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## Schools Going Green

By [SOPHIA HOLLANDER](#)

When Mayor [Michael Bloomberg](#) announced in 2008 that he wanted city buildings to lower their energy consumption by 30% within a decade, one area seemed ripe for reductions: the city's 1,700 schools, spread across 1,200 buildings.



As part of New York City's goal to reduce energy consumption by 30% in its buildings, officials are turning to an unusual resource: city students. WSJ's Sophia Hollander visits a Bronx classroom to find out how.

Studded with new technology like smartboards and energy-gobbling appliances such as boilers, schools accounted for about a quarter of the city's overall energy use.

So John Shea, the head of school facilities for the Department of Education, decided to enlist an unlikely ally to shave energy costs: students.

On Friday, officials were scheduled to announce a competition for 30 schools participating in a pilot program that is run in conjunction with Solar One, a nonprofit environmental education organization. The contest will award a total of \$30,000 to the schools that reduce their energy use the most.

"It is unusual to have a curriculum issue come out of the department of the people who mop the floors and stock the toilet paper," Mr. Shea acknowledged with a smile during a recent interview. But it was a perfect fit, he said. "The fact is we've got school buildings all over the city that are their own learning laboratories," he said.



Rob Bennett for The Wall Street Journal

Anna Bakis leads sixth-graders at P.S. 86 in the Bronx through an energy audit.

The Green Design Lab—a pilot project that started in 10 schools last year and has expanded to 30—brings Solar One teachers into the schools for up to 24 weeks. Through lessons, labs, and projects such as installing green roofs and gardens, Solar One instructors spend one or two classroom periods a week teaching five different units, including energy, air, water, materials and food. The group hopes to expand to 150 schools in the next three years.

The Green Design Lab is not the only sustainability initiative being embraced by New York City schools. On Thursday, the New York State Education Department announced that it was joining the federal Green Ribbon Schools program, which honors the most environmentally progressive schools. The same

day, the New York City Council approved construction of the city's first "energy neutral" school.

But the Solar One program may be the most ambitious, bringing together custodians, principals and teachers.

It is largely privately funded: Organizers said they expected the program to cost \$900,000 this academic year, with 10% coming from the Department of Education and the City Council.



Rob Bennett for The Wall Street Journal

Edwin Marte was among the students participating in the audit.

"The basic premise of the program has kind of a triple bottom line impact," said Executive Director Chris Collins. "Reduce energy use, reduce CO<sub>2</sub> emissions, and save the school money and increase student knowledge."

Public School 187 in upper Manhattan reduced its energy use by 13%, saving about \$3,700.

"We had squads of children in various grades responsible for turning off the lights," said Principal Cynthia Chory, whose school won \$5,000 for reducing its energy the most. "The students just kind of absorbed it."

Not every school has incorporated the program seamlessly.

"It's a really hard thing to sell, because today, teachers are asked so much. Our education system has gone in the direction of accountability; you know, more technology, high-stake tests," said Gladys Hechavarria, a teacher who brought the program to her school, P.S. 86 in the Bronx, this year. "Who am I to tell them to turn off the lights?"

Solar One teachers described their own challenges.

"It's funny, working with kids is just a breeze. It's when you actually try to push for these little minor changes that we're trying to make at the school it's the adults who kind of stand in the way," said Anna Bakis, a 25-year-old Solar One instructor who is working at two schools this year.



Rob Bennett for The Wall Street Journal

Some visual aids.

She was also surprised at the learning curve among her students. "I assumed they would know about global warming," she said. "When I ask who's heard of climate change or global warming, they're like, 'Oh it's when the seasons change.'"

On a recent afternoon, Ms. Bakis commanded the attention of a classroom in P.S. 86. Students clustered at tables, enthusiastically debating how much energy was consumed by common objects around the classroom, from computers to overhead projectors. Then Ms. Bakis armed each group with a watt reader to find out the answers themselves.

Dalvin Lopez, 12, raised his hand to ask where he could purchase his own kilowatt reader.

"I just want to go the closest store when I get out of school and buy myself one," he said after class, saying the program had "inspired me in a big way."

As a result of the program he now wanted to become "a scientist," he said.

But his friend had an even more intriguing idea, he added. "She wants to be a mad scientist."

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