

A STARK TECH WHITE PAPER

# THE NEW YORK STATE CLEAN GREEN INITIATIVE





**In September 2021, New York State launched The Clean Green Initiative to help P-12 public school districts invest in infrastructure improvements to become healthier, more productive learning environments. High-Needs facilities are designated by the NYS Education Department as districts that lack the financial means for necessary infrastructure improvements to address energy optimization, decarbonization, indoor air quality (IAQ), and other clean-energy opportunities.**

The goal of New York State's Energy Research and Development Authority (NYSERDA)'s Clean Green Initiative is to improve the environmental sustainability of school facilities by providing funding allocations in two tracks. In this article, we'll talk specifically about Track I – Planning. Track I is in the open enrollment phase and provides funding for services, including energy studies, on-site energy managers and fiscal advisors to help districts evaluate, plan and facilitate comprehensive energy reduction, decarbonization, environmental stability, and indoor air quality projects, according to NYSERDA<sup>1</sup>.

## Let's Dive into that Deeper

Sustainable school buildings also release less pollution and greenhouse gases while using less energy and water, compared to a traditional non-sustainable school building. According to American Modular<sup>2</sup>, in comparison to traditional school buildings, sustainable schools cost less than 2% more to build, but use 33% less energy and 32% less water. On average, sustainable schools can save as much as \$100,000 a year on operating costs, putting more money back into the school's budget to spend on other initiatives.

According to American Modular, teachers say that deficient school buildings are one of the top reasons they decide to leave their job. Some of the biggest complaints include hot classrooms, leaks, mold, and loud air conditioning units. Loud noises don't just affect the teachers. Noise interference has

been shown to impact reading results, writing, comprehension skills, and overall academic performance for students, according to Edutopia. However, schools that modernize their outdated buildings with sustainability-focused initiatives see a 74% increase in the ability to attract and retain teachers, according to the study.

The idea of becoming more energy efficient is not only important for those that walk the halls, but it's also an important factor for parents and other stakeholders. With more people caring about a greener environment and sustainability initiatives, parents and guardians are starting to factor this into their decision when choosing a school district to send their child to. Parents also care about test scores, and send their children to schools where they'll receive quality education.

## The Impact of Quality Indoor Air on Student Productivity and Test Scores

The average student from kindergarten through high school graduation spends more than 15,000 hours in a classroom, according to a study issued by Harvard<sup>4</sup>. Of those hours spent indoors, studies suggest that up to 65% of asthma cases in school-aged children could be prevented with proper indoor air quality in schools and at home. The impact from asthma has a direct correlation to absenteeism in districts.

**According to the Centers for Disease Control and Prevention<sup>3</sup> (CDC), students between the ages of 5 and 17 miss nearly 14 million school days every year because of asthma. In addition, teachers have higher instances of asthmatic conditions than any other working groups.**

With the ability to provide clean air solutions in schools, the effects of asthma, allergies, and other respiratory problems significantly decrease. With some school districts receiving attendance-based funding, this can be a significant path to improving the attendance rates required for funding. For example, the implementation of proper ventilation and filtration systems can be vital in the prevention of the spread of airborne diseases. With improved absentee rates and better control over temperature and comfort parameters, districts can correlate these enhancements with improvements in student alertness and learning outcomes. Improved indoor air quality can even lead to higher brain functioning and test scores, according to an article in Edutopia<sup>5</sup>.





## How the Program Works

The Clean Green Initiative provides:

- ▲ Up to 100% funding, with a maximum possible funding of \$10,000 per building or up to \$50,000 for activities associated with Track I
- ▲ \$150,000 per building and \$300,000 per district
- ▲ Service caps are dependent on a district's total annual energy spend.

The program can be applied to one school or multiple schools in a district. Open Enrollment is on a first-come, first-served basis through December 30, 2025.

## How To Apply

Applicants must fill out an application, scope of work, and a budget. Eligible services include, but are not limited to:

- ▲ Engineering and architecture services
- ▲ Energy benchmarking
- ▲ Energy studies
- ▲ Energy efficiency and clean heating/cooling design services
- ▲ Energy master planning and decarbonization roadmaps
- ▲ Clean transportation studies
- ▲ Indoor air quality evaluation and management

The benefits of implementing sustainable strategies inside schools go much deeper than just lowering the carbon footprint. The incentives to increase energy efficiency have a direct impact on the lives of those who walk the halls each day.

## Stark Tech Can Help Your School District Fulfill Its Sustainability & Indoor Air Quality Goals using State Funds

At Stark Tech, we are a one-stop-shop provider from inception through completion. Our engineering team designs custom solutions to fit the energy and optimization criteria needed to create healthier, more sustainable school environments. By conducting facility energy audits, our team can determine existing building conditions and baseline energy usage to detect systems that need improvements, and then design solutions that fit their district and individual building needs.

If you are interested in learning more about New York State Energy Research and Development Authority's Clean Green Schools Initiative and how our team can work with you to upgrade your school district to fit the criteria, contact Stark Tech today at 716-693-4490.



### FOOTNOTES

1. NYSERDA, *Clean Green Schools Initiative (PON 4924)* [website], <https://portal.nyserda.ny.gov/>, (accessed April 2023).
2. American Modular, *What is Sustainable School Design? Trends, Benefits & More* [website], <https://www.americanmodular.com/what-is-sustainable-school-design-trends-benefits-more/>, (accessed April 2023).
3. Center for Disease Control, *Asthma-related Missed School Days among Children aged 5-17 Years* [website], [https://www.cdc.gov/asthma/asthma\\_stats/missing\\_days.htm](https://www.cdc.gov/asthma/asthma_stats/missing_days.htm), (accessed April 2023).
4. Harvard University T.H. Chan School of Public Health, *How School Buildings Influence Student Health, Thinking and Performance* [website], [https://hollis.harvard.edu/permalink/f/1mdq5o5/TN\\_cdi\\_proquest\\_wirefeeds\\_2697050623](https://hollis.harvard.edu/permalink/f/1mdq5o5/TN_cdi_proquest_wirefeeds_2697050623), (accessed April 2023)
5. Edutopia, *The Science of Effective Learning Spaces*, <https://www.edutopia.org/article/science-of-effective-learning-spaces-melina-uncapher>, (access April 2023)



## **We Provide Comprehensive Energy Management and Intelligent Building Solutions.**

We understand our customers and their unique projects and provide highly calibrated team members to ensure we successfully execute and achieve the best results. Our team's "can-do" attitude results from a company culture that promotes personal and professional growth through ongoing training and development.

Our cross-functional team structure aligns with account managers, project managers, engineers, technicians, energy experts, system integrations experts, and IT and support staff. We believe and understand that the best results are achieved through collaboration and teamwork.

We love what we do and are committed to solving problems efficiently, timely, and cost-consciously.

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