



# LAUSD Student Engagement Programs



Shaping the educational landscape  
through Eco-literacy



Christos Chrysiliou, AIA, CCM, LEED AP BD+C  
Director of Architecture and Engineering Services  
LAUSD M&O Branch – Sustainability Initiatives Unit  
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About LAUSD



Our Commitment

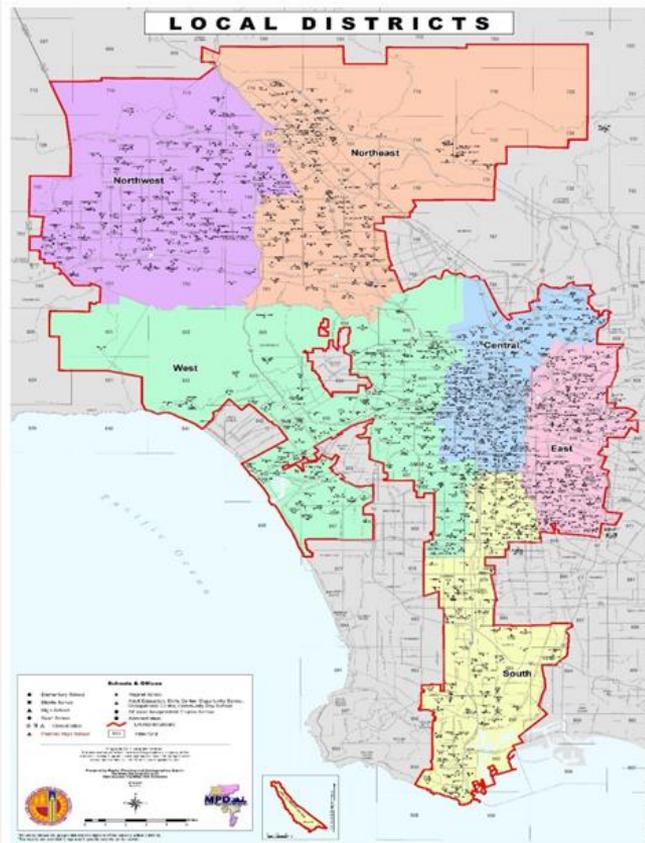


Engagement Programs



Panel Discussion





**713,000** students (K-12)

**60,000** employees

**710** square miles of site boundaries

**6,657** acres of land

**13,000** buildings

**800+** campuses





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## Mission

LAUSD's Sustainability Initiatives mission is to **be the most sustainable school district in the nation** by developing and implementing programs that support energy efficiency, water conservation, and educational and awareness programs.

## Goals

- 20% Energy Consumption Reduction by 2024
- 20% Water Consumption Reduction by 2024
- Support High Performance Design
- Support Education and Awareness Programs
- Support Campus Ecology Programs
- Identify, Evaluate and Implement Emerging Technologies

[www.learninggreen.laschools.org](http://www.learninggreen.laschools.org)





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Complementing the District's core educational mission by **identifying opportunities for education, training, and community engagement** as we implement each of our initiatives.

- Raise awareness of environmental stewardship
- Develop partnerships
- Link projects with learning & workforce development
- Encourage and celebrate school-based sustainability efforts



  
Awareness & Outreach

Website/Social Media  
DROPS  
Save the Drop  
Prop 39 SEAT Training  
Heroes for Zero  
LAUSD emPowered  
Eco-Garden



# Website / Social Media

- [www.learninggreen.laschools.org](http://www.learninggreen.laschools.org)
- Learn more about the six sustainability focus areas and what we're doing to integrate sustainability into the District's core educational mission



ENERGY CONSERVATION



WATER STEWARDSHIP



EDUCATION & AWARENESS



HIGH PERFORMANCE SCHOOLS



CAMPUS ECOLOGY



WASTE REDUCTION & RECYCLING



LA Unified Schools participate in dozens of sustainability related programs and contests



# Drought Response Outreach Program for Schools (DROPS)

- Four LAUSD campuses were selected by the State Water Resources Control Board to receive \$5M in funding for low impact development (LID) projects.
- The purpose of the systems is to capture, treat, and infiltrate storm water into groundwater basins by mimicking a natural watershed.
- This will be accomplished through the implementation of Best Management Practices (BMPs) such as bioswales, permeable pavement, infiltration galleries, raingardens, and cisterns.



**DROPS STEAM Workshop**



# Save the Drop

- To support the City's efforts to conserve water, the District hosted a drought awareness contest for students in Grades 1-12.
- 9 teams won \$10,000 and 3 teams won \$50,000 toward a project at their schools by creatively demonstrating ways to Save the Drop!





