negotiate and execute the contract. Contract negotiation and execution can also take approximately eight weeks. If AML funds were categorized as non-federal funds rather than federal funds, the swap process could be eliminated and contracts could be issued in two months as opposed to four. There was discussion about whether AML funds are considered federal or non-federal. The Office of Research says that an opinion from the Wyoming Attorney General has determined AML funds to be federal. CCTF member Carl Bauer was told by the former Wyoming Governor and representatives at the Department of Interior that AML funds are non-federal.

**Action Item:** UW should seek additional clarification as to whether AML funds are considered federal or non-federal to determine if the swap process for the Clean Coal Program is necessary. SER staff can coordinate with the Office of Research and Attorney General’s Office on this.

6) **Feedback on the Clean Coal Technology Fund Research Symposium**

**Summary:** Carl Bauer and Kit Jennings were able to attend the majority of the presentations at the August 25, 2011 Clean Coal Technology Fund Research Symposium (Attachment E). Carl heard very positive feedback from others about the quality of the projects and research presented. Carl thought that 6 of the 12 presentations were very solid and only one project seemed like it was one that maybe should not have been funded. Carl also felt that several of the projects have commercialization potential.

**Action Item:** Tom Lockhart asked SER staff to summarize the Clean Coal projects that appear to have commercialization and/or job creation potential for presentation to the Minerals Committee at their next meeting September 12-13, 2011 in Casper.

**Meeting adjourned at 2:26 p.m.**

Respectfully Submitted:

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Ron Harper 
Tom Lockhart
Attachment A
Clean Coal Task Force Meeting Agenda
August 26, 2011
UW Conference Center
Following the ERC Meeting

1) Minutes – May 27 and Aug 5, 2011 – For Approval
2) Budget
3) Action Items from May 27th meeting
   a. Wyoming Attorney General representation – introduction of attorney, Jane Caton
   b. Record keeping protocol for CCTF proposals and files
   c. Legislative update on sunset dates CCTF (taskforce) and CCRA (fund)
   d. Legislative update on state match for CCTF removing for competitive disadvantage
      for UW faculty
4) Rescinded funding of CIRIS Energy and New CCTF RFP
5) CCTF Contracts – Bill Gern & Dorothy Yates
6) Feedback on Symposium
7) Other Business
8) Adjourn
Attachment B
Clean Coal Task Force Drafted Meeting Minutes
Laramie Hilton Garden Inn
UW Conference Center, Salon F&G
May 27, 2011
11:10 a.m. – 2:25 p.m.

CCTF Members Present:
Tom Lockhart, Paul Matheny, Paul Lang, Rob Wallace, Kit Jennings, N. Maha Mahasenan

CCTF Members Absent:
Carl Bauer, Jim Kleckner, Ron Harper

SER Staff in Attendance:
Mark Northam, Mary Byrnes, Diana Hulme, Cath Harris, Sarah Schulmeyer

Others Attending:
Tom Buchanan
Dave Palmerlee
David Bell – Associate Professor, Chemical and Petroleum Engineering
Richard Garrett - Wyoming Outdoor Council
Colin McKee – Energy Policy Analyst, Governor’s Office

Action Items from Meeting:
• SER staff will draft a formal written request from the CCTF co-chairs, Ron Harper and Tom Lockhart, requesting Wyoming State Attorney General representation for the CCTF.
• The issue of a recordkeeping protocol for CCTF proposals and files will be added to the agenda for the August 26, 2011 CCTF meeting. Prior to this meeting, SER staff will draft a protocol on behalf of the CCTF to UW General Counsel requesting that copies of funded.
• CCTF proposals and files be stored in the UW Office of Research and Economic Development vault.
• Current legislation regarding sunset dates has the Clean Coal Task Force ending on June 30, 2013, one year before the funds revert on June 30, 2014. In addition, there is likely to be some funding remaining after awards are made for this current round of proposals that cannot be distributed through another RFP process given the impending reversion date.
• One previous CCTF award recipient, Emery Energy, has asked if they can submit a proposal for supplemental funds to continue work on their CCTF project. A decision needs to be made by the legislature as to how remaining funds can be allocated. The following action items will be
taken to provide options for reconciling the sunset dates, allocating remaining CCTF funds, and determining the future of the CCTF program:

