

Renewable RECreation

Giving a gym owner the ability to renew their facility through the recreation of recreation. Using solar, wind and human energy to transform a gym into a renewable energy power plant.

How it all started.....

- Entrepreneurship class for non business majors
- Decided to switch major to exercise science
- Picked up newly introduced minor in entrepreneurship
- Final project in this class was a self sustaining gym that produced excess energy with non existent equipment (at the time)

Turning a Dream into Reality

- Started doing research to see if this existed
- Started learning new renewable energy language
- Discovered it was not going to be easy



THE GREEN MICROGYM



- The Green Microgym and Plugout Technology were invented by Adam Boesel, a school teacher turned personal trainer who started up his first gym in Portland, Oregon in 2008
- Adam and his gym have been featured by CNN, BBC, Entrepreneur Magazine, Fitness Magazine, Club Industry and Club Solutions Magazines, Popular Science, and countless green bloggers.
- The Green Microgyms use about 85% less electricity and their carbon footprint is about one tenth that of a traditionally run gym, per square foot. A member of The Green Microgym saves about $\frac{1}{4}$ ton of carbon compared to if they belonged to a traditional gym.
- Adam helped me understand it all

A journey of 1000 miles begins with one step

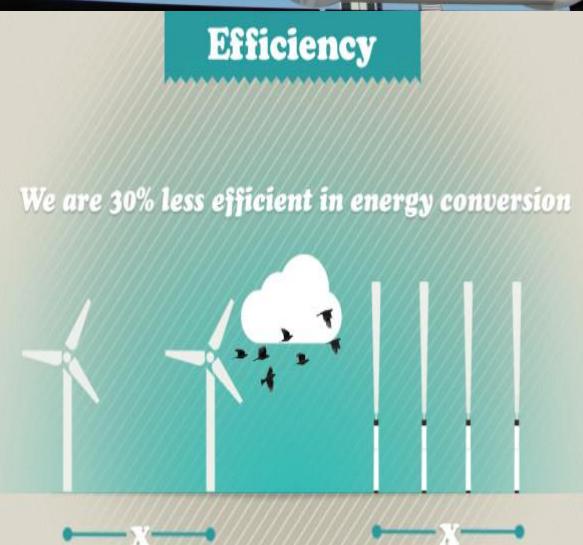
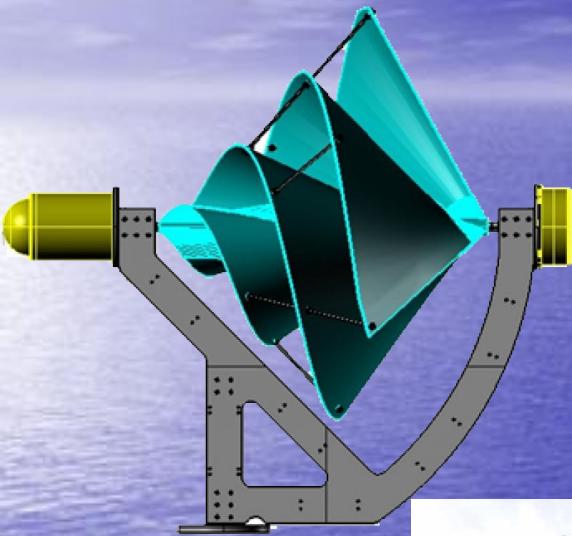
- Went to class with a mission every day
- Started building relationships with renewable energy experts in Wilmington
- Discovered a number of speed bumps and the reason why no one has created this business



