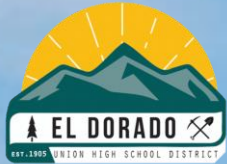


# El Dorado UHSD Solar PV Project

*An El Dorado Union HSD, ARC Alternative & ENGIE Partnership*

*Community Meetings*

*Oak Ridge High School 2-27-19*



# Today's Agenda

- Solar Program Goals
- Design Approach
- Individual Site Discussions
  - Schedule
  - Layouts
  - Tree Removal
  - Savings
- STEM Education Program
- Districtwide Program Summary



# Program Pillars

- Generate substantial and sustained **general fund savings**
- **Modernize District's facilities** and campuses with advanced technology and energy efficient systems
- **Reduce the District's carbon footprint** while improving 21<sup>st</sup> century campuses for learning and achievement
- Empower the District's STEAM efforts through **project-based learning** opportunities for students
- Create **local green jobs**





# Energy Design Considerations

- Solar Photovoltaics
  - Prioritize parking canopies and shade structures
  - Consider Principal, staff, and community feedback
  - Design to offset 62-93% of electricity load
  - Avoid hazards (e.g. baseballs, PG&E lines) and shading
  - Proximity to electric meter



# Layout Styles



***L-Structure Parking Canopy***



***T-Structure Parking Canopy***

# Oak Ridge High School

- 863 kW of solar PV being installed
- Generating 1,356,554 kWh in year 1 = removing 204 cars from the road annually
- Offsetting 87% of electrical consumption
- Saving \$4,089,521 over the 25 year life of the solar
- Providing shaded parking
- Construction Start: 5/28/2019
- Estimated construction completion: 8/2/2019





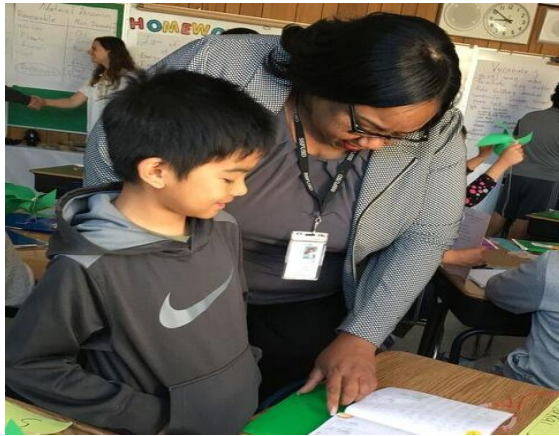
# District Wide STEM Education

*Making an educational impact!*

## Living Laboratories & Hands-On Learning Kits

*Data Points from the PV installations will be imbedded into student and teacher facing dashboards.*

*Solar activity sets will be supplied for hands-on learning engagements giving students an opportunity to conduct relevant experiments.*



## Creation of STEM Lessons

*ENGIE will provide lesson plans and activities to support the District's science courses. The lessons will focus on energy, electricity, sustainability, and engineering.*



## Professional Development

*ENGIE will work with teachers to provide professional development sessions to give teachers the tools to successfully deliver the developed STEM lessons and the living laboratories dashboard and hands-on learning kit activities.*



# Districtwide Total Program Savings Summary

- Total of 3,194 kW of Solar PV
- 4,784,870 kWh of energy produced = removing 718 cars from the road annually
- 77% offset of EDUHSD electrical consumption
- Generates a net benefit of \$12,873,534 over the 25 year life of the program

