GLOBAL SUSTAINABILITY ENERGY EDUCATION

Discovery Museum Exhibit

Global Sustainability, Fall 2011
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TABLE OF CONTENTS:

ABSTRACT

Team Objectives:

- To inform the local community about the wind turbine installation at Henley Middle School
- To generate more interest in and understanding of the importance of utilizing alternative energy, especially wind and solar, by engaging them in simple, but effective activities
- We will also use proper methods to document our event for future purposes. As a group, we will be creating a How-To guide, detailing the step-by-step process of how we planned, prepared, and held the event. This How-To guide will be given to Remy Leursson, who will post it on her website, so other groups working on similar projects can follow in our footsteps. This guide will allow an even broader audience to hear about our event at the Discovery Museum and aid them in creating a similar event in the future.

INTRODUCTION

Project Definition:

Our Global Sustainability Group, Energy Education, continued the engagement and education that first began when students at Henley Middle School received a grant to install a wind turbine. As students at the University of Virginia, we wanted to take the project a step further by reaching out to the greater Charlottesville community about the benefits of alternative energy. Our group, Team Discovery, planned and executed an exhibit at the Virginia Discovery Museum on November 13th, 2011 from one pm to four pm for members beyond the Henley Middle School demographic were able to read about wind energy, study an actual wind turbine up close, and participate in hands-on activities to maximize education and engagement. The Discovery exhibit concentrated on children's activities while also providing parents and teachers to read more factual information.

APPROACH

Initial Research:

Our group began by researching past precedents of other exhibits around the country which successfully displayed the importance of renewable energy in order for children to become more aware of the alternatives to energy, as well as the general idea of how science works. The Magic House Museum in St. Louis, Missouri has included displays where children can play with statically charged balls to learn about electricity, while The Port Discovery Children's Museum in Baltimore, Maryland also serves as an excellent model. This museum focuses on building, designing, and painting several types of technology in its R & D Dream Lab with a kid-friendly focus. Particularly, the Tinker Toy Company will be displaying an exhibit, consisting of model wind turbines for the children to build and function. The Discovery Museum in Charlottesville has also engaged previously in the creation of wind-powered inventions. It is these types of ideas we want to integrate into the Discovery Museum so that children can gain more knowledge of wind turbines, as well as other alternative energy sources through first-hand interaction.

Important Contacts:

One of the first steps we took was initiating a relationship with our project mentor, Remy Luerssen at the Virginia Center for Wind Energy. Remy was a crucial component in our design process. She fixed any problems or issues we encountered, answered our many questions, and provided our group with a potential starting budget while offering wind and solar models to display at our exhibit. Besides being extremely knowledgeable and experienced, she put us in contact with Maggie Patton, the event coordinator at the Museum, who would ultimately decide the extent of our activities, budget, and space.

Conceptual Design:

Our initial goal in the preliminary stages of this project was to be able to create a semi-permanent exhibit in the Discovery Museum. The purpose of this exhibit would be to spread awareness and knowledge of renewable energy in an effective manner geared towards children, while also having a profound impact on the adults. Therefore, activities that were the most interactive would serve this purpose. Our group proposed the construction of a model wind-turbine, as well as model solar panels. We understood that this goal would require much material resource as well as the willingness and ability of the Discovery Museum to host such a project.

Actual Design:

Due to time constraints and available funds on the behalf of both the Discovery Museum as well the team members of our group, we were advised to formulate a more realistic goal that was both attainable and still held significance in the purpose of our project. We began to research several other ideas, brainstorming what would serve to be effective in conveying useful information on renewable energy. One such idea included a Video Presentation. This presentation would incorporate a brief explanation on wind and solar energy, and how children can apply this knowledge in their lifestyle. This idea was chosen because of its visual appeal to both parents and children in viewing the benefits of renewable energy. However, it was recognized that this approach lacked a certain degree of learning through hands-on experience. Also, this activity can be done in any home or school, and we wanted to engage the children in something that they don't normally have the ability to complete at home. Another possible component of the project was the idea of a Bike Demonstration. This idea would serve to be a hands-on method in the witnessing of renewable energy, i.e. pedaling a bike to produce an electric current that would turn on a light bulb. However this sub-project would require much time and technology that our group was not yet qualified for. Another proposal included a Garden, which would serve to show the importance of solar and wind energy. This task also proved to be limited in time, skill and money to implement effectively. Our final idea to incorporate into this project was Arts & Crafts. The children would be able to construct simple pinwheels, which could convey the idea of a wind turbine. This task would require minimal to no costs in obtaining materials such as paper, crayons, glue, straws, etc. We also thought informational posters could catch the eyes of the community attending, so they know the reason we are holding the exhibit.

