

MARYSVILLE JUSD ENERGY SERVICES PROJECT



INTRODUCTIONS



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Agenda



Existing challenges



Solutions



Why do an Energy Services Project?



Who is SitelogIQ?



Questions

4 KEY TAKE AWAYS

- No new \$ needed – energy savings pay for the projects
- Reduce operating costs
- Enhance reliability of operations
- No risk – both utility and cash savings are **guaranteed**

A person is sitting at a desk, working on a laptop. The laptop screen displays a document with text. In front of the laptop is a notebook with a pen resting on it. To the right of the notebook is a rolled-up document. A pair of sunglasses is also visible on the desk. The background is slightly blurred, showing a wooden desk and a chair.

Marysville's Challenges

MARYSVILLE CHALLENGES

HVAC

- Equipment is well past useful life
- Expensive maintenance and repair costs
- Hot/cold calls - employee and student comfort
- Not enough staff to address constant failures and comfort calls
- Critical Failure at Lindhurst central plant
- Unable to air balance
- No district wide consistency - inefficient and costly
- Poor air quality



MARYSVILLE CHALLENGES



Controls

- Antiquated systems software
- Inability to perform user functions
- Incorrect equipment scheduling
- Unable to connect to remote monitoring
- Noncompliant CA Title 24 operations
- Inefficiency wastes energy
- No district wide consistency
- Increased operational costs





Pathogen Mitigation

Global Plasma Solutions is a needle point bi-polar ionization product that utilizes Steady-State Ionization to:

- **Kill pathogens: mold, bacteria & viruses** (tested to kill **Coronavirus**)
- **Disassociate VOC's** into less harmful gases found in our atmosphere
- **Eliminate odors**
- Reduce airborne particles & **increase filtration effectiveness**
- **Energy Savings !!!** (through reduced outside air supply & lesser pressure drop across the cooling coils)

MARYSVILLE CHALLENGES



Lighting

- End of life fixtures and ballasts
- Poor light levels
- High maintenance demand
- Energy inefficient
- Cost inefficient
- Campus safety issues
- No district wide consistency

