

LEGISLATIVE FILE

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By [Signature]

Memo

To: Board of Education

From: Dr. Gary Yee, Ed.D, Acting Superintendent and Secretary, Board of Education
By: Vernon Hal, Deputy Superintendent, Business Operations
Timothy White, Associate Superintendent, Facilities Planning and Management

Date: May 14, 2014

Subject: **SHARED OPERATIONAL SAVINGS AND GREEN REVOLVING FUND PROGRAM IN SUPPORT OF DISTRICT-WIDE SUSTAINABILITY, ENERGY, WATER, AND OPERATIONAL EFFICIENCY IN IT'S HIGH PERFORMANCE SCHOOLS**

ACTION REQUESTED

Approval by Oakland School Board of Resolution No. 1314-1109 on behalf of the District to authorize and adopt *Shared Operational Savings and Green Revolving Fund* to support the implementation of energy and water use reduction, and operational efficiency in its High Performance School (CHPS) facilities, and other strategies of a District-wide sustainability program.

SUMMARY

By approving Resolution No. 1314-1109, Oakland Unified School District will expand our High Performance Schools effort, providing a self-funded, District-wide Sustainability Program implementing our 2007 Energy and Water Plan through active energy and water management, Shared Operational Savings, and Green Revolving Fund. These efforts will enable the Oakland Unified School District to become a leader in promoting sustainable behaviors, reducing utility expenses, conserving resources, and perpetuating funding and capacity for future efficiency and sustainability projects. Shared Operational Savings and Green Revolving Fund can also help establish a sustainable endowment, capitalized by future grant funding or investments, further reducing operating expenses.

DISCUSSION

Oakland Unified School District can save approximately \$400,000 to \$850,000¹ annually in electricity costs alone, by engaging in a comprehensive energy conservation program that focuses on 'no to low cost' behaviors and operational efficiency. Savings can be

¹ District Energy Utility Fact Sheet, Table 4*, Anticipated annual savings through "no-to-low-cost" energy and operational efficiency

even higher when other sustainability initiatives, such as water and waste, are included as well. Providing monetary incentives to school sites for implementing behavior-based energy and water conservation practices helps generate more energy and water savings to the district than could be achieved without such incentives. At the school site level, these shared savings can then be used by schools to help support environmental education, STEM, or other related learning activities, science field trips, or projects from which students directly benefit. With a Shared Operational Savings and Green Revolving Fund Program, these incentives can ultimately be sustained with money **that would otherwise be paid to utility companies**. These programs work in concert with the District's commitment to High Performance Schools for our students, teachers, and staff, and are in alignment with our Strategic Plan for quality, Full Service Community Schools. By approving Resolution No. 1314-1109, the District can reduce overall operating/utility expenses, and allow more funding to be allocated for school-based educational programs.

BACKGROUND

Oakland Unified School District has shown a strong commitment to sustainability and energy efficiency. The 2012 Facilities Master Plan calls for a commitment to sustainability in building design and operations. The Facilities Division's emPower Energy Initiative, begun in 2013 to promote energy conservation and efficiency, has demonstrated measurable savings from encouraging energy conservation behaviors. A pre-pilot program was launched between February and August of 2013 at several administrative sites. The 955 High Street administrative site generated electricity use savings of over 20% relative to 2012 usage during the seven months of the program, saving over \$3,000 in electricity costs.

The current fiscal climate makes a strong case for the adoption for sustainability-focused measures. An analysis of the District's electricity and gas use, conducted by the emPower team, revealed that electricity cost per kilowatt-hour has increased by 37% between 2005 and 2013, with a steep increase of 23% between 2012 and 2013². As rates continue to rise, the cost savings to the district from reducing energy use will grow exponentially. The influx of Proposition 39 Funds for energy efficiency projects and energy management through 2018 provides a unique opportunity to create lasting operational efficiency savings to the District.

Shared Operational Savings has the potential to magnify utility savings by greatly increasing participation and engagement in sustainability programs. Shared Operational Savings incentivizes schools to achieve utility reductions by giving them a portion of their utility cost savings as rewards for their efforts. At San Francisco Unified School District, Shared Operational Savings contributed to over \$175,000 in water, gas, and electricity savings in its 2011-2012 pilot year, with 30% school site participation. Other school districts that have adopted similar programs have reported annual energy savings of between 10-20%. Similar results at the Oakland Unified School District could yield between \$400,000 and \$850,000 annually in electricity savings relative to 2012, and help reduce CO₂ emissions equivalent to taking approximately 625 cars off the road for a year.

² OUSD Energy Utility Fact Sheet

By approving Resolution No.1314-1109, the Oakland Unified School District has the opportunity to become the first K-12 public school district in California, to adopt a Green Revolving Fund as an innovative mechanism to self-fund future efficiency and support sustainability projects, in perpetuity. Leveraging the Prop. 39 funding as seed funding through our internal accounting of the Green Revolving Fund can serve as a proof of concept model for internal energy efficiency investments within school districts. Green Revolving Funds have been highly effective at higher education institutions, serving as an internal funding mechanism for funding energy, water, waste reduction, and other key sustainability projects, without having to rely on additional one-time revenues. The creation of our Green Revolving Fund will both magnify the potential cost savings of sustainability projects and can serve as a next step in the development of a sustainable endowment for the District.

