2006-2007 Annual Report

Appalachian State University Renewable Energy Initiative



Prepared by Joe Smith on 22 August 2007

Published 8 May 2008

Table of Contents

Introduction to the REI	1
Purpose of Annual Report.	1
Mission Statement	1
Founding of REI	
Conception	
List of Members	
Early Challenges	3
Early Projects	
Academic Year 2006-2007	5
Meeting Dates & Location	5
Members & Duties	
Fall 2006	5
Spring 2007	6
Renewable Energy Projects	
Biodiesel Collaborative Photovoltaic Array	
ASU & AppalCART Biodiesel Tank	
Raley Hall Photovoltaic Array	
Plemmons Student Union Solar Thermal System	
Other REI projects	
REI Campus Forum	
Selection of new members	
REI renewal vote	
Kiosk	
Event participation	
Gift Funding	
Outlook for REI	
Members & Duties: Fall 2007	
Committee position	
Projects to Manage	
Meeting Dates for Fall 2007	14
Renewable Energy Projects	
Raley Photovoltaic Array	
Plemmons Solar Thermal	
Other REI Projects	15
Kiosk	
Outreach	15
Appendixes	16
Appendix A: Completed REI projects prior to '06-'07	17
Biodiesel Collaborative Solar Thermal	
Appendix B: REI Bylaws	
Appendix C: Legislative enabling act for REI.	
Appendix D: Project Funding Form	
Appendix E: Application for Fall'07 members	
Appendix F: Schedule for Spring '07 REI forum	

Introduction to the REI

Purpose of Annual Report

This document has been prepared to assist in the proceedings in recognizing the REI Committee's ability to make responsible decisions for the allocation of student funds. We understand that students have never before been in the position of being accountable for such large a sum of money and that there may be some hesitation on the part of the Administration. The following document is being provided to assure you that the decisions made on behalf of the Committee will be done in a thorough and legitimate manner. We are ready to fulfill the responsibilities that have been charged to us.

Included in this document is information regarding the history of the REI, the formation of its committee, the students' involvement, and the rules that govern the committee's decision making process. A set of appendices have been attached to provide further documentation of specified events. You will find minutes from the Board of Governors, the Faculty Senate, the REI Committee and other correspondence pertinent to the operations and decisions of the Committee.

We appreciate your help in resolving this issue. Thank you for taking the time to review our progress. Please let us know if there is any additional information that we can provide for you. We are excited to begin fulfilling our commitment to the student body through the implementation of renewable energies. With your help, we are able to stand proud behind Appalachian as it transforms into a more sustainable campus, and serves as a role model for other schools in the UNC system.

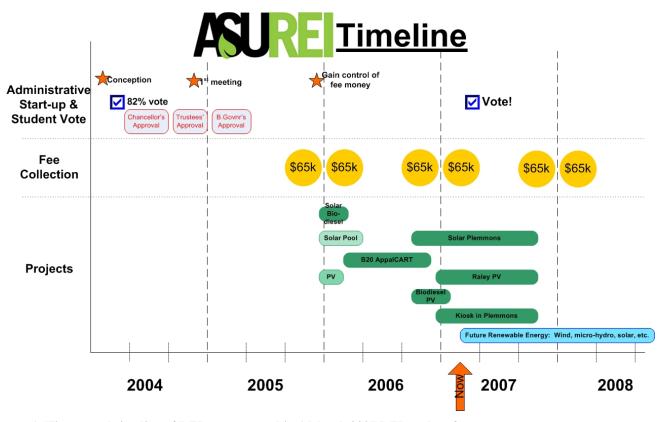
-from first Annual Report

Mission Statement

Reduce the environmental impact of Appalachian State University by replacing the university's existing sources of energy with cleaner forms of renewable energy technology on campus and serve as a resource for students and faculty by identifying and investing in the most appropriate renewable energy projects.

Founding of REI

The following section describes the history of the REI from conception up to this annual report. A graphic showing the history of the REI can be seen in Figure 1 below.



1 History and timeline of REI, as presented in 1 March 2007 REI student forum

Conception

The original concept for the Renewable Energy Initiative came during February 2004 from Ernie Hodgson, former President of ASU Sustainable Energy Society. His idea was based on a similar concept that was initiated at UNC Chapel Hill. With the help of other students interested in pursuing the initiative, he brought the idea before the Student Government Association which then approved legislation to present referendum to the student body.

The referendum asked if students would approve a \$5 per student per semester increase in fees three year period, beginning with the 2005-2006 school year and ending at the close of the 2007-2008 school year. In March 2004, of the students that voted, 82% approved the REI fee.

The Chancellor approved the students' decision over the summer of 2004 at which point the referendum was passed on to the Board of Trustees and board of Governors, which both approved the fee increase.

The first funds into the Renewable Energy Initiative were collected from student fees during the Fall 2005 semester.

