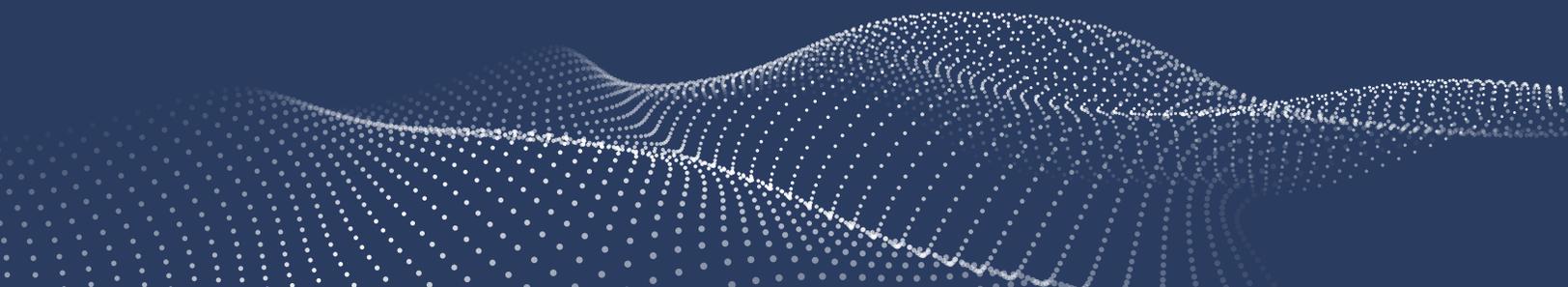




# Practical Energy Strategies to **Protect Classroom Dollars**

A leadership guide to driving efficiency, reducing costs, and reinvesting savings where they matter most.



Every superintendent and board member faces the same question:

# How do we protect learning when every dollar already has a destination?

Today, many districts across the country are proving that efficiency isn't just about saving energy - it's about funding education. By capturing savings from energy and facility improvements, they're creating reliable, recurring dollars that can be reinvested directly into classrooms, programs, and technology.

This guide introduces a proven five-step framework districts can use to achieve improved outcomes, providing a practical roadmap for identifying opportunities, implementing high-impact projects, and transforming operational savings into valuable funding for student success.



# Start With High-Impact Savings: Lighting & Controls

Outdated lighting quietly drains budgets. Modern LED systems with smart controls can cut lighting costs by up to **70 percent**, according to the U.S. Department of Energy (DOE), while improving classroom visibility and safety.

Because lighting upgrades are among the fastest, least disruptive efficiency installations, they can often be completed after hours or during scheduled breaks, allowing districts to capture savings quickly without interrupting learning.

For many leaders, lighting upgrades are the first step in a broader strategy to capture savings. However, these projects don't just lead to lower utility bills - they create a recurring source of funds districts can draw upon for classroom programs, materials, and teacher support.

## Leadership Takeaway:

Lighting retrofits provide one of the fastest paths to measurable energy savings, with payback typically within a few years and financing available through incentives or performance contracts.

01



## CASE IN POINT: SAN MARCUS UNIFIED SCHOOL DISTRICT

Located in San Diego County, San Marcos USD upgraded interior and exterior lighting across 19 sites and one athletic field as part of a district-wide sustainability initiative. The improvements contributed to:

↓ 60%  
reduction in energy costs

\$70+ million  
in projected savings

supported by

\$15+ million  
in grants and incentives



02

## Fix What You Already Own: Tune & Recommission

Even well-designed systems drift out of tune over time. Re-commissioning restores performance, reduces comfort complaints, and extends the life of HVAC and control equipment, while providing another opportunity to unlock savings.

The DOE's Operations & Maintenance Best Practices Guide reports that retro-commissioning typically reduces energy use by 10 to 20 percent, depending on facility condition and system type. Savings from these "invisible" improvements can fund visible results, such as safer classrooms, new lab equipment, or after-school programs that would otherwise compete for scarce dollars.

### Leadership Takeaway:

With minimal capital, small adjustments can yield significant savings, demonstrating proactive resource stewardship to boards and taxpayers.

02



### CONNECTING ENERGY AND EDUCATION

Through our Community Engagement and STEM Education programs, OPTERRA collaborates with districts to go beyond efficiency projects, building customized curricula tied directly to on-campus energy projects. Teachers receive professional development and turnkey lesson plans that bring science, technology, engineering, and math concepts to life.

In the Mountain View Whisman School District, OPTERRA installed districtwide solar infrastructure that now doubles as a real-world learning lab, giving students hands-on exposure to sustainability, data analysis, and renewable energy in action.

### The Result:

Every efficiency project becomes a hands-on learning opportunity that inspires students and demonstrates the district's commitment to sustainability and innovation.



03

## Integrate Data and Prevent Problems Before They Start

Without visibility, savings are hard to prove - and even harder to sustain. Real-time monitoring, fault detection, and benchmarking tools reveal inefficiencies, track progress, and prevent costly failures before they disrupt learning.

