



Mt. Diablo USD

RFQ #1896 District-Wide Building Automation HVAC Systems and Lighting

Marc Starkey, Elliott Feldman, Jose Carrasco, John Stancliffe, David Medcalf & Daniel Cotten

Schneider Electric – Energy & Sustainability Group

PROJECT TEAM Introduction



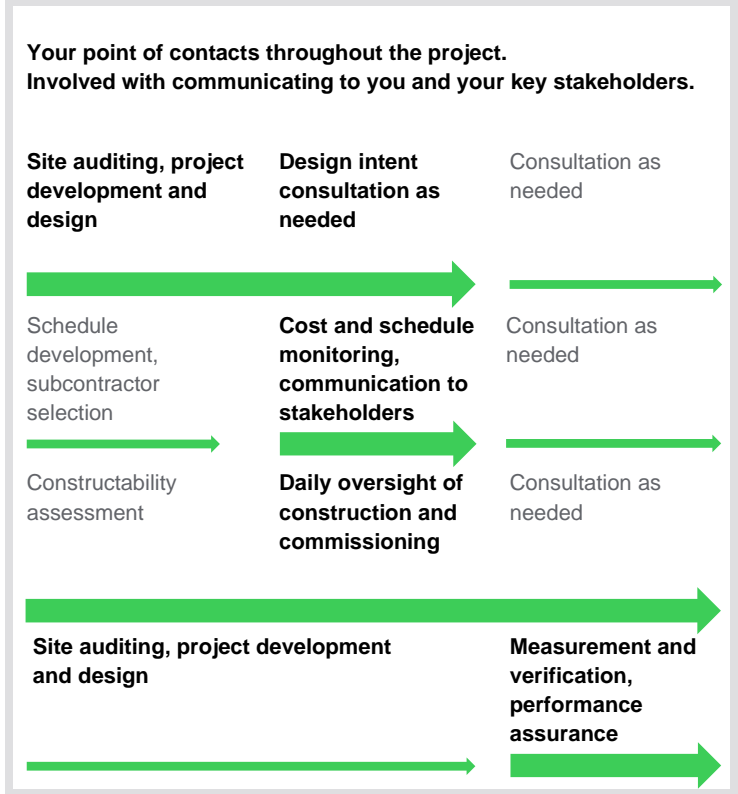
Co-Program Managers
 Marc Starkey & Elliott Feldman
 Over 20 combined years in the industry

Project Development Manager
 Daniel Cotton, PE, CEM
 8 Years in the industry

Project Manager/Commissioning Agent
 John Stancliffe, LEED, AP
 33 years in the industry

CM Services Manager
 David Medcalf
 15 years in the industry

Regional Energy Engineer Manager
 Jose Carrasco, PE
 10 years in the industry



Turnkey Approach – Comprehensive / Holistic

Schneider Electric – Energy & Sustainability Services

Global Company Local Presence

- Over **850** completed Energy Conservation projects, worth more than \$3B
- \$45 million** in annual K-12 energy savings guarantees
- Awarded World's **Most Ethical** Company Honorees consecutively from **2011 - 2019**.
- Ranked **#1** Energy Services Company – **Last 3 years**
- Turnkey solution, with **zero change orders!**

