### BOARD OF EDUCATION OF THE CITY OF LOS ANGELES GOVERNING BOARD OF THE LOS ANGELES UNIFIED SCHOOL DISTRICT

#### GREENING SCHOOLS & CLIMATE RESILIENCE COMMITTEE

333 South Beaudry Avenue, Board Room Los Angeles, CA 90017 10:00 a.m., Wednesday, June 5, 2024

#### **Committee Members**

Dr. Rocío Rivas, Chairperson Ms. Jackie Goldberg, Board Member

### **District Members**

Krisztina Tokes
Chief Facilities Executive
Christos Chrysiliou
Chief Eco-Sustainability Officer
Jay Golida
Office of the General Counsel

#### **Board Secretariat Contact**

Ebony Wilson

Tel: (213) 241-7002

Email: ebony.wilson@lausd.net

### **External Representatives**

Aleigh Lewis, Angelenos For Green Schools
Alma Castrejon, Los Angeles Alliance for a
New Economy (LAANE)
Bevin Ashenmiller, Occidental College
Claire Latane, Cal Poly Pomona
Hector Huezo, Jobs to Move America (JMA) /
Katie Theel, DSA, Green New Deal for Public Schools
Los Angeles County Electric Truck & Bus Coalition
Lucy Garcia, Climate Reality Project Los Angeles
Mikaela Randolph, Heal the Bay
Nico Gardner Serna, Sunrise Movement LA
Tori Kjer, Los Angeles Neighborhood Land Trust

#### Method for Accessing the Meeting and Providing Public Comment

There are three ways members of the public may access this Committee Meeting: (1) online (<u>Granicus stream</u> or join the <u>zoom webinar</u>), (2) by telephone by calling 1-888-475-4499 (Toll Free) and entering the Meeting ID: **815** 1855 9131, or (3) in person.

The Board of Education encourages public comment on the items on this agenda and all other items related to the District. Any individual wishing to address the Board must register to speak using the Speaker Sign Up website: <a href="https://boardmeeting.lausd.net/speakers">https://boardmeeting.lausd.net/speakers</a>, and indicate whether comments will be provided over the phone or in person. Registration will open 24 hours before the meeting. <a href="https://boardmeeting.lausd.net/speakers">15</a> speakers may sign up for general Public Comment, and each speaker will have <a href="https://boardmeeting.lausd.net/speakers">two</a> minutes to present. Each speaker will be allowed a single opportunity to provide comments to the Committee.

Speakers who do not register online to provide comments may use the following alternative methods to provide comments to Board Members:

- Email all Board Members at boardmembers@lausd.net;
- Mail comments via US Mail to 333 S. Beaudry Ave., Los Angeles, CA 90017; and
- Leave a voicemail message at (213) 443-4472, or fax (213) 241-8953. Communications received by 5 p.m. the day before the meeting will be distributed to all Board Members.

Speakers registered to provide public comments over the phone need to follow these instructions:

- 1. Call 1-888-475-4499 (Toll Free) and enter Meeting ID: **815** 1855 9131 at the beginning of the meeting.
- 2. Press #, and then # again when prompted for the Participant ID.
- 3. Remain on hold until it is your turn to speak.
- 4. Call in from the same phone number entered on the Speaker Sign Up website. <u>If you call in from a private or blocked phone number</u>, we will be unable to identify you.
- 5. When you receive the signal that your phone has been removed from hold and/or unmuted, please press \*6 (Star 6) to be brought into the meeting.

The Office of the Inspector General would like to remind you that they investigate the misuse of LAUSD funds and resources as well as retaliation for reporting any misconduct. Anyone can make a report via the OIG hotline on their website (<a href="https://www.lausd.org/oig">https://www.lausd.org/oig</a>), by telephone at 213-241-7778, or by emailing <a href="mailto:inspector.general@lausd.net">inspector.general@lausd.net</a>. Reports are confidential, and you can remain anonymous if you wish.

Please contact the Board Secretariat at 213-241-7002 if you have any questions.