- Mark Northam will ask Emery Energy for a proposal describing their supplemental scope, schedule and budget. Mark will also ask Don Richards to approach the Wyoming Attorney General’s Office on May 30, 2011 for clarification of the legislative requirement for competitive evaluation of proposals in order to receive CCTF funds.
- Mark Northam will talk with President Buchanan to ask if UW is interested in continuing the CCTF program outside the UW block grant.
- Mark Northam will draft a summary of options for Tom Lockhart and Kit Jennings to address the inconsistent sunset dates and future CCTR funding, including the following: 1) Align the two sunset dates (for the CCTF and reversion of funds) and let the current funding run out and the existing projects end with no future funding for the program; 2) Align the two sunset dates and ask for more funding to continue the CCTF program; 3) Align the two sunset dates and broaden the focus from clean coal to advanced fossil fuel technologies, to include oil and gas as well as coal.

- In an effort to provide UW faculty the same competitive advantage as faculty from other universities in acquiring CCTF awards, Mark Northam will work with Don Richards to outline a draft document for the Wyoming Legislature to address the inability of UW faculty to use their state salaries as in-kind contribution toward the dollar-for-dollar match required for CCTF proposals. A determination needs to be made whether the Abandoned Mine Land (AML) funds used for the CCTF program are considered state or federal funds. Currently, state funds cannot be used as match for state grants, which precludes the use of UW faculty salaries as in-kind match for the CCTF program. This statute is a vestige of the original fund source which was state general funds.

Agenda and Background information:
Meeting commenced at 11:10 a.m. Tom Lockhart conducted the meeting. He thanked members for participating in the meeting.

Tom Lockhart requested a change in the flow of the agenda to reflect going to approving the minutes, legal issues and then into executive session for consideration of 2011 RFP proposals, and then review the CCTF budget and other business in an open session.

Agenda Topics

Approval of the Minutes from November 19, 2010
Action Taken: The November 19, 2010 minutes were motioned to be accepted by Tom Lockhart and seconded by Paul Lang and unanimously passed.

Legal Issues
a. Attorney General – Legal Representation and Assistance

Summary: A discussion by Tom Lockhart with the Deputy Attorney from the Attorney General’s Office resulted in the Attorney General’s Office creating a form that will address the CCTF having legal representation from the State of Wyoming. The CCTF has standard representation at this time, but the Attorney General’s Office has been asked for more detail. Don Richards and UW General Counsel met with the Attorney General last week and were informed that a representative(s) would be assigned to the CCTF.

Action Item: SER will get a formal written request to the Attorney General from Ron Harper and Tom Lockhart for this representation.

b. Public Records Request – Wyoming Public Records Act

Summary: A public records request was received by the University Of Wyoming School Of Energy Resources requesting information about a proposal from Ciris Energy addressing biogenic stimulation of coal bed methane. Ciris was fined by the Wyoming Oil and Gas Conservation Commission for failing to obtain a permit to inject chemicals into coalbed methane wells to stimulate biologic activity. Ciris was awarded funding from the CCTF in 2009 and has received the single largest amount of CCTF to date for an award.

UW legal counsel, Sue Weidel, advised SER to respond and handled the response for SER. SER disclosed everything except the confidential details of the project. UW believes the request has been satisfied. The CCTF will be updated if anything should change.

c. Record Keeping of Proposals – Discussion and Information

Summary: It was agreed that SER will follow the same rules as the UW Research Office does with all federally funded grants. SER is investigating whether AML funding requires any special record keeping guidelines, and will keep the CCTF updated as SER is informed. SER will keep the records until the project is completed and then transfer them to a secure vault located in the UW Office of Research and Economic Development for the duration of the seven years. It is required that all grants that originate from federal funds, (AML are considered federal funds) adhere to this procedure.
SER has signed a nondisclosure agreement with unsuccessful proposals which has a life of three years. SER proposes to keep these proposals for one year and then destroy them, which is customary with the procedure of the UW Research Office.

