

Renewable Energy Open Dialogue

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Global Sustainability
May 3, 2013

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ABSTRACT

Our group's objective was to host a Renewable Energy Dialogue for the UVa and Charlottesville communities. By bringing together students from different disciplines, we hoped to create a unique brainstorming opportunity to discuss the current state of renewable energy in Charlottesville, as well as potential solutions to future energy problems. Two graduate students with expertise in the field of renewable energy spoke at the dialogue, as well as the Director of Operations of LEAP, Charlottesville's Local Energy Alliance Program. The presentations focused largely on today's renewable energy options, LEAP's ongoing initiatives in Charlottesville, and the UVa-based ecoMOD project. These talks were followed by an open forum-style discussion between the speakers and audience, which addressed more specific questions and ideas for greater community engagement. The event was held on April 25th from 6 - 7 pm in Clark 108, as part of the university-wide Sustainability Week.

INTRODUCTION

In initially planning and implementing our Renewable Energy Dialogue, we hoped to act as sort of outreach program to the broader Charlottesville community, specifically by raising awareness about energy issues within the general Charlottesville and Albemarle populations; encouraging the implementation of simple, realistically reduced, or alternative energy use strategies by community members; and helping to work towards community-wide energy initiatives.

Our project took advantage of the benefits of approaching the project from an educational standpoint by hosting a panel of speakers in Clark Hall on Thursday, April 25. The speakers included two members of the UVa community: one graduate student from the Environmental Sciences department discussing scientific aspect of renewable energy (i.e., their details, merits, and disadvantages), and one Engineering graduate student working with technical aspects and local applications (e.g., the ecoMOD project) of renewable energy. The Director of Operations for LEAP spoke as well, focusing on the program's work in Charlottesville and the policy challenges of creating a more renewable-friendly community. These short presentations were followed by a dialogue, facilitated by student moderators, that engaged both the audience members and speakers, whose expertise was a valuable resource during the discussion.

The main purpose of the event was to educate people about what is going on with renewable energy by both informing them and giving them an engaging place to talk and think about the topic. In the end, it was successful in meeting these dual goals by (a) building renewable energy awareness through educational presentations given by local experts, and (b) prompting critical community discussion of renewable energy issues through dialogues based in a factual knowledge base. Facilitated by Sustained Dialogue moderators, the discussion format increased participation by all parties, which led to a more enriching and effective environment than a normal lecture. By allowing and encouraging the contribution of thoughts and ideas from people with a demonstrated interest in both sustainability and renewable resources, the event became more meaningful for everyone involved.

BODY

Our project consisted of three brief presentations by local advocates of renewable energy, followed by a dialogue about current initiatives and future prospects for renewable energy sources in Charlottesville on April 25 from 6-7 P.M. The first thing we did to plan the event was reserve Clark 108. At first, we were denied a reservation because we were not linked to a UVA Contracted Independent Organization. To overcome this problem and to supplement the dialogue experience we hoped to facilitate, we formed a co-sponsorship with a UVa group called Sustained Dialogue. The room was reserved on March 17th, which

provided us with concrete logistical details to strengthen our e-mails to potential speakers. After reserving a room, we began to brainstorming who we should contact to speak at the event. To this end, we first reached out to Environmental Science Professors Hank Shugart and Janet Herman and to Batten Professor Sang Hwang. Unfortunately, they all had previous engagements. Amber Plair next contacted Engineering Professor Paxton Marshall, who referred us to one of his graduate students, Helena Khazdozian. After agreeing to speak Helena graciously suggested we also consider Tim Leroux, the Operations Director for LEAP, a former UVa professor. We followed up on this advice, which resulted in Mr. LeRoux agreeing to speak as a representative of LEAP from a more community-based perspective. Finally, another of our team members, Ben Pickus, contacted his Environmental Science Teaching Assistant, Noah Egge, who agreed to present a more general overview of current renewable energy options and research. By March 29th, we had confirmed all three presenters for the event. While a few team members were securing speakers, Claire was working with Sustained Dialogue to format the dialogue planned as a follow-up to the presentations. A few members of Sustained Dialogue agreed to moderate the group discussions. Kelly and Claire worked on creating a discussion agenda for the Sustained Dialogue Moderators to use as a guide for topics.