List of Members

Writers of the REI legislation: Miriam Makhyoun, Justin Pittman, Ernie Hodgson, Cole McVey, & Jeff Lauckhart

Founding Members: Mike Dooraghi, Brent Summerville, Alyssa Rudolph, Miriam Makhyoun, Nick Albu, Chuck Smith (faculty), Dennis Scanlin (faculty), Ben Winebarger (staff), and Patrick Beville (staff).

Fall 2005 & Spring 2006 Committee

Committee Chair Mike Dooraghi
Assistant Chair Eric Mathis
Treasurer Brent Summerville
Secretary Alyssa Rudolph

Student members Lindsay Dula, Eric Mathis, and Mary Baker

Faculty/Staff Members Chuck Smith from the Department of Interdisciplinary Studies, Dennis Scanlin

from Technology, Jeff Tiller from Technology, Patrick Beville from Design

and Construction, and Ben Winebarger from the Physical Plant

Early Challenges

The first annual report (05-06), which was prepared by Mike Dooraghi, goes into depth on the start-up challenges faced REI. The three major challenges are briefly described below.

Legislation & vote

The first challenge was to enable the REI. This had two parts: get REI on the student ballot, get a majority of the undergraduate student body to approve a \$5/student/semester.

Appendix G has the text of the re-enabling legislation, which is nearly identical to the original enabling legislation.

Gain control of funds

The REI is a student led group with an annual budget around \$130,000. Due to the size of this budget and that students would be in charge, there were some difficulties gaining control of how to spend the funds. The REI gained control of funds late in the Fall 2005 semester.

The current process for REI funding is to work within the universities purchasing system. Allocations must be made from the REI annual budget to specific projects. This allocation becomes an account to which the university's purchasing system can charge costs. This process the university's oversight concerns, and it also frees REI members from meticulous accounting. Once a month the treasurer picks up a copy from the ASU accounting office, and this is reviewed by the REI committee at a regular meeting.

The Project Funding Form can be seen in Appendix H.

Another difficulty with REI funds is the extremely narrow mandate. REI funds must be used on renewable energy projects. Funds cannot be used for education or sustainability projects, no matter how appropriate they may be.

Gain confidence of university

Another challenge faced by the REI was working with the colleges and administrators of the university. Many of the initial REI projects were put on hold or abandoned because of lack of support from various administrators. The Raley PV project was put on hold for nearly a full calendar year because of aesthetic concerns from the business school. The first solar thermal project, for the swimming pool and recreation facility, was abandoned.

The current state of affairs is more of a partnership between the REI and administration. The REI has gained the confidence of ASU's administration, and REI projects are moving forward, in many cases with ease, such as the biodiesel tanks.

Early Projects

It was decided that each student, besides holding a committee position, will be a project manager. Each project would have an advisor. The first projects and project managers were:

Lindsay Dula Biodiesel Processor Project advised by Jeff Tiller Eric Mathis Biodiesel Pilot Project advised by Ben Winebarger Advised by Patrick Beville Alyssa Rudolph Solar Thermal Pool Heating Mary Baker Raley Photovoltaic advised by Chuck Smith Wind advised by Dennis Scanlin Brent Summerville Mike Dooraghi Kiosk advised by Jeff Tiller

Academic Year 2006-2007

Meeting Dates & Location

August 31

September 30

October 26

November 15

January 11

February 1

February 22

March 22

April 12

May 3

All meeting were held in Kerr-Scott Room 30, which is the main office conference room for the technology building.

Members & Duties

Each student member of the REI committee serves a roll on the committee and also serves as a project manager.

Fall 2006

Committee position

Mary Baker Chair
Adam Milt Vice Chair
Eric Mathis Secretary
Alyssa Rudolph Treasurer
Lindsay Dula Grant writer
Matt Parks Public Relations
Becky Franklin SGA liaison

Dennis Scanlin Faculty advisor
Jeff Tiller Faculty advisor
Chuck Smith Faculty advisor
Patrick Beville Staff advisor
Ben Winbarger Staff advisor

Projects to Manage

Biodiesel Tank Eric Mathis
Raley PV Mary Baker
Plemmons Solar Thermal Alyssa Rudolph

Wind Adam Milt

Micro-Hydro -Kiosk -

Spring 2007

Committee position

Adam Milt
Joe Smith
Vice Chair
Vice Chair
Ged Moody
Secretary
Eric Mathis
Treasurer
Maggie Geck
Nikki Rezvani
Becky Franklin
Chair
Vice Chair
Arabical Secretary
Treasurer
Grant writer
Vice Chair
Vice Chair
Vice Chair
Vice Chair
Vice Chair
Vice Chair
Arabical Secretary
Treasurer
Maggie Geck
Grant writer
Vice Chair
Arabical Secretary
Secretary
Treasurer
Arabical Secretary
Secretary
Treasurer
Arabical Secretary
Secretary
Treasurer
Arabical Secretary
Secretary
Arabical Secretary
Secretary
Arabical Secreta

Dennis Scanlin Faculty advisor
Jeff Tiller Faculty advisor
Chuck Smith Faculty advisor
Patrick Beville Staff advisor
Ben Winbarger Staff advisor