After carefully analyzing all of these ideas in collaboration with our partners, weighing costs, budget, time, and effectiveness, we were able to come to a viable conclusion. Our decision understood the feasible limits of our project, as well as the effectiveness it would have and positive public reaction it would stimulate from both parents and children. While both the Garden and Bike Demonstration are interesting and engaging, these initiatives would require funds, time, as well as engineering skill and technology that our group would not be able to fulfill under our time constraints. A Video Presentation presented the same limits, and after further thought, it was concluded that this approach lacked a certain degree of learning through undertaking. Arts & Crafts was therefore decided as the most feasible task for both our group and our collaborating partners at the Discovery Museum. As a team, we concluded that this element would be the most appropriate for the clients that are usually attracted to the Discovery Museum, whose children are ranging in ages between two years old and twelve years old. Our audience for this project is directed to children more or less the age of five years old. Arts & Crafts serves to educate this target audience in a manner that is both effective and engaging. This approach was chosen because of the venue of the Discovery Museum itself, which attracted a certain type of clientele (elementary school-aged children). The construction of pinwheels through simple materials such as paper, cardboard, pencils, straws, crayons, glue, pins, light bulbs etc is not only cost effective, but also relatable to our target audience who use these materials on a regular basis in their daily school setting. This approach entails spreading awareness and knowledge through familiar elements in order to more effectively convey the science behind wind and solar energy. In order to provide more knowledge on the importance of renewable energy, our team has decided to create large posters, which would describe the science and benefits of renewable energy in great, yet

comprehensive detail. Not only will this provide more background information for the children at the museum, but will allow the parents to become informed and engaged, as they will undoubtedly be accompanying their children to the museum, and as the leaders of their household, have significant responsibility in making more sustainable living decisions.
However, it is important to recognize that our project decisions reflect our target audience, who is primarily grade-school level children. This is not only because of our assigned venue which attracts this crowd, but because the desire for true change and impact must be instilled into people at a very young age. With proper guidance, this seemingly small-scale project will provide the spark young children need in order to recognize the feasible limits of the world in which they live in, and how they can create a future where they will be able to maximize benefits and lifestyle, while minimizing harm to the environment, and ultimately their generation.

Planning:

The Discovery Museum group planned to use photographs to document the day of our group's exhibit at the downtown mall. Approaching the museum on the day of the event, one would be able to see the fan head of a wind turbine, used at a local school for sustainable energy, to draw attention to our Team Discovery exhibit. Our group planned on documenting this aspect with photographs of the wind turbine displayed out front. This portion of our exhibit was especially crucial to our success and attracting attention of the Charlottesville community.

Inside the Discovery Museum, our exhibit was to be on display in one of the empty back rooms that was able to contain multiple activities for the people in attendance. We prepared three posters to put on display about sustainable living and alternative energy sources that can be used. Each poster would be photographed individually to document exactly what a participant would see during their time spent at our exhibit. Each activity would be photographed individually as well. Each part would be photographed prior to any users engaging in our arts and crafts so that it would be clear exactly what resources each participant would have available to them in the construction of their respective mini projects. We would also photograph the exhibit again with the actual participants in the middle of the activities. This would help show the purpose of each station of our project as well as document the project's success on that day.
The success of our project would not be something that could be easily defined. In the meeting our group had with Maggie at the Discovery Museum, she shared that the numbers of museum participants often vary greatly, anywhere from twenty children to possibly two hundred children. But the numbers we would receive on that day will not determine the success. Weather and events held downtown would have a direct effect on how many people visit the museum that day. Despite our efforts to advertise our group's project and exhibit for that day, the amount of people who we will be educating is not something we would be able to control. Instead success would have to be measured in other ways. The goal of the project was to spread sustainable practice and thought. The Discovery museum resembles something similar to a day care center for children. There is an air circulation activity in the front window of the museum, a log cabin behind that, wildlife displays to educate kids about nature. Compared to all of this, our exhibit would be much more informative and educational. The bulk of our exhibit would be presented in a back room, free of the other distractions of the museum. Our hands on activities at each station would get the attention of the children and we hoped that the parents or guardians of the kids would receive our message. The success of the project would depend on how interested the children are in the global sustainability project. It needed to be more engaging than the surrounding environment that our exhibit operated in so that the children would have the full sustainable experience. This would result in the attention of the parents as well in matters of actual relevance to their lives and their city's environment. With our displays of alternative energy sources parents would be able to see real life examples of more sustainable living while their children engage in arts and crafts activities. The short-term success was to be measured by the attentiveness of the children and the amount of time they spend working on their individual projects. The photographs we would take were to help document how well our exhibit was received by the younger Charlottesville population. If we were able