Implementing operational efficiency and incentivizing school site savings is a natural extension of the Oakland Unified School District's commitment to High-Performance Schools. The Shared Operational Savings and Green Revolving Fund Program helps both High-Performance School sites and non-High Performance School Sites reach and exceed their projected savings by ensuring that occupants use their sites efficiently. Shared Operational Savings is useful in engaging schools to identify the sources of energy waste, so that this waste can be quantified and addressed.

As an adjunct to the 2007 Sustainability and Design and Construction of High Performance Schools Policy, the proposed Resolution No. 1314-1109 is the key commitment of budget, governance structure, and personnel, dedicated to energy and sustainability. Approving this resolution will facilitate the creation and utilization of staff capacity necessary to: structure, administer and manage the Energy Initiative with Shared Operational Savings and Green Revolving Fund Program effectively; design and establish administrative/accounting/operational policies and structure; lead with best practices; and coordinate District-wide to implement, track and report on all sustainability activities. Greenhouse gas emissions baseline and inventory shall form the common basis of our measurements with progress in all other metrics reported in a periodic, comprehensive District sustainability report.

RECOMMENDATION

Approval by Oakland School Board of Resolution No. 1314-1109 on behalf of the District authorizing and adopting Shared Operational Savings and Green Revolving Fund in support of a District-wide sustainability program, including implementation of energy and water reduction, and other operational efficiency and sustainability strategies.

FUNDING SOURCE

No new funding sources are required for either program to function effectively. Eventually, the Energy Initiative with Shared Operational Savings and GRF will be implemented entirely by capturing funds budgeted to utilities. The Green Revolving Fund (GRF) will be supported by a portion of both shared operational savings as well as through tracked avoided costs from Prop. 39 efficiency projects. The GRF may initially be seeded by Proposition 39 funding as well as future grant or sustainable endowment

funds, in order to accelerate the rate at which the GRF may fund projects and support capacity.

ATTACHMENTS

Shared Operational Savings & Green Revolving Fund Program Powerpoint

**RESOLUTION
OF THE
BOARD OF EDUCATION
OF THE OAKLAND UNIFIED SCHOOL DISTRICT
NO. 1314-1109**

**AUTHORIZING AND APPROVING SHARED OPERATIONAL SAVINGS AND
GREEN REVOLVING FUND PROGRAM IN SUPPORT OF DISTRICT-WIDE
SUSTAINABILITY, ENERGY, WATER, AND OPERATIONAL EFFICIENCY IN
ITS HIGH PERFORMANCE SCHOOLS**

WHEREAS, the District is committed to safe, healthy, and resource efficient High Performance (CHPS) School environments (Board policy, since 2007) that support Quality, Full Service Community Schools, and studies have indicated that student engagement in behavior-based energy conservation programs, with teacher and staff support, can lead to significant operational cost-savings, student leadership and environmental education, improved awareness and school culture around environmental stewardship;

WHEREAS, the District and Schools should employ operational policies and strategies in an Energy Initiative that minimizes operating costs, particularly as energy costs have increased over 37% over the last eight years, and rates continue to rise, and use studies show that energy costs can be reduced by 10-20 percent or more through no to low cost behavior change programs and internal Facilities conservation practices that minimize energy waste;

WHEREAS, schools that follow sustainable design principles and resource efficiency contribute to improving our community's health and environment by minimizing waste, air and water pollution as well as reducing greenhouse gas emissions;

WHEREAS, the District has already initiated an operational efficiency program at selected administrative pilot sites and, at one site, has realized over 18% savings over 4 months, and the expansion of similar efforts to all school sites, with 100% participation is projected to generate savings of up to \$850,000 annually;

WHEREAS, the District's Capital program to replace or build new facilities includes renovation/modernization of existing school buildings in combination with Proposition 39 energy efficiency funding, provides a unique opportunity to move beyond standard designs and business-as-usual practices, to measure school energy use to track and account for projected savings within a green revolving fund;

WHEREAS, school districts that have incentivized exemplary behaviors through sharing a portion of operational utilities savings directly with school sites that created those savings, have been shown to maximize energy cost savings of over 25% or more;

WHEREAS, higher education institutions have established a proven model for internal green revolving funds, which at OUSD, could be seeded by a combination of shared operational savings, Prop. 39 funding, or other endowments, that can allow the District and its schools to generate sustainable ongoing revenues from avoided utilities costs in perpetuity, beyond the current 5-year prop. 39 funding program,

the District's school construction (OUSD CHPS Program) in minimizing waste and introducing green practices (Green Gloves Program) and in other areas that improve safety, health, nutrition and wellness in support of teaching and learning within High Performance, Full Service Community Schools;

RESOLVED further, that the Board directs staff to expand its High Performance Schools effort into a District-wide Sustainability Program that includes active energy and water management with the capacity to implement our Energy & Water Plan (Board policy, 2007) with shared operational savings and an internal green revolving fund, in order to reward and encourage good school behaviors, reduce expenses to utility agencies, and perpetuate funding to support future efficiency, capacity, and sustainability projects;