Projects to Manage

Solar Thermal Adam Milt
Raley PV Joe Smith
Hydro Maggie Geck
Kiosk Nikki Rezvani
Wind Ged Moody

Renewable Energy Projects

Biodiesel Collaborative Photovoltaic Array



Description

A 1.8kW grid-tied PV array sits on the hill above the ASU Biodiesel facility. Further description of the project can be seen at http://biodiesel.appstate.edu/

History

Jeff Ramsdell, Jeremy Ferrell, & Ged Moody (not a member of REI at that time) presented their request for funds during the 28 Sept 2006 meeting. They requested and were granted \$17,500. Any money left over and not used for PV at the biodiesel facility will be returned to the REI. As of the time of this writing, some funds were not yet spent, but may be used for another PV array to power a pump for the living machine (waste water treatment greenhouse). Because it may still be spent on PV, that was deemed acceptable by the REI committee.

Actions

REI funded the project's equipment and some minor professional electricians for completing the connection. Actual work was preformed by Ged Moody and the PV class as part of a class project.

Status

Funds remaining unspent amount to \$2,300, Jeremy Ferrell, as the Biodiesel manager, is planning to purchase and install smaller second array with the remaining funds. Because the money was designated for PV, the REI committee found it acceptable to spend the remaining funds on a second array.

ASU & AppalCART Biodiesel Tank



Description

The purchase of the 10,000gal biodiesel tank at the ASU fiscal plant fuel station was partially financed by REI. The university agreed to purchase 20% biodiesel for use with the AppalCART and diesel vehicles in the university fleet.

History

Eric Mathis was the project manager. The ribbon cutting was on 1 December 2006. This was one of the first projects initiated by the REI. It was also the first that firmly established the current model of a committee member as the student project manager.

Actions

REI funded and managed the project. Funding came in stages:

Purchase tank \$60,000¹ purchase and install 10,000gal biodiesel tank

Signage \$2,500 large stickers on AppalCART busses using B20 (shown in

picture)

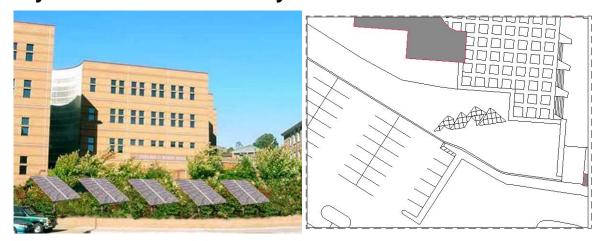
Additional funds used to purchase the biodiesel tank were provided by Greg Lovins¹, director of AppalCART. This amounted to \$40,000. Also ASU committed to purchasing and using B20 indefinitely on the vehicles which have switched to biodiesel.

Status

As the Fall 2007 semester begins, 11 of 12 AppalCART busses are using 20% biodiesel. This is expected to rise as confidence in biodiesel rises and manufacturer warranties on the busses expire. Also most of the universities diesel powered campus fleet (trucks) use 20% biodiesel.

¹ \$60,000 from REI, \$40,000 from ASU making the total \$100,000 used for purchase & install of biodiesel tank and initial fuel purchase.

Raley Hall Photovoltaic Array



Description

The Raley PV array is in the design phase. This will be an array where aesthetics are the primary design component. It will be grid tied and provide an educational opportunity for students and visitors to campus. The project is to be completed by the fist day of Spring'08 semester.

History

A Request For Qualifications (RFQ) was published at the end of spring semester 2007. It was requesting portfolios from companies willing to work with the REI to design and build an aesthetic PV array in front of the ASU business school. Six companies responded and by using the RFQ's published evaluation criteria, Southern Energy Management (SEM) from Raliegh was chosen; Sundance Power Systems was second.

Actions

Joe Smith is the current project manager (taking over from Mary Baker), and will be meeting with SEM throughout the semester. Other meetings will be with New River Light & Power (NRL&P), ASU grounds keeping, business school representative, and ASU design & construction. The energy produced and sold to NC Green Power will be returned to the REI as discretionary funds. This does not create a tax burden for the REI, because the REI is under the university, the university will be responsible for any tax liability.

Status

As the Fall 2007 semester begins, SEM will design the array with input from REI and other interested parties. After deciding on a design, it is planned that SEM will break ground and complete the installation by the fist day of Spring'08 semester. The initial meeting with SEM, NRL&P, ASU Design & Construction, & REI was held on 26 September 07.

Plemmons Student Union Solar Thermal System

Description

The Plemmons solar thermal system is still in design phase. Elm engineering is reworking the design.

History

There have been several project managers; the current in Alan Watts. Prior to Alan, Adam Milt and Alyssa Rudolph also served as the project managers. The student union was chosen after a solar thermal project on the student recreation facility was denied. The feasibility study was completed in September 2006, which included several locations on campus. The student union was ideal because student fees pay for the utilities and Dave Roberson, the building manager, is very supportive of the REI. In addition to Elm Engineering's original solar thermal design engineer moving on, there design has been lacking in some respects. This has be a point of concern and has required additional meetings and design iterations.

