

**Minnesota West Community & Technical College**  
**Biofuels Technology Advisory Committee Meeting**  
**Wednesday, January 5, 2011**  
**10:00 a.m.-12:00 noon**

**Participants:** On campus - David Lukkarinen, Charles Neece, John Konstant, Mike Baumann, Elmer Knutson, Dennis Hampel, Rose Patzer, Duane Carrow; by telephone - Jeff Knutson and Brandon Soine

**Action Item:** Committee officially removed ELWT 1170 from Biofuels program and replaced it with RNEW 1005. Lukkarinen/Neece - M/S/P. As clarification, ELWT 1170 is the Wind Program climbing lab for OSHA.

**Program Review:** Rose outlined the current course offerings for the Biofuels Technology AAS degree. There have been several changes since the program began. What was originally 68 credits, is now 60 credits as proposed by MnSCU to reduce cost of tuition. Several courses have had name changes and many courses have moved to on-line venue. It was noted that on-line courses require discipline on the part of the students and that for some traditional students this proves difficult. Another drawback of on-line is that the element of lecture is lost.

Dennis announced that a new math course (Math 1111) will be introduced in the fall of 2011. It is an applied math course and could be a better fit for the Biofuels program. It will be transferrable. It was noted that many students may need remedial math first. Rich Dalrymple is the contact for this new course.

The Certificate programs (Biofuels Technology Ethanol and Biofuels Technology Biodiesel) have gone from 11 credits to 17 credits and are offered 100% online.

The Energy Technical Specialist AAS degree program is fairly new (second year). This program is also 60 credits and allows for crossover in multiple disciplines (ethanol production, biodiesel production, wind turbine maintenance, solar energy, natural gas distribution, coal-fired electric power generation). Core skills common to many disciplines were identified and courses were developed to fill this need (these skills were identified by an outside firm, General Physics, who did a study at the beginning of the project). In addition, students can enroll in 10 credits in a specialized area. The degree is offered by several "partner colleges" and is offered 100% online. Sharing instructors and expertise helps support the program. 128 students from partner colleges are taking courses at Minnesota West (that is approximately 50% of our total enrollment in the program). ETS is DOL grant funded.

**Student Numbers, Trends:**

Jeff Knutson – Employees of CIE are required to take on-line certificate to qualify for a shift supervisor position. Would like to include simulator training, but it's difficult when the lab is located in Granite Falls. Since 2007, 20 CIE employees have taken courses at MW. Notice improvement in skills – employees separate themselves above and beyond other employees. Advancement opportunities.

Mike Baumann – Seven of the employees at GFE have completed the AAS degree and a few more have completed the Certificate.

Rose – Carbon Green Energy enrolled 5 employees last fall.

Advantage of Certificate is that it can be completed in one year (can be a struggle with working at same time). Online format allows us to reach out to distant locations.

**Job Placement:** 90% of graduates are placed. Some go on for 4 year degree elsewhere. Relocation can be an issue – willingness to move.

**Add to Certificate program:**

Duane posed question: Should we add Simulator/Microbial labs, etc. to Certificate programs? Certificate would increase from 17 credits to 20 and would include plant drawing (1 cr.) plus 2 cr. lab.

Discussion: For current plant workers, could on-the-job board time count toward credits for Simulator? Can we require employees to come to Granite Falls for labs? Is it possible to do Simulator on-line? (It is possible, but logistics and management would be very difficult.) A pilot project was initiated last summer – taking 8 laptops to 2 plants in South Dakota, with Mike Bauman instructing. It was very well received.

Charles: Could Certificate be offered with and without the lab?

Duane: Maybe we need a diploma level – 32 credits (with labs included). Certificates were designed for the incumbent workforce – to enhance skills. A diploma would be for those looking to transition into the industry.

General consensus is that we should explore the diploma level. Consider adding gen.eds. (English and math).

Dennis: Suggested building curriculum based on skills needed.

MW currently has low numbers for on campus classes. Currently, we have only 4 students on campus. We are at risk of losing the Biofuels program. Up to now, the program has been grant-supported.

**Input from Committee:**

David: Likes ETS degree – especially the teaching of AC/DC, Hydraulics, etc. Gives a good general education of technical skills.

John: Students need mechanical skills abilities to make them better board operators.

Jeff: Feels that on-line delivery is the trend and will continue to be. Likes the idea of a diploma – 32 credits.

Brandon: Easier for employees to do on-line. Any education is a plus and valuable to employees.

What is the expectation of a graduate from the ETS program? Some have unrealistic expectations, but they are told when they start the program that they will not start in management! They are told they may have to relocate.

**Marketing:**

Currently MW has one marketing staff person at each campus – they do high school visits in addition to other outreach, but are marketing for all MW programs.

We have also marketed (mailings) to biofuels industries and workforce centers. Brochures have been developed. Direct mailings to industries have been effective.

We may apply for additional grants in the near future and will look to the committee members for letters of support. Grant money may be used for marketing, creating diploma program, or funding an instructor for simulator training.

Other ideas for marketing:

- Send brochures to plants and they can distribute to high school tours that visit.
- Add a link to MW on the plants' websites.
- Obtain testimonials from plant management or employees supporting the program. Need corporate approval?

**Wrap-up:**

Another committee meeting may be scheduled in 3 months to continue discussion on these topics.

Duane: Renewable Fuels Association has hired a marketing firm – they are asking for contacts that they can interview for promotions. Duane asked permission from John, Mike and Jeff to be interviewed.

Meeting adjourned at 11:50 a.m.