to successfully captivate the participating children then we will have successfully reached the attention of the parents who have actual control over the sustainable practices in their households. Long-term success would come through the dissemination of the results of our project. Once the elementary, middle and highs schools have been contacted we will have the educational communities of Charlottesville covered. We would also be advertising at the exhibit so that people could recognize not only the importance, but the growing popularity of more sustainable practices. Only after we have finished relaying the results to other groups involved with schools and local newspapers, effectively reaching a large portion of the Charlottesville community, would we be able to call our Team Discovery project a success.

Throwing a large community-oriented event at the Virginia Discovery Museum on the Charlottesville Downtown Mall required a large effort of dissemination. Because our project was planning and throwing a single event, dissemination for the event would involve advertising for the event and publicizing the results of the event. The goal for dissemination was to get a large number of community members, with young children, interested in our event and interested in the raising of the wind turbine at Henley Middle School. In order for it to be a success, a large amount of people would need to show up and the following is a plan of how Team Discovery Museum was able to advertise for the event and publicize the results of the event.

In order to advertise for the event at the Virginia Discovery Museum, we felt it was important to target these audiences: UVA Faculty and students, Faculty and students at the three target schools, and Charlottesville community members. Being that this event was mainly aimed at attracting local community members with young children, they would be our main focus of energy in advertising. We wanted this event to raise awareness in the community, who may otherwise have not heard of the project at Henley, about the wonders of alternative energy and the event at Henley. However the other demographics would also be targeted in an effort to raise awareness for the project in total and to attract other interested community members we might have otherwise missed.

The main format for this advertising would be through the creation of event flyers and email information blurbs. Our group was to create an eye-catching flyer describing the location, time, and purpose of our event at the Discovery Museum. This flyer would be placed in various places in Charlottesville and UVA grounds. We would also create an eye-catching information blurb for emails, so people can hear about the event that way.

In order to advertise to the UVA community, our group would email listservs, hang up flyers, email professors and request an article to be written in the CavDaily. Our group would be emailing information to several environmentally or community related email listservs and newsletters, for example, UVAConnections, EngageUVA, the SustainaUnity Newsletter, the Environmental Science Department, Madison House and The Architecture School. We would also email professors in departments pertaining to the project and ask them to send out information to their classes. Lastly, we would request the CavDaily to write an article about the event. By doing all of that, we hoped to get students and professors with young children to come to the event.

In order to advertise to the faculty and students at the three target schools, our group would pass the flyers to the project teams working at each school, place the actual wind turbine head in the lobby at Henley, ask the schools to send out information in their newsletters, and ask administrators to make an announcement about the event during their morning or afternoon announcements. We would pass our flyers to the teams working on educating each school and they could send the flyers to each school so they could be sent home with the children. Remy also said she could bring down the actual fan head of the wind turbine going up in Henley and we could place that in the school lobby to raise awareness to the students, faculty, and parents that walk by. Lastly, we would email the school administrators with information so they could make announcements over the loud speaker during their daily announcements on the Friday before the event, and

so they could advertise for the event in any weekly or monthly newsletters each school may have in order to target parents.

In order to advertise to the main target group, community members, our group would contact community email listservs, hang up flyers in strategic areas in Charlottesville, email administrators at other schools, advertise on the Discovery Museum website, and contact local newspapers. We would email the informational blurb out to the local Sierra Club listserv and other local environmentally interested groups. We would also hang up flyers in areas such as the Downtown Mall, Barracks Road Shopping Center, and places where families would frequent. We would also email administrators at other local elementary schools so they can pass on the information to other parents in the community. We also planned to ask the Discovery Museum to advertise for the event on their website. Lastly, we would contact local newspapers such as The Hook and the Daily Progress in order for them to advertise our event.