In addition to questions from the audience, the following questions were used as a basis for discussion:

1. What do you think of when you think about renewable energy?
2. What would you be willing to give up for more renewable energy or sustainability at UVa? How would you feel about a hike in tuition?
3. Where do you prioritize sustainability in your values and goals? Why?
4. What types of renewable energy are feasible in Charlottesville? What do you think are the biggest barriers to renewable energy?
5. What are some things you could do in your daily life related to renewability or sustainability?
6. Since immediate individual harms are lower in regards to sustainability, how do you make people feel a sense of collective responsibility? Is it our ethical duty to invest in sustainable initiative now, or is it okay to leave it for future generations?

The second big part of our project consisted of a Public Relations campaign promoting the dialogue. On April 2nd, we created a Facebook event and invited all of our friends to it. Over the next few weeks, we continued to send out event updates through Facebook. In addition to using Facebook, on March 27th we submitted our event to UVA Sustainability's Earth Week Calendar. UVA Sustainability subsequently included our event in all of their Earth Week promotions. We also advertised on our own by hanging posters around grounds and handing out flyers to students on grounds the week of the event. We chalked on sidewalks around grounds to inform students of event details. The flyer was created on April 2nd and was printed the week of April 8th in order to have them ready three weeks in advance. In the final run-up to the event itself, we emailed various listservs the week of the 22nd to get the word out.

The initial two planning stages of the project culminated in running the event itself. All team members arrived at the event at 5:30 P.M. to set up, make sure all the sound equipment was working, and help the speakers settle in. The event started promptly at 6 P.M. and ended around 7:15 P.M. Speaker introductions by members of the group were followed by the three presentations. When it was time to split into groups, we asked attendees to divide themselves equally between the moderators. Each group member sat in on each of the groups in order to ensure things ran smoothly. At the end, the attendees were thanked for coming and asked that they go home and turn off all electronics from 7:30-8:30 P.M.

We considered various alternatives for this project before we ultimately decided on a renewable energy dialogue. First, we debated including stargazing at Hereford residential college in connection with a wider "Earth Hour", a certain hour of the day during which we would encourage the university community to turn off their lights in order to save energy and enhance the stargazing experience. We decided not to continue with this idea because we wanted to focus more on renewable energy than energy conservation. The next

alternative for this project was to have a panel discussion on renewable energy in which the speaker would speak to a group. The group would ask questions of our expert panel, but the presentation would not be followed by an organized dialogue. We decided not to follow through with this idea because we wanted a more interactive discussion. Ultimately, we decided to hold a dialogue – in conjunction with the CIO Sustained Dialogue – concerned with renewable energy in Charlottesville and at UVa, so that attendees were able to more meaningfully interact with the speaker and other audience members. This interactive approach allowed everyone to come up with ideas to help Charlottesville further their renewable energy usage. After deciding upon the event format, we also contacted Great Harvest Bread Company to potentially provide light refreshment at the event, but they were unable to accommodate the request. To give a physical representation of renewable energy, we would have liked to have the wind turbine group display their final product at our event. We contacted the group and they agreed to bring the turbine – provided it was finished by April 25. We also planned to create a trifold about the turbine to display next to the model so that people would be able to read about the process and how they could recreate a similar small turbine. In the end, however, we decided that it would be better to focus on the speakers and the dialogue than to risk having a bias towards only one form of renewable energy, which may have taken away from our overall efforts.