## Prop 39 SEAT Training

- One of the goals of the Proposition 39 Clean Energy Jobs Act program is to train Californians for energy-related occupations and careers.
- This program provides students with hands-on real world experience in conducting energy audits, as well as job skills such as resume writing.





# HEROES FOR ZERO

## ZNE FORMULA:

$$EE + RE = ZE$$



**EE**

## OUR FOCUS:

- Applying EE measures and avoiding waste
- Reducing waste through energy education & awareness
- Using technology to understand the facility
- Collaboration for greater efficiency



**EE** – SCHOOL  
**FACILITY**  
**SYSTEMS AND**  
**CONSERVATION**  
**AWARENESS**

**S**CIENCE  
**T**ECHNOLOGY  
**E**NGINEERING  
**A**RT  
**M**ATHEMATICS





## Understand your facility.



**FACILITY SYSTEMS AND  
CONSERVATION AWARENESS**



**LOCATION AND  
SITE RESOURCES**



**CONSUMPTION PATTERNS  
AND BENCHMARKING**

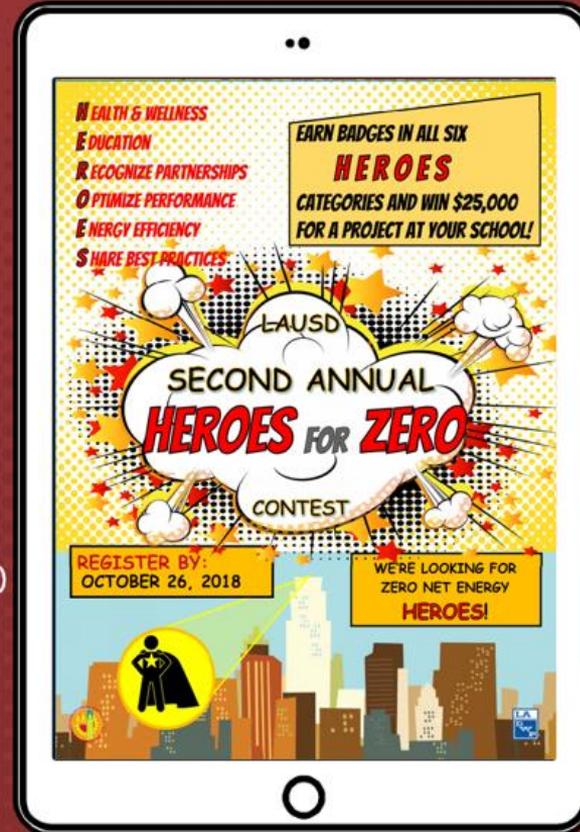


# OBJECTIVE:

- Encourage schools to engage in activities that help make them "ZNE Ready"

# ELIGIBILITY:

- Open to all Student Teams at all grade levels (K-12)





# ELEMENTS:



- H** – Demonstrate how ZNE can also lead to a healthier space or community
- E** – Tie in Curriculum Module/Awareness Program
- R** – Work with Subject Matter Partner or Community-Based Organization
- O** – Conduct a school energy audit & develop an efficiency plan
- E** – Develop & implement a strategy to reduce consumption
- S** – Mentor another school, group, or neighborhood about ZNE



**H** EALTH & WELLNESS  
**E** DUCATION  
**R** ECOGNIZE PARTNERSHIPS  
**O** PTIMIZE PERFORMANCE  
**E** FFICIENCY  
**S** HARE BEST PRACTICES



**Sonia Sotomayor Learning Academy**  
Healthy indoor environmental air quality,  
lighting, temperature control, low VOC  
paints & materials

# **HEALTH & WELLNESS**

Providing a healthy and nurturing  
environment conducive to learning



# EDUCATION

Goal: to prepare students to become environmentally literate and prepared for the new green economy.

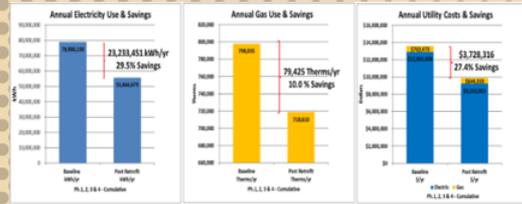


**RECOGNIZE  
PARTNERSHIPS**

“Alone we can do so little; together we can do so much.”

-Helen Keller

LAUSD Sustainability Initiatives Unit



**OPTIMIZE PERFORMANCE**

Prop 39, Better Buildings Challenge, Commissioning & Retro-commissioning



**Santee Educational Complex**  
**Energy Management System** provides  
load shedding at high demand peak hours  
for chillers.



