**Encouraging Student Sustainability:**

**Working Out for a Cause**

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**Vision Statement**

I will be working on retrofitting gym equipment for the IMA’s gyms. I would like to hire ReRev to retrofit our gym equipment to put power back into the grid.

ReRev retrofits ellipticals and other walking gym equipment, while The Green Revolution retrofits stationary bikes. The two types of machinery produce approximately the same amount of electricity per year (Green Revolution bikes produce .5 KW Hours of electricity more per year than ReRev), so the real deciding factor between the two companies would be which type of machine sees more use.

The retrofit would provide about 18KW hours of electricity per year, which would not substantiallyoffset our carbon output per year; however, the interactive and educational benefits of the retrofit would most certainly provide benefits to the IMA and the UW. Other gyms who have done these

retrofits have reported increased usage of the retrofitted machines compared to the same machines

prior to the retrofit. This is because people think it is really empowering and motivating to see how

much energy they can produce in a single workout.

This is also an educational opportunity: as people see how much electricity they can produce, this will allow them to make connections between their power usage and issues in sustainability. For example, once you have worked out and found that 30 minutes of hard exercise only produced enough electricity to power your laptop for 1 hour, you might think twice about leaving it on when you leave your house.

The goal of this project is to increase awareness of environmental problems, wastefulness in our daily lives, and the simplicity of solutions in our everyday lives. I hope that this campaign will encourage

students to think about what their individual impact is, and what they can do to lower it.

I would like to do an informational campaign to accompany this project. That would include a short bit on RainyDawg Radio, an article in the Daily, and a short (hopefully about 5 minutes, maybe 3 times) video on UWTV. I think that increasing awareness of this project will create excitement about using the machines, which in turn will increase both the educational and electrical mileage we will get out of the investment.

**Goals and Significance**

When thinking of this project, I imagined it as a way to reach out to a diverse and active student body through a well-renown institution. The power-producing exercise machines will conserve energy, educate the student population through a participatory installation, and create stronger ties between the IMA and the CSF.

The goals and significance of the project are to:

* raise awareness of environmental issues and energy conservation
* involve the student body in a participatory project
* reach out to an underserved audience with environmental education
* involve the IMA-a group which serves thousands of students every day
* give back to the school through energy conservation measures
* create stronger ties between the IMA and the CSF, both working towards impressive environmental action

The personal significance of this project is to make an actual impact on the energy consumption and awareness of the UW. I have been campaigning for greater environmental awareness since age 9 in 4th grade at Olympic View Elementary School.

As I have progressed through college, I have worked passionately as an assistant or underling in a larger program to affect sustainability several times. I have always dreamed of taking the next step to designing and running a program myself. This project will fulfill that dream. I hope that this project will have a large impact across campus, showing people the amount of electricity needed to run typical devices, and allowing them to connect with sustainability in a way that the UW has never experimented with before.

**Context-Background-History**

This project started with me almost 2 years ago. Through a class at Seattle Central Community College, I began thinking about impactful ways that people could give back in their daily lives. Retrofitting exercise machines was one of the first ideas that came to mind; however, having no technical experience and no exercise machine to experiment with, I was unable to move forward with this project idea.

The University of Washington is trying to become a carbon neutral institution, so they have been seeking out projects that both expand that goal and educate the student body on that goal. The IMA has done a number of projects to advance that goal, including installation of additional insulation, roof replacement, and other facility improvements. Very little of their energy, however, has gone into participatory projects. As the IMA sees a large number of students every day, the impact of involving those students could be quite large. I am looking into the exact number of daily visitors through my contact on the IMA Green Team.

This past quarter, I spoke to Adam Falhstrom and Sunni Wissmer, who informed me about the Intermural Activity Building (IMA)’s prior consideration of similar projects, the Campus Sustainability Fund, and ReRev.

As it turns out, when the IMA was being remodeled, they considered putting in retrofitted machines to further lower the energy impact of the gym. Due to the large quantity of machinery and the fact that most gyms leave their equipment plugged in overnight, gyms are often among the highest energy consumers on college campuses. The IMA decided not to move forward with the proposal at that point because the cost of the retrofits was too high to fit into their budget.

The Campus Sustainability Fund is a student run grant fund maintained for the purpose of funding student ideas for sustainability on campus. The fund focuses on projects that increase visibility and participation among students, and reduces the school’s carbon footprint. Any UW Seattle student can apply. The CSF has famously funded projects such as the UW Farm, the CBE Green Wall, and the Student Food Co-op.