RESOLVED further, that the Board of Education endorses District participation in and directs staff to pursue partnerships that further the goal of sustainability, including Federal, State, County, utility and other innovative programs that provide financial incentives, and/or other sustainability resources or support;

RESOLVED further, that the Board of Education approves of the creation or modification of accounting infrastructure necessary to accommodate an effective Shared Savings Program and Green Revolving Fund;

RESOLVED further, that the Board of Education directs staff to report to the Board, within 180 days of the passage of this resolution, on the District's plan to comply with this Resolution; and

RESOLVED, that the Board of Education directs staff to report to the Board annually on the progress of the Energy Initiative with the benefits of Shared Operational Savings and Green Revolving Fund as a part of its Sustainability Program, through an annual Sustainability Report, and to provide periodic summary performance statistics, as well as other sustainability metrics useful in assessing the progress and effectiveness of this effort.

NOW, THEREFORE, BE IT RESOLVED, that the Energy Initiative with the benefits of Shared Operational Savings and Green Revolving Fund as a part of its Sustainability Program, through an annual Sustainability Report stated herein for the purpose listed are hereby approved.

Passed by the following vote:

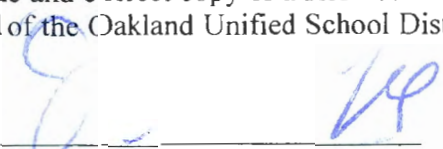
AYES: Jody London, Jumoke Hinton Hodge, Anne Washington, Roseann Torres,
Christopher Dobbins, Vice President James Harris and President David Kakishiba

NOES: None

ABSTAINED: None

ABSENT: None

I hereby certify that the foregoing is a full, true and correct copy of a Resolution adopted, at a Regular Meeting of the Governing Board of the Oakland Unified School District held on May 14, 2014.