Actions

Alan Watts will continue to meet with Elm and be advised by Dr. Raichle (solar thermal professor) and Patrick Beville (project advisor).

Status

As the Fall 2007 semester begins, Alan Watts is taking over where Adam Milt left off. Elm engineering also had experienced a turnover in personnel; the lead engineer left.

Other REI projects

The REI also has administrative and organizational tasks.

A large amount of committee members' time is spent generating campus-wide interest and participation in the REI. Because REI is a campus-wide, SGA committee, it solicits input from the student body. This is primarily demonstrated with the REI Campus Forum, selection of new members, and the student body vote for the REI renewal. Other activities and projects designed to generate interest in the REI are the REI logo, slide show in the student union (the kiosk will expand on this), and co-sponsoring events.

Our meetings are open to the public, although rarely attended. We also maintain a website at rei.appstate.edu.

REI Campus Forum

It is customary for the REI to give a presentation to the student body once per semester. This presents an opportunity for the REI to publicly state the use of student fund and to be held accountable for it. Also the forum is used as a way to generate interest in the REI, applications to the REI, and renewable energy in general. Pizza was shared after the forums and allowed individual conversations.

The Fall 2006 forum was given on October 6th in Kerr Scott Hall (now Katherine Harper Hall) room 17. It was attended by approximately 60 students.

The Spring 2007 forum was held on March 1st in the Library. The library was chosen to gain attendance from a more diverse student group and avoid the appearance of favoring technology department. It was attended by approximately 40 students. Advertisement of the forum was sent via email to department chairs and asked to be distributed to their students. The advertisement was also posted to AppalNet. It read as follows:

Renewable Energy Initiative Student Forum - Mar 1 Every student pays \$5 each semester toward Renewable Energy on campus. Come find out how this money is spent, what the REI is and how you can get involved. Thursday @ Belk Library, Rm 114 6:30-8pm

After the Forum it was recommended that we get more media attention for the event by writing articles to the newspaper. Another idea was to send out flyers to all the student PO boxes (every student has a PO box on campus).

Selection of new members

The REI Campus Forum was used as the kick-off for membership applications. Applications were available online, at the REI website (rei.appstate.edu). The Spring 2007 application can be found in Appendix B.

For members beginning in Spring 2007, applications were accepted from 6 October until 20 October 2006. Interviews took place in the week following the application deadline. Members selected were invited to attend the 15 November 2006 meeting. Committee rolls were revoted on during the 11 January 2007 meeting.

For members beginning in Fall 2007, applications were accepted from 1 March 2007 until 20 March 2007. Interviews took place in the week following the application deadline.

Members selected were invited to attend the 12 April 2007 meeting and were introduced to the REI committee. Committee duties were decided during the 3 May 2007 meeting.

REI renewal vote

The renewal vote was held on March 26-30 through AppalNET. The REI renewal was a referendum on the ballot for the Student Government Association (SGA) election. The exact wording was as follows:

Do you approve the creation of a student renewable energy fund, a \$5 student fee collected per semester for 3 years, that will build renewable energy infrastructure at ASU? This fund will reduce the University's consumption of fossil fuels and minimize its impact on the Appalachian environment by using solar, wind, hydroelectric and biofuel technologies.

In order to get the REI on the ballot, the REI's SGA liaison spent significant time with SGA Senators in order to satisfy legislative requirements for REI enabling.

REI members shared campaigning duties during the week of the vote. Each person served several hours, and the REI was represented on Stanford Mall (main quadrangle) from 10am to 4pm (the busiest time) from Monday to Thursday of the week of voting. Leaflets were passed out and questions were answered on the spot. Demonstration renewable energy systems were also on display.

The REI renewal was approved with a 93% mandate (1258 votes For and 94 votes against; an increase over the original vote of 84%). More Appalachian students voted for the REI than the SGA President (1070 votes).

There were some problems with the vote:

- AppalNET failures and inconsistencies
- The SGA president was running unopposed, so there was very little interest in the election, in fact The Appalachian (biweekly student newspaper) did not even mention the vote during the week of the vote.
- Graduate students did not vote, because they are not represented by the SGA; they have their own legislative body.

Logo

The REI logo as it appears on the cover of this report was designed by and purchased from Stafford. Tisdale. Inc for \$400 on 6 December 2006. It appears on the AppalCART busses which are powered by biodiesel. ASU-REI is using the logo to brand events and projects and to generally promote renewable energy on campus and in the community.

Kiosk

The Kiosk represents the educational aspects of the REI's mandate. It is not a renewable energy project and has therefore not been eligible for REI student funding. There is significant interest from Dave Robertson, the manager of the student union. Nikki Rezvani has also invested significant time developing relationships with several professors teaching interior design. Timothy Dolan has offered use of his design class to design an appropriate

kiosk in the student union. Beginning Fall'07, Jeanne Mercer-Ballard will also help, especially with design.