Research was conducted on a variety of sustainability efforts that have already been initiated within the Charlottesville/Albemarle community, including measures focused on renewable energy. In 2009, after much debate, Albemarle County approved the construction and use of wind turbines on a limited, non-commercial scale. In the realm of transportation, Charlottesville City is continually working to develop a “green fleet” of vehicles, in the form of the hybrid cars for its employees as well as several buses and vans that use biodiesel blends and compressed natural gas. Additionally, the city has partnered with the Local Energy Alliance Program (LEAP) and the Alliance for Community Choice in Transportation (ACCT), which work toward helping provide funding for alternative energy projects by businesses and homeowners and towards improving the ease, accessibility, and feasibility of cleaner public transportation options (i.e., walking and bicycling), respectively.

Earth Hour is an event started by the World Wildlife Fund (WWF) in 2007 that has since become a global initiative promoting reduced energy usage as a measure to combat climate change. More than 7,000 cities in 152 countries participated in 2012. Locally, it was first implemented in Charlottesville in 2009 and is currently promoted within the UVa community by an international non-profit business group called Enactus, which has a chapter at UVa. Because Enactus has already been in contact with University officials to turn off lights in academic buildings and otherwise reduce energy usage during Earth Hour in 2013, we wanted to use our own Earth Hour initiative to build on what Enactus is doing at the University, potentially by reaching out to them as a co-sponsor for the talk and other activities we outline above. We later decided against this, as discussed above. Since the fall of 2009 UVa has participated annually in its own Campus Sustainability Day, an event adopted by colleges around the country in recent years. Additionally, in 2011, after releasing its second five-year sustainability assessment, the University pledged to reduce its carbon footprint by 25 percent by 2025. Using our project to focus on promoting general awareness within the Charlottesville and UVa populations about renewable energy and current energy usage patterns would help build on the pledges UVa has made towards becoming a more sustainable institution, with a more conscientious student body.

CONCLUSION

Attendance at the dialogue ultimately failed to live up to our initial hopes. Despite spending hours the day before and the day of the event hand-billing and flyering around grounds, in addition to our other PR efforts, we only had about a dozen people come to the event (besides the members of the group). This actually

turned out to be beneficial for the dialogue following the presentations, because it allowed everyone to ask questions and participate in the dialogue with the speakers. It felt more intimate having a smaller group, and it allowed everyone to engage and to have their opinions heard. Each speaker approached the topic of renewable energy in a different, yet effective way. Noah had a technical overview of a variety of renewable resources, Helena focused on photovoltaics and her work with ecoMOD, and Tim had a more public policy and economics-based point of view. These differences allowed the dialoguers to become more informed and receive answers to a multitude of different questions. The conversation included a good mix of in-depth questions about actual renewable resources and broader conversations about the energy future of our country. Although the attendance was somewhat disappointing, we believe the dialogue successfully achieved the goals we had initially set to disseminate information regarding renewable energy and to prompt critical discussion of renewable energy issues. Each person in attendance left knowing more about renewable energy than when they entered the room. This connects back to the mission of the Think Global Act Local project, which emphasizes attempting to implement change in small ways. Ideally, the function our event served in educating Charlottesville and UVa community members about what they can do on a local level will reach beyond the event itself, leading attendees to not only personally contemplate renewable energy issues and their relationship to sustainability, but also to speak to their peers about it and to potentially consider ways in which positive change may be achieved.

FUTURE WORK

A future goal of this project could be to continue holding the event annually during UVa Sustainability Week, which occurs every April around Earth Day. To improve our project in the future, we would hope to make the event larger and much more well-attended to achieve a greater outreach to students. As attendance improved, we would strive to still achieve the intimacy found in the small breakout discussion groups as the number of participants increases. To achieve a larger event we would need to do more PR work. We would start hand billing and posting fliers; attempt to more effectively utilize listservs and CIO partnerships; and try to recruit speakers who have higher profiles with the local or university communities. Professors in the Environmental Science department were skeptical about speaking at our event. If next time we worked with a group such as the Environmental Science Organization (ESO), we could hopefully attract professors, not just graduate students, to speak – in turn strengthening our PR outreach by helping advertise to their classes. Also, with increased funding – perhaps from a grant from Student Council – we could purchase refreshments and expand the scope of our physical PR efforts, enticing more students to attend the event.