Dr. Gary Yee, Acting Superintendent and
Secretary, Board of Education

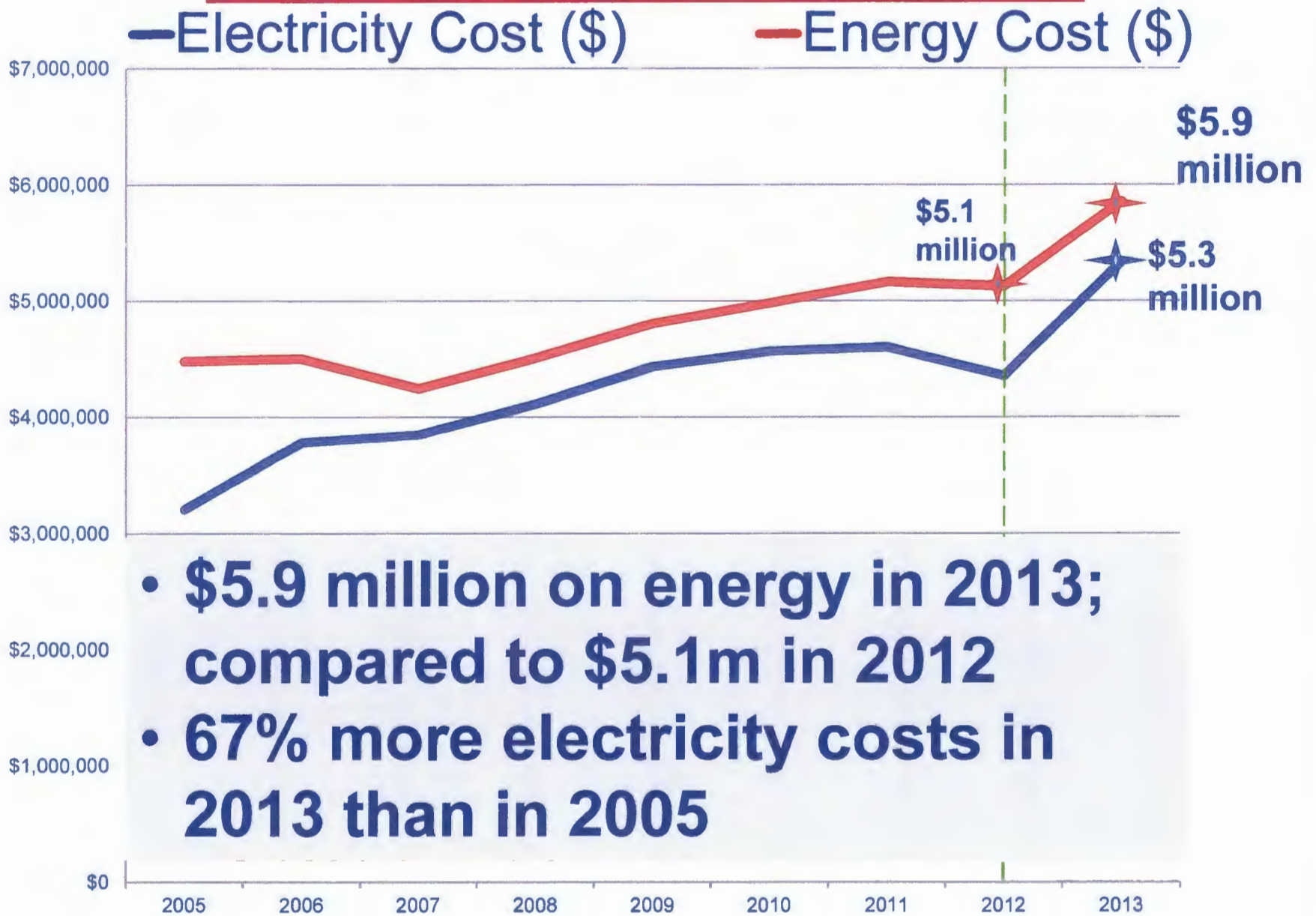
SHARED OPERATIONAL SAVINGS/ GREEN REVOLVING FUND



OAKLAND UNIFIED
SCHOOL DISTRICT

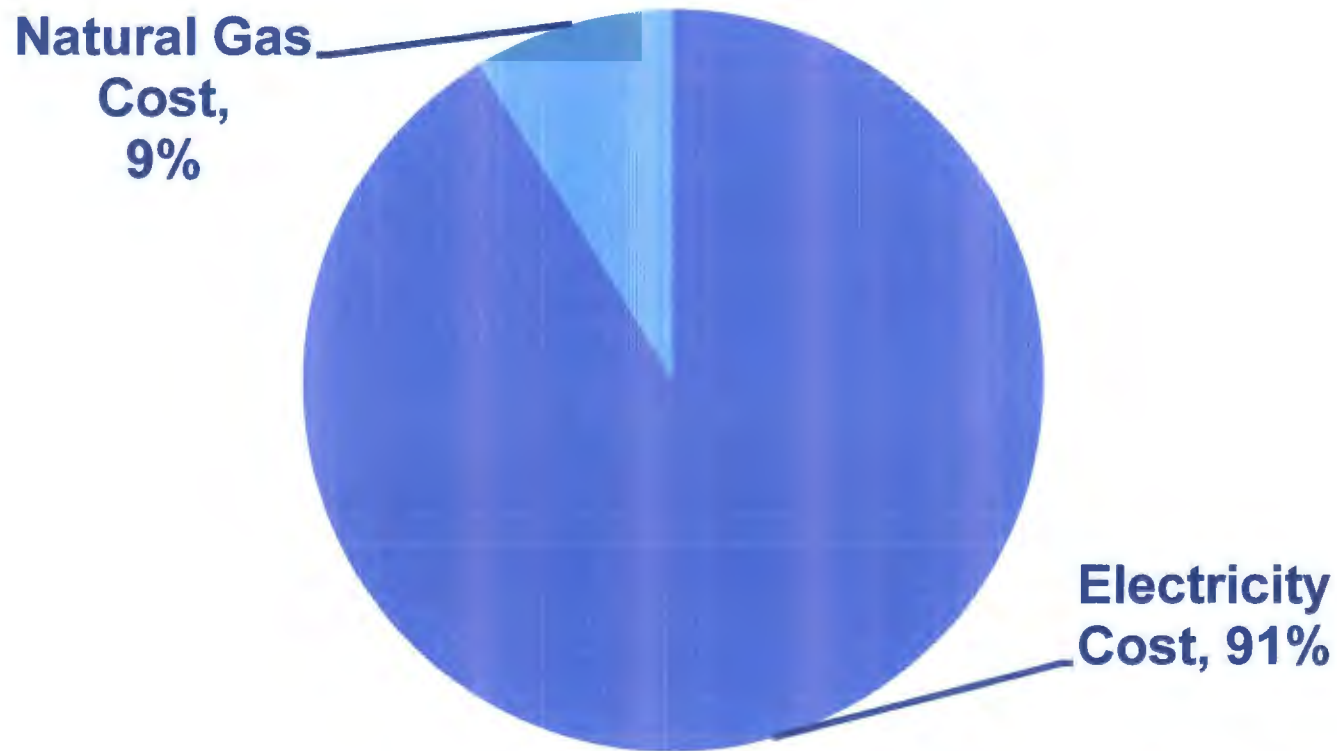
*Community Schools,
Thriving Students*

OUSD ENERGY COSTS

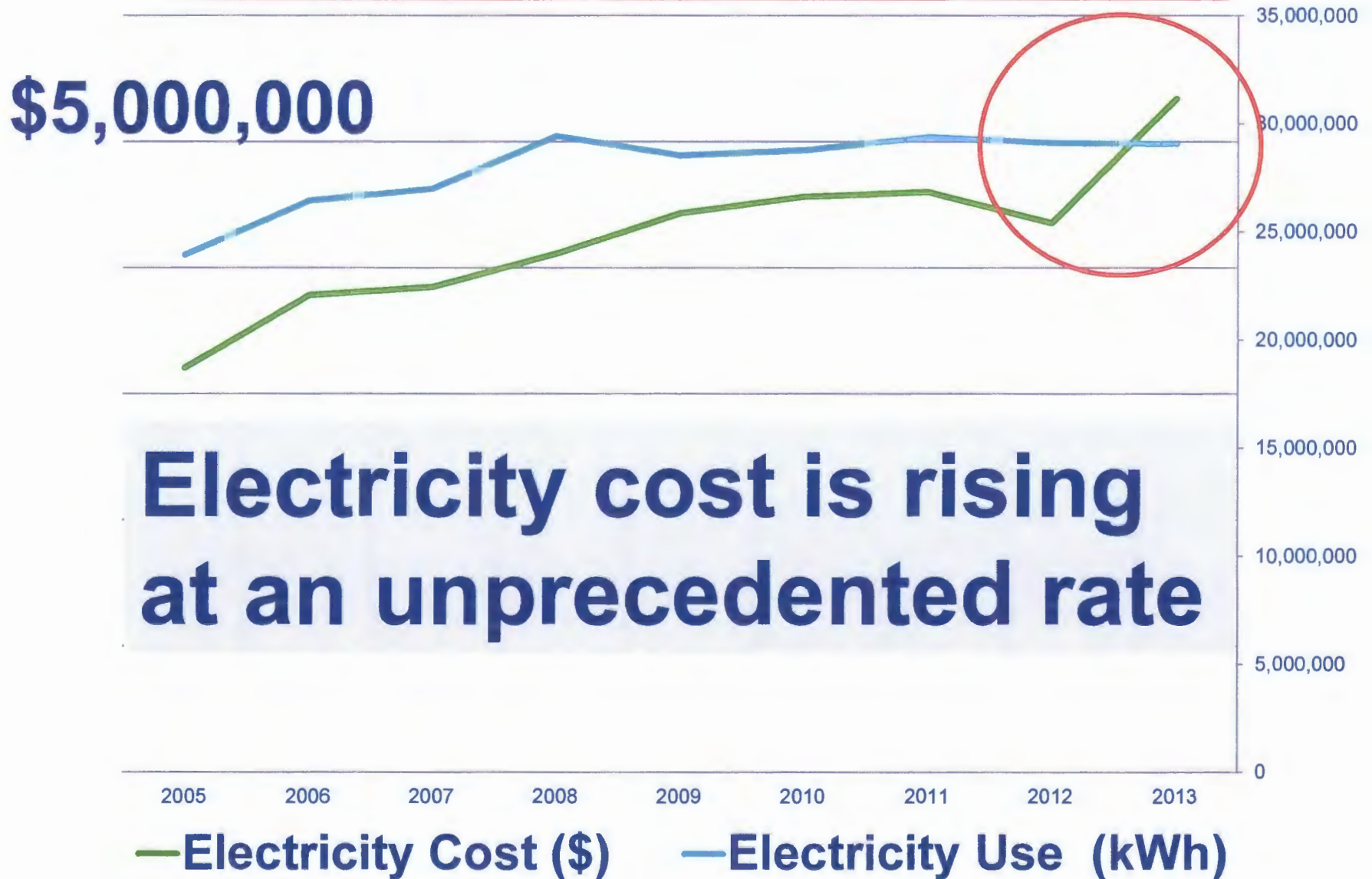


OUSD ENERGY COSTS

OUSD spent \$5.3 million on electricity alone in 2013.



OUSD ELECTRICITY CONSUMPTION 2005-2015



OUSD ELECTRICITY CONSUMPTION 2005-2015



Average \$/kWh increased:

- by 37% from 2005 to 2013
- by 23% from 2012 to 2013
- from ~\$0.15/kwh to ~\$0.18/kwh over 2012-2013

— Electricity Cost (\$) — Electricity Use (kWh)

ELECTRICITY COSTS

2005

2012

2015

Summer Rate

Summer Rate

Peak Day Pricing

Winter Rate

Winter Rate

Demand Charge

Partial Peak Rate

Peak Rate

???

Flat Rate

Time of Use

???

~12¢

~15¢

>18¢

PG&E has changed our rates **33** times
since January 2005!

PRE-PILOT LESSONS LEARNED

955 High Street	900 High Street
High Engagement	Low Engagement
No Shared Savings Incentive	No Shared Savings Incentive
20% Reduction	No Reported Savings
\$3,100 Bill Savings	No Reported Savings

SHARED SAVINGS IN OTHER SCHOOL DISTRICTS

- **3-4 Yr. Successful Shared Operational Savings @ SFUSD and Elk Grove USD**