Before



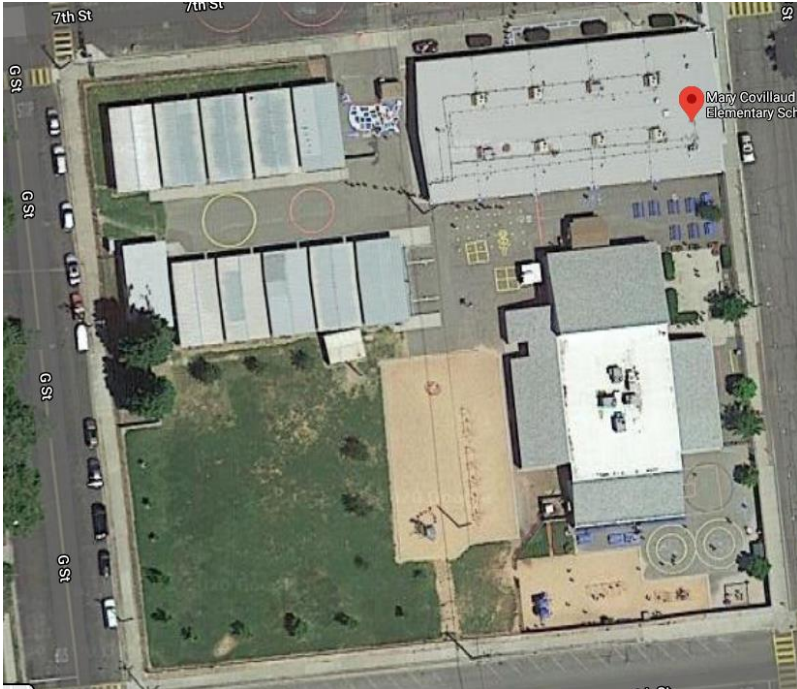
After



MARYSVILLE CHALLENGES

Shade

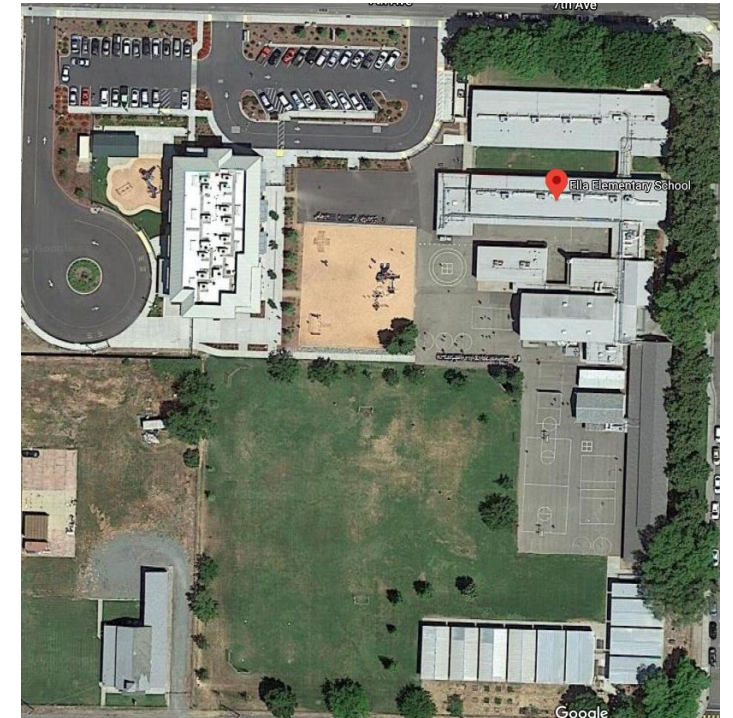
- Little to no natural shade for outdoor eating, classrooms, play yards or sports fields



Covillaud Elementary



Marysville High School



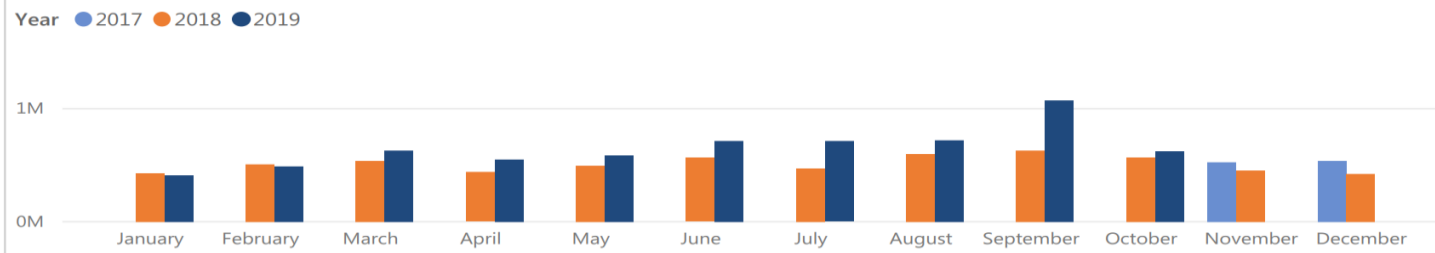
Ella Elementary

MARYSVILLE CHALLENGES

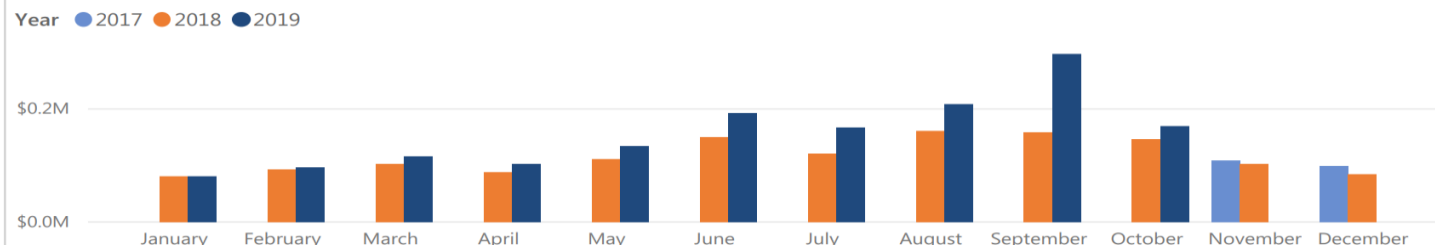


- Utility cost escalation is between 6-12% per year. District spending \$1.7 million per year
- Antiquated HVAC, controls and lighting adding to high utility use and cost
- No energy management or verification and measurement