SCHEDULE

March 7: Reserve Clark 108 through the Source

March 14: Have at least 1 panelist confirmed to speak on April 25

March 21: Contact Great Harvest Bread Co. for donation (subsequently denied)

March 28: Have at least 2 panelists confirmed to speak on April 25

April 7: Have at least 3 panelists confirmed to speak on April 25

April 11: Facebook event created for Renewable Energy Dialogue and Earth Hour

April 18: Flyers designed, printed, ready to distribute throughout the week of the 21st.

April 18: Mass emails sent to listservs

April 24: Flying outside Newcomb, Ohill, the Lawn

April 25: Flyering outside Newcomb, Ohill, Runk, the Lawn

****April 25:** Renewable Energy Dialogue: April 25, 6:00 - 7:00 PM**

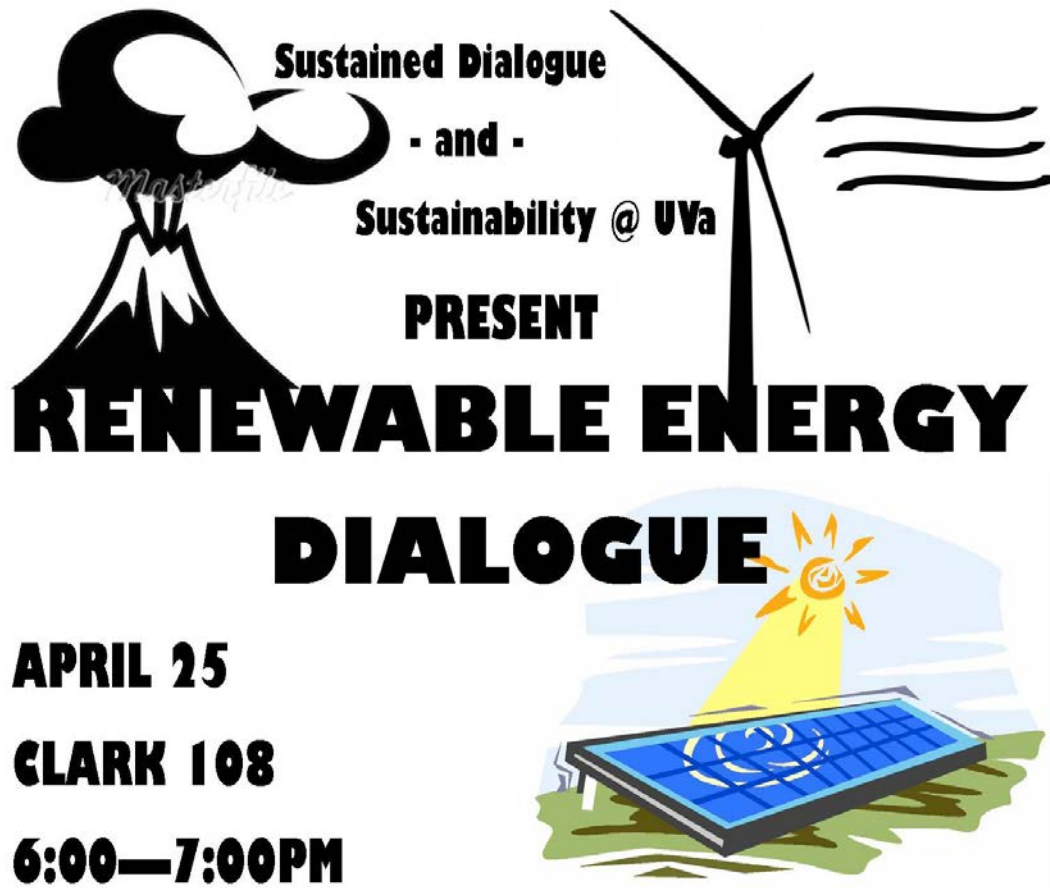
LESSONS LEARNED

We had to keep changing the event as we encountered other roadblocks. Originally we visualized a panel of speakers, but wanted to make it more interactive and therefore instead changed it to a participant driven dialogue. After settling on a format, one of the largest barriers to our success was communicating with people outside of our group. When it came to finding a professor to speak in our open forum, some did not respond to emails while others did not take the request seriously and quickly turned us down. In the same vein, communication with the Sustainability at UVA group also took more time and effort than we had previously assumed. We resolved this by taking a more personal route in finding speakers. Instead of asking professors with whom we had never taken classes, we scaled back and talked to graduate student TAs that we had taken classes with. Another issue we had was having realistic and attainable goals and ideas. Abstractly, our original idea of having a stargazing event and promoting an hour long lights off Earth Hour event after the panel was a good way to encourage smart energy use. Realistically, it would be very difficult to get people from the community and student body to come to Hereford for half an hour to look at stars.