In order to publicize the results of our event, we planed to advertise its success in local newspapers and provide information for future projects in a How-To guide. Our group would contact local newspapers and news networks about the event and hope that they will write an article about the success of the project.

Lastly, in order to organize the publicity efforts, a GoogleDoc would be created listing what group or listserv was contacted by whom and when. This would help us avoid contacting a group several times and ensure that we reach everyone we intended on reaching. This would also help us divide the work, because disseminating the information about this event would be a large endeavor.

It was important for the dissemination of information about this event to be successful. The more people that found out about the event related to how many people would show up to the event, which related to the overall success of the event. If all the above audiences were reached in the correct manner, this event at the Virginia Discovery Museum would be a big success. It was our hope that as many community members as possible would find out about this event and attend in order to raise awareness for the alternative energy project at Henley Middle School.

CONCLUSION

Overall, our team was successful in implementing our ideas, which applied concepts of renewable wind and solar energy, to kid-friendly activities. We were able to demonstrate the overall idea of the design of a windmill, the science behind acquiring solar energy, and the benefits of both types of energy. Not only were we able to introduce this knowledge to our target audience, but we were able to get the parents engaged as well. Families as a whole interacted in the activities, and parents showed interest in learning more about renewable energy initiatives. Therefore, our goal in spreading the awareness of renewable energy was achieved, and this knowledge is now more likely to be applied elsewhere within and outside the home.

The limits of our project were evident in the scope of the activities we provided. These activities were very basic in demonstration and in knowledge, and were very small steps to working towards the bigger goal of sustainability awareness, and more importantly effective change. Also, our group was not able to meet all of the criteria we planned for dissemination, due to time conflict and availability. This likely had an effect on the turnout of community members to the event. Compared to the turnout of children and their families to the entire museum on that day, our turnout was relatively successful in that nearly every child who visited the museum stopped to view our exhibit and/ or partake in its activities. Therefore, our project was overall successful in spreading the awareness of renewable energy and sustainability. The next obstacle, or goal, involves how to take this knowledge a step further and apply it to the everyday lives of the children and their families, to create sustainable households.

However it is important to recognize that our project decisions reflected our target audience, who were primarily grade-school children, not only because of our assigned venue which attracts this crowd, but because the desire for true change and impact must be instilled into people at a very young age. This provides the spark young children need in order to both comprehend and recognize the feasible limits of the world in which they live in, and how they can create a future where they will be able to maximize benefits and lifestyle, while minimizing harm to the environment, and ultimately their generation.

APPENDIX

Contact Information:

Maggie Patton
Education Manager
Virginia Discovery Museum
education@vadm.org
434-977-1025

Remy Luerssen Pangle
Director of Education and Outreach
Virginia Center for Wind Energy
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Harrisonburg, VA 22807
540-568-8768 office
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aeer.cisat.jmu.edu

Important E-mails:

Wednesday, October 5, 2011
To: Maggie Patton
From: Team Discovery

Dear Maggie Patton,

My name is Angel Calvin, and I am collaborating with Christian Greenwood, Kelly Pierson, Cristina Maldonado, and Paul Zimmer. We are all students at the University of Virginia who are enrolled in the Global Sustainability course headed by Professor Phoebe Crisman. This class has allowed us the opportunity to become engaged in a community project.

Our main purpose is to educate the Charlottesville community on the benefits of renewable energy. We believe the Discovery Museum would serve as an effective outlet to spread awareness of this topic. In order to gain a better understanding of our group's proposal, the Project Definition has been attached. These ideas are still being developed, and we welcome any suggestions. You may contact our entire group at energyedu_discovery@virginia.edu. Thank you for your time, and we look forward to meeting with you, Remy Luerssen, and the rest of the VADM team!

Best,

Team Discovery

Monday, October 10, 2011
To: Team Discovery
From: Maggie Patton

Dear Global Sustainability group members,

Thank you for your proposal. You have many great ideas for educating children about renewable energy.

First, I need to clarify that anything we might plan would be a one-day educational program, not an exhibit. VDM does not host guest exhibits; our exhibits are fabricated in-house by our Exhibits Manager or (if sponsored) are contracted out to exhibits professionals. At any rate, we recently renovated our main gallery and we will not be adding any new exhibits at this time.