**Action Item:**
The issue of a recordkeeping protocol for CCTF proposals and files will be added to the agenda for the August 26, 2011 CCTF meeting. Prior to this meeting, SER staff will draft a protocol on behalf of the CCTF to UW General Counsel requesting that copies of funded CCTF proposals and files be stored in the UW Office of Research and Economic Development vault.

d. **Sunset Date of the Clean Coal Task Force: One year Prior to the Funding Expiration Date**

**Summary:** The State of Wyoming legislation requires a sunset date for the CCTF of June 30, 2013 and a sunset date for funding of projects by June 30, 2014. It is a concern that the sunset date for the CCTF be one year after the sunset date for fund reversion to ensure projects are completed as required. Legislation should be amended to change the sunset date of the CCTF. Several questions arose from this discussion:

- Should funding continue to be requested from the State for the Clean Coal Technology Fund to continue in moving forward with awarding clean coal projects?
- If so, the sunset dates would need to be pushed further into the future. Funds were not appropriated by the State to the Clean Coal Technology Fund for 2012.
- If not, the appropriate sunset dates for the CCTF should be changed from June 30, 2013 to June 30, 2015.

**Action Item:** Northam to draft something addressing the sunset date issue. Tom Lockhart and Kit Jennings will take on addressing the issue of the sunset dates with the legislature.

**Legal Issues – Other Business**

e. **Fund Source & Comparative Disadvantage**

**Summary:** Legislation states that clean coal awards are to be awarded competitively with a 50% outside match and cannot be state funds. It was proposed that a consideration be made to change the wording to reflect that some funds could be state funds to allow Wyoming state agencies (UW) to be able to compete in the process. For example, when a Wyoming state agency uses in-kind work or facilities as part of their outside match; it is
state funds. If a university from another state, such as BYU, uses in-kind work or facilities, it is not considered state funds and puts Wyoming state agencies at a disadvantage in competing. Legislation would need to determine if changing the language meets the original intent. Originally SER was funded by state funds and it was not an issue in the first round of clean coal proposals, as the intent was not to match state funds with state funds. A suggestion was made to examine whether this is an equitable situation and if there is cause to modify the legislation.

**Action Item:** Northam will work with Don Richards to put together a concrete outline of something the legislature could consider to address the issue.

**Executive Session - 2011 RFP Review and Selection**

**Summary:** The CCTF moved into executive session due to proprietary information in the 2011 Clean Coal Technology Fund proposals. Lockhart requested all who were not a member of the CCTF to leave the meeting.

**Action Taken:** A motion to go into executive session was made by Kit Jennings and seconded by Paul Lang. It was unanimously accepted.

Kit Jennings made a motion to end the executive session and Maha Mahasenan seconded it. It was unanimously accepted.

**Other Business**

a. **Emery Energy Request**

**Summary:** Emery Energy sent Northam a letter requesting additional funding for a proposal to scale up their gasifier which was funded by the Clean Coal Technology Fund. The gasifier they currently built is housed at Western Research Institute and is used in a test bed of other technologies, adding value as the research is completed. They are getting ready to apply for a $1,000,000 DOE grant, but need a 20% match and have asked if the Clean Coal Technology Fund would consider providing the match. If funded, it would fall into the category of continued support to funding a project the Technology Fund has awarded twice competitively. It is on the pathway of commercialization; it would be using a small amount of clean coal funds to leverage a large amount of DOE funds, but does not fall under the guidelines of our current state legislation for the CCTF or the fund. SER would like to use this as a test case to go to the Attorney General to request funds be used as a continuation to a current project.
Action Items: SER to request full proposal from Emery Energy to review. Northam is to ask Don Richards to make the request of the Attorney General on Tuesday, May 31, 2011 in order to receive a timely answer on the issue.

b. Future Funds

Summary: The CCTF was posed with the question from President Buchanan as to whether the CCTF felt the Clean Coal Technology Fund program has been successful and should a specific amount of funding be requested for the Clean Coal Technology Fund in the future. Additionally President Buchanan requested the taskforce also consider the question of funding to be requested from the general fund should AML funding not be available.

