California Association for Bilingual Education

November 27, 2023 & December 14, 2023
Agenda

• Who is Veregy?
• Preliminary Energy Assessment (PEA) Review
• Orchestrate – Master Systems Integration
• Q & A, Next Steps
We Are True Partners
Benefits Beyond Savings

Let’s Connect!

Over 95% of our work is with America’s School Districts, nationwide.

We are an Energy Solutions Company.

Enhance the learning environment, make campuses safer, More efficient, and sustainable.

Find funding sources for your projects.

Communication and Collaboration!
Our engineers, superintendents, and tradesman are licensed professionals who maintain an array of certifications, licenses, alliances and associations.
What We Do…

- **Energy Efficient Solutions**
- **Facility Services**
- **Engineering Solutions**
- **Distributed & Renewable Energy**
- **Smart Building and Systems Integration**

Energy Efficiency: Energy Conservations Measures
The Road Traveled So Far….

California Association of Bilingual Education

- Initial Informal Meeting with Dr. Lampkin, at CLSBA in Long Beach: 9/29/2023
- Crossed paths with Dr. Lampkin at ALAS in San Antonio, TX: 10/5/2023
- Virtual Meeting Regarding CABE Annual Conference Participation: 11/27/23
- Preliminary Energy Assessment (PEA) Virtual Review: 12/14/2023
PEA Review
Lighting

Current Lighting Conditions

• CABE has a combination of LED, linear fluorescent, and compact fluorescent lamps throughout their sites.

Proposed Lighting Solution

• **Interior**: Where applicable, existing fluorescent lighting would be retrofitted with new LED lamps, drivers and fixtures.

• **Exterior**: Where applicable, existing fixtures that are not currently LED will be replaced with new LED fixtures or retrofitted with LED lamps.

Potential Benefits

✓ Standardization - Inventory
✓ Enhanced working environment
✓ 10-year warranty
✓ 75,000 + hours rated life - savings of not purchasing light bulbs for 25+ years
HVAC Equipment

Currently...

Your site currently utilize package units to meet their space cooling and heating needs. While the units were serviced regularly, many of the existing units have exceeded their useful life and are recommended to be replaced with high efficiency units.

Proposed Solution

Under an energy efficiency program, remove and replace the old, inefficient package HVAC units with new high efficiency units.

Potential Benefits

✓ Improved comfort and energy efficiency
✓ Right-sizing of HVAC equipment
✓ Standardization of HVAC equipment
✓ Improved Indoor Air Quality (IAQ)
✓ Improved Learning Conditions
Currently...

A variety of different toilet and urinal fixture types were identified throughout the sites. Many toilet fixtures are designed at 1.6 GPF but often exhibit flush rates up to 3.5 GPF. Many urinal fixtures are designed at 1.0 GPF but exhibit flush rates up to 2.0 GPF. A variety of different faucet fixtures were identified during walk-throughs. Faucets identified contained their original aerators, which often exhibit flow rates up to 2.5 GPM.

Proposed Solution

- The domestic water efficiency opportunities discovered and proposed include domestic plumbing improvements such as:
  - Low-flow toilets (0.8-1.28 GPF)
  - Faucet retrofits/replacements (0.5 GPM)
  - Urinals (0.125 GPF)

Potential Benefits

- Standardization of equipment
- Lowers maintenance calls
- Largest savings measure
Baseline Utility Consumption

Total Utility Cost: $17,086
Potential Savings: $3,500 - $5,125
Operational Savings: TBD
Grants and Rebates: $4,750
Potential Project: $35k – $120k
Total Square Footage: 15,000 (estimated)
KPI – Key Performance Indicator:
Energy Use Index (EUIe): 3.9 kWh/ft²
  Goal: 1.5 – 2.0 kWh/ft²
Utility Cost: $1.14/ft²
  Goal: >$1.00/ft²
Potential Savings Summary

- **Potential Project**: $35,000 – $120,000
- **Potential Utility Cost Savings (1st Year)**: $3,400 – 5,125
- **Potential Grants/Rebates/Savings**: $3000 – Lighting, $1750 – Miscellaneous
Master Systems Integration
Orchestrate

2023
Problem: Facility Systems Overload
Purpose and Goal

**Why** are we here?

**How** do we do it?

**What** do we do?

> 20 - 30%
Overview - Master Systems Integration - (MSI)

A MSI will …

Integrate systems into a **single user interface** and **common platform** allowing systems to anticipate, **communicate** and **operate as a single smart building**.

Design and **implement a facility plan**.

Provide **future readiness**, **reduced maintenance costs**, **energy savings**, and **higher operational efficiency**.
Orchestrate = Connecting Everything

Applications
Summary

- CABE does not currently utilize a Building Automation System (BAS).
- Currently, CABE does not have a Utility Management, Demand Management, or Leak Detection system.
- All HVAC controls in the district are done by wall, programmable thermostats.

Proposed Solution & Potential Benefits

- Suite of Veregy’s cloud-based software solutions.
- Standardization of equipment
- Improved work-flows
- Energy savings
- Lower maintenance calls/tickets/work orders
- Integrated systems
# Orchestrate Dashboard

## District Office Electric

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<td>94.94K</td>
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![Graph showing usage and cost over time]

![Graph showing demand and cost over time]
Review, Q & A, Next Steps