### **AGENDA**

I.	Welcome			
II.	Public Comment			
III.	Board District 3 Student Advisory Council Presentation: Enhancing School Environments Through Greening Initiatives			
IV.	Presentations			
	a. Eco-Sustainability Office Updates			
	b. Green Committee Funding Working Group UpdatesDr. Rocío Rivas Chairperson			
	c. Green Committee Equity Working Group UpdatesMikaela Randolph Green Schoolyards America			
V.	2023-2024 HEROS for Zero Awards Ceremony			

### VI. Adjournment

Requests for disability related modifications or accommodations shall be made 24 hours prior to the meeting to the Board Secretariat by calling (213) 241-7002.

Materials related to an item on this agenda distributed to the Board of Education are available for public inspection at the Security Desk on the first floor of the Administrative Headquarters, and at:

<a href="https://www.lausd.org/boe#calendar73805/20240630/event/71499">https://www.lausd.org/boe#calendar73805/20240630/event/71499</a>



# Enhancing Education with Indoor Plants in LAUSD Schools

Mia Arroyo, Hailee Yancey Valley Academy of Arts and Sciences



# How much greenery does VAAS have?





vaas has some greenery and has the capacity for more!

Gardens, trees, grass areas







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Los Angeles Unified Accelerates Effort to Bring Green Space to All Schools (09-27-22)

CONTACT: Megan VandenBos, 213-241-6388

#### FOR IMMEDIATE RELEASE

September 27, 2022

#### Los Angeles Unified Accelerates Effort to Bring Green Space to All Schools

Resolution sets a minimum threshold of 30% green space for playgrounds by 2035

LOS ANGELES, September 27, 2022 - As Los Angeles confronts another heat wave, the Los Angeles Board of Education unanimously voted today to accelerate and greatly expand efforts to bring green space to all its campuses. The resolution, authored by Board President Kelly Gonez, establishes a minimum standard of 30% green space for all campuses and directs the Superintendent to develop a plan to meet the standard district-wide by 2035, prioritizing schools with the most asphalt for immediate action.

"As we confront climate change, our students are more in need of shaded green spaces than ever before," said Board President Gonez, "For decades our school district has built playgrounds almost entirely of asphalt with no shade cover, which only exacerbates extreme heat. Today, we are committing to transforming our campuses by bringing tree canopies, plants, and outdoor learning spaces for all our students to learn and play. By establishing a clear goal and timeline to make our campuses greener, we are invigorating new urgency, accountability, and energy to this cause to ensure every school offers the shade and greenery that our kids deserve."

Research shows that green spaces on or around a school campus help improve student well-being, physical and mental health, as well as academic performance. Yet, despite Los Angeles Unified's efforts to bring more green space to campuses, only 16% of our District campuses currently meet the recommendation that 30% of a school campus be dedicated to green space. The resolution also calls for identifying bond, general fund, and grant dollars to fund the green space expansion by the deadline of 2035.

Goal: By 2035, at least 30% green space for all LAUSd campuses!

Purpose: Improve student well-being, Physical and mental health, and academic performance

- Improves mathematics and reading scores
- Reduce educational and environmental inequalities
- Improve physical and mental health
- Calming and conducive atmosphere
- Stress reduction
- Environmental education
- Community engagement
- Ecological impact

# Benefits



What does AGU (American Geophysical Union) and Yale University have to say about greening + education?

### Our Timeline





### our options



what we would do

### Greenhouse

Create a greenhouse for each school to promote greening

### vertical Greening

Greening on empty walls (I.E. vines, wall hanging pots)

### Garden Space

Designated garden spaces to each advisory

LOW COST!

# Our Top Decision

Indoor (classroom) Greening













# Our Objective

• Based on LAUSD's green space initiative

TO HELP REACH THE 30% OF GREEN SPACE IN LAUSD SCHOOLS, THROUGH INDOOR GREENING





# Data components & Limitations

- 1. Audience Students
- 2. Potential Factors Location, design, resources, availability
- 3. Budget Cost of implementation + how much is going to be willingly spent.
- 4. Impact of our campaign Benefits? And will it actually change societal behaviors?