Event participation

REI cosponsored the showing of "An Inconvenient Truth" on campus. It was shown in Fall 2006 in IG Greer (campus auditorium). Approximately 100 people attended the movie and discussion afterwards.

Gift Funding

REI has been established as a potential recipient of gift donations. If a donor decides to give to REI, a note can be made, and the funds will be deposited to the REI account. To date there have been no donations.

Outlook for REI

The following section is a review of the current state of the REI as it begins the Fall 2007 semester. New members were accepted in the Spring semester, and now their duties will officially begin. Meeting dates have been selected also.

Members & Duties: Fall 2007

Committee position

Joe Smith Chair
Nikki Rezvani Vice Chair
Ged Moody Secretary
Eric Mathis Treasurer
Crystal Simmons Grant writer
Alan Watts Public Relations
Adrian Tambor SGA liaison

Chuck Smith Faculty advisor
Jeanne Mercer-Ballard Faculty advisor
Chris Badurek Faculty advisor
Patrick Beville Staff advisor
Jennifer Maxwell Staff advisor

Projects to Manage

Raley PV Joe Smith / Crystal Simmons

Plemmons Solar Thermal Alan Watts

Wind Nikki Rezvani / Ged Moody Micro-Hydro Crystal Simmons / Alan Watts

Kiosk Nikki Rezvani / Ged Moody / Alan Watts

Meeting Dates for Fall 2007

Meetings will be held every other week at 5:30pm. Although the number of meetings is double that of previous semesters, agenda items will be limited to ½ the current topics. Each meeting should be shorter, but the same amount of business will get done throughout the semester. 5:30 was chosen for the faculty to finish their regular work day, and to allow for free parking on campus (free after 5pm). The dates selected are as follows:

August 23

September 6

September 20

October 4

October 18

November 1

November 15

November 29

Renewable Energy Projects

Raley Photovoltaic Array

Southern Energy Management was selected to work with the REI for design of the Raley Hall PV Array.

Plemmons Solar Thermal

Elm Engineering will continue to design the Plemmons Student Union Solar Thermal System and prequalify bids for construction.

Other REI Projects

Kiosk

Nikki is continuing to work with Dave Robertson of the student union. The display will include monitors showing FatSpaniel renewable energy monitoring from the REI projects. REI funds will not be used for the construction of the kiosk, so outside sources are being sought.

Outreach

Outreach continues to be a big issue. This will be in the form of the REI Student Forum, kiosk in the student union, continued update of the website, and possibly freshman orientation presentations.

Appendixes

Appendix A: Completed REI projects

Appendix B: REI Bylaws

Appendix C: Legislation enabling REI

Appendix D: Project Funding Form

Appendix E: Application for Fall'07 members

Appendix F: REI Campus Forum agenda, Spring '06

Appendix A: Completed REI projects prior to '06-'07

Biodiesel Collaborative Solar Thermal



Description

The four solar thermal panels provide the majority of the heat needed to operate the student-run biodiesel processor on ASU's campus.

History

ASU Biodiesel Collaborative approached the REI for funding to purchase solar thermal panels for the ASU biodiesel facility.

REI involvement

REI only awarded funding; REI did not manage the project.

Cost

ASU awarded the Biodiesel Collaborative \$7,000 on 1 September 2005.

Outcome

The panels were installed during the fall semester of 2005. REI's funding enabled the ASU Biodiesel Collaborative to create a low energy facility which has a large Energy Return on Energy Invested for processing waste oil biodiesel. The ASU Biodiesel Collaborative won \$75,000 from the Environmental Protection Agency's P³ grant during spring 2006.

Status

As the Fall 2007 semester begins, the Biodiesel Collaborative continues to use the solar thermal array.

Appendix B: REI Bylaws

RENEWABLE ENERGY INITIATIVE COMMITTEE BYLAWS

ARTICLE I: STUDENT COMMITTEE MEMBER REQUIREMENTS

Section 1: Student Commitment

- A. Student members must commit to a minimum of one year, and a maximum of two academic years of service within the REI committee.
- B. Student members may not miss more than one monthly committee meeting per semester. At the time of the second absence, disciplinary action may be taken.

Section 2: Equal representation

- A. In order to best represent the student body, the committee will include members from three of the six colleges and schools at Appalachian State University which are: the College of Arts and Sciences, Reich College of Education, Walker College of Business, the College of Fine and Applied Arts, the Hayes School of Music, and the Cratis D. Williams Graduate School.
 - 1. Students will go through the standard application process to fill these positions

Section 3: The SGA Appointed Student Member

- A. The SGA appointed member has the ability to vote on:
 - 1. New student member applicants
 - 2. Positions student members hold within the committee
 - 3. All other committee voting topics
- B. The SGA appointed member is subject to the same absence and conflict resolution regulations as the other student committee members
 - 1. If an SGA appointed member resigns or is discharged, the SGA will be responsible for finding a new person to fill the position.

