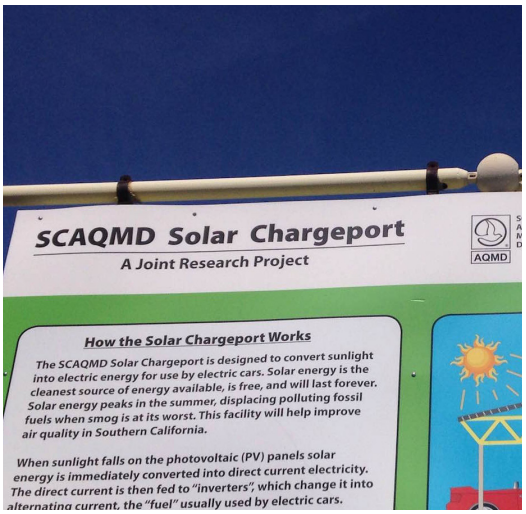

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the GREEN INSIDER

POWERSAVE CAMPUS | AN ALLIANCE TO SAVE ENERGY PROGRAM

ALLIANCE TO SAVE ENERGY Creating an Energy-Efficient World
SOUTHERN CALIFORNIA EDISON An EDISON INTERNATIONAL Company
PG&E Pacific Gas and Electric Company
Southern California Gas Company A Sempra Energy utility
SDGE A Sempra Energy utility

BIKING
FOR SUSTAINABILITY

JERMAINE BAYLARK

On May 14, 2015 Power Save interns came out and showed their support for Bike Week by showing how sustainability can be incorporated into biking. A blender bike was set up in the Bronco Recreational and Intramural Center (BRIC) as participants came up and blended smoothies relying on nothing but their own stamina. Power Save interns alongside a handful of Cal Poly Pomona's biking enthusiasts demonstrated that there are fun, creative, and most importantly more efficient ways of performing everyday tasks. This program truly stressed the idea that riding bikes would make our environment much cleaner. Statistics show that 40% of all trips in the United States (and 50% in Britain) are 2 miles or shorter while 25 % of all trips are under one mile in United States. A large percent of the distances people travel in this country are "bike-sized" but yet we are still using cars out of convenience. Statistics also show that 90 % of emissions in a 7 mile trip are generated in the first mile before your engine even fully warms up. These statistics illustrate that we do generate more pollution from our cars than we think. Hopefully in the near future more people start to realize the fun bike riding can bring but also the huge importance it can play in environmental sustainability.

"We're a green campus, we have a great rating on a bunch of different sustainability scales and factors."

-Michael Adams, former Associated Students Inc. Secretary of Sustainability

AQMD TECH. TOUR

JOMEL BAUTISTA

One of the projects that the Cal Poly Pomona PowerSave campus team has developed over this year is Sustainability in my Career which had the purpose of spreading awareness of careers focused on sustainability. On May 31st, the project held its first Tech. Tour at the South Coast Air Quality Management District in Diamond Bar, CA. The goal of the tour was to allow students to get hands on experience with careers that may interest them.

The tour was comprised of 3 main components: viewing their signature film entitled *The Right to Breathe*, a question and answer presentation, and finally a tour of the laboratory and alternative fuel vehicles. During the film, our attendees gained an understanding of the background for why the South Coast Air Quality Management District was established. One of the most intriguing pieces of information was that most Southern California residents forget that there are mountains surrounding Los Angeles. The reason residents forget is because of the pollution in the air that impairs their vision of the distance. During the question and answer portion we learned that this is mainly due to poor methods by factories and trading ports. The South Coast Air Quality Management District looks to work with these establishments to regulate sustainability and green their methods. Next, our group was escorted by another staff member through the laboratory where we got to see items such as the air filters used to test air qualities in the various cities of the region. An interesting tool the government office uses are metal canisters that hold volumes of air from various cities. The air could then be released into a machine that would take chemical readings and report those readings graphically. Outside of the facility our group toured the alternative fuel vehicles and hydrogen fueling stations. More information regarding the technical side behind this portion of this tour can be viewed in the article “The Return of the Hydrogen Fuel Cell”.

Overall, this was a very successful Tech. Tour that showed students a career that focuses on sustainability. After speaking with some of the attending students, there is a big interest in the internship opportunities at the South Coast Air Quality Management District. We would like to thank the facility for providing us this opportunity. Look out for our next tour!

If you are interested in joining future tours please visit our website to read more.

http://powersavecampuscpp.weebly.com/announcements

GREEN ROOMS

- Do you live in the residential halls on campus?
- Are you interested in sustainability?
- Do you want to learn how you can be more sustainable in your room in the halls?

Sign up today to get your room Green Rooms certified by your trusted and trained RA!

http://powersavecampuscpp.weebly.com/green-rooms.html

A FAREWELL TO ARPY KASPARIAN

BRANDON SAUER

This month, the PowerSave Campus team would like to bid a warm farewell to fellow intern Arpy Kasparian. Arpy, currently pursuing her Master's in Regenerative Studies at Cal Poly Pomona, has been a part of the team since Fall 2013, and has accomplished a great deal over her year and a half as a PowerSave intern.

Arpy's initial goals for the program revolved around her interest in water conservation. In Fall of 2014, Arpy established a faucet aerator certification program, in which she single-handedly trained multiple students not only on how to install an aerator to save water on a faucet, but also educated students on various other water wasters in bathrooms.

