

**BOARD OF EDUCATION OF HARFORD COUNTY**

**INFORMATIONAL REPORT**

**DECISION ON AWARD OF CONTRACT  
BEHAVIOR-BASED ENERGY  
CONSERVATION PROGRAM SERVICES**

**NOVMEBER 6, 2023**

**Background Information:**

The Board of Education's Energy and Resource Conservation Policy Number: 20-0023-000, establishes Board goals and objectives relating to energy conservation and environmental stewardship. This policy provides the guidance required for the facilitation of responsible conservation practices; emphasizing of environmental education curriculum; allowing Harford County Public Schools (HCPS) to comply with current and future regulations relating to energy management and conservation; and the establishment of practices that will be applied to all aspects of HCPS operation to include but not limited to school system operations, school facilities maintenance and construction, procurement, and school-based decisions. For this purpose and on behalf of Facilities Management Department (Facilities), the Procurement Department (Procurement), is requesting approval to award a 5-year term contract to Cenergistic, LLC (Cenergistic) for Behavior-Based Energy Conservation Program Services.

**Discussion:**

Facilities is requesting the Board's approval to award this contract to Cenergistic, for services to create a culture of sustainability within HCPS by proactively implementing energy conservation techniques for the reduction of energy consumption throughout the district. Under this contract, Cenergistic will provide the services required to develop, implement, measure, and manage a customized behavior-based energy management system and energy conservation program. Cenergistic will make assessments of current energy consumption, building occupancy patterns, equipment run times and settings, staff routines and practices, and provide recommendations on a range of behavioral modification strategies, cost-effective service delivery options, processes, and protocols targeting sustainable reductions in energy consumption. Recommendations and procedures will include a set of transition initiatives to ensure realized savings exceed program investment costs. Services will include the labor, remote and on-site training, and technology systems required to manage the Behavior-Based Energy Conservation Program during all stages of implementation.

Funding for this contract will be offset by utility savings resulting from energy conservation measures implemented under the proposed Behavior-Based Energy Conservation Program.

<b>Contract Number and Title:</b>	Galveston Independent School District: #CSRFP – 2021-22-01
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<b>Procurement Type:</b>	Piggyback
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<b>Term:</b>	11/1/23 – 10/31/28 (5-year Contract Term)
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<b>Renewals:</b>	None
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<b>Funding Source:</b>	Operating Budget, corresponding to each fiscal year
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<b>Department:</b>	Facilities Management
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**Superintendent’s Recommendation:**

The Superintendent of Schools recommends that the Board of Education approve a 5-year term contract to Cenergistic, LLC for the above-described Behavior-Based Energy Conservation Program Services, in the amount of:

<b>Value of Contract:</b>	
<ul style="list-style-type: none"> <li>• Pricing per month: \$ 128,583 <ul style="list-style-type: none"> <li>- Note: No charges to be assessed during the first three-month initiation stage</li> </ul> </li> <li>• Pricing per year: <ul style="list-style-type: none"> <li>○ Year 1 (9 payments) \$1,157,247</li> <li>○ Year 2 (12 payments) \$1,542,996</li> <li>○ Year 3 (12 payments) \$1,542,996</li> <li>○ Year 4 (12 payments) \$1,542,996</li> <li>○ Year 5 (12 payments) \$1,542,996</li> <li>○ <b>Total (57 payments) \$7,329,231</b></li> </ul> </li> </ul>	

Cenergistic®



## A Partnership in Sustainability

# HARFORD COUNTY PUBLIC SCHOOLS BOARD OF EDUCATION

November 6, 2023



# HCPS Energy and Resource Conservation Program

## BOE Energy and Resource Conservation Policy No. 20-0023-000

- **Establishes goals and objectives**

- ✓ Energy conservation and environmental stewardship
- ✓ Responsible conservation practices
- ✓ Environmental education curriculum
- ✓ Compliance with energy management regulations
- ✓ Practices to be applied throughout the school systems

