2016

Art Prize Showcase

Emily Karsten
Grand Valley State University

Abby Alden
Grand Valley State University

Daniel Dyer
Grand Valley State University

Ian Thompson
Grand Valley State University

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Emily Karsten,

Abby Alden, Daniel Dyer,

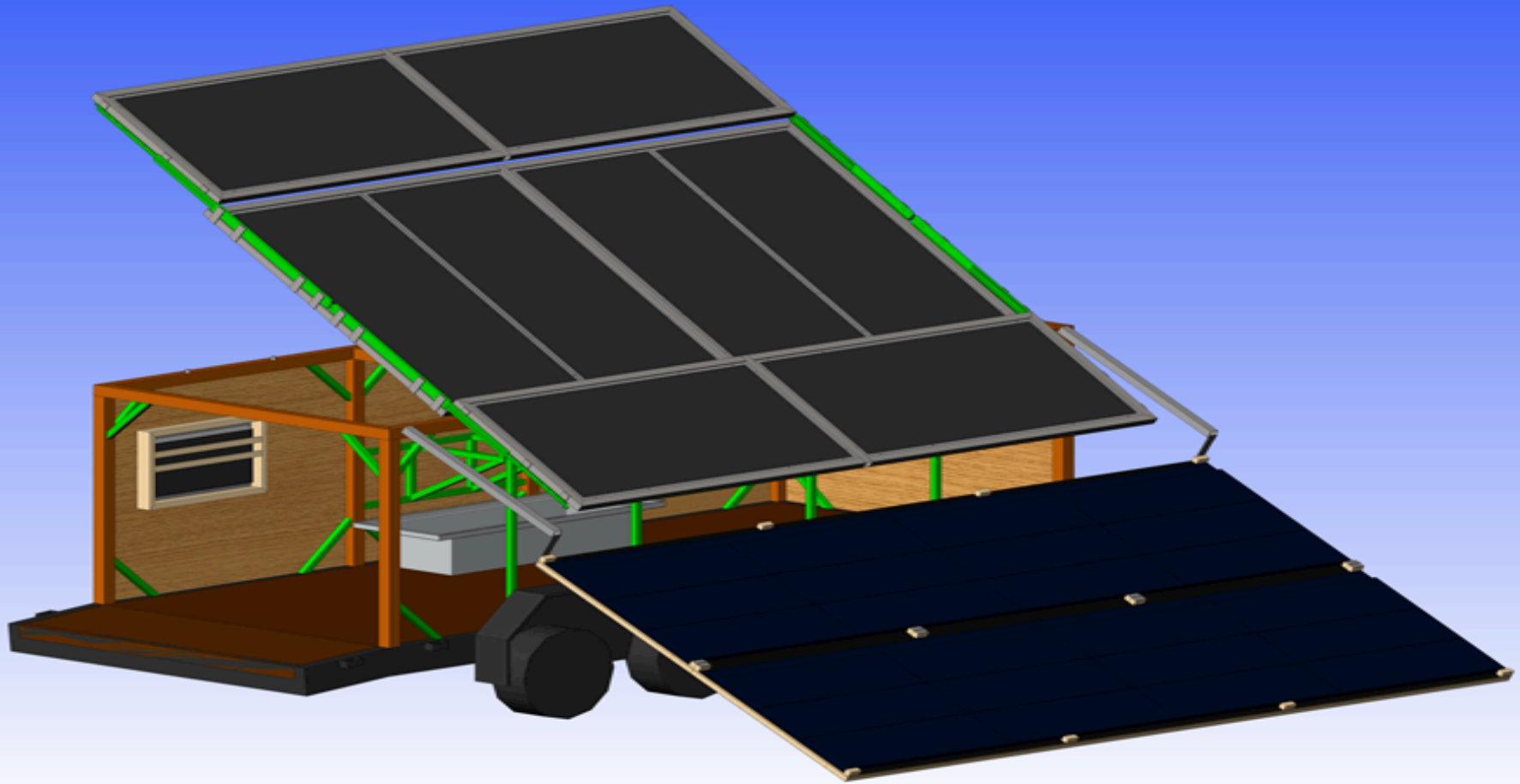
Ian Thompson

overview

A solar panel/shingles unit will be displayed at Artprize in the fall

The unit will be able to play music and provide lighting

There will be displays of the panels solar capabilities regarding voltage



Problem statement

There is not widespread knowledge regarding solar energy throughout Michigan

We are attempting to show the importance and capabilities of of solar energy as well as promote GVSU’s Solar Garden

We are working with engineering students to develop the project

Problem Statement Cont.