- **Over 4 years, EGUSD saved 52,000,000 kWh and over \$5 million**
- **Yr. 1, 2011-12, SFUSD w/30% participating schools, reduced district-wide utility costs by 6.3%, saving over \$175,000* (@ 4¢/kWh)**
- **Which @ our rate of 12¢/kWh = \$525,000 !**

SHARED OPERATIONAL SAVINGS /GREEN REVOLVING FUND

- **Returns to schools a portion of their utility cost savings from school behaviors + operational efficiency**
- **Incentivize schools to eliminate waste & maximize utility cost reductions**
- **Projected OUSD electricity savings:
~\$400,000 to \$850,000 annually**
- **5 years = \$2 - \$4 million by 2019!**

SHARED OPERATIONAL SAVINGS /GREEN REVOLVING FUND

- **Self-funding mechanism for sustainability-related projects such as energy efficiency by tracking ROI**
- **Successful model widely used in higher education**
- **Smart Leveraging of Prop.39 funds to seed our SOS-GRF program *without* General Fund support**

SOS-GRF PROGRAM BENEFITS

- **Maximizes energy savings**
- **Addresses urgency of RISING COSTS**
- **Best leverages 5-yr. Prop. 39 funding
And operational efficiency**
- **Develops student leadership,
environmental education & green
career opportunities**
- **Creates sustainable endowment for
OUSD sustainability, not PG&E**

WHY SUPPORT OUSD SOS/GRF ?

