



Energy Savings Project

Lighting Improvements

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Project Background & Need

Lighting Improvements

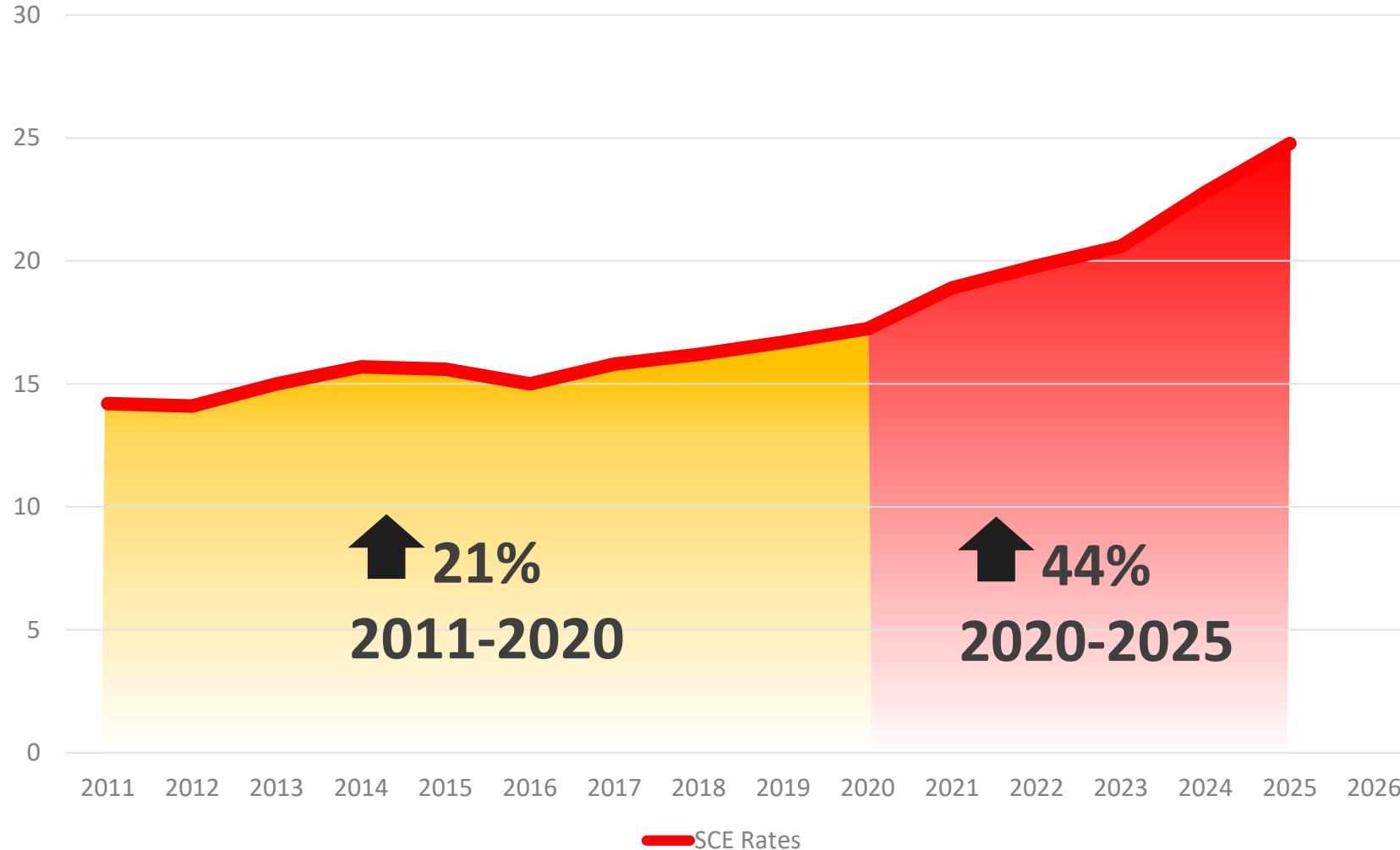
- In 2022, Assembly Bill 2208 (AB 2208) banned the sale of mercury-containing fluorescent lamps to promote energy efficiency and reduce hazardous waste.
- District facilities currently operate using fluorescent lighting systems, with LED replacements occurring only as fixtures reach the end of their service life.
- Fluorescent lighting requires additional maintenance demands, parts availability issues, and long-term operational costs.
- LED conversion is necessary to ensure regulatory compliance, reliability, and efficiency.



SCE Energy Rate Increases



SCE Rates (\$/kWh)





Project Approach

Lighting Improvements

- Identify opportunities to remove and replace fluorescent lighting with energy-efficient LED lighting.
- Lighting replacements may include full fixture replacements or LED retrofit assemblies designed to fit existing fixture housing.
- New lighting to be selected to maintain current lighting color temperatures and illumination (brightness) levels.
- Identify funding opportunities to accelerate lighting improvements and help offset rising energy costs.





Funding Opportunity Identified

Lighting Improvements

Portola High School
CFD 09-1



Interior Lighting

Portola Springs Elem. School
CFD 09-1



Exterior Lighting

Energy Savings R.O.I.

Lighting Improvements



YEARS	ENERGY SAVINGS (Includes Energy Escalation Rate)	OPERATIONAL SAVINGS (Lamp/ballasts replacements)	TOTAL ANNUAL SAVINGS	CUMULATIVE CASH FLOW
0	\$0	\$0	\$0	(\$1,496,850)
1	\$64,450	\$23,000	\$87,450	(\$1,409,400)
2	\$67,673	\$23,805	\$91,478	(\$1,317,922)
3	\$71,056	\$24,638	\$95,694	(\$1,222,228)
4	\$74,609	\$25,501	\$100,110	(\$1,122,118)
5	\$78,339	\$26,393	\$104,732	(\$1,017,386)
6	\$82,256	\$27,317	\$109,573	(\$907,813)
7	\$86,369	\$28,273	\$114,642	(\$793,171)
8	\$90,688	\$29,262	\$119,950	(\$673,221)
9	\$95,222	\$30,287	\$125,509	(\$547,712)
10	\$99,983	\$31,347	\$131,330	(\$416,382)
11	\$103,483	\$32,444	\$135,927	(\$280,455)
12	\$107,622	\$33,579	\$141,201	(\$139,254)
13	\$111,389	\$34,755	\$146,144	\$6,890
14	\$115,844	\$35,971	\$151,815	\$158,705
15 - 20	\$795,285	\$243,863	\$1,039,148	\$1,197,853

Project Cost	\$1,496,850
Return on Investment	13 Years
Fund Source	CFD 09-1
LED Lifespan General Fund Savings (After Project Payback)	\$1,197,850
Project Term	20 Years



Project Delivery

Lighting Improvements

The District is authorized to use Energy Savings Performance Contracting under **Government Code 4217**.

To qualify:

- Project improvements should result in an energy savings to the District's General Fund.
- Energy savings need to exceed project costs within the performance timeline of the improvements.
- The Board of Education considers and approves energy savings contract at public hearing.



Selection of Trane U.S., Inc.

Lighting Improvements

- In 2021, the Board approved Resolution No. 20-21-30 to select Trane U.S., Inc. using Government Code 4217 for the Purchase and Installation of HVAC Systems, Transformers and Lighting Retrofits.
- Eleven (11) school sites received energy efficiency improvements under the program.
- The project resulted in a 28% reduction in energy use.
- Staff recommends the Board approve Resolution No. 25-26-28 to select Trane U.S., Inc. using Government Code 4217 for the Purchase and Installation of LED Lighting Fixtures and LED Lighting Retrofits.



TRANE®



Questions?