Second, because VDM is a small nonprofit, we are unfortunately very limited by our budget and staff size. Our budget for outreach programming is set at the beginning of each fiscal year and any additional programming that we add must be funded by outside sources. As a result, VDM cannot provide any funding for a November program.

Third, October and November are particularly busy months for us here at VDM and, consequently, our staff resources are already committed elsewhere. We have major museum events on October 28 and November 5 that will require a great deal of staff time. Therefore, I am very hesitant to add another November event. Due to the small size of our organization, one month is unfortunately not enough time to plan an outreach program of this magnitude.

Here is what VDM can offer: we would be able to host a one-time program, about 3 hours in length, that would be entirely planned, funded and staffed by your group. VDM would provide space in our back gallery for the program. We would provide tables and chairs. Your group would bring any necessary materials to the museum with you on that day. I think that a craft project like a pinwheel would work wonderfully. As for other activities, I would encourage you to keep in mind that VDM caters to young children and our visitors are generally families with children no older than 7 or 8. Should you decide to plan a scaled-down version of your proposal, I would be happy to consult with you via email regarding what activities might work well although, as I mentioned, I would not be able to plan or prepare any activities. Note that the museum would be open to our regular visitors at the time and so the tables would be surrounded by children interacting with our permanent exhibits. As a result, it would not be possible for the activities to require a quiet, dark environment.

I do want to reiterate that I was impressed by your proposal. We at VDM are committed to environmental causes and, in a perfect world, VDM would have the funding, space, and staff availability to make everything in the proposal happen. But because we are limited, a November program would have to involve very little help from our staff.

Please let me know if you are interested in planning a scaled-down program. As I mentioned, we have already committed to a community event for November 5, but November 12 or 13 could be a possibility. I encourage you to let me know ASAP so that any program we plan could be listed in our newsletter, which would drive more visitors to the program. If we are to do a small program in November, I must know by October 14 at the latest.

I am not sure if this project is something that you must complete during the Fall semester; however, if you are still interested in planning a large-scale program or event with VDM, I encourage you to get in touch with me in early 2012, at which point we may be able to formulate a plan for a larger event.

Thank you again for your proposal and for all of your hard work.

Sincerely,
Maggie

Activities & Demonstrations

Create-your-own Pinwheel

Materials:

Square cut pieces of paper (as many as desired)
Scissors
Push pins
Small foam squares
Drinking straws
Fan

Instructions:

Cut each piece of paper diagonally inwards from the corners, but not all the way to the center. Fold the corners in from each piece and fasten them together at the center by threading the pushpin through the middle. [The paper square should now have the shape of a pinwheel.] Attach the straw to the pushpin on the other side of the pinwheel, then the foam square to hold it al in place. Have the children hold up their pinwheel to the fan and have them watch it spin.

Create Your Own Solar Water Heater

Materials:

Clear plastic cups
Black square cut pieces of plastic
Square Cut pieces of Saran Wrap
Rubber bands
Water
Lamp

Instructions:

Put some water into the clear plastic cups. Wrap the black plastic around the bottom of the cup and the clear plastic over the top. Secure them into place with the rubber band. Place the cup under the lamp. Watch as the water gets hotter.

Renewable Energy Coloring Pages

Materials:

Coloring pages
Crayons
Markers

Instructions:

Set out different coloring pages about renewable energy and have the children decorate them.

Children's Reading Corner

Materials:

Books about renewable energy

Instructions:

Read to the children out loud or have them read to themselves about the wonders of renewable energy.

Model Displays

Instructions: Place the small model wind turbine in front of a large fan and the Ferris wheel model under a lamp. Supervise the children as they explore and play with the models.

Informational Posters

Instructions: Create three posters. Two posters should be relatable for young children, one about solar energy and one about wind energy. The third poster should be for parents to read while their children work on the activities in the room.

Potential Problems

The Pin on the pinwheel

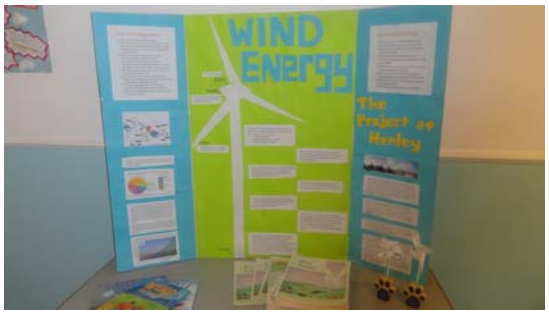
The pushpin had a potential of falling out of the pinwheel, which can be dangerous since they are sharp. We suggested giving the pinwheel to the parents, once the children have made them, so no one in the building gets injured.