- **REDUCES** Gen. Fund operating costs
- **INCREASES** funding to school sites
- **Leverages P39 & operational efficiency**
- **Enhances student educational & career opportunities**
- **Lasting endowment for OUSD sustainability**
- **Shifts budget from utilities to OUSD**

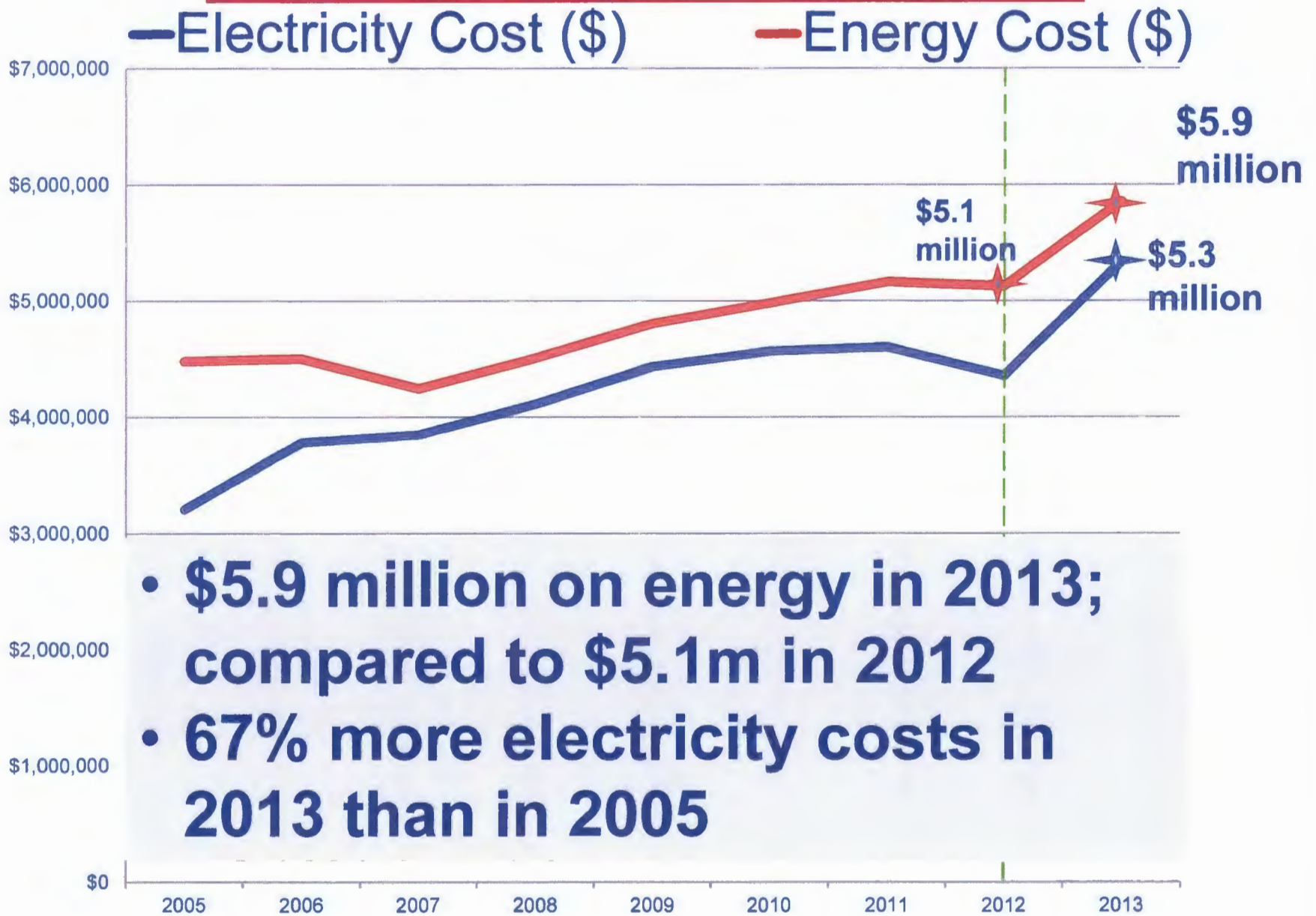
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OAKLAND UNIFIED
SCHOOL DISTRICT

