



Franklin-McKinley School District



“ENGIE Services U.S. was the only firm to bring us a STEM offering for the classroom that connected their facilities work to the students.”

Dr. John Porter, Superintendent

THE OPPORTUNITY

A thriving district in San Jose, Franklin-McKinley School District (FMSD), is committed to helping its students prepare for college and careers by sparking a love of learning that motivates and inspires achievement. As a diverse, expansive K-8 district with over 20 unique elementary and middle schools, FMSD faculty and staff are dedicated to delivering resources that help students perform their best across the district. Like many districts in budget-constrained times, FMSD was seeking ways to leverage existing resources to continue to upgrade and renovate the learning environment without having to sacrifice much-needed curricular initiatives. With a vision for ensuring that an infrastructure sustainability plan would provide opportunities for student and teacher learning, FMSD pursued implementation of a comprehensive solar program with relevant curriculum tie-ins.

THE PARTNERSHIP

In early 2012, the District partnered with ENGIE Services U.S. (ENGIE) to transform its energy performance through a unique combination of solar and energy efficiency projects across schools, in addition to addressing STEM education goals and needs. The program not only saves money and energy, but also creates local jobs and redirects savings to support mission-critical goals around STEM learning. To ensure ongoing optimization, Utilityvision™ provides continuous monitoring data for reporting and analysis.

Program Highlights

- Over \$18MM in net general fund savings over lifetime of the program
- Created nearly 70 local jobs during program implementation
- Implemented transformational STEM education program to provide unique, hands-on learning opportunities
- Will reduce carbon emissions by over 3.3 million pounds of CO₂ over the lifetime of the program, the equivalent to planting 328 acres of trees

Technical Scope

- 2.7 MW of solar PV roof-mounted and parking shade structures
- LED interior and exterior lighting replacement throughout district
- Whole roof replacements, parking lot enhancements



Technical Scope (continued)

- Over 30 HVAC upgrades, replacements, and new ductwork
- Modernized energy management system upgrade
- Electric vehicle charging stations
- Envision® STEM and energy education program
- Hands-on activities for students and professional development workshops for teachers
- Utilityvision™ Continuous Monitoring

FOCUS ON STEM

The District's dynamic solar program and energy improvements were a perfect platform for expanding student and community understanding of the real-world applications of STEM subjects. The partnership has enriched many aspects of the overall focus on improving STEM learning opportunities as part of the District's long-term academic plan. Some of the activities ENGIE's Education Team has helped develop with Franklin-McKinley leadership include:

- **Hands-on Learning:** ENGIE developed a Summer of STEM learning series during the summer of 2013 before the kickoff of one of Franklin-McKinley's first STEM academies. Professional development activities for teachers focused on solar, wind, hydro, and other energy sources, with curriculum and in-class guidance for implementation in the classroom.
- **Organization of a District-Wide Career Day**
- **Partnership with the San Jose Tech Museum:** Working with the Kennedy STEM School and the district STEM Steering Committee, 10 ENGIE energy professionals mentored Franklin-McKinley student teams to participate in the regional Tech Challenge.

3 DIMENSIONS OF IMPACT

ENGIE is committed to building three dimensions of impact in every customer's future. Through the implementation of cost-saving sustainability programs like new solar shade covers at targeted sites across the District, FMSD has created positive learning opportunities for students concurrently with demonstrating a commitment to environment and sound fiscal practices.



Supporting People – ENGIE has helped lead hands-on STEM and energy education activities for students across the District to ensure that the large-scale technical work will continue to enhance FMSD's commitment to student excellence.



Saving Money – Garnered over \$18MM in net general fund savings over lifetime of the program and created 70 job during construction and implementation.



Protecting the Environment – FMSD has been able to showcase its commitment to environmental stewardship via an energy program that results in the reduction of carbon emissions by over 3.3 million pounds of CO₂ over the lifetime of the program, the equivalent to planting 328 acres of trees.

