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| **PROGRAM COMMITTEE NAME**: | | | | Renewable Energy | | | | | | | | | |
| **CHAIRPERSON:** | | Arthur Schneider | | | | | | | | | | | |
| **MEETING DATE:** | | 09/23/2011 | | | **MEETING TIME:** | 12:00 PM | | | **MEETING PLACE:** | | College Union – Badger Room 208 | | |
| **RECORDER:** | | Ina Fiel | | | | | | | **PREVIOUS MEETING:** | | 12/01/2009 | | |
|  | | | | | | | | | | | | | |
| **MEMBERS PRESENT** | | | | | | | | | | | | | |
| **List all members of the committee, then place an X in the box left of name if present** | | | | | | | | | | | | | |
|  | **NAME** | | **TITLE** | | | | | **EMPLOYER INFO** | | **PHONE** | | | **EMAIL** |
| X | A J Swope | |  | | | | | Class 4 Winds & Renewables | | 806 223-5948 | | | [ajswope@class4winds.org](mailto:ajswope@class4winds.org) |
|  | Andrew Swift | | Professor | | | | | Texas Tech University | | 806 742-7202 | | |  |
|  | Bob Chambers | | Manager - Owner | | | | | Chambers Electric | | 806 373-2600 | | |  |
|  | Bobby Patrick | | Manager - Owner | | | | | Patrick Plumbing | | 806 374-0407 | | |  |
|  | Bruce Currie | | Manager - Owner | | | | | Currie Drilling Company | | 806 372-1838 | | |  |
|  | Cesar Ramos | | Manager | | | | | Wind Works Energy Solutions | | 806 290-4747 | | |  |
|  | Cody Drake | | Manager | | | | | Owens Corning | | 806 622-4474 | | | [cody.drake@owenscorning.com](mailto:cody.drake@owenscorning.com) |
|  | Dr. Byungik Chang | | Director of Alternative Energy Institute | | | | | WTAMU–Alternative Energy | |  | | |  |
|  | Gerald J. Kettler | | Managing Principal, CEO | | | | | AIR Engineering and Testing Inc. | | 972 388-5559 | | | [gjkettler@att.net](mailto:gjkettler@att.net) |
| X | Judy Kelley | | Associate Director of Research | | | | | WTAMU–Alternative Energy | | 806 651-8775 | | | [jkelley@wtamu.edu](mailto:jkelley@wtamu.edu) |
| X | Karyn Pierce | | Career and Technical Education Coordinator | | | | | AISD | | 806 326-13005 | | | [karyn.pierce@amaisd.org](mailto:karyn.pierce@amaisd.org) |
| X | Kenneth Starcher | | Associate Director of Training, Education, and Outreach | | | | | WTAMU–Alternative Energy | | 806 651-2295 | | | [kstarcher@wtamu.edu](mailto:kstarcher@wtamu.edu) |
|  | LeAnn Estep | | Director – Career and Technical Education | | | | | AISD | | 806 326-1319 | | | [leann.estep@amaisd.org](mailto:leann.estep@amaisd.org) |
|  | Michael Padilla | | Supervisor – Traffic Control | | | | | City of Amarillo | | 806 378-3000 | | | [micheal.padilla@amarillo.gov](mailto:micheal.padilla@amarillo.gov) |
|  | Mickey McCurdy | | Manager | | | | | MMM Plumbing, Heating, & AC | | 806 376-9797 | | | [mickey@mmmpha.com](mailto:mickey@mmmpha.com) |
|  | Randy Reed | | Manager | | | | | Big State Remodeling | | 806 358-7419 | | |  |
|  | Rodney Buentello | | Manager | | | | | Choice Electric Company | | 936 672-5205 | | |  |
|  | Ronnie Roberts | | Manager | | | | | West Texas Roofing | | 806 359-7663 | | |  |
| X | Rusty Williams | | Electronics/Instrumentation Technician & Safety Officer | | | | | City of Amarillo – Wastewater Facilities | | 806 433-3690 | | | [amaslim@clearwire.net](mailto:amaslim@clearwire.net) |
| X | Scott Jones | | Plant Manager – Amarillo, TX | | | | | Alstom Power Inc. | | 734 904-8227 | | | [scott.e.jones@power.alstom.com](mailto:scott.e.jones@power.alstom.com) |
|  | Sherry Kunka | | Manager, Community and Regulatory Affairs | | | | | Sharyland Utilities | | 806 358-9070 | | | [skunka@sharylandutilities.com](mailto:skunka@sharylandutilities.com) |
|  | Tim Dannels | | Plant Manager – Amarillo, TX | | | | | Zarges Aluminum Systems | |  | | |  |
|  | Tylan Shelton | | Supervisor | | | | | Big Sky Wind | |  | | |  |
|  | Wes Reeves | | Manager | | | | | Xcel Energy | |  | | |  |
|  |  | |  | | | | |  | |  | | |  |
| **EX-OFFICIO’S PRESENT** | | | | | | | | | | | | | |
| X | Arthur Schneider | | Program Director – Renewable Energy/Solar | | | | | Amarillo College | | 806 371-5089 | | | [aschneider@actx.edu](mailto:aschneider@actx.edu) |
| X | Ronald G. Mashburn | | Program Coordinator – Renewable Energy | | | | | Amarillo College | | 806 335-4223 | | | [rgmashburn@actx.edu](mailto:rgmashburn@actx.edu) |
| X | Jeffery D. Hale | | Instructor - Renewable Energy | | | | | Amarillo College | | 806 335-4311 | | | [jdhale@actx.edu](mailto:jdhale@actx.edu) |
| X | Delane McUne | | Instructor - Renewable Energy | | | | | Amarillo College | | 806 335-4309 | | | [delane.mcune@actx.edu](mailto:delane.mcune@actx.edu) |