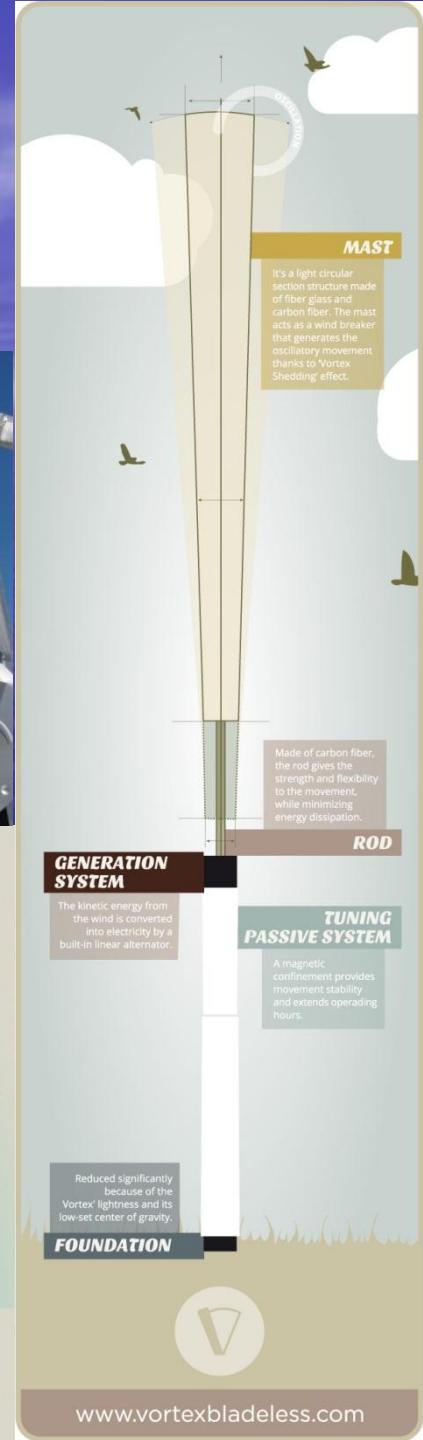
Wind Energy Problems

- Site pollution
- Loud Noises
- Blades could fly off
- Not enough wind to pay off costs
- City of Wilmington does not approve
- Too expensive

WIND ENERGY SOLUTIONS



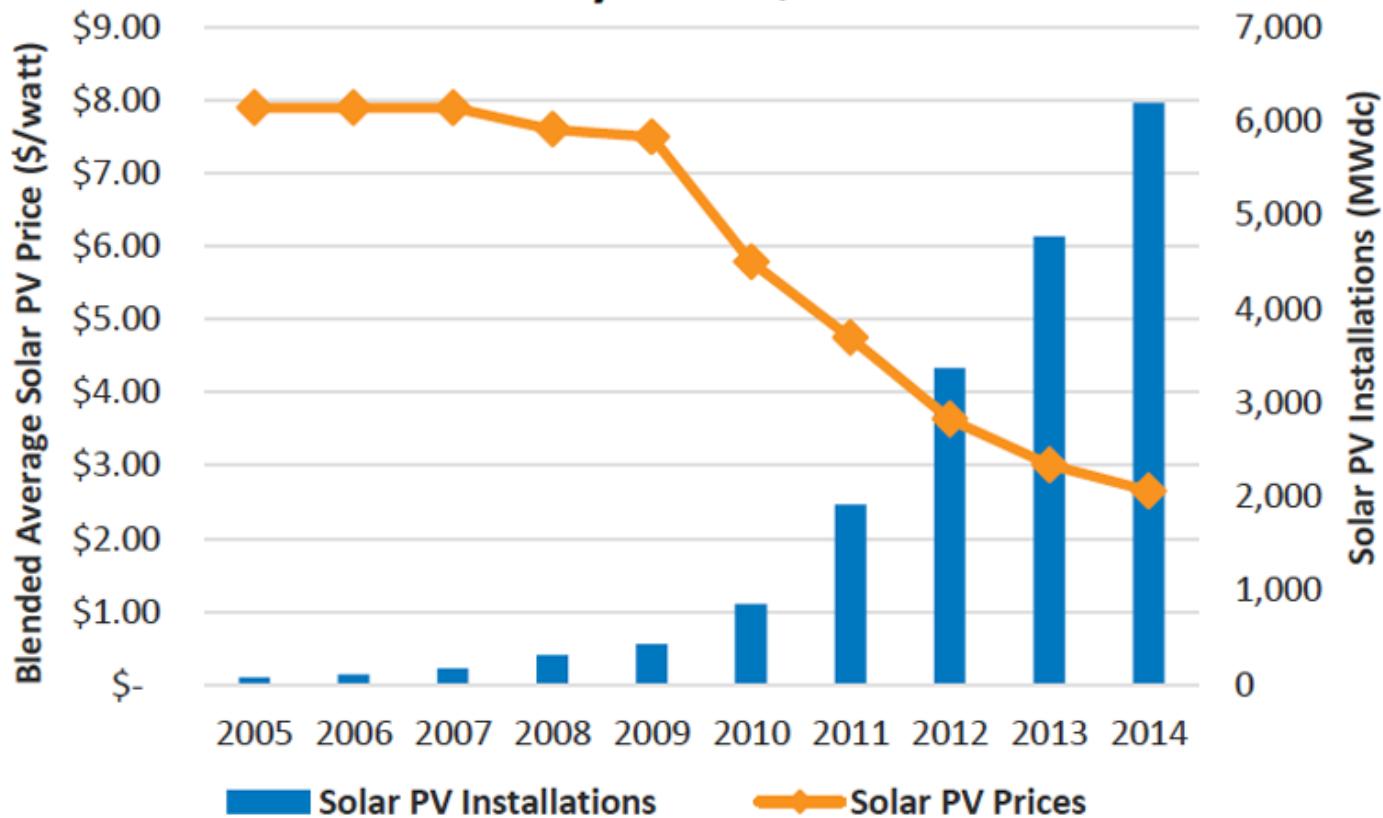
But we can put more Vortex in the same area