Monthly Electric Energy (kWh)

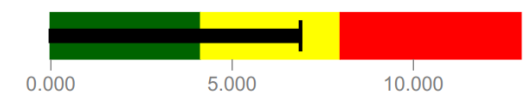


Monthly Electric Cost (\$)



Marysville Current Use

Annual Elect Usage/SF- Last 12 Months





SOLUTIONS



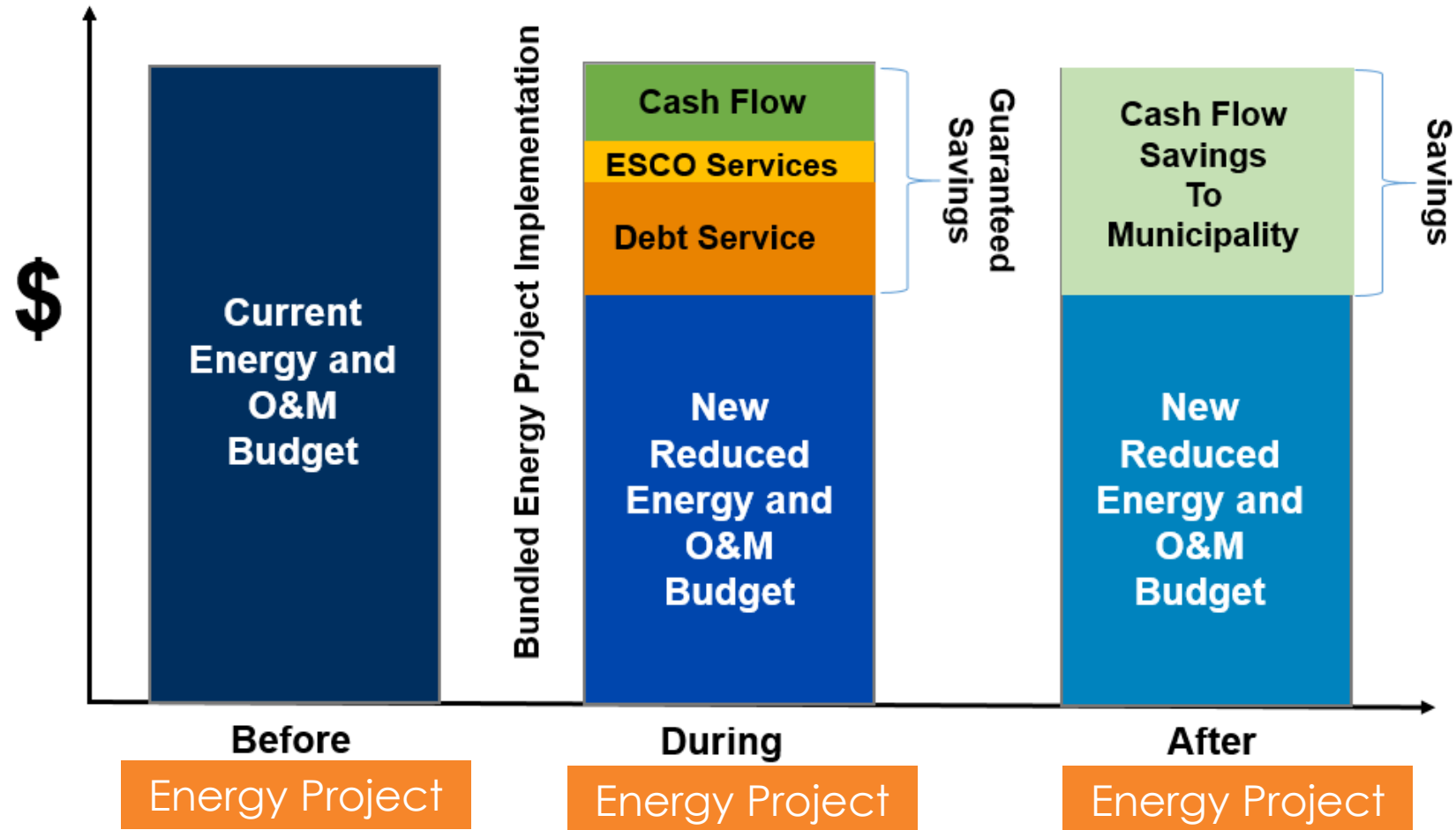
SOLUTION = ENERGY SERVICES AGREEMENT

What are Energy Services Agreements (ESAs)?