- **Business operations practices**

- ✓ Utilize the minimum amount of energy
- ✓ Explore and implement energy conservation programs
- ✓ Utilize technology to monitor energy usage
- **Explore the use of renewable energy sources**
- ✓ Utilize alternative funding approaches
- **Partner with other government institutions**

# Energy Conservation Program at HCPS

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## Stakeholders

- **Board of Education** – Fiscal responsibility with regular performance updates
- **Schools** – Improved classroom comfort and create energy awareness
- **Students** – Student engagement on energy and sustainability through the Curriculum Assessment Office and Cenergistic Community®
- **Energy Resource Conservation Manager** – Accelerates and deepens the success of established program
- **Maintenance & Operations** – Professional development and engineering expertise for your M&O team
- **Cenergistic** – Partnership in behavioral-based energy conservation

PEOPLE - TECHNOLOGY - PROCESS

# The system that powers the savings



**Cenergistic  
On-site Staff**



**Cenergistic  
Optimize® Technology**



**Cenergistic  
Management Process**



# Cenergistic On-site Expertise

Two dedicated and full-time **Energy Specialists**

Team of **behavioral energy conservation experts** to work directly with your team, assisting and training.

- **On-site implementation team** supports contract startup with unlimited on-going technical support on an as-needed basis
- **40+ Experts** including over 85 Professional Licenses, Certifications and Advanced Degrees
- **Hands-on expertise** with all HVAC and controls systems
- **Focus on comfort** and healthier ventilation



- 5 Professional Engineers**
- 17 Certified Energy Managers**
- 11 Certified M&V Professionals**
- 5 Certified Indoor Air Quality Professionals**
- Certified Landscape / Irrigation Professional**
- Certified Building Energy Simulation Analyst**
- Certified Building Commissioning Professional**

# Your HCPS Energy Specialists – A Typical Day

**9:00pm:** Verified scheduled evening activities had proper air conditioning, conducted transition audits based on Cenergistic GreenX® alerts

**6:00pm:** Verified scheduled evening activities have proper air conditioning, deployed loggers in places with high humidity

**3:00pm:** Met with Cenergistic engineer and M&O team – solved problem building issue; monitored CO<sub>2</sub> levels

**12:00am:** Conduct athletics and High School Friday night audit

**3:00am:** Found pumps running in manual mode at Middle School thanks to Cenergistic GreenX® alerts

**6:00am:** Worked with custodians at several schools to alter start-up procedures, delaying HVAC and lighting start times

