

Porterville Pilot Program

OVERVIEW

In 2019, Porterville Unified School District (PUSD) partnered with CAPS to launch our pilot program and create a 10-year climate action roadmap to reduce greenhouse gas emissions while saving money for the district. PUSD was selected to pilot our energy and sustainability program because of its supportive leadership team, track record of innovating in both clean energy and education, and need for climate programming that supports students to lead initiatives that make a tangible impact on climate change in their community.

CAPS RESULTS AT PORTERVILLE

Cost Savings

In the first two years of our program, we achieved \$850,000 in electric and natural gas savings, a 25% cost reduction for the district.

Reduced GHG Emissions

Our goal is to reduce GHG emissions by 80% by 2030. In the first two years, we reduced GHG emissions by 28%.

Exceptional Student Outcomes

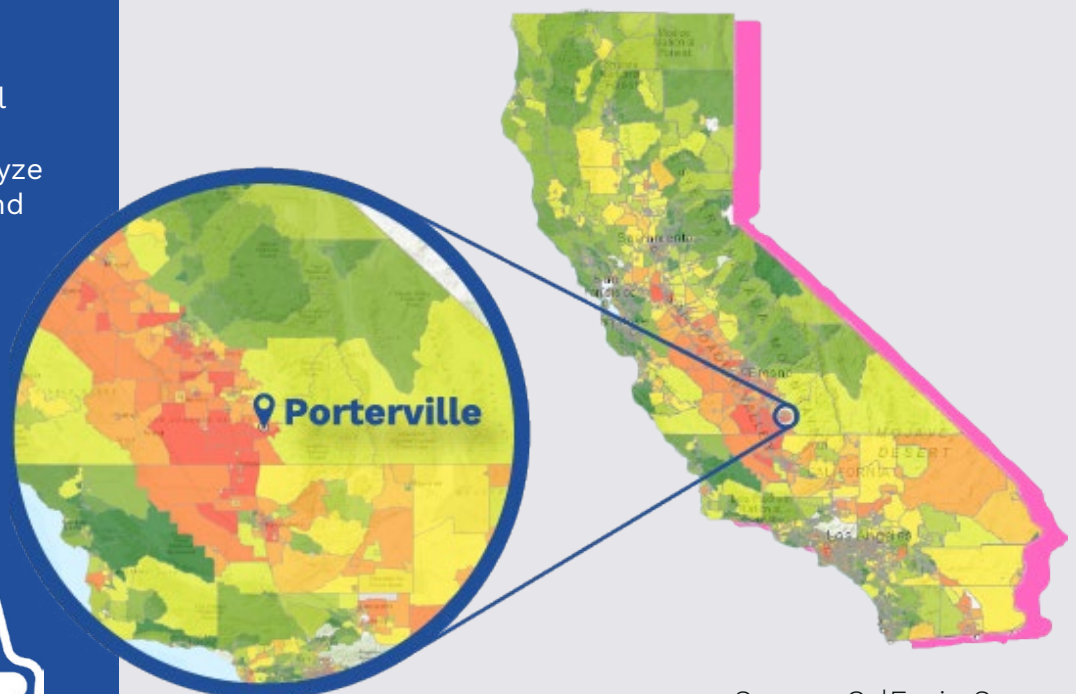
Students participated in paid internships to build professional and technical skills, like learning how to collect, manage, and analyze large quantities of data and presenting their findings to key stakeholders.



BACKGROUND

The Porterville district is disproportionately impacted by the effects of climate change. Porterville scores high on the CalEnviroScreen, which analyzes potential exposures to pollutants, adverse environmental conditions, socioeconomic factors, and the prevalence of certain health conditions.

As the effects of climate change worsen, existing public health, economic, and educational inequities are compounded. Mitigating the impacts of climate change is an essential step toward reducing the systemic inequalities in the United States. Through the CAPS program, school districts can play a critical role in immediately addressing environmental impacts in their communities while also providing real-life training in and exposure to green careers, helping to build the next generation of climate leadership.



Source: CalEnviroScreen

PORTERVILLE AT A GLANCE

School District

- School over 14,000 students in K-12
- 83% of students eligible for free or reduced meals
- 22 school sites (grade range K–12)
- Annual energy costs of buildings: \$1,805,000

Community Demographics:

- Porterville, California
- Population: 62,623
- Rural, agricultural community
- 88.9% socioeconomically disadvantaged
- 83% Hispanic, 25% English learners
- Top 3% in CA for fine particulate matter and top 18% in CA for ground-level ozone

The Energy & Sustainability Program

CAPS works with each school district to create a climate action roadmap that is tailored to each district's individual needs, goals, and resources. We call this program The Energy and Sustainability Program.



A cornerstone of this program is our paid, work-based learning initiative for high school students. CAPS hires student interns to develop and support climate mitigation projects within their district, preparing them for highly skilled college and career pathways.

Throughout the year, interns at Porterville

- Manage a districtwide energy conservation competition
- Analyze energy use & cost data
- Assist in ASHRAE Level 1 energy audits
- Reduce GHG emissions for student commutes, including electrification of the bus fleet & active transportation planning
- Gain leadership, technical, & professional skills

“I plan to study architecture and civil engineering in college, and I hope to combine energy conservation and efficiency into building and designing more environmentally-friendly buildings. I’ll always have that green consideration now because I am aware of how large an impact it can have.”

~ Student Participant

Approach: The First Three Years

At PUSD, the first three years of the program have focused on:

1. Districtwide energy conservation and efficiency

The student interns set an energy savings target for every school in their district and then track each school's monthly energy usage relative to the savings target.

2. Monitoring and optimizing the performance of PUSD's 20 on-campus solar energy systems

The interns created daily monitoring system to optimize the solar systems electricity output. This system has increased the PUSD solar performance to 93% for the 2020–21 year. This 10% increase in production accounted for a reduction in PUSD's electric bills by over \$125,000.

3. Decreasing emissions from student transportation

CAPS aims to provide every PUSD student the opportunity to commute to and from school with zero pollution and zero-GHG emissions by 2030. Interns are currently working on a final zero-emissions transportation plan for the district that includes an electric bus fleet, active transportation, and public transportation.