Most recently, Arpy's creativity shined as she led Cal Poly Pomona in organizing Campus Conservation Nationals 2015. Arpy recruited "Eco Teams" consisting of student leaders from each participating residence hall, as well as an "Eco Group" of students that were willing to help out in creating flyers and spreading the word. She arranged weekly meetings, read meters, made social media blasts, attended events, and did everything within her power to encourage students to save water and energy. Her efforts paid off, as Cal Poly Pomona placed second in our regional competition, and the team reached out to over 2,000 students.

Lastly, on top of spicing up the team with constant enthusiasm and unique, out-of-the-box ideas as a Project Coordinator, Arpy was the team Treasurer throughout her time as an intern. Filling the (rather large) shoes of two-time state-wide Treasurer-of-the-Year, Sony Bui, would be no easy feat, but Arpy was up for the challenge from the start! With diligent reminders to the team and the innate ability to look at the big picture of the budget, Arpy earned Treasurer-of-the-Year for Cal Poly Pomona for the third year straight. Before leaving the team, she has passed down her skills to new intern, Jermaine Baylark, who will no doubt keep the spirit of exemplary treasury alive.

Arpy played a crucial role in keeping the team on track, encouraging creativity, and reminding interns to enjoy every moment they spent on projects. The entire PowerSave Campus Program benefited from the work that she accomplished, and we all wish her the very best as she completes her Master's degree. From those that worked most closely with her, it is plain to foresee that she will no doubt go on to achieve awe-inspiring things in the field of sustainability.

SPRING STAKEHOLDER MEETING

LYNAE SALGADO

On May 27th, the interns met with campus stakeholders to discuss the progress and achievements in the year of 2014-2015. Every PowerSave Campus team is required to hold two stakeholder meetings a year. The stakeholders that attended were: Monika Kamboures, Sustainability Coordinator and George Lwin, Manager of Energy Services. This year, the meeting highlighted projects including, Sustainability in my Career, CCN, Green Rooms, Step Your Sustainability Game Up, Stairwell Lighting Survey, Green Speed Networking Event. We also gave comparisons of our 2014-2015 progress as far as the amount of community, outreach, workforce events held as well as monetary, actual and potential energy savings. In the conclusion of our presentation we discussed our upcoming projects such as the Residential Hall Hallways Lighting Survey and Collins College project. The meeting ended with ideas from stakeholders on potential projects as well as updates on some of the progressing projects occurring with Facilities. The team looks forward to the next stakeholder meeting which will be held in Fall 2015.

RETURN OF THE HYDROGEN FUEL CELL

PHOO KHINE

Have you ever wondered how hydrogen fuel cars will be take the place of our internal combustion engine cars? In fact, the internal combustion engine has been used in automobiles since the 1930s while the hydrogen fuel cell made its first appearance in a 1966 GM Electrovan. Although the fuel cell technology has been there for quite some time, it is not until the past few years that 8 hydrogen fuel stations have been made operational while another 49 stations are in development. The federal government promotes a roadmap toward 1.5 million zero-emission vehicles on California roadways by 2025 and also with the development of three promising hydrogen fuel cells vehicles from Honda,Hyundai and Toyota.

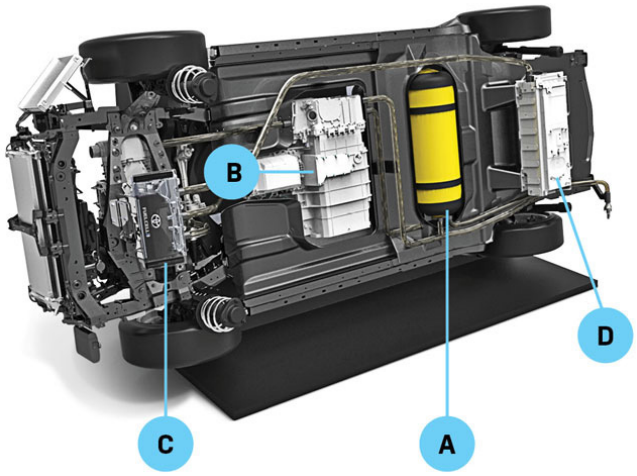
Hydrogen fuel cars are vehicles powered by hydrogen. They work in a way that compressed hydrogen is served as a fuel and when pumped in, is stored in a carbon fiber tank of the vehicle. With the air coming in from the front of the car while its moving, the compressed hydrogen is combined with air in the fuel cell stack to create electricity. This electricity is in turn used to power the motor and makes the vehicle moves forward. During this process, the vehicle produces water and heat as a by product. Hydrogen is the most abundant element in the universe. Since hydrogen is bound to almost everything, it needs to be separated. Hydrogen can be produced from biomass by gasification, from natural gas by steam reforming process, or from water by electrolysis. With twice the efficiency of gasoline powered cars, hydrogen fuel cell vehicles can achieve energy and environmental goals. Since 80 % of air pollution comes from motor vehicles, hydrogen fuel cell cars are nevertheless reducing pollution and emissions which contributes to climate change in a positive way.

A= Carbon Fiber Hydrogen Tank

B= Fuel Cell Stack

C= Electric Motor and Bat tery

D= Fuel Cell Boost Converter



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