**9:00am:** Reviewed Cenergistic GreenX® alerts from previous day, addressed comfort issues, planned audits

**12:00pm:** Energy conservation presentation to STEM group, treated custodial team to pizza appreciation lunch



# Transparent Savings. Complete Control. 24/7 Monitoring.

Cenergistic®  
**Optimize™**  
 ENERGY MANAGEMENT SOFTWARE

Cenergistic®  
**GreenX®**



Cenergistic®  
**Simulate®**



Cenergistic®  
**Measure™**



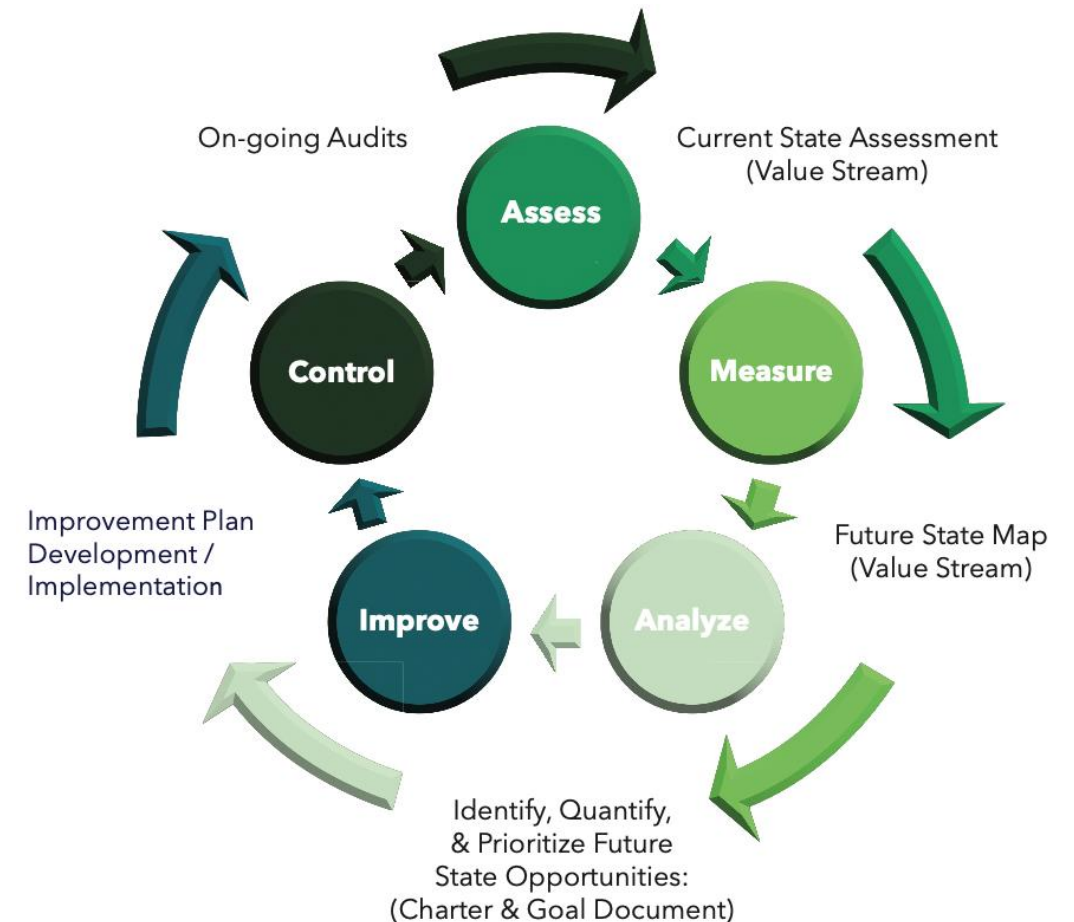
Cenergistic®  
**Executive®**



# Cenergistic Management Process

## Continuous Process Improvement For Operations

- Use data and site assessments
- Define the desired future state
- Approve / Execute the plan
- Measure the performance
- Report progress to stake holders