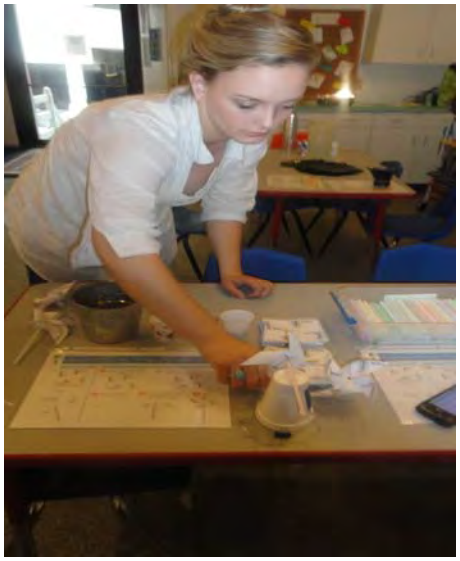
Budget & Costs

The goal of our project was to effectively spread the awareness of renewable energy, via the Discovery Museum. In working with our partners at this venue, we recognized the limits in budget and therefore brainstormed realistic cost expectations. The scale of our project was reasonably sized down to very minimal and/or no costs at the expense of both our team as well as our collaborators at the Discovery Museum and James Madison University. It was understood that the Discovery Museum had no responsibility in funding the project, since they would be providing the venue for our display.

Costs of this project were primarily involved in the materials necessary for the display. Since our project had been reduced from its original idea, costs had been significantly minimized. Our financial input went into the Posters and the Arts & Crafts for this project. We created three poster boards: one for solar energy, one for wind energy, and one for sustainability. These posters did require the purchase of materials such as glue, posters, markers, paper, tape, scissors, glitter, etc. However many of these materials were already in possession of the members of our team, and therefore did not require an additional purchase. In regards to the Arts & Crafts, our partner Remy from James Madison University helped to fund and provide materials for this component. This included providing a miniature wind turbine, as well as the purchase of materials for the pinwheels and solar cups the children would be constructing. The pinwheels involved the use of straws, glue, pins, and paper, which were all purchased and/or provided for by Remy. The solar cups required cups, rubber bands, paper, markers, incandescent light bulbs, and other miscellaneous materials that were also purchased and/provided for on the behalf of Remy. Therefore, the members of Team Discovery were primarily responsible for the purchase of materials that will be involved in the creation of the poster boards. However costs would be contained at a minimal low, while still retaining the means to effectively create a display at the Discover Museum and convey the knowledge of renewable energy in an appropriate and engaging manner.