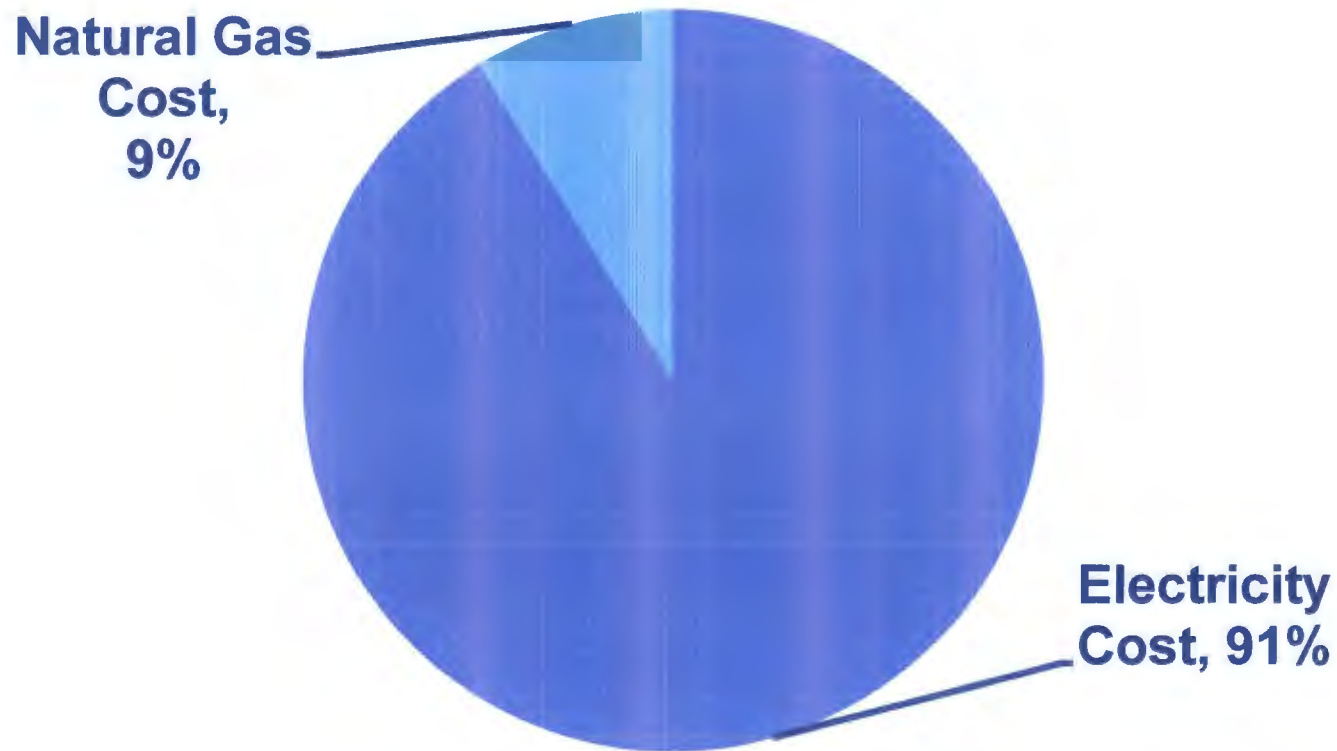
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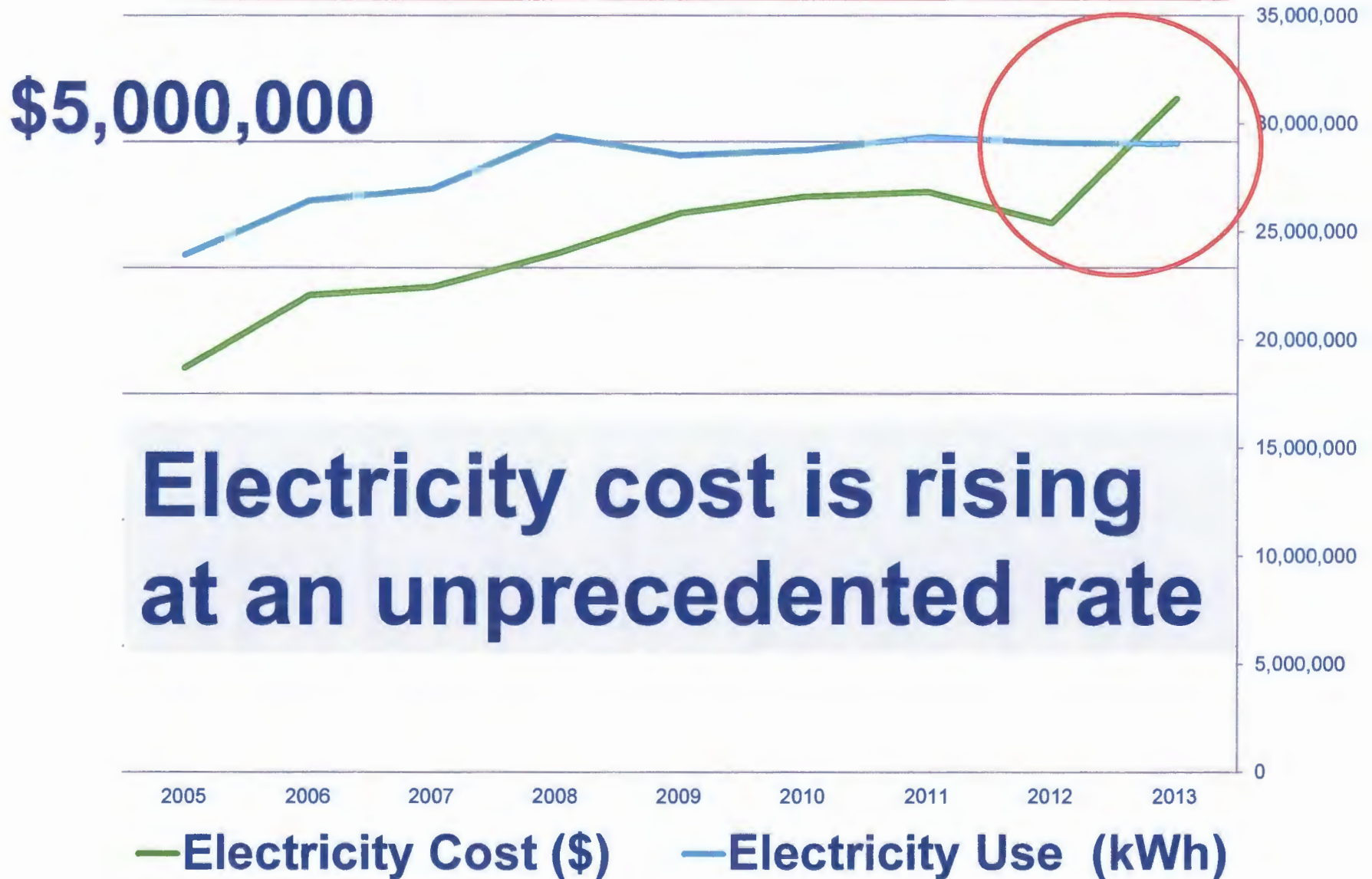