# Why Indoor Greening is Beneficial

### Easy to manage

Low maintenance plants for students

### Inexpensive

Compared to our other options, this would cost the least









04



### Accessible

A doable project that wouldn't be too costly

### Long Lasting

If the plants are treated well, they can thrive for a long time

### How we would Execute It

### Research plants

Low maintenance, inexpensive, fast growing, fundings

### Assign classroom plants

Assign plants to each classroom and students would be caretakers







# Educational Aspect

### **Curriculum Integration**

- Lesson plans
- Plant care activities
- Biology and environmental science to learn about climate change
- Botany, Gardening, and Horticulture classes to teach how to classify and care for plants
- Math classes to calculate plant growth

### Student Involvement

- Learning about care requirements
- Vote on classroom caretakers and rotate on monthly basis
- Encourage participation through community service hours
- Establishing plant clubs
- If there is already clubs based on plants, then encourage them to expand and grow while utilizing the classroom plants

# our Set Goals



- 1. At least 1 potted plant per classroom
- 2. Low-maintenance and possible native plants
- 3. School and community engagement with plants



# Example of Plants we can use



calathea \$15-45



corn Plant \$50-70



Dieffenbachia \$20-60

# Funding and Resources

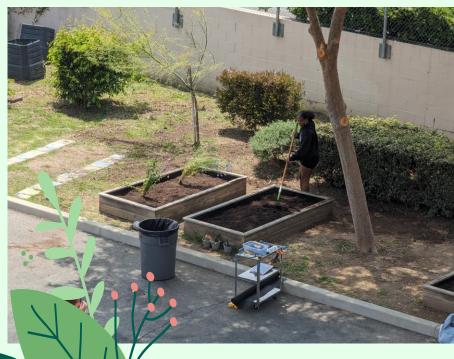
- LAUSD's over \$100 million budget for greening for the plants, pots, soil, watering cans, and other supplies
- Fundraising events
- Donations from local businesses and organizations
  - Local nurseries
  - O Local Gardenias
    - (LET'S MAKE THESE CONNECTIONS AND PARTNERSHIPS NOW!)

# updates!









# Any auestions?



# ECO-SUSTAINABILITY OFFICE

Greening Schools and Climate Resilience Committee Meeting

Christos Chrysiliou, FAIA, LEED AP Chief Eco-Sustainability Officer

June 5, 2024

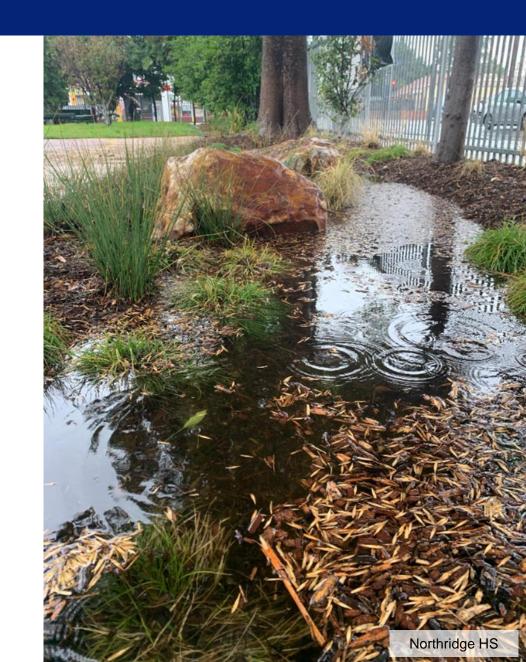






# Agenda

- Board Resolution Updates
  - Clean Energy
  - Climate Literacy
  - Green Schoolyards for All
- Funding Updates
- Presentations & Awards





### **Mission and Vision**

### Mission:

The Los Angeles Unified School District is committed to being the most sustainable and environmentally-friendly large urban school district in the country.

### **Vision:**

The Eco-Sustainability Office supports the LAUSD Strategic Plan by developing and implementing programs and policies that raise awareness of environmental stewardship and provide healthy, sustainable learning environments for all LAUSD students.



# LAUSD Eco-Sustainability Board Resolutions

### Clean Energy Resolution (201<del>9)</del>

 Transitioning LAUSD to 100% Clean, Renewable, Energy Resulting in Healthier Students and More Sustainable, Equitable, Communities

### **Climate Literacy Resolution (2022)**

 Enacting a comprehensive Climate Literacy Program for LAUSD to help address the escalating climate crisis. Climate Literacy covers education about environmental justice, green jobs and correcting misinformation.