ReRev is a company, based off of the East Coast, who retrofits gym equipment to plug power back into the grid. The company has retrofitted a number of universities, who have reported increased usage of their gyms and higher awareness of environmental issues after the installation. The company is one of two that work on retrofitting gym equipment, but each focuses on a type of machinery. ReRev works exclusively with ellipticals, while their main competitor, Green Revolution, works with stationary bikes. Due to the vastly higher usage of ellipticals than stationary bikes in the IMA facilities, the retrofit would have a greater impact if installed on elliptical machines.

**Literature Review**

The subject is fairly well studied, in that more than 20 other universities have embarked on the same process through ReRev. I am in the process of contacting those universities to hear about their experience in promoting it to their students and going through the application/installation process. The employees of ReRev have a lot of experience with university bureaucracy and the possibilities for installation in the gym facility.

ReRev has a lot of technical information available, looking at which machines are best for this type of retrofit, and how the retrofit will actually be done. The majority of my work will be focused on the process of applying for the CSF and involving the IMA, but a small amount of research does need to be done to make sure that the project has the biggest impact per dollar. I had a meeting 2 weeks ago with the IMA Green Team in which we discussed the project and how to have the greatest impact. We will be focusing on ellipticals, which see more use than stationary bikes, and then reached out to ReRev to hear about what machines can be retrofitted. They looked through our inventory, and told us that only one type of machinery will work for the retrofit, their Precor machines. We are currently in the process of outreaching to our Precor Reps to see what we need from them in order to proceed to the next step: creating a budget.

There is quite a bit of data available through the IMA regarding the usage of various types of machines and the usage of different locations of machines. As previously mentioned, ReRev has told us that we can only retrofit the Precor machines. Now we need to look at where those are located throughout the IMA, and how to relocate them for the best price to use relationship. The location of the equipment is key in identifying the cost, because it will determine how difficult it will be to install a transformer to allow the power to reenter the grid.

There are a number of people and campus organizations with experience applying for the CSF, some of whom I have already spoken with to hear advice on the CSF application. The CSF has a number of resources available to help with the application, and people such as Sunni Wissmer will be very helpful in the proof reading portion of the application process. I have received feedback from the CSF Council, who I plan to work closely with, and am currently in contact with Jamie Rowe, the CSF Coordinator.

Lastly, there is a lot of research on marketing in student/young adult audiences, as well as on college campuses. Tapping into these fields will help me to be sure that the advertising we invest in actually has an impact. I will look into RainyDawg Radio, UWTV, fliering/postering, and having a display at the IMA. Things that I will look at include:

* the age and status (student, alumni, etc.) of the audience
* the effectiveness of bringing in new ‘customers’ versus engaging old ‘customers’
* the effectiveness of different types of messages:
  + visual
  + auditory
  + interpersonal
* the expense of different types of advertising

**Methodology**

To achieve my project, I will use a variety of methods. My project in essence breaks down into 3 stages:

* working with the IMA and ReRev to finalize an agreement for the installation and expenses of the project-I will be attempting to get them to pledge 50% of the money for the project
* applying to the CSF for money to fund at least half the project.
* Advertising and promoting the new installations through UW Daily, RainyDawg Radio, UW TV, and information/presentations in the IMA at the location of the machines

To set up a relationship with the IMA and ReRev I am going to create a budget for the project so that all of the involved entities have an idea of the financial impact of the project. ReRev, Precor, the IMA, and I will be having several meetings to nail down a finalized cost. I will also be reaching out to the UW Facilities and Maintenance staff and the Campus Engineers (who work with the UW’s power supply and measure carbon footprint, etc.) to make sure that everything is properly permitted through the UW’s bureaucracy.

I want to ensure that we are following the best process and getting the best results, so I will reach out to other schools who have done similar projects through ReRev to hear how about their experience, and find out if they have any feedback that may be useful. I will then integrate that feedback into our plan and make sure that I report back to the IMA so that we are all on the same page.

I have already started the CSF application process with Sunni Wissmer and Adam Fahlstrom’s help. Both of them have experience with the CSF and between them, Jamie Rowe (the CSF Cooridnator), and the CSF website, I have been able to map out steps of the process, as well as get feedback on my project as I go. I have already submitted my LOI for the Winter application for feedback, although it looks like we will be shooting for the Spring deadline. This will help me to be sure that I am putting forward the best application possible.

For advertising, I am going to reach out to the 3 main forms of campus advertising: the UW Daily, RainyDawg Radio, and UWTV. I will do research on how to best advertise through these 3 contacts by speaking to their advertising teams and by doing background research on basic advertising schemes. I assume that some of the feedback that I will receive from other universities will include a small amount of information on how to (or not to) disseminate information about this project. Lastly, I will set up an interactive display at the IMA right next to the retrofitted equipment explaining things like: how it works, how much energy it produces, its impact on the environment, etc. I will also work with the IMA to put up directional signs leading people to this area.

