

# Hillsborough County Public Schools Energy as a Service

## Hillsborough County Public Schools (HCPS) Energy as a Service Project At-A-Glance

### Key Partners:

- **Community Infrastructure Partners:** Energy as a Service Provider | *Manage project activity, communicate with HCPS*
- **Generate Capital:** Funder | *Provide financing for capital improvements*
- **McKinstry:** Energy Services Partner | *Implement energy improvement activities*
- **Skanska:** Construction Manager | *Run the competitive bidding process on contractors, manage delivery and schedule*

**HCPS EaaS Project overview:** The HCPS EaaS Project provides energy improvements at 270 buildings comprising 27 million square feet. \$150 million will be invested in resource efficiency improvements over the 25-year project lifetime. The HCPS EaaS Project will ultimately reduce the energy costs by more than \$12 million and reduce the energy and operational costs by more than 30%, or more than 120,000,000 kilowatt hours per year. This will result in reductions of 55,000 tons of carbon dioxide (tCO<sub>2</sub>) per year or 1.38 million tCO<sub>2</sub> over 25 years.

**Outcome for HCPS:** Comfortable, reliable, resilient, sustainable, and technology enabled buildings which provide students, teachers, and staff with the best possible learning environment.

**Upfront cost to HCPS:** \$0

### Overview

Hillsborough County Public Schools (HCPS) is the 7th largest school district in the country. Many of the 270 school sites and administrative facilities in HCPS need extensive and costly energy infrastructure improvements.



HCPS decided to take an innovative funding approach that provides for improved comfort for teachers, students, and staff; meeting of financial needs for capital improvements; improvement of energy efficiency; increased building performance reliability; strengthened resiliency; and increased sustainability.

Community Infrastructure Partners (CIP) provided HCPS with a new approach to solving their challenges - Energy as a Service (EaaS). The HCPS EaaS Project allows the school district to focus on what it does best – educating students – and allows a comprehensive EaaS Team to fund and manage major energy infrastructure improvements. Community Infrastructure Partners (CIP), Generate Capital, McKinstry, and Skanska comprise the HCPS EaaS Project Team. The HCPS EaaS Project will result in major capital improvements and an estimated 30% reduction in energy consumption and operations and maintenance costs.

### Energy As A Service

Energy as a Service is where a service provider designs, installs, and manages needed infrastructure improvements for a client in exchange for monthly energy services payments for a defined term. HCPS paid no upfront capital, incurred no balance sheet liabilities, and assumed no risks for the improvements. CIP assumes all construction and performance risk as well as all long term operating costs of the improvements for the life of the agreement.

“We leverage decades of experience developing resource efficiency projects using our investment capital to **make our customer’s buildings more reliable, sustainable, and safe.** Our goal is to minimize the distractions buildings can be to help our customers provide the best educational experience possible for their students and teachers.”

— Steve Gossett Jr., Operating Partner, Generate Capital

“Leveraging Total Cost of Ownership capital allows HCPS to **increase energy savings, streamline operations and maintenance, and improve comfort in the learning environment** for students and teachers all at no additional cost.”

— Mike Grabham, Vice President, MckInstry

**Total Cost of Ownership Capital Leveraging:** This project deployed an innovative strategy called TCO (Total Cost of Ownership) Capital Leveraging to enhance the impact of the \$1.2 billion additional sales tax revenue that will be raised over the course of 10 years for HCPS facility improvements. The TCO activities were provided to HCPS at no cost. *The TCO Capital Leveraging process is depicted in Figure 1.*

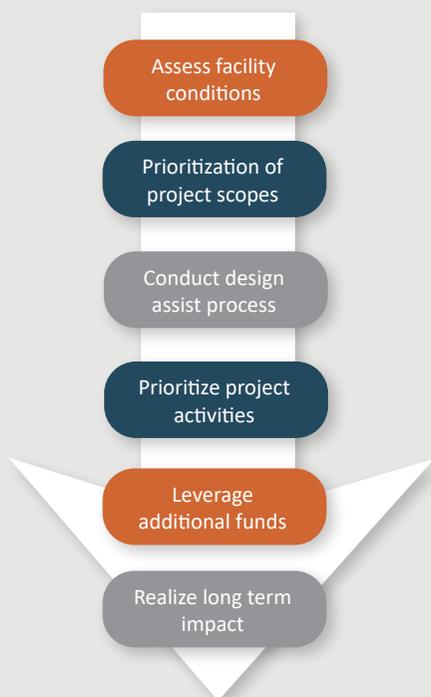


Figure 1: TCO Capital Leveraging Process

It is anticipated that over the life of the 10-year additional sales tax revenue, TCO Capital Leveraging will grow the impact of the program by more than \$100 million. When combined with the other investments made by Generate Capital through the EaaS Project, more than \$250 million of improvements to HCPS are made.

## ✓ Hillsborough County Public Schools Energy as a Service Project

The HCPS EaaS Project includes energy improvements at 270 buildings comprising 27 million square feet. \$150 million of investment in resource efficiency improvements will be made over the 25-year project lifetime. The project will ultimately reduce the energy costs by more than \$12 million and reduce energy consumption by more than 30%, or more than 120,000,000 kilowatt-hours (kwh). The HCPS EaaS Project is comprised of four components of energy infrastructure improvements:

1. **Lighting systems replacement.** This results in immediate improvement of the learning environment for students, teachers, and staff. In total, more than 300,000 light existing fixtures will be replaced with state-of-the-art LED fixtures.
2. **Energy management infrastructure installation.** The district will be connected by a comprehensive edge-based IoT platform to optimize building performance in real time. By connecting existing sources of data like building controls to new sensors, smart meters, and other emerging technologies, HCPS will have a digital backbone capable of evolving as smart technologies continue to proliferate.
3. **Mechanical equipment (e.g. chillers) replacement.** This component will significantly improve the learning environment, enabling all school occupants to be more comfortable and able to focus on their tasks.
4. **Solar photovoltaic (PV) installation.** Solar PV will allow HCPS to purchase clean, locally generated energy at a fixed cost.

## 📈 Outcomes

HCPS EaaS Project will result in HCPS having comfortable, reliable, resilient, sustainable, and technology enabled buildings which provide students, teachers, and staff with the best possible learning environment. HCPS will also receive significant additional benefits:

- ✓ Off balance sheet capital improvements
- ✓ Zero project risk
- ✓ Hedged long-term costs (HCPS will pay a fixed monthly service fee)
- ✓ Relief from management of the energy equipment installation, maintenance, or operations
- ✓ Energy cost savings at the end of the HCPS EaaS Project lifetime
- ✓ Easy access to data through a customized energy management dashboard
- ✓ Smart, technology enabled buildings
- ✓ Clean, locally generated renewable energy from solar arrays
- ✓ An upfront concessionary check of \$2.5 million to be used at the HCPS’s discretion
- ✓ Leverage additional sales tax revenue for HCPS

“Doing something truly different requires a great deal of trust. Generate has been a solid partner throughout this process, and their long-term investment approach has **allowed us to work together to create a unique solution to reduce energy use, improve sustainability, and prepare our district for tomorrow.** We look forward to a long partnership and are excited what the future holds.”

— Chris Farkas, Deputy Superintendent, Operations, HCPS