Replacement of inefficient motors to  
**inverter duty motors**

LAUSD Sustainability Initiatives Unit

## **EFFICIENCY**

**Lighting** – Interior fixture retrofit or  
replacement

**HVAC** – Air Handler & Package Units, pumps,  
economizers and VFDs repair, modification or  
replacements

**Controls** – Energy Management Systems,  
Chiller controls upgrades, occupancy & daylight  
sensors, lighting controls



**Korean Delegation Visit**

# **SHARE** **BEST PRACTICES**

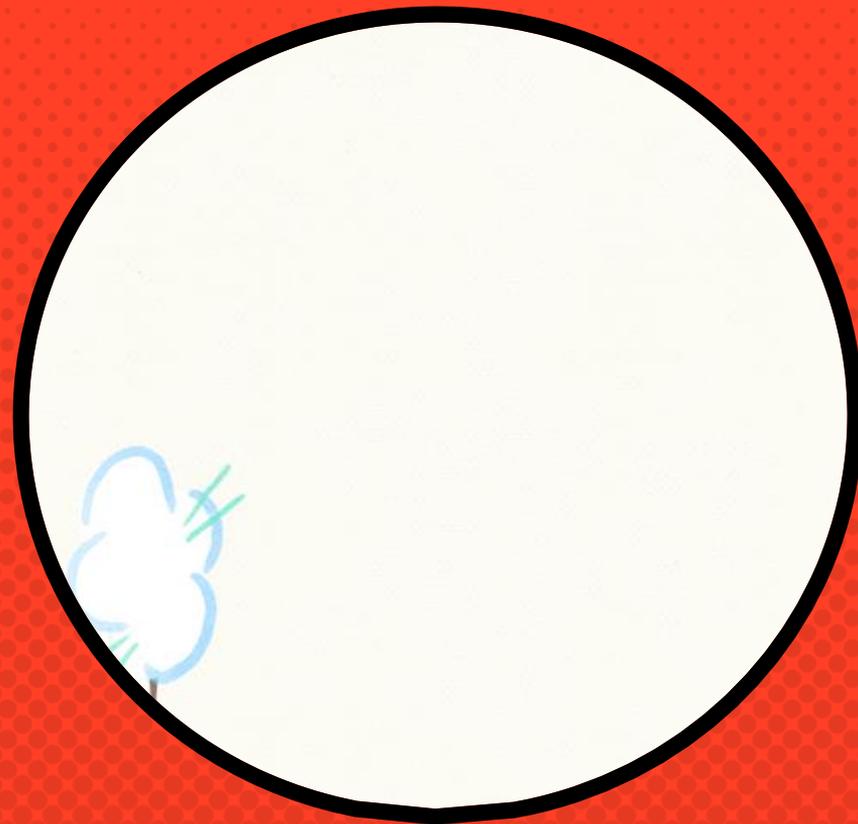
How the end user uses the building has a major effect on performance.



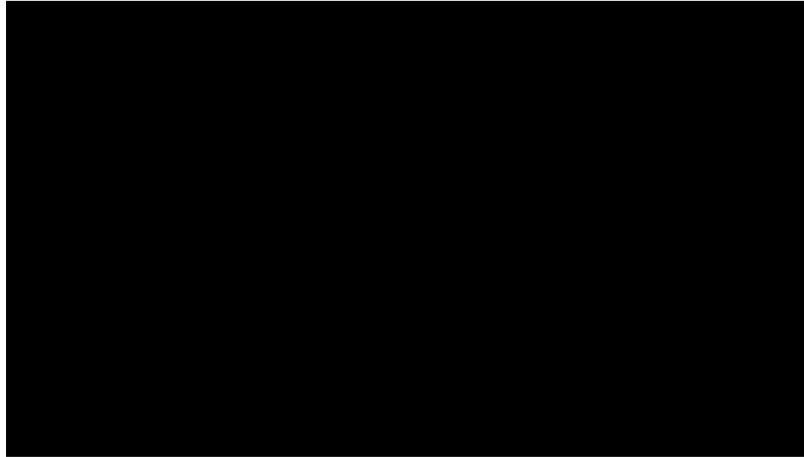
***HEROES***

***FOR***

***ZERO***



It's time to meet LAUSD's  
everyday heroes



Overland Elementary School  
Energy Eagles



# Engagement Programs



Overland ES Students talk about their experience.



Team Arroyo accepts their award.