### **Green Schools for All Resolution (2022)**

• Establishes a minimum standard of 30% green space for all campuses



# **LAUSD Eco-Sustainability Goals**

### **DOE** Better Buildings Challenge

- 20% reduction in energy intensity Baseline 2014
- 20% reduction in water intensity

   Baseline 2014

### **DOE Better Climate Challenge**

50% GHG emissions reduction in 10 years (by 2030) – Baseline 2019

















2040 100% Clean Energy

2035 30% Greening in All Schools

2030 100% Clean Electricity

2030 50% GHG Reduction

2028 Gardena Bus Yard Electrification

2026 Sun Valley Bus Yard Electrification

2023 Eco-Sustainability Office Established

2023 US DOE Better Practice Award + Low Carbon Pilot

2022 Green Schools for All Resolution

2022 Climate Literacy Resolution

2019 Clean Energy Resolution

2014 20% Reduction in Energy + Water by 2024

2003 CHPS Resolution



Eco-Sustainability Office



### **Eco-Sustainability Updates**

### **INSTRUCTION**

- 314 schools with Climate Literacy Champions
- Heroes for Zero Annual Student Competition
- Empowered STEM Curriculum
- Magenta House Energy-Savings Project-based Learning
- Climate Change Professional Development & Stipend



- Developed playbook to electrify 1,300 school buses at 6 bus vards
- Sun Valley bus yard design in progress
- 71 electric buses to be in service by 2024
- 180 electric buses procured and in service by 2026
- Electrification of white fleet in progress

**FOOD SERVICES** 

- All Electric Kitchen Pilot for 3 sites Under Review
- New central services study
- Installing electric combi-ovens

ENVIRONMENTAL HEALTH & SAFETY

- Food Scraps Pilot Program implemented at 113 school sites in compliance with SB 1383
- LAUSD diverted approximately 1,000 tons of organic waste from landscaping in its first year of the Organics Program



- Continue with Energy Efficiency Programs
- Working with CHPS to Develop Minor Renovations Program
- Principals' Dashboard for Energy Use by School
- Solar Program Authorization to Execute 14 Projects

























# **Clean Energy Board Resolution**



### **Clean Energy Resolution (2019)**

- Transitioning LAUSD to 100% Clean, Renewable, Energy Resulting in Healthier Students and More Sustainable, Equitable, Communities
- 100% clean, renewable energy in its electricity sector by 2030
- 100% clean energy in all energy sectors, including heating, ventilation, air conditioning (HVAC), cooking, and transportation by 2040

	FY22-23	Current		
Utility	Expenditure	Consumption	2030 Target	2040 Target
Electricity	\$137.1 M	616,324,041 kWh	0 (from fossil fuels)	0
Natural Gas	\$10.5 M	7,069,045 Therms	5,655,236 Therms	0
Total	\$147.6 M	*	*	*



# **Clean Energy Updates**





### **Clean Energy Updates**

- Ocean Charter High School was CHPS Verified
- LAUSD joined the U.S. Department of Energy's Commercial Heat Pump Accelerator Program
- As of April 2024, LAUSD has electrified almost all landscaping equipment
- LAUSD became one of the first school districts in California to achieve Level 2 Certified Green Zone from the American Green Zone Alliance (AGZA)
- Board authorization to execute 14 solar projects



# Climate Literacy Resolution



### **Climate Literacy Resolution (2022)**

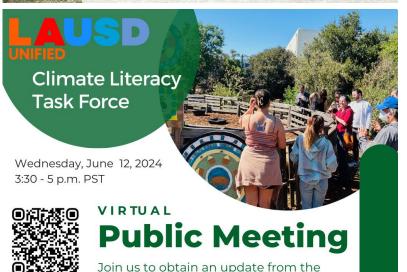
- To enact a comprehensive Climate Literacy
   Program for LAUSD to help address the
   escalating climate crisis. Climate Literacy covers
   education about environmental justice, green
   jobs and correcting misinformation.
- Quarterly meetings of the Climate Literacy Task
  Force, including internal stakeholders from
  Facilities, Transportation, Food Services, and
  Office of Environmental Health & Safety and the
  General Public