Energy Services Agreements (ESAs) are performance-based contracts through which a service provider agrees to help identify financing, develop and deploy energy efficiency/renewable energy projects for clients without any upfront capital expenditures.

Through this financing model, the client agrees to pay back the project costs through energy savings realized on utility bills over the ESA term.

HOW DOES IT WORK?



HOW DOES IT WORK?

ESTIMATED CASH FLOW



Energy Project 85%-90% Offset							
Year	Planning Expense	Annual Finance Payment	Operations & Maintenance of Solar plus Energy Management	Project Savings for PG&E	O&M Savings, Rebates, Grants, Incentives, Bond Contributions	Annual Savings	Cumulative Savings
0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1	\$ -	\$ -	\$ 55,000	\$ 1,489,854	\$ 130,000	\$ 1,564,854	\$ 1,564,854
2	\$ -	\$ -	\$ 56,650	\$ 1,549,448	\$ 130,000	\$ 1,622,798	\$ 3,187,652
3	\$ -	\$ 1,458,925	\$ 58,350	\$ 1,611,426	\$ 135,200	\$ 229,352	\$ 3,417,004
4	\$ -	\$ 1,513,800	\$ 60,100	\$ 1,675,883	\$ 140,608	\$ 242,591	\$ 3,659,595
5	\$ -	\$ 1,576,050	\$ 61,903	\$ 1,742,918	\$ 146,232	\$ 251,198	\$ 3,910,793
6	\$ -	\$ 1,640,325	\$ 63,760	\$ 1,812,635	\$ 152,082	\$ 260,632	\$ 4,171,424
7	\$ -	\$ 1,706,450	\$ 65,673	\$ 1,885,141	\$ 158,165	\$ 271,183	\$ 4,442,607
8	\$ -	\$ 1,774,250	\$ 67,643	\$ 1,960,546	\$ 164,491	\$ 283,145	\$ 4,725,752
9	\$ -	\$ 1,843,550	\$ 69,672	\$ 2,038,968	\$ 171,071	\$ 296,817	\$ 5,022,569
10	\$ -	\$ 1,919,175	\$ 71,763	\$ 2,120,527	\$ 177,914	\$ 307,503	\$ 5,330,072
11	\$ -	\$ 1,840,775	\$ 73,915	\$ 2,205,348		\$ 290,657	\$ 5,620,729
12	\$ -	\$ 1,913,600	\$ 76,133	\$ 2,293,562	\$ -	\$ 303,829	\$ 5,924,558
13	\$ -	\$ 1,992,400	\$ 78,417	\$ 2,385,304	\$ -	\$ 314,487	\$ 6,239,046
14	\$ -	\$ 2,066,825	\$ 80,769	\$ 2,480,716	\$ -	\$ 333,122	\$ 6,572,168
15	\$ -	\$ 2,151,875	\$ 83,192	\$ 2,579,945	\$ -	\$ 344,878	\$ 6,917,045
16	\$ -	\$ 2,237,025	\$ 85,688	\$ 2,683,143	\$ -	\$ 360,430	\$ 7,277,475
17	\$ -	\$ 2,327,100	\$ 88,259	\$ 2,790,469	\$ -	\$ 375,110	\$ 7,652,585
18	\$ -	\$ 2,421,750	\$ 90,907	\$ 2,902,087	\$ -	\$ 389,431	\$ 8,042,015
19	\$ -	\$ 2,515,625	\$ 93,634	\$ 3,018,171	\$ -	\$ 408,912	\$ 8,450,927
20	\$ -	\$ 2,618,550	\$ 96,443	\$ 3,138,898	\$ -	\$ 423,905	\$ 8,874,832
21	\$ -	\$ -		\$ 3,264,454	\$ -	\$ 3,264,454	\$ 12,139,286
22	\$ -	\$ -		\$ 3,395,032	\$ -	\$ 3,395,032	\$ 15,534,318
23	\$ -	\$ -		\$ 3,530,833	\$ -	\$ 3,530,833	\$ 19,065,151
24	\$ -	\$ -		\$ 3,672,066	\$ -	\$ 3,672,066	\$ 22,737,217
25	\$ -	\$ -		\$ 3,818,949	\$ -	\$ 3,818,949	\$ 26,556,166
Totals	\$ -	\$ 35,518,050	\$ 300,763	\$ 62,046,323	\$ 1,375,763	\$ 26,556,166	\$ 26,556,166