14,920 pounds of carbon emitted annually from the average household (electricity).

Solar energy can greatly reduce the amount of CO2 emitted into the atmosphere.

Coal produces 30x the amount of CO2 as solar panels.

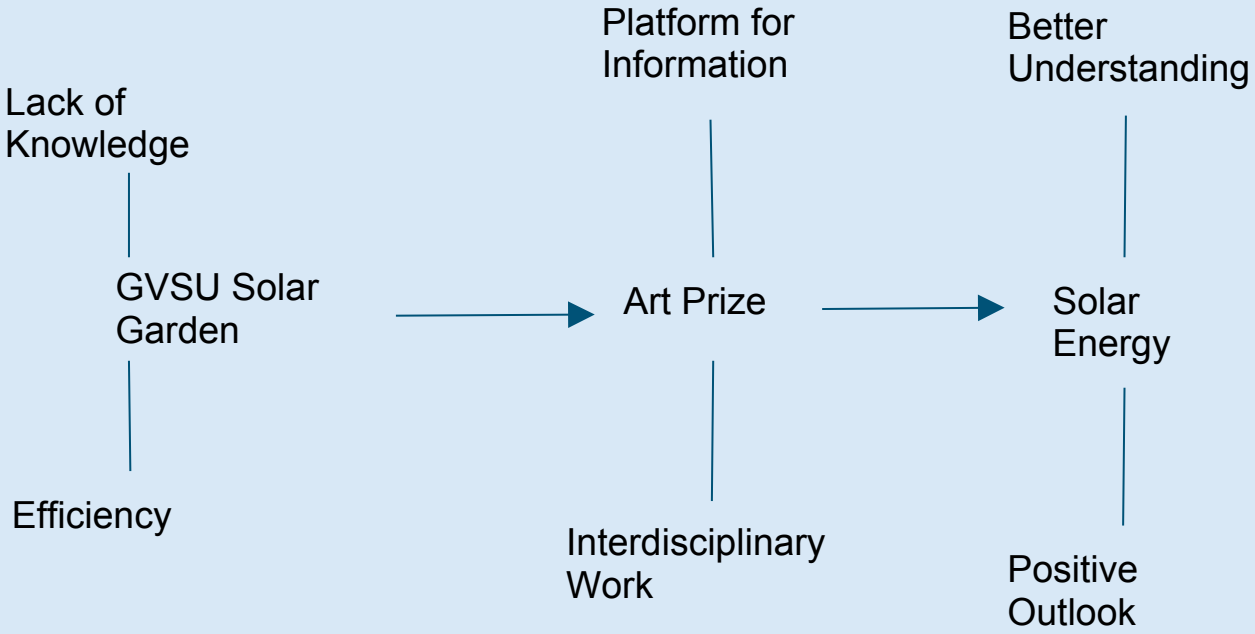
Art Prize gives us the perfect platform to display the solar panel unit and provide information about solar energy as an alternative to coal powered electricity.

GVSU Solar Garden

The solar panels that are used on the unit are roughly the same ones Consumers Energy used for the GVSU solar Garden.

The average lifespan of the solar panels are around 20 years with a 1% degeneration after every year.

Problem Analysis



While the GVSU solar garden project is very impressive, not a lot of information is known about it to the public. Our hope is to shine light on the solar garden by working alongside the GVSU College of Engineering's students and faculty through the popularity of Art Prize.

Stakeholders

1. GVSU

We are representing GVSU as a whole as well as giving them a voice in the importance of renewable energy. We need to dictate ourselves in a professional manner.

1. Consumers Energy

Free publicity for Consumers Energy.

1. West Michigan residents

Fossil fuels will not be around forever and with this solar garden project the people of the greater West Michigan area will gain information on solar energy.

Solar Panel Unit Statistics

Currently in demo mode

Will generate 3409 watts of solar output when up and running.

To put that into perspective space heater when running generates roughly 1440 watts.