## **Climate Literacy Updates**





Climate Literacy Task Force

### **Climate Literacy Updates**

2023-2024 Heroes for Zero winners:



Cesar Chavez Technology Prep Academy



Foshay Engineering Academy



- Climate Literacy Schoology Group with over 1,100 educators (Access Code: CFV9-FGK8-MN26S)
- 2024-2025 upcoming Climate Literacy programs with:
  - SoCalGas LivingWise Program + Toolkits
  - SCE Energy Coalition
  - LA County SoCalREN + Toolkits
  - Broad Museum
  - Aeroponics Towers with SBTG Seedlings and Green Bronx Machine
- Division of Instruction Climate Action Kits
- 2024-25 Climate Literacy Champions will be selected in June 2024
- Climate Literacy Task Force draft report in progress



# **Education & Awareness Programs Updates**





### **Heroes for Zero**

Participating Schools: 50 Participating Students: 1,350

**Empowered Schools** 

Participating Schools: 64 Participating Students: 1,700

**Magenta House** 

Participating Schools: 12 Participating Students: 60

### **Climate Champions**

Number of Schools with a Climate Champion: 314

### **Green Professional Skills Training (GPRO)**

Number of Staff Trained: 46

Number of Educators Trained: 64

Over 3,000 participating students in Education and Awareness programs supported by the Eco-Sustainability Office



# **Education and Awareness Funding Updates**



### **Program Funding: \$450K**

- Empowered Schools \$200k+
- HEROES for Zero Contest \$175k
- Magenta House Program \$60k
- Green Professionals (GPRO)
   Training \$18k





























#### **Green Schools for All Resolution**



#### **Green Schools for All Resolution (2022)**

- Establishes a minimum standard of 30% green space for all campuses
- Prioritize efforts in Early Education Centers,
   Primary Centers, and Elementary Schools
- Prioritize schools with the lowest green spaces/access to green spaces and in communities most affected by extreme heat and climate change



#### **Campus Greening Updates**





#### **Campus Greening Updates**

- LAUSD released the Green Schools for All Plan
- Ribbon Cuttings for Outdoor Classrooms at 3 EECs:
  - Evergreen EEC 6/11/2024
  - Kentwood EEC 6/12/2024
  - Northridge EEC 6/14/2024
- The LAUSD Board of Education authorized Development Agreements for 34 CAL FIRE funded 3rd-party greening projects
- Completed SEEDS projects at several schools
  - Murchison St ES
  - Lankershim ES
  - Victoria Ave ES



#### **Greening Programs Update**





#### **SEEDS**

Completed: 73 Completed by 2026: 20

Early Education Center Outdoor Classrooms
Completed: 16 Completed by 2026: 16

Playground and Campus Exterior Upgrades
Completed by 2026: 8

**Board Member Priority Projects** 

Completed by 2026: 18

**Enhanced Learning Opportunities Program** 

Completed in 2024: 11 Completed in 2025: 22 Completed in 2026: 1

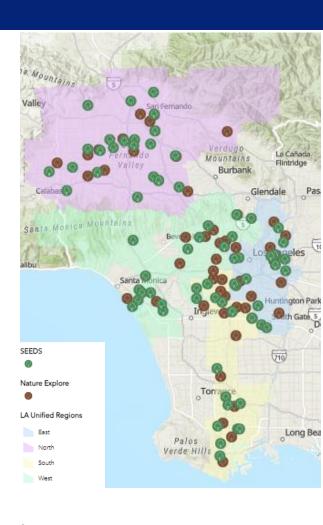
**Green Schoolyard Upgrade Projects** 

In planning: 15

Community Initiated & Grant-Funded (CAL Fire & 3rd Party)