ARTICLE II: EXCESSIVE ABSENCES

Section 1: Absences Leading to Member Dismissal

- A. At the time a student member has a second absence from a monthly committee meeting in a semester, the committee can opt to vote during the meeting to ask the absent student to relinquish or defend her or his position within the committee.
 - 1. The committee Chair will notify the absent member in question and will give her or him the opportunity to voluntarily resign or present her or his defense at the next monthly meeting.
 - 2. If the student chooses to defend her or his position at the next meeting, the presentation will be added to the next monthly agenda.
 - 3. After defending her or his position to the committee, the student member can participate in the committee's vote on her or his status.
- B. A student that is absent from more than two committee meetings in a semester can be dismissed from the committee without a defense statement or the chance to vote on the decision.
 - 1. A motion will be made during the meeting of the third absence.

2. The motion will be put up for discussion and voted on by the present members.

Section 2: Committee Voting on Student Member's Defense of Excessive Absences

- A. If the committee votes in favor of keeping the student, committee activities will continue as normal.
- B. If the committee votes in opposition of keeping the student, it will be at the committee's discretion as to when the open position will be filled.

ARTICLE III: STUDENT MEMBER CONFLICTS LEADING TO DISMISSAL

- A. If a student member feels that there is a conflict with another member that should lead to the student's dismissal; that student, called the concerned student, may contact the Chair of the committee and her or his own faculty advisor and arrange to make a meeting with the conflicting student.
 - 1. The conflicting student and her or his faculty advisor, the Chair of the committee, and the concerned student and her or his faculty advisor should all be present at the arranged meeting.
 - 2. Both the conflicting student and the concerned student have the opportunity to opt out of inviting her or his faculty advisor, at which time the advisor is no longer required to be present.
- B. During this meeting each party should have the chance to present her or his case and have open discussion; the Chair will act as the meeting mediator.
- C. If peaceful resolution cannot be obtained from this meeting, the discussion will be brought to the entire committee; a special meeting may be requested.
- D. If two members voice the same complaint against another member, the discussion will come before the entire committee; a special meeting may be requested.

ARTICLE IV: RESIGNATIONS

Section 1: Individual Student Member Resignations

A. A student member that chooses to resign during their term must do so by contacting the committee Chair and signing an official resignation form.

ARTICLE V: SELECTING NEW STUDENT MEMBERS

Section 1: Filling a student position for a member who has completed their term (Standard Application Process)

- A. A two week application acceptance period must be given.
- B. At the end of the two week period, a 2/3 quorum of student members will meet to review applications and select the applicants that will be interviewed.
- C. The applicants will either be contacted with their invitation to an interview, or with a personalized letter explaining what the committee found to be their strengths and weaknesses and an explanation of why they were not invited to an interview.
- D. A 2/3 quorum of student members are also required to be present during the interviews
- E. After the interview process is completed, a 2/3 student quorum will meet to decide on who will be

invited to join the committee.

- 1. If the approval of an applicant is unanimous, voting does not have to take place.
- 2. If there is a disagreement among the student members, a majority vote will take place after a period of open discussion.
- 3. Minutes will be taken for the discussions in which new members are chosen, only the final invited members will be named within the minutes. The total number of applicants, the number selected for interviews, and the final number of new members chosen will be included in these minutes.
- F. The members serving as the initial 2/3 student member quorum should remain present throughout the interview process, but all student members are strongly encouraged to participate in the interview process.
- G. The SGA appointed student member is able to vote during the new member application process.

Section 2: Filling a student position for a member who has resigned

- A. A university wide application process must happen in order to fill a resigned member's position.
- B. The application process will follow the same guidelines as the process for replacing a member who has completed her or his term.

Section 3: Spring Application Process

- A. Dates for the application process will be set at the first meeting of the spring semester. Dates set will include:
 - 1. Spring Open Forum date
 - 2. Two week application acceptance period, which must end before Spring Break
 - 3. Application review and interview period
 - 4. End date of application process
- B. New members must sit-in on one spring semester meeting
- C. Official duties of new members begin at the end of the last meeting of the spring semester.

ARTICLE VI: FACULTY AND STAFF MEMBERS

Section 1: Faculty member term

A. The APPALACHIAN STATE UNIVERSITY- Renewable Energy Initiative and its constituent committee require three Appalachian State University faculty members to sit on the REI general committee as advisers. The term is for three years. Faculty members may be reappointed.

Section 2: Faculty member recommendations

- A. The committee will present a list of recommended faculty members to the faculty senate. The faculty senate shall request a statement of intent and qualifications from the faculty candidates and then hold a general vote for unoccupied faculty positions on the REI committee.
 - 1. It is required that both the College of Arts and Science and the College of Fine and Applied Arts be represented at the faculty level.
 - 2. This does not preclude any faculty residing in other colleges from candidacy for and membership on the REI Committee.

Section 3: University Staff

A. In addition to faculty members, the REI Committee must also have representation from Appalachian State University's office of Design and Construction and the Physical Plant. These representatives may be appointed by their respective supervisors and/or their assigns. The term is for three years.