**Annotated Bibliography**

**ReRev:**

This is the company that actually does the retrofitting. I will use their expertise in learning about ideal placement of machines, creating a budget, and in implementing the actual installation. They will be key partners throughout the intial stages of the process.

**IMA:**

The IMA knows a lot of information about their machines, important in deciding where to place the retrofitted machines, as well as which machine type to retrofit. They have experience in handling the Campus Engineers and the Facilities and Maintenance staff, which will allow me to understand the process and not step on anyone’s’ feet. They will also help me create a budget, decide on advertising in the IMA, and be partners in the further outreach efforts, such as UWTV and the Daily.

**Oregon State University, University of Oregon, and Portland State; Georgia College and State University, California State University: Northridge, and PJM:**

I will contact the 3 most recent retrofitted Universities, and the 3 closest Universities to hear their feedback on the installation of machines. The reason I want to look at both most recent and closest is to learn a little more about difficulties in working with a company based so far away in handling the needs of NW schools, and about how the installation process works, which may have changed between 2008 (when Oregon State schools did their retrofits) and 2011-2012 (when the last 3 schools had their retrofits done). I want to hear the general feedback about advertising and drawing attention to the project, and from the Oregon State schools, how the project has aged-whether it has maintained impact, grown in impact, or lost its attraction once it became a “standard” fixture in the school.

CSF website, Jamie Rowe, Sunni Wissmer, and Adam Fahlstrom:

The CSF website provides a large amount of information about the application and the process, including when and how to apply, and example proposals. Jamie Rowe is the CSF Coordinator, who gives feedback to the Letters of Intent. We have already begun communicating about the weaknesses of my LOI, so the I can strengthen it before submitting the final application. Sunni Wissmer works for the CSF, so she is very familiar with the what they are looking for and the steps of the process. I have asked her to proof read my LOI, which she did and provided me with great feedback, and in addition, she has been invaluable throughout the process in helping to connect me with other people and projects on campus whose work I can learn from. Lastly, Adam Fahlstrom works for the UW Stewardship and Sustainability Office. He got me in contact with the IMA Green Team and has helped me through out this process by connecting me with the people and offices I need to get in contact with. As I move forward in this process, I will be relying on Adam, the IMA, and my own research to ensure that I am contacting everyone at the UW that I need to to be sure that there are no hiccups in the installation and funding of this project.

RainyDawg Radio, UW TV

Both of these organizations run advertising to students and the general public about UW activities, projects, and successes. I intend to get in contact with them to talk, not only about using them as advertising resources, but also to hear their feedback on how to successfully run an advertising campaign.

Additional Sources:

The following list is a list of sources I have not looked into, but that are floating around my brain as something that I should look into:

* Caleb Shih (doing his senior project on visual advertising and how to successfully carry it out)
* Go to the library and talk to librarian about sources for advertising
* Speak to the UW Farm, the IMA Rock Wall, Ride in the Rain, and other student opportunities about what they have done to advertise and their successes
* Speak to the I-School, the Design School, and the Art school to see if any students are interested in doing some designs for advertising and outreach; maybe speak to a teacher to see if they would be interested in doing a class project of this sort

**Timeline**

Have meeting with IMA and Precor Rep before January 15th

Have meeting with ReRev by January 20th

January 31st: Have cost of installation finalized

Begin marketing research: contact UWTV, the Daily, and RainyDawg Radio; speak with Caleb

Write out marketing plan, including all types of marketing

Write out budget of marketing, installation, etc.

February 1st: LOI due

February 5th: Finalize budget

February 15th: Have project approved by IMA, with division of cost between IMA and CSF decided

March 1st : Finalize application

Have Sunni, Adam edit proposal

March 15th: Application Due

Begin designing marketing pieces

April 15th: Hear back from CSF (by this date)

Go to IMA to contract work with ReRev

Come up with Installation timeline

Set up meetings with marketing partners to create marketing timeline

May 15th: marketing timeline complete, all marketing partners on board with program

May 20th: Begin working on Senior Project Presentation

June 1st: all marketing pieces distributed to marketing partners with dates that they should be run

June 1st: Senior Project Presentation done, rehearsed to several audiences, ready to go

June 1st: Poster completed

June 15th: Update website and create Senior Project page

June 15th: Complete Senior Project write up (will be writing pieces as I go to associate with each step of the process)

Anything that is tabbed in is a soft deadline. Anything with an actual date is a hard deadline.