Completed by 2026: 48

Over 100 Greening Projects planned to be completed by 2026





#### Campus Ecology Funding













#### Programs: \$500M+

- Sustainable Environment Enhancement Developments for Schools (SEEDS/SEEDS+) \$10M+
- Early Education Center Outdoor Classrooms \$128M
- Paving/Stormwater Management Related Programs \$175M+
  - Drought Response Outreach for Schools (DROPS)
  - Critical Repair Program: Low Impact Development (LID), Paving with 30% Greening Component, Playground Greening, etc.
  - Municipal Partnerships (e.g., LADWP, SWRCB)
- Playground and Campus Exterior Upgrades \$300M (includes paving and infrastructure upgrades)
- Board District Priority Projects \$1.5M+
- Expanded Learning Opportunities Program (ELOP) \$44.2M
- Green Schoolyard Upgrade Projects \$100M
- Community Initiated and Grant-Funded Projects \$55M+



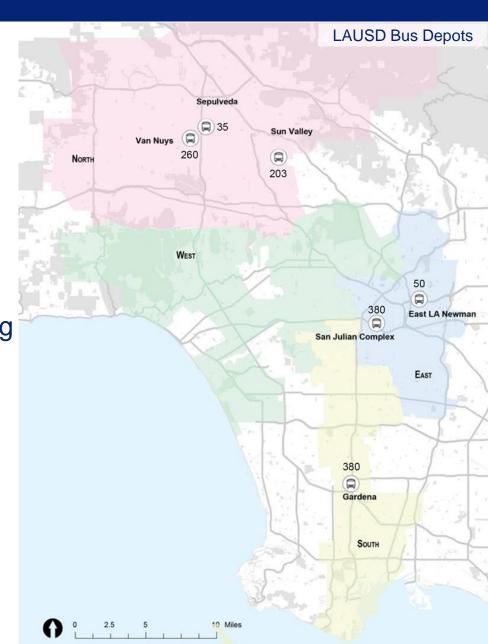
#### **Clean Energy Grant Funding**

#### **Clean Energy Grants**

- Environmental Protection Agency (EPA)
- Inflation Reduction Act (IRA)
- California Energy Commission (CEC)
  - CalSHAPE program, \$26.46 Million

#### Infrastructure Rebates

- Charge Up LA Program LADWP Electric Vehicle Charging
  - San Julian Bus Depot
  - Gardena Bus Depot
  - LAUSD Fleet Charging Projects
- Energize Project CEC
  - Energy Infrastructure Incentives for Zero Emission
- Charge Ready Transport Program SCE





#### **Grant Funding Opportunities**











- EPA Grant Funding to Address Indoor Air Pollution at Schools
   EPA-R-OAR-APS-24-02 Applied with Clark County
- DOE Grid Resilience and Innovation Partnerships Program (GRIP)
   FOA 3195- Partner with LACI
- CNRA Urban Greening Grant Submitted 11/20/23
- SCAQMD Carl Moyer submitted application for Sun Valley Bus Garage on 2/16/24
- ICARP Extreme Heat and Community -Submitted 5/7/24
- CalFIRE Tree Grant UCF IRA Submitted 5/30/24
- ICARP Adaptation Planning Grant Program Due 6/3/24
- DOE 2024 Renew America's Schools Prize Due 6/14/24





#### **Clean Energy Agreements & Tax Credits**

#### **Tax Credits**

- Inflation Reduction Act (IRA)
  - Investment Tax Credits (ITC) working with the Controller's
     Office to capture all eligible tax credits
    - Solar arrays
    - Battery energy storage systems
    - Electric vehicle charging infrastructure
    - Electric vehicles

#### Agreements

- Conserving for Our Kids MOU LADWP Energy and Water Efficiency in School Facilities - \$87.5 Million
- Electric Vehicle Charging MOU LADWP \$4.8 Million
- Green Access Program (GAP) LADWP











#### **Recent Presentations & Achievements**

#### **Sustainability Awards**

First Place - 2024 Demand Response Program from LADWP

#### **Recent Presentations**

- White House Summit on Sustainable K-12 School Buildings and Grounds – May 2024
- Coalition for Adequate School Housing (CASH) Conference April 2024
- Earth Day Presentation April 2024
- Council of Great City Schools Conference April 2024
- U.S. Department of Energy (DOE) Presentation April 2024
- Ethnic Media press event on Green Schools for All May 2024



Chief Eco-Sustainability Officer, Christos Chrysiliou, provides comments during the White House Summit on Sustainable K-12 School Buildings and Grounds



#### Sustainable Growth through Partnerships



#### **Resolutions/Initiatives/Programs**

**CHPS RESOLUTION (2003)** 

SAVE the DROP!