ARTCILE VII: AMENDMENTS

A. Amendments can be made to any of the bylaws by any member presenting a case for a change during a formal meeting. Open discussion will follow the presentation, followed by a formal vote on whether or not amendments will be made. Included in the voting decision will be who is responsible for writing the revisions and when the revisions will be voted on to be included in the bylaws.

Appendix C: Legislative enabling act for REI

SB Number: 040-009

Date of Introduction: February 20, 2007 **Type of Legislation:** Enabling Act **Sponsor:** Environmental Affairs

Introducers: Senator Francis Byrne (Off-Campus)

Subject: Renewable Energy Initiative Fee Reauthorization Referendum

Purpose: To include on the ballot for the 2007 student elections a referendum on the renewal of

funding for the Renewable Energy Initiative.

Statement of the Issue:

The Renewable Energy Initiative (REI) is the sub-committee of the Appalachian State University Student Government Association (ASU-SGA) that is dedicated to promote and undertake the implementation of renewable energy technology at Appalachian State University (ASU). The REI is funded by a per-semester five-dollar student fee, which was voluntarily assessed on the student body by referendum during the student election in the Spring 2004 Semester.

As provided for in SB 037-006, the legislation that authorized the referendum, the student fee sunsets after a period of three years. The first three-year period began with the 2005-2006 school year and will end with the 2007-2008 school year. Three years have passed since the student fee was first voted on. It is therefore imperative that the student body vote on the issue of whether or not to continue funding the REI for another three-year period.

History of the Issue:

The initial idea behind the ASU REI came from a student named Ernie Hodgson, a former President of the ASU Sustainable Energy Society. Inspired by a similar movement that was taking place on the campus of the University of North Carolina at Chapel Hill, Hodgson wanted to establish a student fee that would fund a student administered and operated committee for the express purpose of transitioning ASU's energy consumption over to renewable sources.²

Joined by fellow students Jeff Lauckhart and Cole McVey, Hodgson brought the issue to the ASU-SGA. This lead to the proposal of SB 037-006, introduced by Senators Miriam Makhyoun (Off-Campus) and Justin Pittman (Off-Campus). The Student Affairs Committee sponsored the bill (as a specific committee for sustainable and environmental issues was not established until the 2005-2006 school year, during the Watkins/Pereira Administration). Written jointly by Makhyoun, Pittman, Hodgson, Lauckhart and McVey, SB 037-006 called for a referendum to allow students to vote for or against a student fee for renewable energy technology.³

¹ SB 037-006, Act to Enable the Referendum of a Student Fee Increase that Funds Renewable Energy Infrastructure, 37th Senate, introduced by Senator Miriam Makhyoun and Senator Justin Pittman

² 2004-2005 REI Committee Update Report, November 21, 2005, prepared by Alyssa Rudolph, Parker Sloan, and Mike Dooraghi

³ Phone Interview with former President Miriam Makhyoun, February 6, 2007

During the Spring 2004 student elections, which were held from March 22, 2004 to March 26, 2004, the student body voted on the issue. Alongside the presidential/vice-presidential candidates was the question: "Do you approve the creation of a student renewable energy fund, a \$5 student fee collected per semester for 3 years, that will build renewable energy infrastructure at ASU? This fund will reduce the University's consumption of fossil fuels and minimize its impact on the Appalachian environment by using solar, wind, hydroelectric and biofuel technologies." Students approved the fee with an overwhelming majority, with 82 percent of those who voted favoring the initiative.

During the summer of 2004, Chancellor Kenneth Peacock approved the fee and passed it on to the Board of Trustees for final confirmation. When the Board of Trustees voted to approve the fee during their November 2004 meeting, the REI Committee was officially established. However, student fee collection did not take place until the 2005-2006 school year – as the 2004-2005 school year was already in progress, and the fee could not be retroactively assessed.⁶

The 2005-2006 school year brought with it both the initial fee collection and the question of how, procedurally, to assign funding to projects and to authorize the expenditure of the funds. In February 2006, the REI Committee adopted both a <u>Guidelines and Procedures Document</u> and a <u>Project Funding Form</u> for the purpose of normalizing the way they handled money. As a result of the discourse on spending authority, only a small amount of the REI's budget was spent during the 2005-2006 school year, so most of it held over into 2006-2007.

To date, the REI Committee has received \$288,836.70 to allocate to renewable energy development. The majority of this money is from two years of student fee collection, with more on the way for the 2007-2008 school year. The rest, \$40,000, came from an allocation from Business Affairs for the purchase of the biodiesel tank. To date, all but approximately \$60,000 has been allocated to various projects, although the REI Committee is considering the allocation of that money as well. The largest expenditures have been on the Biodiesel Pilot Project and the Student Union Solar Thermal Project, both of which were awarded \$100,000. The REI's operating costs are quite low, in the neighborhood of \$750, 1/4 of 1 percent of their total allocation of money. The state of the project is allocated to renewable energy development.