| X | Walter C. Webb | | Laboratory Technician - Solar | | | | | Amarillo College | | 806 335-4221 | | | [wcwebb@actx.edu](mailto:wcwebb@actx.edu) |
| X | John M. Vincent | | Instructor – Renewable Energy (MCC) | | | | | Amarillo College | | 806 934-7253 | | | [jmvincent@actx.edu](mailto:jmvincent@actx.edu) |
| X | Danielle Arias | | Assistant Director – MCC Continuing Education and Workforce Development | | | | | Amarillo College | | 806 934-7227 | | | [dnarias@actx.edu](mailto:dnarias@actx.edu) |
| X | Ron Faulkner | | Coordinator of External Technical Training | | | | | Amarillo College | | 806 371-2929 | | | [rlfaulkner@actx.edu](mailto:rlfaulkner@actx.edu) |
| X | Ina M. Fiel | | Senior Staff Assistant - Renewable Energy | | | | | Amarillo College | | 806 371-5972 | | | [imfiel@actx.edu](mailto:imfiel@actx.edu) |
| **AGENDA ITEM** | | | | | **ACTION DISCUSSION INFORMATION** | | | | | | | | **RESPONSIBILITY** |
| Old Business: | | | | |  | | | | | | | |  |
| Minutes from last meeting. | | | | | Minutes from last meeting were reviewed and approved. | | | | | | | | AJ Swope |
| Continuing Business: | | | | |  | | | | | | | |  |
| Current Renewable energy majors | | | | | The number of current Renewable Energy majors for the Fall 2011 semester was presented to the committee by Ronald Mashburn. | | | | | | | |  |
| Current Renewable Energy graduates for 2010 and 2011 | | | | | The number of Renewable Energy graduates for 2010 and 2011 was presented to the committee by Ronald Mashburn. | | | | | | | |  |
| Student Activity/Success | | | | | It was presented to the committee that two of Amarillo College students continue to work with WTAMU in their Solar research by Kenneth Starcher. | | | | | | | |  |
| New Business: | | | | |  | | | | | | | |  |
| Introductions | | | | | New faculty and laboratory technician were introduced to the committee. | | | | | | | |  |
| Curriculum Decisions: | | | | |  | | | | | | | |  |
| Curriculum changes to Renewable Energy (Wind) curriculum since last meeting. | | | | | The curriculum changes that had occurred since the last meeting were presented to the committee. The committee voted unanimously to accept these changes. | | | | | | | | Kenneth Starcher |
| Proposed curriculum changes to the Renewable Energy (Wind) curriculum. | | | | | The current curriculum for Renewable Energy (Wind) was reviewed and permission to update the curriculum was presented to the committee. The committee unanimously voted to allow these changes. | | | | | | | | Scott Jones |
| Proposed Solar Options and courses. | | | | | Permission was asked to add a Solar option to the current Renewable Energy Certificates (Basic and Advanced) and the AAS Degree. The four new courses that would be used for this option was presented to the committee. The committee voted unanimously to allow the Solar Option and four new courses being requested. | | | | | | | | Kenneth Starcher |
| Other: | | | | |  | | | | | | | |  |
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| **KEY DISCUSSION POINTS** | | | | | **DISCUSSION** | | | | | | | | |
| Old Business: | | | | |  | | | | | | | | |
| Minutes from last meeting. | | | | | It was agreed by the committee that a yearly review of the curriculum was necessary to correctly meet the needs of the industry. | | | | | | | | |
| Continuing Business | | | | |  | | | | | | | | |
| New Business: | | | | |  | | | | | | | | |
| Curriculum Decisions: | | | | |  | | | | | | | | |
| Curriculum changes to Renewable Energy (Wind) curriculum since last meeting. | | | | | It was agreed that IEIR 1310 (Motor Controls) would be beneficial to the students. | | | | | | | | |
| Proposed curriculum changes to the Renewable Energy (Wind) curriculum. | | | | | Kenneth Starcher inquired as to whether EECT 2439 (Communications Circuits) included wireless technology. Ronald Mashburn answered that both EECT 2439 (Communications Circuits) and LOTT 1301 (Introduction to Fiber Optics) covered wireless technology. | | | | | | | | |
|  | | | | | A J Swope stressed a critical need for students to have job interview skills. A question was posed as to whether or not the SPCH 1318 (Interpersonal Communications) provided job interview skills. Ronald Mashburn responded to this issue stating that these skills are currently being developed and implemented in the WIND classes at this time. In addition, SPCH 1318 does not cover the level of skill-sets needed by the students to prepare and interview for jobs. | | | | | | | | |