By connecting energy, facilities, and financial data, districts gain the insight to make smarter long-term decisions. This data-driven foundation allows leaders to optimize equipment performance, extend asset life, and plan budgets more predictably, while strengthening transparency and accountability with boards and the community.

### Leadership Takeaway:

Integrated data and preventive maintenance transform facility management from reactive to strategic, protecting learning environments and sustaining savings that can be redirected to student success.

03



### CASE IN POINT: HAYWARD UNIFIED SCHOOL DISTRICT

Hayward USD deployed a district-wide energy management program with real-time monitoring through the UtilityVision™ dashboard, integrating solar, storage, and consumption data across 33 campuses. The system gives leaders the visibility to track performance, detect issues early, and sustain results, helping protect more than \$65 million in projected General Fund savings.

33 campuses

\$65+ million

in projected General Fund savings



04

## Power Your Own Resiliency: Solar, Storage, and Onsite Generation

Many districts are looking for ways to take greater control of energy use and costs for more predictable budget cycles. Solar and battery storage systems allow districts to generate clean power onsite, stabilize budgets, and protect operations from grid disruptions or rising utility rates.

Paired with performance contracting, these renewable and distributed energy solutions can often be implemented with no upfront cost, turning future savings into a funding source for academic priorities. Beyond financial value, they strengthen community confidence and demonstrate visible leadership in sustainability.

### Leadership Takeaway:

On-site generation and storage builds energy independence, stabilizes budgets, and reinforces fiscal responsibility and environmental stewardship.

04



### CASE IN POINT: SANTA BARBARA UNIFIED SCHOOL DISTRICT

After the 2017-18 Thomas Fire, Santa Barbara Unified School District began seeking ways to protect critical operations during emergencies and reduce reliance on the grid. The district implemented a comprehensive solar and battery storage program with 4.2 MW of solar PV across 14 sites and six microgrids providing 5.7 MWh of backup energy. This affordable, low-carbon solution strengthens resiliency, lowers utility costs, and supports long-term sustainability goals under a 28-year, no-money-down Power Purchase Agreement with performance guarantees.

### The Result:

Santa Barbara Unified School District can now operate essential facilities during outages, with about 90% of its annual electricity needs met by solar, reducing vulnerability to grid disruptions and protecting classroom budgets from rising energy costs.



05

## Finance Improvements Strategically

Whether you're planning for efficiency, resiliency, or modernization, upgrading infrastructure doesn't have to compete with classroom needs. Performance contracting allows districts to implement energy improvements without new taxes or additional capital allocations. Project costs are paid from guaranteed energy savings, minimizing impact to the balance sheet and preserving funds already committed to student programs.

This approach gives districts flexibility to pair performance contracts with grants, bonds, or private capital, leveraging outside funding to multiply impact. Once project costs are recovered, ongoing savings become a self-sustaining source of funds that can be reinvested in instructional priorities.

### Leadership Takeaway:

Performance contracting is the lever that makes efficiency actionable. It protects current budgets, unlocks new funding capacity, and ensures future savings flow back to the classroom.

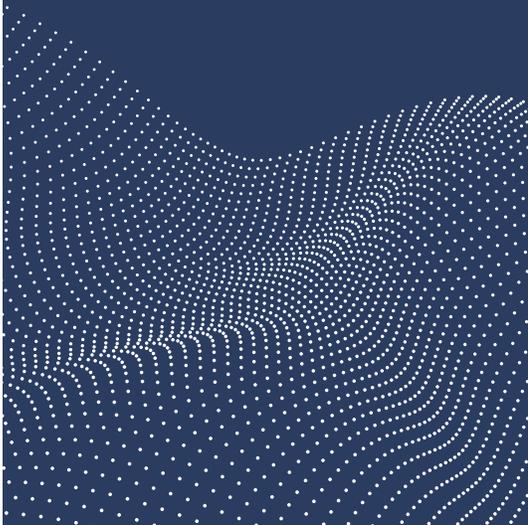
05

## What could your district achieve if energy efficiency funded classroom priorities?

Every energy dollar you save is a dollar that can power something greater – a robotics club, a literacy program, or the next generation of student innovation. Schedule a short conversation with an OPTERRA advisor to identify immediate savings opportunities, explore flexible funding strategies, and build **The Performance Pathway** that protects your budget – and your students.

[go.opterraenergy.com/performance](https://go.opterraenergy.com/performance)

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## ABOUT OPTERRA

For more than 50 years, OPTERRA Energy Services has helped schools improve efficiency, control costs, modernize facilities, and strengthen community trust. As one of the nation's longest-standing NAESCO-accredited energy services providers, our turnkey performance contracting projects deliver guaranteed savings, reliability, improved comfort, and measurable impact, so every energy dollar goes further for classrooms and communities.



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