Northam proposed the idea of posing a request to the Governor to expand the scope of the Clean Coal Technology Fund to include oil and gas and other projects, to be called an “Advanced Fossil Energy Technology Fund”. The CCTF determined this was not a plan to undertake at this time.

Action Item: The CCTF would like Northam to discuss the idea of continuing the Clean Coal Technology Fund and asking the State for more funds with President Buchanan and report the outcome to the CCTF of the discussion at the August 26 meeting.

Action Taken: A motion was made by Kit Jennings and seconded by Mahasenan for Northam to talk with UW President Buchanan to see if there is an interest for UW to continue the work of the Clean Coal Technology Fund with funding by the state once the outcome of AML funding occurs.

Next Meetings
a. August 26, 2011 – will include a CCTF symposium on August 25, 2011. Lockhart requested that SER consider holding the symposium and the meeting on the same day.
  c. November 18, 2011

Meeting adjourned at 2:25 p.m.

Respectfully Submitted:

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                    Ron Harper               Tom Lockhart
Attachment C
Clean Coal Task Force (CCTF) Meeting Minutes
Teleconference
Bureau of Mines Building, Room 207
August 5, 2011
8:20 a.m. – 9:00 a.m.

CCTF Members Present on Teleconference:
Paul Lang, N. Maha Mahasenan, Paul Matheny, Carl Bauer

CCTF Members Absent:
Tom Lockhart, Jim Kleckner

CCTF Members with Declared Conflict of Interest:
Ron Harper, Rob Wallace, Kit Jennings

Representative for the Wyoming Governor’s Office:
Rob Hurless

UW and SER Staff in Attendance:
Mark Northam, Mary Byrnes, Diana Hulme, Susan Weidel, Sarah Schulumeyer

Representatives for the Wyoming Attorney General’s Office:
Mike Barrash, Nancy Vehr

Summary of Action Items resulting from the Meeting:
A motion was made by Carl Bauer requesting that the University of Wyoming draft a letter to terminate the contract with Ciris Energy. This draft will be forwarded to the Clean Coal Task Force for their review and finalization. Maha Mahasenan seconded it. The motion was carried.

A motion was made by Carl Bauer to have Mark Northam ask the Joint Minerals Committee at the September, 2011 meeting that the funds recovered from the Ciris Energy project be re-issued with another RFP and the sunset date extended. Paul Matheny seconded it. The motion was carried.

Mark Northam will have a draft of a new RFP for discussion at the August 26, 2011 CCTF meeting and will communicate the outcome of today’s meeting to the CCTF members that were unable to attend.
Meeting Minutes:

Welcome
Vice Chairman Tom Lockhart was to chair the meeting, but was unable to attend. Paul Lang chaired the meeting by consent of the CCTF.

Purpose of CCTF Special Teleconference Meeting
Summary:
Mark Northam addressed the issue that Ciris Energy, which had been a recipient of a Clean Coal Technology Fund award in 2009, had changed the scope of their project, schedule, personnel, and budget. The meeting today was called to determine whether to: 1) allow the project to move forward with the new scope and an extended completion date, 2) terminate the project contract and issue a new RFP to distribute these funds, or 3) terminate the project contract and return the funds to the DEQ.

General Background
Mark Northam summarized the history of the Ciris Energy project and the proposed changes to their proposal:
- The CCTF approved this project in 2009.
- The size of the award to Ciris Energy is substantial. They received approximately $5 million from the CCTF and provided an equal amount of matching money.
- In December 2010 Ciris Energy asked for a revised schedule and budget due to being behind in the project. This revision was approved in February, 2011.
- The original Principal Investigators are no longer with the project.
- Ciris Energy has significantly modified its original proposal.

Executive Session:
Paul Lang motioned that the discussion of the project go into executive session due to confidential and proprietary information contained within the scope of the project. Carl Bauer seconded the motion and it was carried unanimously.

Paul Lang made a motion to end the executive session and Paul Matheny seconded it. It was unanimously accepted.

Action Items:
A motion was made by Carl Bauer requesting that the University of Wyoming draft a letter to terminate the contract with Ciris Energy. This draft will be forwarded to the Clean Coal Task Force for their review and finalization. Maha Mahasenan seconded it. The motion was
carried.