Photographs





Timeline of Events

August 25, 2011: First discussion section. We learned that our project will be centered around the installation of a wind turbine and solar panels at Henley Middle School. We then chose our top three areas of interest within this category in order to determine our division into smaller teams.
September 6, 2011: Sameer e-mailed the class informing us that we would communicate with Lindsay Snoody from Albemarle County Schools and Remy Luerssen from Virginia Center for Wind Energy via Skype during discussion section on Thursday, September 8. We were encouraged to "look lively, take notes and ask questions." Sameer also includes two attachments in order to bring us up to date with the Henley Middle School project thus far, since we are continuing where last year's class left off. They have provided a 50 page, detailed report, as well as a brief and engaging PowerPoint featuring pictures of Henley Middle School kids and UVA students working on model wind turbines.
September 8, 2011: Sameer sends us inspiring and helpful websites to start our research and Discovery Museum Project. These websites include: windpowerrva.org, awea.org need.org, kidwind.org, windwiseeducation.org, and aeer.cisat.jmu.edu.
September 12, 2011: List energyedu_discovery@virginia.edu is created as our team e-mail and we begin to discuss what we email to Remy Luerssen and Maggie to begin planning for the Discovery Museum exhibition.
September 17, 2011: "Team Discovery" meets in the early hours of Saturday morning to prepare for the first deadline, the Project Definition. Not having heard from anyone at the Discovery Museum, we are unsure about where to begin and we e-mail Sameer. He reassures us: "I emailed Remy and Lindsay Friday morning. Again don't get caught up on whether it is an exhibition or one time show (an exhibition is needed to have an event anyways.) The point is to engage the community about the importance of these new technologies that are going up in their community, to build a knowledge base, to spark interest, as a build up to the kick-off event." He includes an e-mail from Remy in which she notes, "before meeting with their teachers/clients, they will want to have a good idea of the history of the project – what has been done – and a clear view of the objectives of their project – to educate students about wind and solar, etc. The teachers will be able to help with the specifics of how and who and when." Sameer concludes by reminding us, "You shouldn't be looking too deep into this just yet, refer to the 50 page document I emailed around from last year's conclusion, their project definition/statement might help you orient yourself." We step back from the overwhelmingly large amount of work we potentially thought we had to do, and focus on what we do know, for example what we see as the problem and how we would like to work to solve it.
September 21, 2011: we turn in our project definition at 5pm, and feel more settled about our ideas and what needs to be accomplished by early November.
October 1, 2011: Sameer sends the class an example Conceptual Design in order to get us on the right track with the next stage of the project.
October 3, 2011: We began planning our conceptual design and Sameer informs us of his proposal to Remy that this Thursday we would begin engaging with our local coordinators.
October 4, 2011: We wrote a draft letter to the Virginia Discovery Museum in preparation to send it to Maggie Patton and Remy Leurssen. We are instructed to wait to send this email since the size and scale of our specific event was not worked out yet.
October 5, 2011: Our letter was sent stating our initial goal in working with the Discovery Museum. Angel was responsible for sending the e-mail to Maggie Patton. We also received our grade for our Project Definition and noted we were on the correct path.
October 10, 2011: Maggie Patton responds, carefully and graciously outlining what the Museum can and cannot do to help. We can organize a one-day event promoting wind energy and solar power at the Museum. She offers us space in which to host the event however, there will be no funding whatsoever. She offers us a few possible dates in November. We agree on the date November 13th, 2011 and email Maggie

back to set up a meeting to see the Discovery Museum site and talk more into details about potential activities. On October 14th, we learn the space able to be used for the event is open from 1pm-5pm. We can also have two tables set up outside of the Museum, along the Downtown Mall to catch people's attention and encourage them to come inside.

October 20, 2011: Angel emails Remy requesting a telephone call to discuss the progress of the project thus far. We plan to speak via Skype during class on Thursday, October 27 with the whole discussing section. Sameer believes this will also allow each group to see each other's progress.

October 27, 2011: We spoke with Remy briefly via Skype and learn that she would cover whatever minimal costs may arise and that she will take care of any printing that we need for the event. Also, she mentioned providing an actual wind turbine and solar panel to put outside the Museum to draw people in on November 13. Team Discovery visited the Museum that afternoon to see the space and to meet Maggie. We decided we want to use the smaller room instead of the huge back room in order to keep everything more contained, and also having access to wall space and table space for set up. We determine what posters will go where and Maggie advises us to prepare about 100 copies of coloring pages. She also explains that we could get 4 people (especially if the weather is nice) or we could get 200 people.

On October 31, 2011: We send an email to Remy requesting the following:

- photographs and descriptions of the items she will be bringing to the Museum, especially the large wind turbine we plan to have outside (if weather permits) as well as the miniature model turbine kits
- She prints 100 copies of the coloring pages (included in the attachment)
- she does not bring volunteers since we've moved to a smaller space and will not need the extra help

On November 3, 2011: We turned in our Preliminary report at Midnight. We also met with our group to discuss the deadlines for the exhibit: Christian created the wind turbine poster geared toward children, Angel created the solar power poster geared toward children, Christina made the adult sustainable energy poster, Kelly designed the flyers for the Discovery Exhibit, the Kick-off event (to hand out at our exhibit) and found all the coloring pages for the event, and Paul will wrote the instructions for the paper wind turbine activity and the cup solar panel activity. On November 12th, we planned to meet as a group to discuss last minute details on the exhibit and create a basic itinerary/ schedule for the four hour event the next day. Finally, Sunday November 13th arrived, and we prepared to meet at 12pm to set up the space before the Museum opens to the public. We we stay until 4:30 pm. Following the event, we met to discuss the successes and weaknesses of the event, and see if other events need our support.