| Proposed Solar Options and courses. | | | | | Kenneth Starcher questioned whether solar safety issues would be included in the current safety class or if another class would be implemented. Ronald Mashburn responded that solar safety issues would be included in the WIND 1302 (Wind Safety) classes at this time. | | | | | | | | |
|  | | | | | It was presented to the committee that Delane McUne would be developing ENER 1350 (Overview of the Energy Industry) as an online class to better serve the community and other areas outside of Amarillo. | | | | | | | | |
|  | | | | | It was presented to the committee that the HART 1393 (Special Topics in Solar Technology/Technician) will be utilized to introduce students to Geo-Thermal content, and will include current industry needs and requirements. It was also noted that this will be a structured on-campus course. | | | | | | | | |
|  | | | | | Kenneth Starcher asked if and how the solar curriculum would prepare the students to pass the *North American Board of Certified Energy Practitioners* (*NABCEP*). Ronald Mashburn replied that this is one of our goals. Ronald Mashburn also pointed out that many of these students would also need to be a certified electrician. | | | | | | | | |
|  | | | | | Kenneth Starcher presented to the committee and faculty that the HART 1311 (Solar Fundamentals) course content needed to include NABCEP content to prepare students to pass the basic entry-level installation requirements for NABCEP. | | | | | | | | |
|  | | | | | Arthur Schneider posed a question regarding whether the Solar curriculum should require a separate Physics class or if it should be taught in the HART 1311 (Solar Fundamentals) class. Delane McUne responded that there should be a separate class if the content is not taught in the solar class as students do need to know the fundamental theory of Physics. Scott Jones noted that we should offer a Physics course specific to the needs of the Solar courses. | | | | | | | | |
|  | | | | | Kenneth Starcher suggested that we consider changing the names of the solar classes so that it shows specifically what is taught in the class. It was also noted that the WECM description and outcomes are often too general and vague for all that is taught in many of the classes. | | | | | | | | |
|  | | | | | Kenneth Starcher questioned whether textbooks for the new solar classes were required or chosen by the program, and whether any books had been selected. Arthur Schneider responded that the textbooks are chosen by the department/program; although textbook selections are increasing gradually, we have been in the process of reviewing textbooks that will cover the required and recommended content of each of the solar courses. | | | | | | | | |
|  | | | | | Kenneth Starcher questioned whether the solar installation exercises (labs) will be the same each time or if they will offer a variety of installations to include full and partially assembled units. Arthur Schneider responded that the course labs will include both to better prepare the student. | | | | | | | | |
|  | | | | | It was unanimously agreed that this is a starting point for solar that should be evaluated on a regular basis to meet the needs of industry. | | | | | | | | |
|  | | | | | It was presented by Arthur Schneider that the Solar grant provides for outreach to include Moore County, Hereford and high school dual-credit. | | | | | | | | |
| Other: | | | | |  | | | | | | | | |
|  | | | | | Dan Dudley inquired on the progress of the transmission lines. A J Swope responded that ERCOT is expecting to break ground in October and they are expected to be energized by the end of 2013. A J also noted that ERCOT was not connected to Tres Amigas. | | | | | | | | |
|  | | | | | Kenneth Starcher informed the committee that incentives for solar was denied the last time this issue went up for review, but will be presented to TREIA in the near future for further review. | | | | | | | | |
|  | | | | | Ron Faulkner suggested that we make contact with Panhandle Builders and invite them to be part of the advisory committee. | | | | | | | | |
|  | | | | | A J Swope made a strong suggestion that we plan publicity of the program (Solar) carefully due to the bad publicity received by others. | | | | | | | | |
|  | | | | | Class 4 Winds meeting is scheduled for November 9, 2011. | | | | | | | | |
|  | | | | | Alstom will be attending the next job fair and encourage attendance. Scott Jones commented that the job market is slow at this time, however they are growing gradually. | | | | | | | | |
| **Chairperson Signature: Arthur Schneider** | | | | | | | **Date: 09/26/2011** | | | | | **Next Meeting: Summer 2012 (projected)** | |