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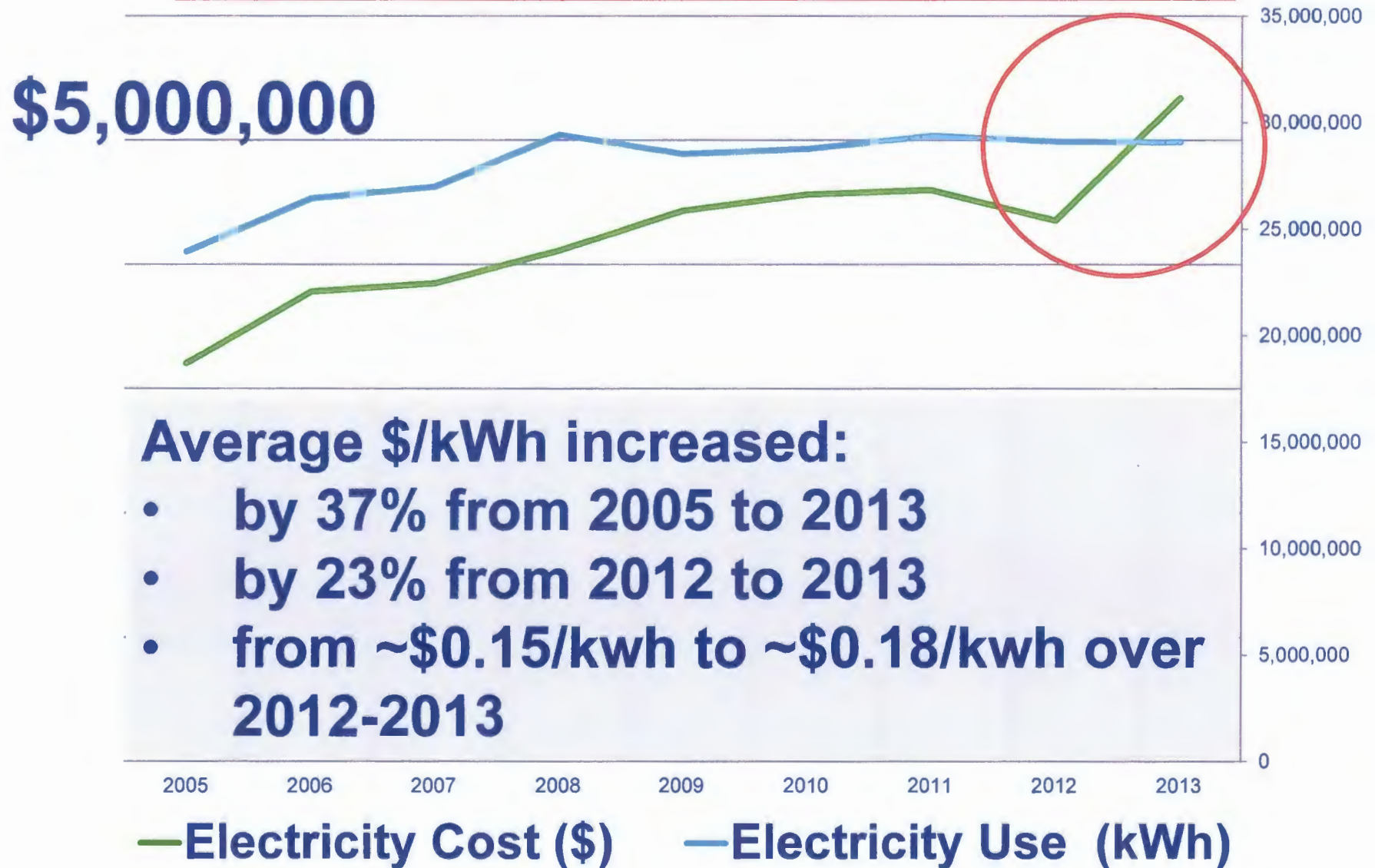
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