**ALLIANCE  
TO SAVE ENERGY**   
using less. doing more.



## LAUSD emPowered

- The District is collaborating with the Alliance to Save Energy to pilot an online team-based interactive energy education program called *LAUSD emPowered*.
- A total of 40 schools will participate in the pilot, which begins in the 2018/19 school year

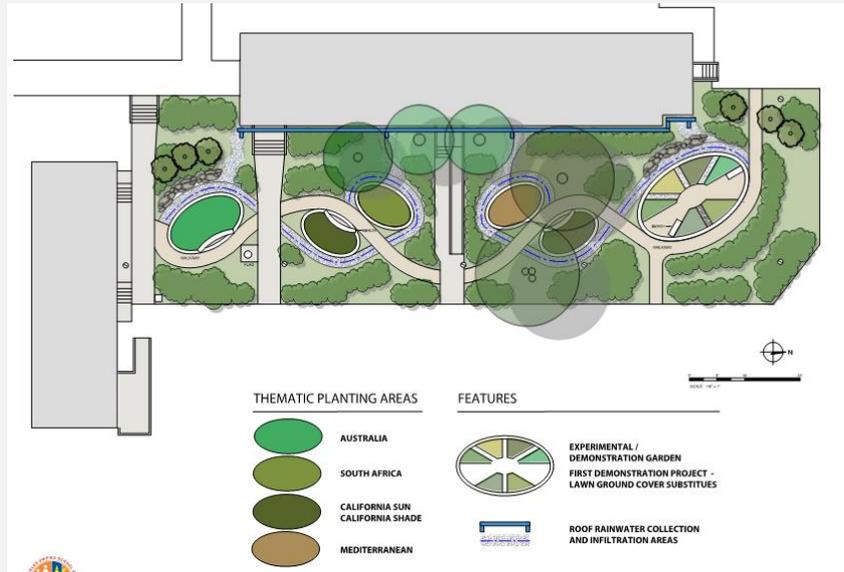
*Schools that teach energy efficiency empower students to lead big changes in how their schools use energy.*





# Environmental Sustainability Garden

➤ Features different gardens from different regions of the world





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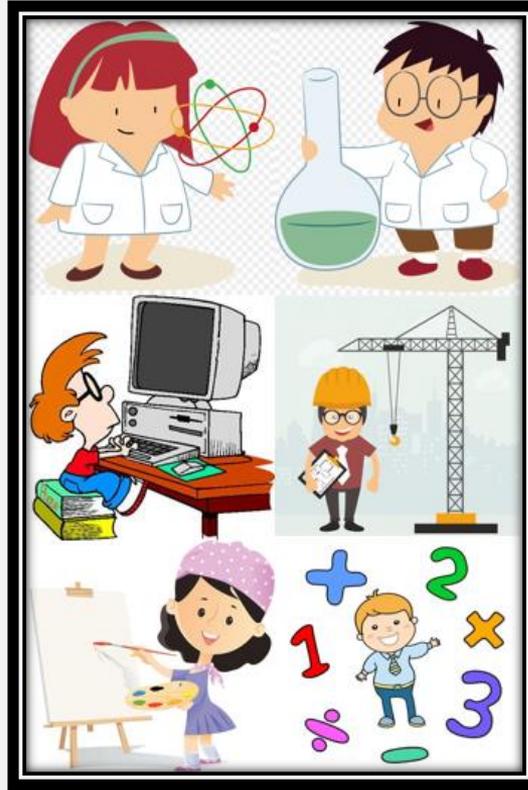
**S** CIENCE

**T** ECHNOLOGY

**E** NGINEERING

**A** RT

**M** ATHEMATICS





# Meet our panelists:

## **Annette Mercer**

Science Coordinator  
Overland Elementary School  
for Advanced Studies



## **Ayham Dahi**

Science Coordinator  
Secondary Schools  
LAUSD Division of Instruction



## **Christopher Sims**

K-12 STEAM Coordinator  
LAUSD Local District  
Northwest





# Question 1

What unique programs do you implement in a school level to create positive environmental outcomes and to achieve the District's sustainability goals?



# Question 2

What challenges do you face in getting stakeholder and student participation for these environmental awareness programs?

How do you overcome these challenges?



# Question 3

What advice would you give to other school districts and educators who want to start a new program related to environmental sustainability?



# Question 4

What makes for a successful cross-sector partnership?  
(For example, working with other LAUSD units or divisions in implementing a program)



# Question 5

What skills and knowledge should a program highlight in order to gain student interest in a possible future career in sustainability?

**“One planet. One ecosystem. Together, we can be ‘eco-stewards,’ as we continue to be inspired by our youth’s eagerness for a brighter, more sustainable future.”**



**Christos Chrysiliou,  
LAUSD Director of Architecture  
& Engineering Services  
2018 Best of Green Schools Ambassador**