## STUDENT INVOLVEMENT

- Office of Curriculum, Instruction & Assessment

## ORGANIZATION INVOLVEMENT

- Office of Organizational Development

## COMMUNITY INVOLVEMENT

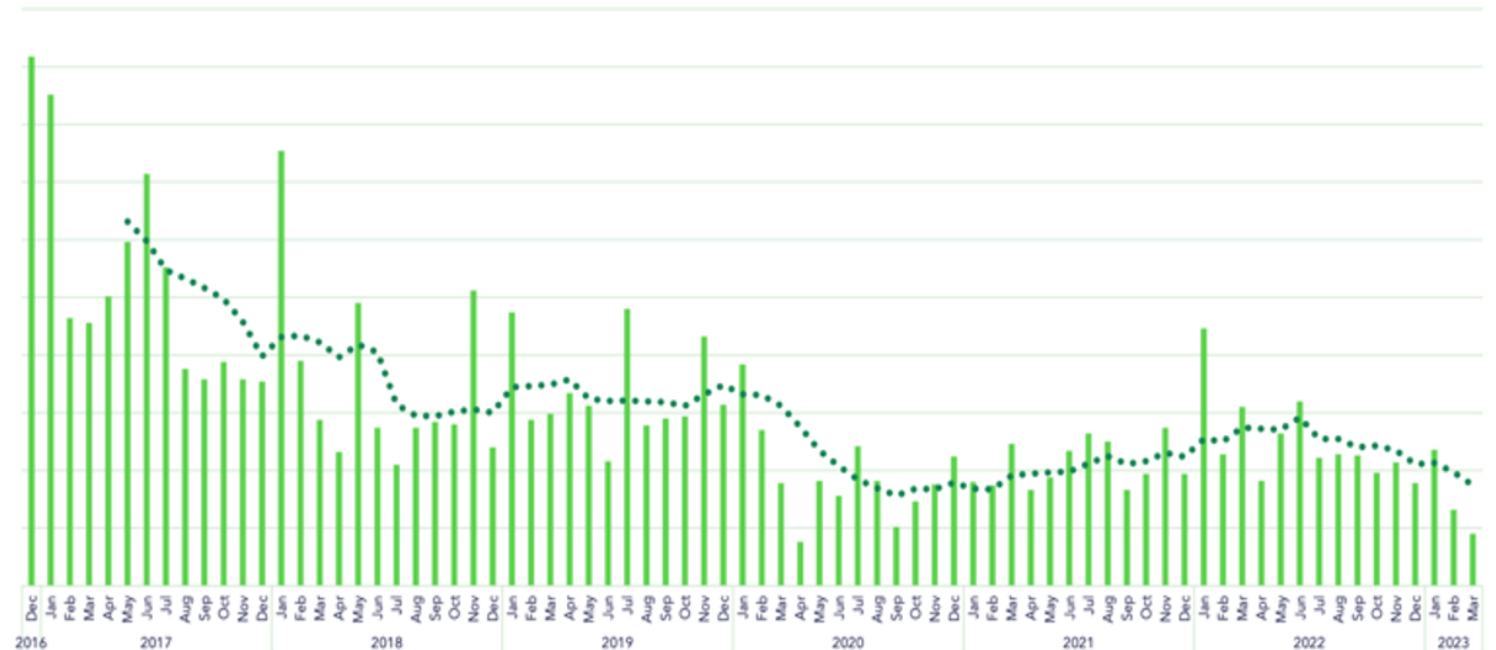
- Office of Family & Community Partnerships



# Comfort Management

## Tracking/Benchmarking Comfort

- **Comfort** is key to long-term success
- Use **data** to target resource deployment
- Resolve the revisited comfort issues with **Engineering Resources**



Actual Client Data

# HCPS Services Summary



**Three-month  
 fee-free  
 startup period**



**Engineers /  
 Technicians  
 augment your  
 team's expertise**



**Two on-site  
 Energy Specialists  
 (active  
 monitoring)**



**Ventilation  
 assessment with  
 ongoing  
 monitoring**



**Comfort  
 benchmarking**



**Master  
 unoccupied  
 square footage**



**Optimize /  
 utilize existing  
 equipment**



**Fault diagnostic  
 testing of your  
 BMS / EMS  
 systems**



**Energy Program  
 awareness /  
 sustainability  
 campaign**



**Straightforward  
 savings  
 calculations**



**100% funded  
 by savings,  
 guaranteed**



**Net  
 savings**

# The Bottom Line: 5 Years = \$8,962,000 Net Savings

	YEAR ONE	YEAR TWO	YEAR THREE	YEAR FOUR	YEAR FIVE	TOTAL
<b>Energy Program Projected Gross Savings</b>	<b>\$2,398,000</b>	<b>\$3,173,000</b>	<b>\$3,390,000</b>	<b>\$3,589,000</b>	<b>\$3,741,000</b>	<b>\$16,291,000</b>
<b>Cenergistic Program Investment</b>	\$1,157,000	\$1,543,000	\$1,543,000	\$1,543,000	\$1,543,000	\$7,329,000
<b>Projected Net Savings to Client</b>	<b>\$1,241,000</b>	<b>\$1,630,000</b>	<b>\$1,847,000</b>	<b>\$2,046,000</b>	<b>\$2,198,000</b>	<b>\$8,962,000</b>

\*YEAR ONE includes first three months fee-free

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**Q&A**