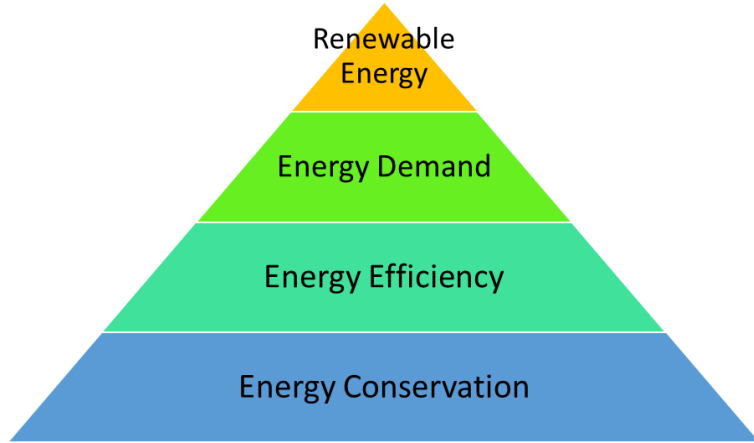


LED, HVAC & Controls Proven Results & Performance Integrity

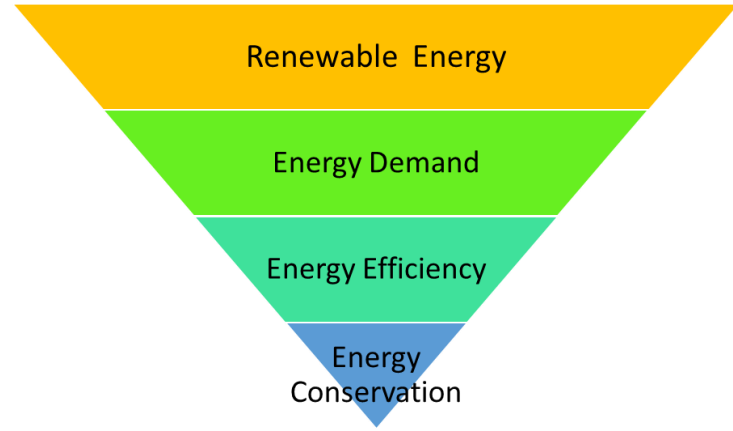
- Stockton USD
- Berkeley USD
- Dublin USD
- Moraga SD
- Oakdale JUSD
- Golden Valley USD
- Dixon USD
- Pleasant Ridge USD
- Lemoore ESD

Energy Baseline

2019 District-Wide Utility Usage



Suggested Energy Pyramid



MDUSD Energy Pyramid

Costs				Energy Consumption/Production					Energy Use Index
Electrical	Gas	Water	Total	Electrical (kWh)	Solar (kWh)	Combined (kWh)	Gas (Therm)	Water (Kgal)	(KBtu/ft ²)
\$1,362,337	\$575,722	\$1,448,984	\$3,387,044	7,842,121	15,379,549	23,159,106	721,143	96,599	41.5

MDUSD Scope of Work

LED Lighting Retrofits

Minimal LED/Occupancy Sensors

Very little control/exterior lights on during day

Poor light quality

Darker/underlit areas

Light pollution/distractors to the space

Assortment of solutions that have a variety of lumen outputs



Multiple subs/sites being developed/Installed simultaneously

Almost \$800k in potential annual savings...equates to more than 10 teaching positions

Photometric studies by site/space to enhance specified performance

Safer/more secure campuses

Filtered/directional lighting solutions that are customizable

Standardization/post install calibration

MDUSD Scope of Work

Strategic Program for HVAC Replacements

- Two Parallel Tracks for Development
 - ❑ Like for Like / Replace Immediately
 - ❑ More Technical / DSA Review
- **Manufacturer Standardization** that is consistent, trained and supported
- Supply Chain Management – pre order
- Filtration / Ductwork / Airflow Calibration
- Install throughout the year / 2nd shift & weekend work