One of the biggest take-aways from planning this event was learning to be flexible. It is easy to get stuck in the original plan, or to become frustrated when things do not work out. Instead, we did our best to work to calmly change our goals in order to match the resources that were available to us. Collaborating with different people and attempting to change actions and points of view that may have been learned over a lifetime is difficult, and being able to alter one's approach is critical in implementing change. That being said, in future attempts at planning an event or prompting change in habits or opinions, we would work more slowly and methodically in the planning stages and think through an idea more thoroughly before implementing it.

APPENDICES

Appendix A: Flyers



Sustained Dialogue
- and -
Sustainability @ UVa

PRESENT

RENEWABLE ENERGY

DIALOGUE

APRIL 25

CLARK 108

6:00—7:00PM

The flyer features a stylized volcano on the left with a large speech bubble above it. On the right is a wind turbine with three blades and three horizontal lines representing wind. Below the turbine is a solar panel with a sun shining on it. The text is centered and uses a mix of bold and regular fonts.

RENEWABLE ENERGY OPEN DIALOGUE

HOW DO WE POWER OUR LIVES?

Co-sponsored by Sustained Dialogue

THURSDAY, APRIL 25

6 - 7 PM

CLARK 108

Are you interested in sustainability? Curious about renewable energy research and development? Want to know more about local initiatives promoting renewable energy resources and affordable, energy-efficient housing? Join us for a conversation about innovative and alternative sources of energy! Brief presentations will be followed by small group dialogues facilitated by student moderators.

Appendix B: PR Initiatives

The screenshot shows a Facebook event page for "Renewable Energy Dialogue". The event is scheduled for Thursday, April 25, 2013, from 6:00pm to 7:00pm at Clark Hall room 108. The event description asks if attendees are interested in sustainability and renewable energy at the University of Virginia and in Charlottesville. It mentions a frank discussion on Thursday, April 25 from 6-7 PM, followed by moderated small group dialogues. The page lists several hosts: Nick Tobat, Katherine Agnew, Kelly Henderson, Ben Picus, Matthew Z. Harris, and Angelo Torres. A list of attendees is visible on the right, including Lillian Chreky, Ben Picus, Josh Whelan, Kat C Larson, Angelo Torres, Saied Kan, Matthew Z. Harris, Marlon Lucas, Camille Loomis, Alex C. So, Raymond Lee, Jamie Dean, Elena del Peral, and Alex Hosenball. The Facebook interface includes a search bar, navigation links, and a "Write Post" button.