What we plan on doing during art prize

Music/ Lights

Countdown to see how long it can run when the sun goes down

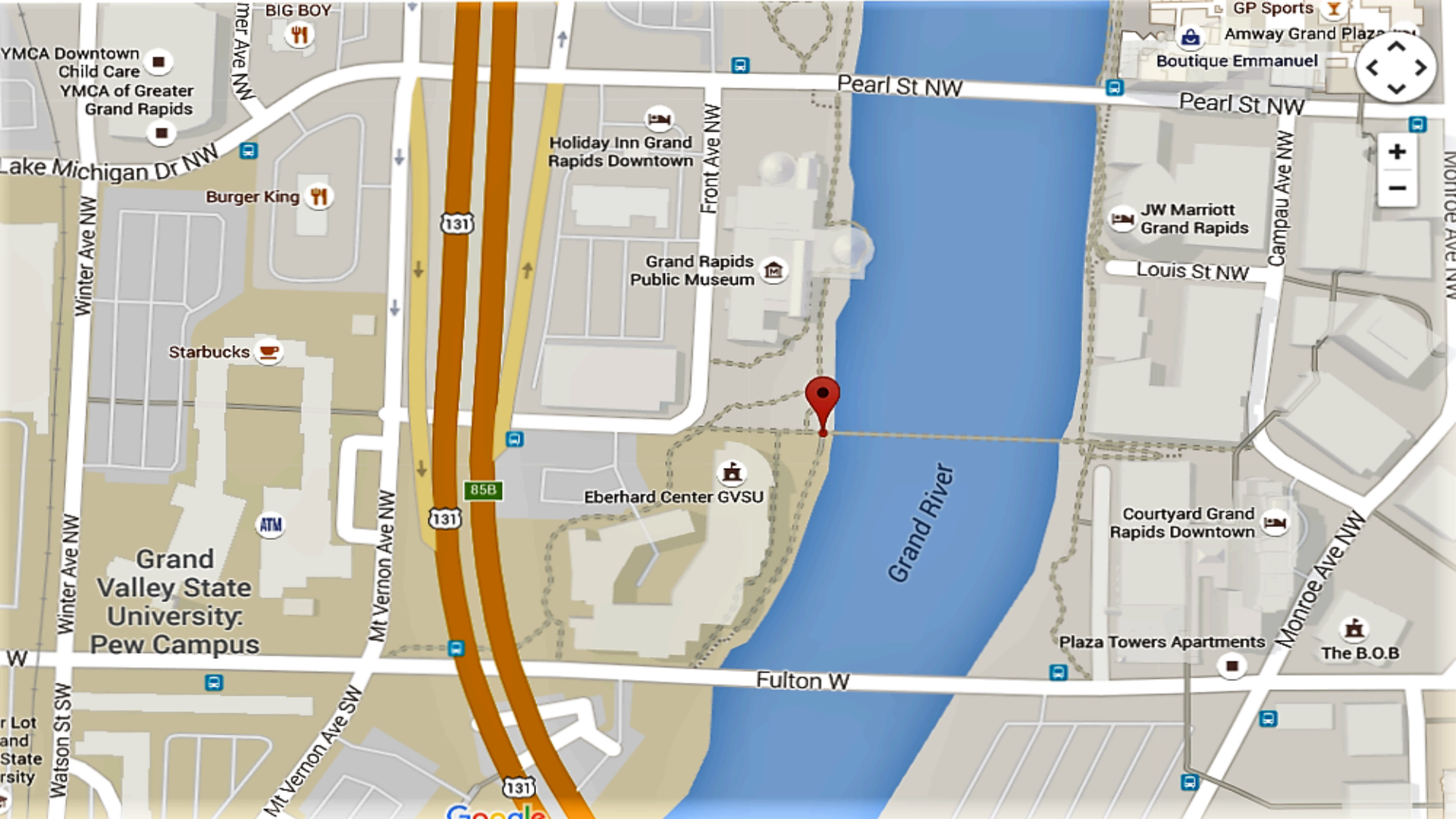
Instagram frame

Souvenir at attraction

Prototypes

- Interaction through social media.
- Create #
- Post to GVSU Facebook Pages
- Send Photos to GVSU website.
- Contact Lanthorn

Placement


BIG BOY
YMCA Downtown Child Care
YMCA of Greater Grand Rapids
Lake Michigan Dr NW
Burger King
Winter Ave NW
Starbucks
Grand Valley State University: Pew Campus
ATM
Mt Vernon Ave NW
Watson St SW
Mt Vernon Ave SW
W
Fulton W
131
85B
Holiday Inn Grand Rapids Downtown
Front Ave NW
Grand Rapids Public Museum
Eberhard Center GVSU
Pearl St NW
GP Sports
Amway Grand Plaza
Boutique Emmanuel
JW Marriott Grand Rapids
Louis St NW
Campau Ave NW
Courtyard Grand Rapids Downtown
Grand River
Monroe Ave NW
Plaza Towers Apartments
The B.O.B
Google

Advantages/benefits & Limitations/Barriers

ArtPrize is recognized as the most-attended public art event on the planet according to “The Art” Newspaper

For 19 days in the early fall, around 400,000 attendees

Placement

Reach a wider Audience

Inform Public on GVSU Solar Garden

Lighting and music will attract all ages.

Displaying information, that’s aesthetically pleasing.