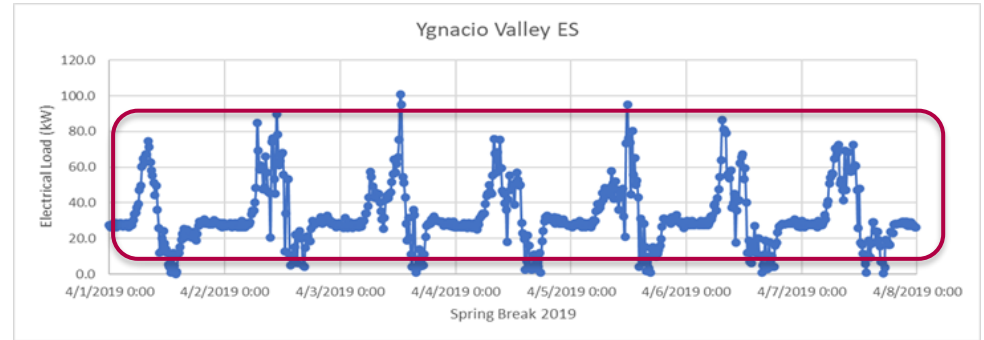


Moraga USD / Dublin USD

MDUSD Scope of Work

Controls Development, Implementation & Performance Assurance

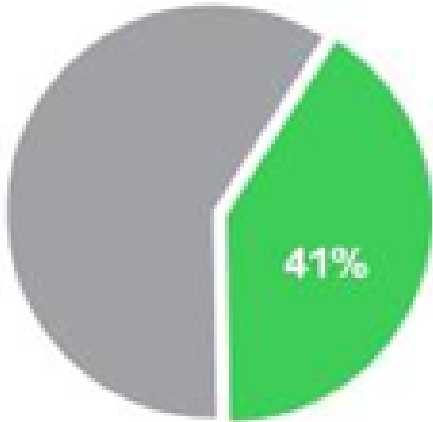
- **Standardization** that is open source and supported
- Non-proprietary
- Validation/commissioning ensuring Indoor Air Quality
- Identified unoccupied run-times and incorrect operational schedules



Savings Potential

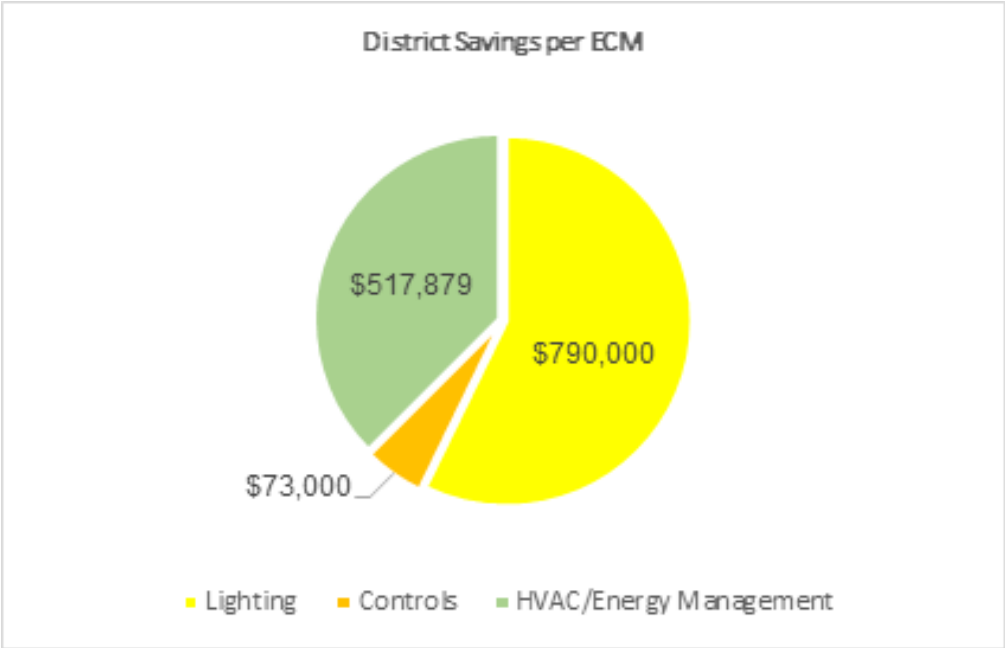
First-Year Savings Projections

District Energy Cost Savings



\$1,380,000 in Annual Savings

District Savings per ECM



Funding Sources

Maximize No-Cost Money

Grants, Rebates & Incentives

PG&E HVAC /Lighting Optimization Programs

Federal Stimulus

One-Time Money

Bond Dollars

Leveraged Into a New Revenue Stream

179D Tax Deduction / \$1.80 sqft.

For Energy Efficiency Projects

Guaranteed Energy Savings

Preserve Programs & Positions

Life Is On



Schneider
Electric