Earth Week Events 2013

Give us a few details about your event so we can keep track of what's going on!
* **Required**

What is the name of your event? *
Renewable Energy Dialogue

What day will your event be held? *
4/24/13

What CIO is hosting the event? *
Global Sustainability Center

What time will your event be held? *
6:30-7:30 pm

Where will your event be held? *
Clark 108

Please provide a brief summary of your event *
The event will begin with a few speakers on Renewable Energy options and then attendees with break of into groups and engage in a dialogue on Charlottesville's future with renewable energy. The groups will consider what types of renewable energy would be most fitting for Charlottesville and ideas on how to progress toward those energy sources.

Email address?
kjh9yf@virginia.edu

Submit

Earth Week UVa | April 20 x
earthweekuva.me
Apple Yahoo! Facebook Google Maps Gmail YouTube Wikipedia Amazon News UVa Web Pages Music Imported From Safari

ITS THURSDAY

04/25/2013

9:00 AM-12:00 PM – CAMBC Trail Work Day
UVA is partnering with the Charlottesville Area Mountain Bike Club to clean up the Rivanna Trail by O Hill, a local hiking and biking trail. UVA Dining will provide complimentary refreshments. No experience necessary!

9:00-10:00 AM – Living Machine Talk
The Water Working Group of the UVA Environmental Impact Subcommittee has organized a talk in Newcomb 481 from representatives from the Living Machine. Their system treats raw sewage so that it can be used for industrial, agricultural, and other uses around Charlottesville, and is most visible in the Dell. Come find out more about this system, and it's future with UVA.

11:00 AM-2:00 PM – Green Career Fair
Come to the Clark Hall Mural room to meet representatives from companies in sustainability-related fields. Look out for a list of employers!

12:30-2:30 PM – Ice Cream HOOS Scream
Meet UVA Dining in O Hill to sample some of Ben and Jerry's fair-trade flavors!

3:00-4:30 PM – Food Photography 101
Join Slow Food at UVA with the renowned photographers behind Beyond the Flavor for a hands-on photographing food. Sarah Cramer and Andrea Hubbell will discuss their latest project and give some tricks of the trade in a food photography workshop. Be sure to [sign up](#) as soon as possible!