A motion was made by Carl Bauer to have Mark Northam ask the Joint Minerals Committee at the September, 2011 meeting that the funds recovered from the Ciris Energy project be re-issued with another RFP and the sunset date extended. Paul Matheny seconded it. The motion was carried.

Mark Northam will have a draft of a new RFP for discussion at the August 26, 2011 meeting and will communicate the outcome of this meeting to the CCTF members that were unable to attend.

**Meeting adjournment**
A motion was made to adjourn the meeting by Paul Lang and seconded by Carl Bauer at approximately 9:00 a.m.

Respectfully Submitted:

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Paul Lang, Acting Chair
Attachment D
UW Office of Research and Economic Development
Clean Coal Program, Contract Execution Process and Timeline
Attachment E

AGENDA

Clean Coal Technology Fund Research Symposium
August 25, 2011
9:00 am – 5:00 pm

8:00 – 9:00 am  Registration, UW Conference Center Lobby

9:00 – 9:15 am  Welcome and Opening Remarks
Mark Northam, Director, School of Energy Resources
Carl Bauer, Clean Coal Task Force

9:15 – 12 noon  Clean Coal Technology Fund Research Project Presentations
Moderator: Diana Hulme, School of Energy Resources

9:15 – 9:45 am  Geologic Sequestration of CO$_2$ in the Rock Springs Uplift (Southwest Wyoming): Experimentation and Modeling of CO$_2$/Brine Relative Permeability, Hysteresis, Permanent Capillary Trapping and Salt Precipitation
Mohammad Piri, Dept. of Chemical and Petroleum Engineering, University of Wyoming

9:45 – 10:15 am  Demonstration of Hydrogen Production from Wyoming Coal
Joshua Stanislowski, Energy & Environmental Research Center, University of North Dakota

10:15 – 10:45 am  Development of a New Solid Sorbent for CO$_2$ Separation
Bryce Dutcher and Zhuoyan Sun, Dept. of Chemical and Petroleum Engineering, University of Wyoming

10:45 – 11:00 am  BREAK

11:00 – 11:30 am  Construction and Testing of Emery Energy Company’s Hybrid Coal Gasifier
Benjamin Phillips, Emery Energy Company

11:30 – 12:00 noon  Coal Electrolysis for the Production of Hydrogen and Liquid Fuels
Gerri Botte, Dept. of Chemical & Biomolecular Engineering, Ohio University

12:00 – 1:00 pm  LUNCH BUFFET - Seating provided in Salon E

1:00 – 5:00 pm  Clean Coal Technology Fund Research Project Presentations, continued
Moderator: Diana Hulme, School of Energy Resources
1:00 – 1:30 pm  
*Feasibility of Hydrothermal Dewatering for the Potential to Reduce CO₂ Emissions and Upgrade Low Rank Coals*

Kevin Galbreath, Energy & Environmental Research Center, University of North Dakota

1:30 – 2:00 pm  
*Pre-Gasification Treatment of Powder River Basin Coals for Improved Advanced Clean Coal Gasifier Design*

Alan Bland, Western Research Institute

2:00 – 2:30 pm  
*Carbon Capture from Coal Flue Gas Carbonaceous Sorbents*

Mac Radosz, Dept. of Chemical and Petroleum Engineering, University of Wyoming

2:30 – 2:45 pm  
BREAKE

2:45 – 3:15 pm  
*Innovative Catalytic Gasification Technology to Maximize the Value of Wyoming’s Coal Resources*

Renus Kelfkens, GreatPoint Energy

3:15 – 3:45 pm  
*Capture and Mineralization of Carbon Dioxide from Coal Combustion Flue Gas Emissions: Pilot Scale Studies*

K.J. Reddy, Dept. of Renewable Resources, University of Wyoming

3:45 – 4:15 pm  
*Development & Evaluation of Non-Carbon Sorbents*

Vijay Sethi, Western Research Institute  
Michael Lucarelli, Novinda Corporation

4:15 – 4:30 pm  
Wrap up and closing remarks

5:00 – 6:00 pm  
RECEPTION - Complimentary beer, wine and snacks – UW Conference Center Lobby