CASH FLOW POSITIVE SAVINGS TO DISTRICT

GUARANTEED PRODUCTION

GUARANTEED CASH SAVINGS

NO RISK

CASH FLOW POSITIVE SAVINGS TO DISTRICT

Notes:
 C: TEML or COP
 D: Operations and Maintenance of Solar with Guaranteed Production and Energy Management EIQ Program
 E: Savings from PG&E with only 4% escalation
 F: Savings from existing HVAC replacements estimated at the assumption of only 10 units per year district wide
 G: Annual Savings

FINANCING		Return on Investment	102.1%
PROJECT COST	\$ 26,000,000	Project Value	
TERM	20	Term Value	
PMTS PER YEAR	1	Pmts Value	
TEML RATE	3.00%	Teml Value	
UTILITY ESCALATION	4.0%	Utility Value	
EMS ESCALATION	3.0%	Ems Value	

HOW DOES IT WORK?

Strategic Planning – Alignment of offering/ research/ targeting/ financial qualification

Procurement – 4217, sole source

Financing – TEMPL, Incentives, Grants, COP, Bond funding, debt wrap (refi) cash, etc. with Financial Advisor

Technical – Engineering and Development; PV, Mechanical, Lighting, Transformers, etc.

Legal – legal opinion, contract negotiation, implementation contracts, O&M, Production & Savings Guarantee

THE BENEFITS

- No new \$ needed – energy savings pay for the project
- Reduce operating costs
- Enhanced reliability of operations
- No risk
- Standardization across district

WHO IS SITELOGIQ?

SiteLogIQ, is an energy services company and program management firm who partners with public school districts to revitalize, optimize, and construct healthy, safe, and productive environments.

OUR GUIDING PRINCIPALS

- We **believe** every district can (and should) have facilities that provide all students with a healthy, safe, and supportive learning environment
- We **know** our top priority is making sure we have delighted customers
- We **believe** our team of professionals has no equal in the industry
- We **know** given the opportunity, we will turn these beliefs into actions, earning customers for life!

WHAT IS AN ENERGY SERVICE COMPANY?

- ESCOs develop and implement turnkey, comprehensive energy efficiency projects
- ESCOs offer performance-based contracts (i.e., contracts that tie the compensation of the ESCO to the energy savings generated by the project)

WHAT IS AN ENERGY SERVICE COMPANY? (CONTINUED)

- To gain accreditation, ESCOs must demonstrate the technical and managerial competence to design and implement projects involving multiple technologies, including:
 - Lighting
 - Motors and Drives
 - HVAC Systems
 - Control Systems
 - Building Envelope Improvements
- ESCOs must also demonstrate the ability to provide the full range of services required for a comprehensive energy efficiency project, including:
 - Energy Audits
 - Design Engineering
 - Providing or Arranging Project Financing
 - Construction Management
 - Commissioning
 - Operations and Maintenance of Energy Efficiency Technologies
 - Verifying Energy Savings

NEXT STEPS

- Board approval of Letter of Agreement 9/8/2020
- District wide audit of HVAC, controls, utilities, grounds, lighting and more
- Engineering of design build energy project
- Recommendations for project reviewed by Marysville JUSD Staff
- Board workshop
- Contract review and approval
- Implementation

A photograph of a classroom where several students have their hands raised, indicating they want to ask a question or answer. The background is slightly blurred, showing a chalkboard and other students. A dark blue horizontal band is overlaid across the middle of the image, containing the word "Questions" in white text.

Questions