Solar Energy

- There are now over 20,000 MW of cumulative solar electric capacity operating in the U.S., enough to power more than 4 million average American homes.
- In 2014, with over 195,000 installations in 2014, nearly 645,000 U.S. homes and businesses have now gone solar and a new solar project was installed every 2.5 minutes.

As Industry Scales, Prices Fall



2014 Solar PV Installed Capacity

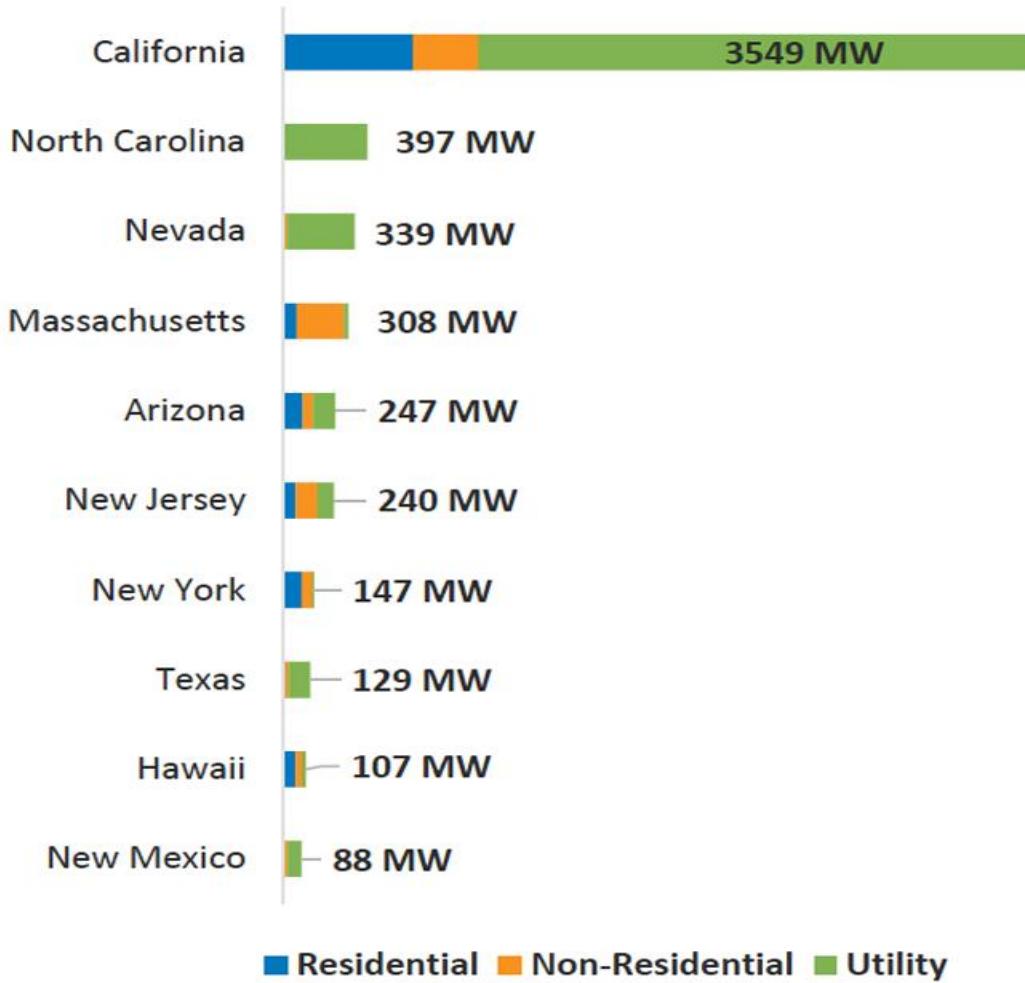
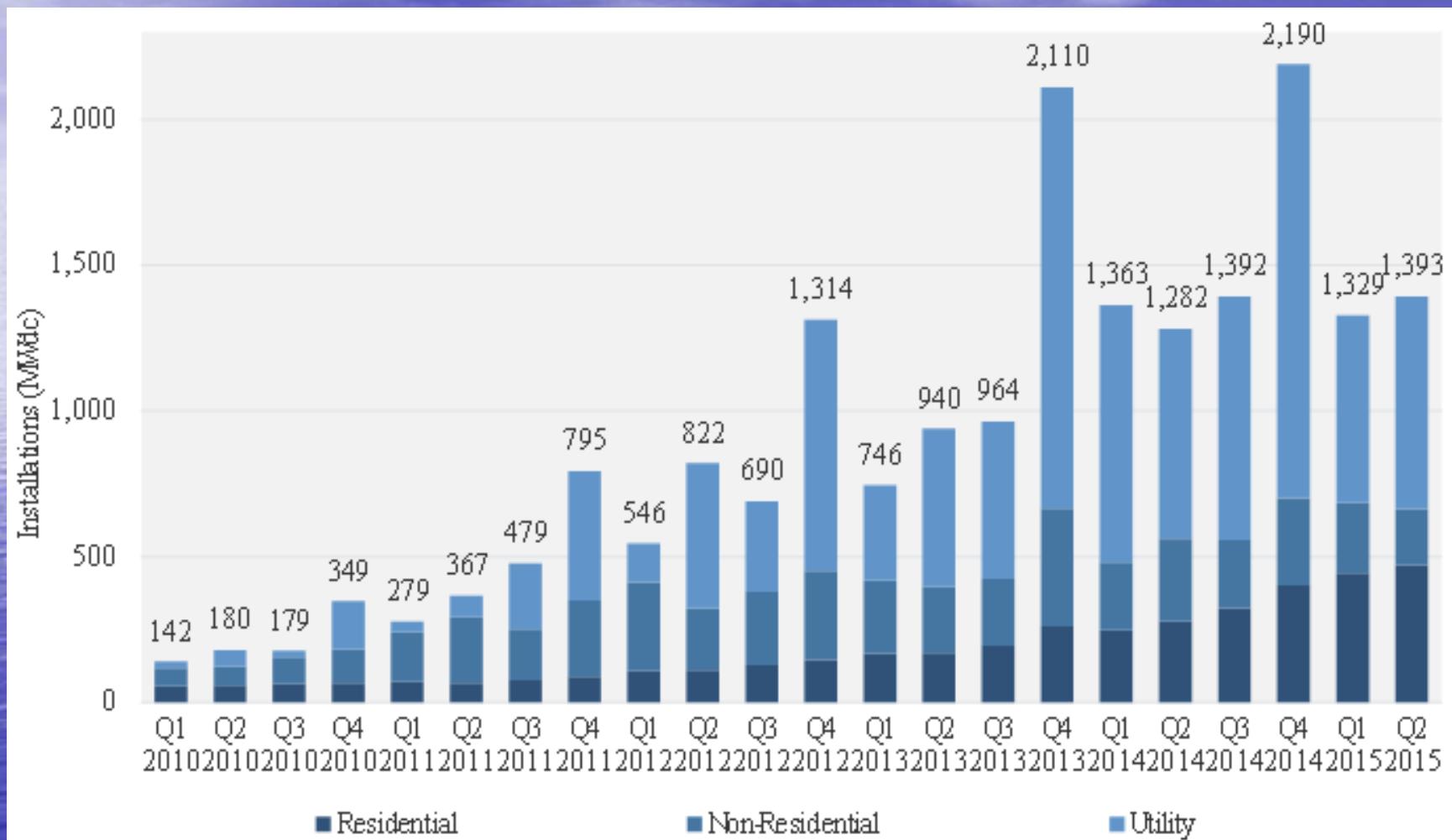


FIGURE: U.S. PV Installations, 2010-Q2 2015



Revolutionary Cardio Equipment



SportsArt

- SportsArt is an established industry leader leveraging over 37 years of innovative design and manufacturing excellence.
- One of the largest single brand manufacturers in the world and is sold in over 70 countries worldwide. With over 500,000 square feet of state-of-the art manufacturing space in Taiwan
- Did research and development with Adam Boesel
- Released this line in 2015

 **ECO-POW'R** STATUS SERIES CARDIO

Premium Full Commercial Cardio Line



OUR LATEST LINE OF ENVIRONMENTALLY RESPONSIBLE CYCLES AND ELLIPTICALS IS THE FIRST OF ITS KIND TO HARNESS THE POWER OF HUMAN ENERGY AND PUT IT BACK INTO THE GRID. WHEN PLUGGED INTO A POWER OUTLET THE HUMAN ENERGY GENERATED CONVERTS TO UTILITY-GRADE ELECTRICITY, OFFSETTING SIGNIFICANT SAVINGS FOR THE CLUB OWNER.