Desired Outcome:

If this legislation is passed, the student body will be allowed to vote on the reauthorization of the Renewable Energy Initiative fee. This will take place concurrent with the 2007 student body elections, which begin on Monday, March 26, 2007 and end on Thursday, March 29, 2007. Voting will take place on AppalNet, alongside the Presidential/Vice-Presidential contest.

To establish this referendum, this legislation will need to be sent to CSIL, which handles student elections, so that they may add the REI question to the online student ballot. This question will

⁴ SB 037-006 (as above)

⁵ 2004-2005 REI Committee Update Report (as above)

⁶ 2004-2005 REI Committee Update Report (as above)

⁷ 2005-2006 REI Committee Annual Report, October 26, 2006, prepared by Adam Milt

⁸ Phone Interview with REI Chairman Adam Milt, February 15, 2007

⁹ REI Treasury Report, January 10, 2007, prepared by REI Treasurer Eric Mathis

¹⁰ REI presentation to the 40th SGA Senate, February 13, 2007

only appear on the ballot during the previously stated week and will be decided with the first round of election results on Friday, March 30, 2007. In the event of a run off in the Presidential/Vice Presidential contest, this question will not appear on the ballot a second time.

For the REI to be reauthorized, it must receive at least a majority (fifty percent plus one) of votes from the student electorate. In the event that the REI is reauthorized, the funding of the REI will be extended for a period of three years, beginning with the 2008-2009 school year and ending with the 2010-2011 school year. Reauthorization will need to be voted on again in during the 2011 Spring semester. In the event that the REI is not reauthorized, funding will cease at the close of the 2007-2008 school year. Should that come to pass, the REI Committee will not be required to disband. Only the student fee will be affected by the reauthorization vote.

Exact Wording:

Let it be resolved that the Appalachian State University Student Government Association has placed on the 2007 student election ballot the following question, with regards to the student fee which funds the Renewable Energy Initiative:

"The Student Renewable Energy Fee is a five dollar per semester fee, assessed over a period of three years. This fee is used to fund the Renewable Energy Initiative (REI), which is a student lead organization tasked with reducing Appalachian's consumption of fossil fuels and minimizing the University's impact on the environment through renewable energy technologies including solar, wind, hydroelectric and biofuel. Do you approve of the continuation of the Student Renewable Energy Fee for a second three year period, beginning with the 2008-2009 school year and ending at the close of the 2010-2011 school year?"

Date of Execution:

Immediately.

Appendix D: Project Funding Form

Renewable Energy Initiative (REI) Recommendation for Project Funding

Project Name:	
Project Manager:	
Staff/Faculty Advisor:	
<u>Project Description:</u>	
Areas Consulted and Comments:	
Recommended Funding Amount:	
REI Committee Vote Tally:	
Method of Fund Distribution:	
See Attached Sup	porting Documentation
REI Chairperson	Date
Approval:	
Vice Chancellor Student Development	Date

Appendix E: Application for Fall'07 members

Application for the REI Committee

The Renewable Energy Initiative (REI) is a student-initiated, student-funded project for installations of renewable energy technologies on the ASU campus. The REI Committee is charged with the design and implementation of the projects. The committee is comprised of six students selected by the committee, one member from Student Government Association, three faculty members, one staff representative, a representative from ASU Design and Construction.

Requirements:

- -Joining committee members must be enrolled at ASU though the Spring Semester of 2008.
- -Must be available for monthly meetings, usually one Thursday of every month for 2-3 hours.
- -Must be willing to committee an appropriate amount of time outside of meetings to complete responsibilities of their respective position **and** their assigned project.
- -While knowledge and experience with renewable technologies is a plus, it is certainly not imperative. The REI committee employs many different skills including web mastering, research, advertising, public relations, grant writing, public speaking, group facilitation and more.

This application is due by **October 20th**, 2006. Please submit to Environmental Affairs Committee in the SGA office in the Student Union or mail to: REI ASU Box 8930. See <u>rei.appstate.edu</u> for more information.

Name:
Expected Date of Graduation:
Major/Minor:
Phone number:
E-mail:

Please answer the following questions thoroughly:

- 1. Why do you have an interest in joining the REI Committee?
- What skills/talents/experiences do you have to contribute to the committee?

Appendix F: Schedule for Spring '07 REI forum

TIME	TOPIC	WHO
6:30	Opening welcome & agenda	Joe
6:35	RE basics, ASU energy specifics, REI basics.	Adam
6:45	Committee Positions: Meet the REI	all
6:50	explain the vote	Becky
6:55	Q & A (and if it doesn't flow, project managers step up)	Joe as host
	Specialists required answering:	
	BioDiesel colabrative – Solar Thermal BioDiesel colabrative – PV AppalCART - B20 Plemmon's Student Union - solar thermal Kiosk - demonstration of RE Raley - PV Broyhill - Wind Kraut Creek - Microhydo others	Jeremy Ferrel Ged Eric Adam Nikki Joe Adam Maggie
7:30	Ways to Get Involved	Nikki
7:35	Overview of Application Process	Nikki
7:40	Food, Drink, and Mingling! (food arrives at 7:15)	ALL