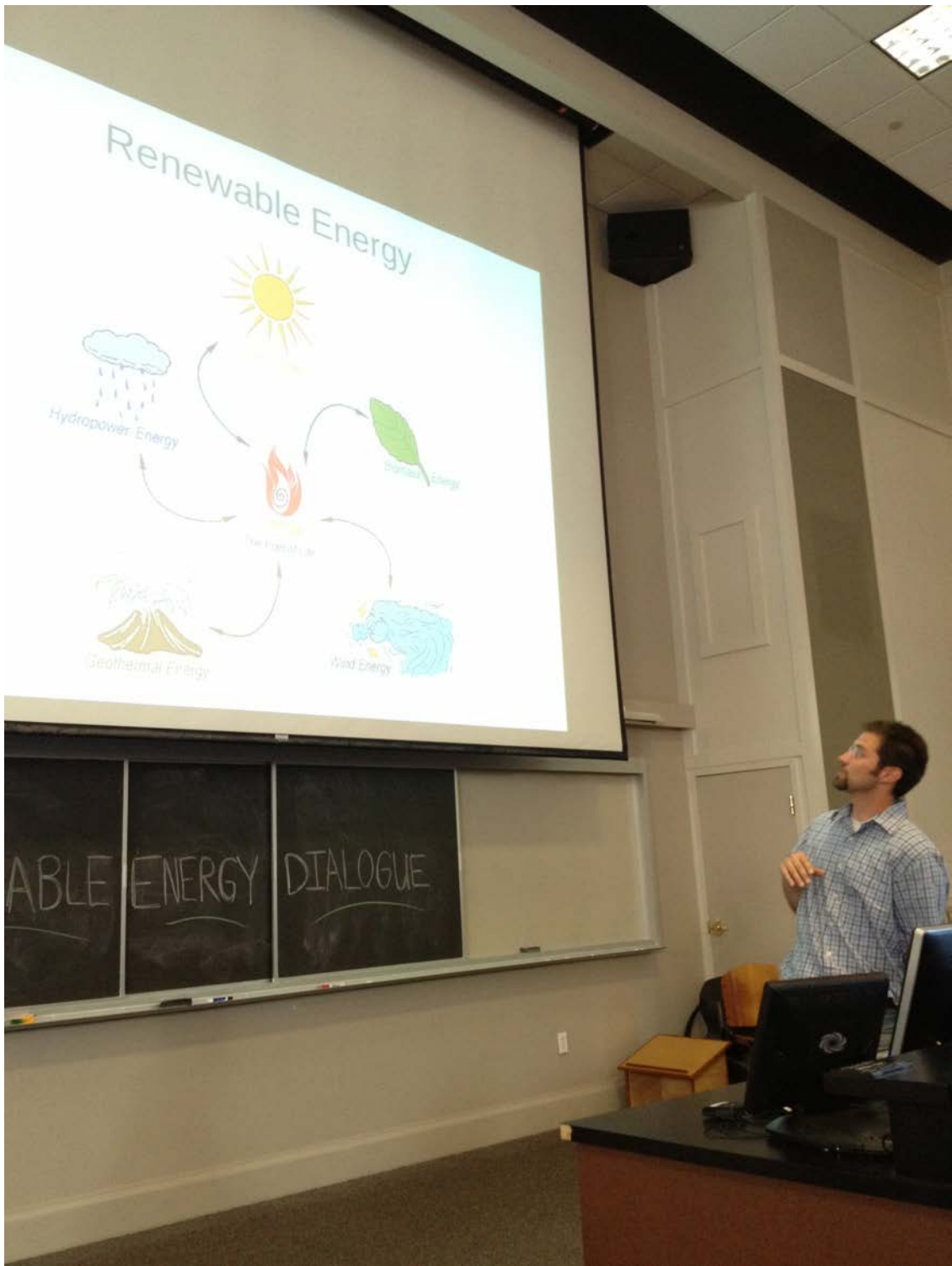
4:00-6:00 PM – Bike Maintenance Workshop
Learn from the experts at the O Hill bike fix-it station for a workshop on bike maintenance. It's a chance to learn the basics or brush up on your skills!

6:30-7:30 PM – Renewable Energy Dialogue
Join this dialogue between speakers, students, and community-members on renewable energy and Charlottesville's energy future, held in Clark 108.

Follow



Appendix D: Day of Event



Appendix E: Speaker Biographies

Helena Khazdozian is a graduate student at the University of Virginia in the process of finishing her MS in Electrical Engineering. Her area of expertise regarding renewable energy is photovoltaics, but she also has a great of knowledge about energy efficiency in residential buildings. Helena has been both a participant in and leader of the ecoMOD project, an effort in sustainable affordable housing at Uva.

Noah Egge holds master's degrees in both Environmental Sciences and Secondary Education from the University of Virginia. A recipient of the prestigious Knowles Science Fellowship, he is currently working toward his PH.D. in geosciences and work as a teaching assistant for geology and chemistry classes at the university.

Tim Leroux is the Director of Operations for the Local Energy Alliance Program (LEAP). LEAP's mission is to conduct outreach and education for home and small business owners encouraging them to take steps to make their buildings more energy efficient. Prior to joining LEAP, he was a departmental chair on the faculty of the University of Virginia where he taught Military History and Military Science. He lives just north of Charlottesville with his wife and three young children and recently completed a whole-house retrofit on his home.

Appendix E: Bibliography

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Appendix F: Acknowledgments

Speaker 1: Noah Egge (Environmental Science Grad Student)
Speaker 2: Helena Khazdozian (Electrical Engineering Grad Student)
Speaker 3: Tim Leroux (LEAP Director of Operations)
Sustained Dialogue
Sustainability @ UvA