Harnessing Human Energy



Human Energy



Interface Display



Integrated Micro-Inverters

BE AN ECO-HERO. POWER YOUR GRID TODAY.

How Does It Work???

- Microinverters built into equipment
- Inverts the Direct Current (DC) of energy from exercise into an Alternating Current (AC)
- Travels through the cord into the outlet
- Energy used immediately in the grid for lights
- 1 hour of moderate intensity cardio creates 100-150 watts of clean energy

What is in the UNCW Rec center?

- Bottom floor
- back left cardio section
- 3 bike on the window side
- Banner beside it

ECO-POWR STATUS SERIES CARDIO
PREMIUM FULL COMMERCIAL CARDIO LINE

Harnessing Human Energy

Human Energy Interface Display Integrated Micro-Inverters

G575R RECUMBENT CYCLE

- ComfortDri™ vented padded seat back allows for airflow and is molded to provide ultimate support
- Unique step-through design allows easy access
- Convenient seat adjustment handles are easy to reach while exercising

Converted human energy results in significant savings for club owners.

BE AN ECO-HERO. POWER YOUR GRID TODAY.

Renewable Energy Certificates

- Every business has a carbon foot print
- Desire to decrease it
- Can not invest in current infrastructure
- Desire to make social impact and improve public reputation
- Believe in clean energy sources over fossil fuels

Compliance Markets

- Compliance markets are created by a policy that exists in 29 U.S. states, plus the District of Columbia and Puerto Rico, called Renewable Portfolio Standard. In these states, the electric companies are required to supply a certain percent of their electricity from renewable generators by a specified year. For example, in California the law is 33% renewable by 2020, whereas New York has a 24% requirement by 2013. Electric utilities in these states demonstrate compliance with their requirements by purchasing RECs; in the California example, the electric companies would need to hold RECs equivalent to 33% of their electricity sales.

Voluntary

- Voluntary markets are ones in which customers choose to buy renewable power out of a desire to use renewable energy. Most corporate and household purchases of renewable energy are voluntary purchases. Renewable energy generators located in states that do not have a Renewable Portfolio Standard can sell their RECs to voluntary buyers, usually at a cheaper price than compliance market RECs

Businesses/People with Carbon Footprints



Renewable Energy Project/Hosts

Renewable Connections

Interns

Volunteers

Trainers

Marketing

Artists

Students

Professors

Doctors

Nutritionists

Psychologists

Environmentalists



Teens

Veterans

Sedentary

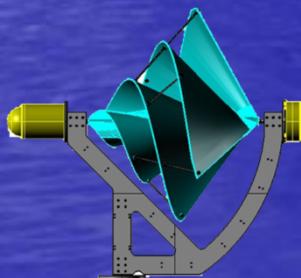
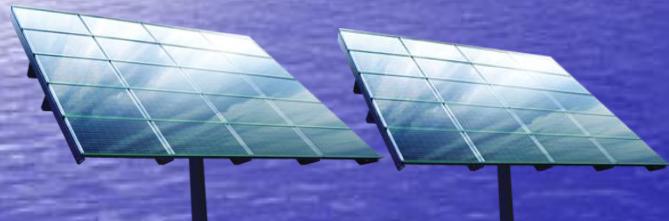
Obese

Special

Populations

Fitness Enthusiasts

Hopeful Hosts



**YMCAs
Boys and girls clubs
Privately owned gyms
Hospitals
Prisons
Universities
Banks
Hotels
Parks**

Sponsored Studio

Trader Joes



Whole Foods



Harris Teeter



UNCW



Cape Fear
Community
College



Brunswick
Community
College



As bikes are rode, carbon foot print decreases. Advertising to the businesses.
Power to the people.

What is Next?

- Business relationship with UNCW
- Converting all the UNC school system recreation centers starting with Appalachia
- Breaking ground on the pilot YMCA
- Breaking ground on the privately owned gym pilot at Wilmington Athletic Club
- Research to discover what 1 pound of fat converts into clean energy