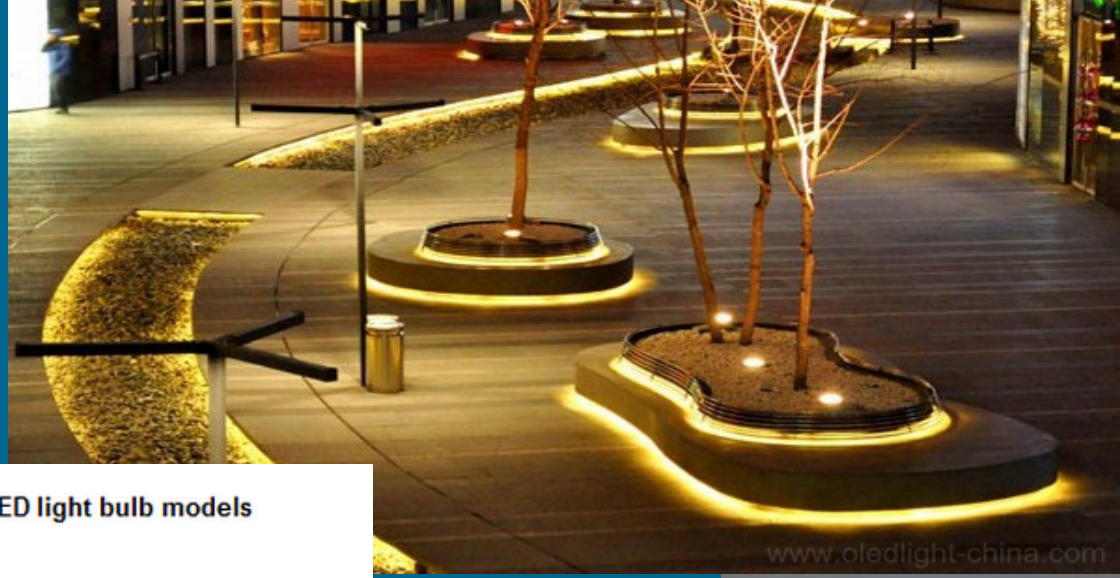
Viewers following up/pursuing more info

Not tacky

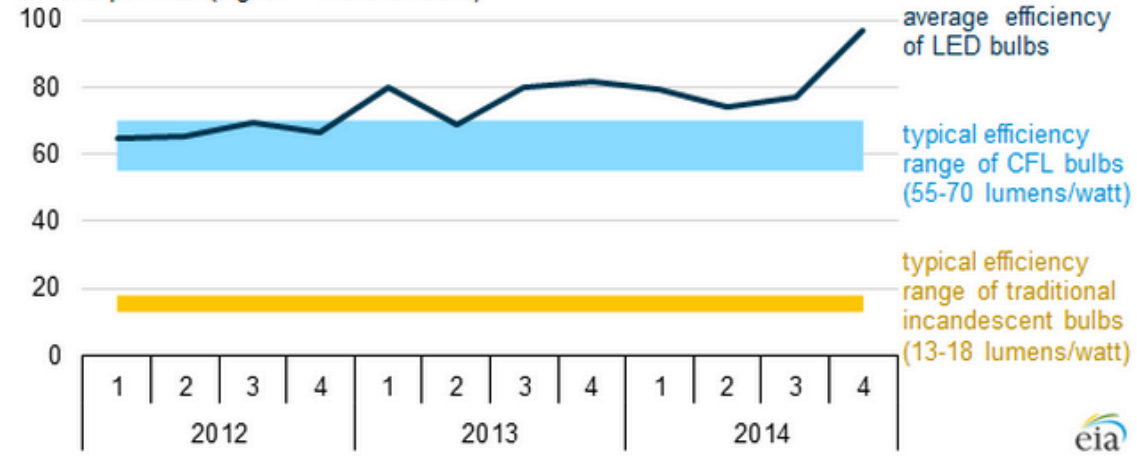
Amount of solar power stored.

Attraction

LED Lighting



Listed lighting efficiency (efficacy) of commercially available LED light bulb models
quarterly data, 2012-14
lumens per watt (higher = more efficient)



Source: EIA, based on Department of Energy's Lighting Facts Database
Note: Reflects Lighting Facts database through November 3, 2014.

Following up

Koozi's= .70 with logo

100= $70

Key Chain's= .49 with logo

250= $122.50

Next Steps

Contacts

Terry Stevens- stevente@gvsu.edu

Billy Neuson- neusonw@mail.gvsu.edu

GVSU Public Safety

GVSU Lanthorn

http://egr.gvsu.edu/~esm/#education