APPLIANCE UPGRADES

**EMERGING TECHNOLOGY PILOTS** 

STORMWATER MANAGEMENT

**COOL SCHOOLYARDS** 

DROUGHT AWARENESS RESOLUTION (2014)

**GREEN BUILDING DESIGN** 

LIGHTING RETROFITS

**BETTER BUILDINGS CHALLENGE** 

**HEROES for ZERO** 

**WATER SAVINGS RESOLUTION (2010)** 

**SMART IRRIGATION** 

ZERO ENERGY SCHOOLS ACCELERATOR

ENERGY AND RESOURCE CONSERVATION POLICY (2015)

LAUSD emPOWERED

**RECYCLED WATER** 

SCHOOLYARD HABITATS

EV CHARGING POLICY (2018)

**SOLAR INITIATIVE** 

PRESERVING & SUSTAINING SCHOOL GARDENS (2007)

STUDENT ENERGY
AUDIT TRAINING (SEAT)

PLUMBING RETROFITS

**PROP 39 ENERGY UPGRADES** 

**DROPS** 

**SEEDS GARDENS** 

**SOLAR POWER RESOLUTION (2008)** 

**NATURE EXPLORE CLASSROOMS** 

#### **Partnerships**

































































#### **Thank You!**



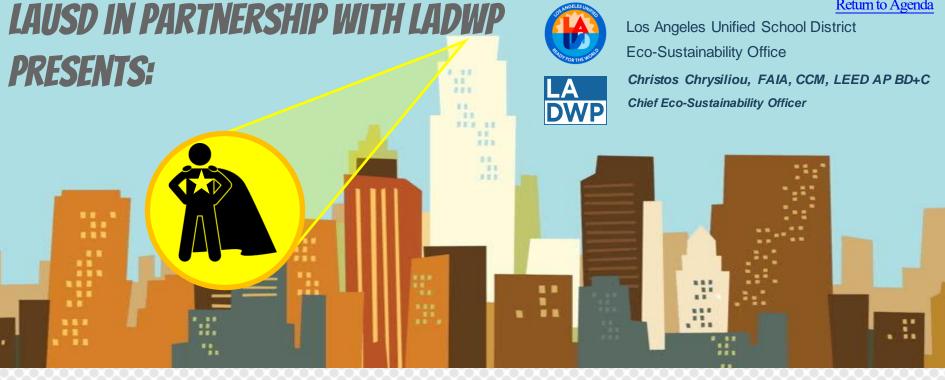
Christos Chrysiliou, FAIA, LEED AP Chief Eco-Sustainability Officer











HEROES

FOR















On-site renewable energy generated

PRODUCES AS MUCH ENERGY AS IT CONSUMES OVER THE COURSE OF A YEAR, WHEN ACCOUNTED FOR AT THE ENERGY SOURCE.

# ZNE FORMULA: + RE = Z

#### **OUR FOCUS:**

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

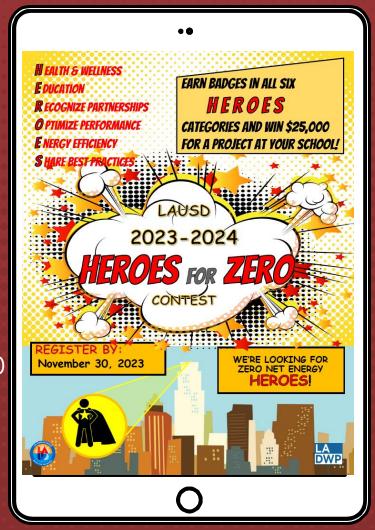


### **OBJECTIVE:**

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

### ELIGIBILITY:

- Open to all Student Teams at all grade levels (K-12)
- Schools can form more than one team, but will submit only one Team's plan as their entry,





#### **ELEMENTS:**



- H Demonstrate how ZNE can also lead to a healthier space or community
- E Learn about and educate other about energy efficiency
- R Work with a partners or Community-Based Organization
- O Conduct a school energy audit & identify where improvements can be made
- E Develop a strategy to reduce energy consumption
- S- Identify how sharing lessons learned can help other schools, groups, or your neighborhood





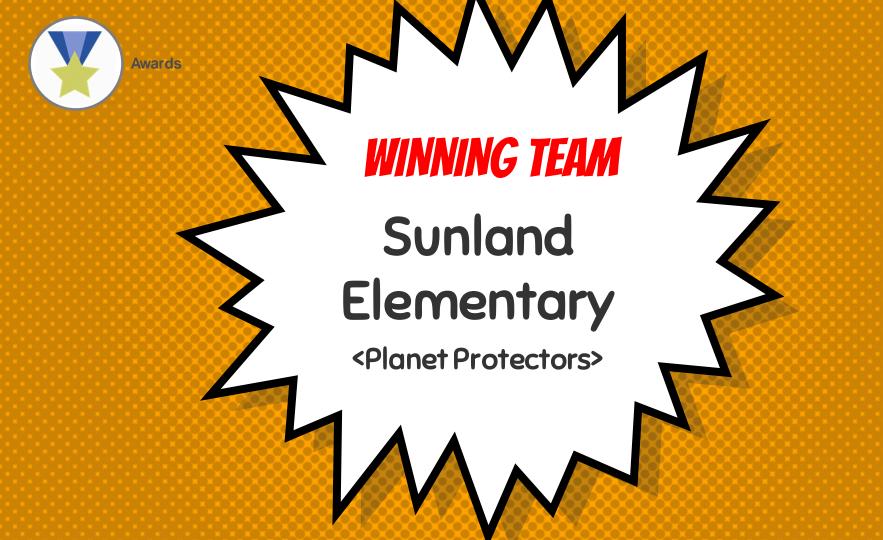


## HEROES FOR ZERO PARTNERS

"The true strength in our classroom lies in the collaboration of learners, not in the knowledge of one expert."















#### SUNLAND ELEMENTARY SCHOOL







## HEROES

**FOR** 



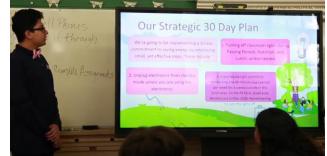












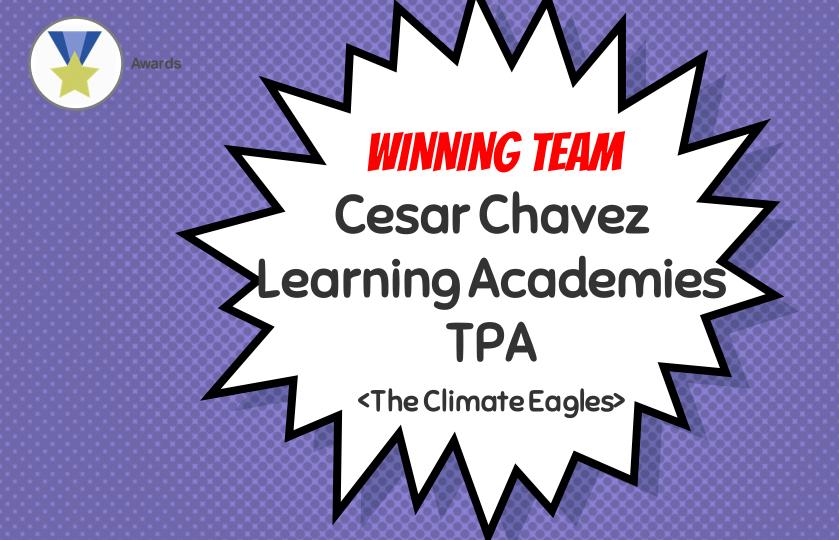




## HEROES

**FOR** 





## CESAR CHAVEZ LEARNING ACADEMIES HIGH SCHOOL — TPA







LAUSD Eco- Sustainability Office



## HEROES

**FOR** 





## HEROES FOR

Congratulations to all finalists and winners!