

Saving Money—And the Environment: A Conversation with St. Tammany Parish Public School System Supervisor John Swang



By [Anne O'Brien](#) on August 18, 2010



It is no secret that districts are struggling in the current economic climate. They are looking to cut costs every way they can.

One area worth exploring in cost-cutting debates is energy. With energy costs rising—to say nothing of the environmental impact it is becoming more and more clear that our current sources of energy can have—districts need to take a closer look at how they are using energy.

Louisiana's St. Tammany Parish Public Schools did. And as a result, this growing district, which currently has 72 facilities and serves about 36,000 students, has saved about six million dollars in utility costs over the past four and a half years. They've put that money back into schools, providing resources to help the district maintain its reputation as one of the best in the state. And they've received national and state recognition for their work.

How did they do it? A comprehensive energy management program. And when we say comprehensive, we mean COMPREHENSIVE. The program includes everything from customized reports for principals on their school's energy performance (generated by the district's two energy management tracking systems) to an energy awareness curriculum correlated to the state's grade-level expectations. Automated lighting and temperature controls to daily reminders of energy saving behaviors in the form of posters, stickers and morning announcements. And much, much more.

Of course, in a time of fiscal crisis, districts may not be able to afford the upfront costs of some of the software and automation that St. Tammany now has. But it is important to note that St. Tammany started this program right after Hurricane Katrina, at a time when they were unable to do more than tell principals to turn off the lights and set thermostats to the lowest possible setting in the winter and the highest in the summer. But those behaviors alone saved the district 7% in energy costs.

We recently spoke to the district's supervisor of administration, John Swang. He told us more about the program and its results. Below are some highlights of our conversation. Or read [the full edited transcript](#).

At the Beginning: Runaway Energy Costs

Public School Insights: Why did St. Tammany Parish decide to start a comprehensive energy management program?

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Swang: About four and a half years ago, our energy bills were skyrocketing. At one point, the cost of energy doubled in three years. We were sending a lot of our resources to the utility companies. It was no different than what the rest of the country was experiencing—it was a kind of runaway situation. And still, to a large extent, the cost of energy is increasing and probably will continue to do so.

But at that point the St. Tammany Parish School Board began talking about getting control of what we were spending on utilities, especially gas and electricity, which I would say are 97% of our utility costs. They brought together a committee of board members, district administrators, teachers and community stakeholders to see if we could figure out how to get a handle on these costs. Now, there are companies that sell their services to help organizations and businesses save energy, but they tend to be quite expensive. So we decided to go in-house and develop our own program. The board laid out two goals. One, reduce energy use by 10%. Two, take the cost avoidance—the money that we would have given to the utility companies—and put it back into the schools for the education of our students.

The Components of a Comprehensive Energy Management Program

Public School Insights: What are some of the major components of this program?

Swang: First we developed an energy management policy—a broad view of how to gain control of energy use. Then we developed energy saving procedures and guidelines, and materials and resources schools could use to motivate staff and students to change behavior in lighting, cooling and heating.

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A very important component of the program is feedback. We give feedback on energy use and cost avoidance to the administrators of all of our facilities on a monthly basis. That had never been done before. When our administrators got their first report, I will never forget, they looked at the bills from the electric and gas companies, and I had one principal ask, “Is this how much we use in a year?” And I said, “No, that is how much you use in a month.” It was a real eye-opener for them.

And you are not going to be able to manage your energy use unless you can measure it accurately. We use two different energy management tracking systems [to] ensure we have accurate data.

We put some of our resources into energy automation. So we have software programs that tell a school's air-conditioning, heating and lighting when to turn off, when to come on and what temperatures should be established. Half of our facilities are now monitored and controlled by automated energy management programs. The rest are still saving energy in the good old-fashioned behavioral change kind of way, turning off the lights and [changing] the temperature.

Another major part of our program is that we partnered with the EPA's ENERGY STAR program. ENERGY STAR has been a wonderful resource. They have an extensive website that offers all kinds of resources.

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Those are the major components of our program. There are also a number of other aspects of the program that complement those major components. We have energy management specialists who go into the schools every day. We try to enter each facility, all 72 of them, once every two weeks. We do energy audits to see who is leaving the lights on and whose air-conditioning is not set at an appropriate temperature. We make sure that vending machines are de-lamped and computers not in use are turned off. Then once we do the audit, we send the principal an e-mail of what we found. So they get not only a monthly report on their energy use, they get a couple of reports each month about how well they are doing.

We developed an energy awareness curriculum to get students actively involved in learning about environmental science, ecology and conservation. We put together a pretty extensive set of lesson plans and other resources. We correlated them to our state standards in science, social studies, language arts, and math. They are on our website, <http://energy.stpsb.org/>, which is another part of our program. It contains all of our resources, publications, forms—everything we use.

We have custodian and maintenance mechanics inservice trainings twice a year. And we have a very strong collaborative relationship with our construction department. Whenever they build new schools or renovate older ones, they do it in as energy efficient a way as possible.

Another thing we do is monitor our bills. The energy tracking software is based on the bills that come in, and it tells us when it thinks there is a billing error. We have found tens of thousands of dollars of savings there, just on errors in charges and incorrect meter readings.

Getting Results: Saving Energy and Money

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program?

Public School Insights: Have you seen any results with this

Swang: To measure results in this industry, you set a baseline and benchmark goals based upon it. So we started the program right after Hurricane Katrina. All we did was tell the principals, “Turn off the lights when you leave the room. Set your thermostat to the lowest possible setting in the winter and the highest possible in the summer.” We did not give them any resources. That alone saved about 7%.

When we started bringing in resources, training teachers and going out into the schools with the information we were gathering, our savings increased. That first full year I think we saved about 8%.

As we went along, we got a whole lot better. And the teachers, administrators and students began to see the savings and really started to buy in to the program. By the end of the third year of operations, we were saving 15%, almost 16%. The fourth year, we saved 20%. And currently we are saving about 21%.

The total energy cost we have avoided over the last four and a half years has been about six million dollars, which is a big, big savings. And we have put that money back into classrooms.

We also measure the success of our program by the recognition the district gets for its efforts. For example, we received the ENERGY STAR label for one of our facilities, which means it was in the top 25% in the country in regards to energy efficiency. We were named an [Energy Star] Top Performer in June 2008, got a 20% Improvement award in February 2010, and a second Top Performer recognition in June 2010. We have received recognition from the Louisiana State Department of Environmental Quality. In addition, our program received the American School Board Journal's Magna Award in April, 2010.

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Our school system is recognized as one of the best in the state of Louisiana from every accountability perspective you can look at. This energy management program is indicative of the stature that we have. But it is not only an indicator of that stature, it is a program that helps us maintain it. You can't do it without the resources the energy management program helps to provide.

Getting Community Buy-In

Public School Insights: How have you gotten staff, student and community buy-in for this program?

Swang: During the third year of the program, the board used the program cost avoidance to increase the per student operational expense allowance by \$30. When the schools saw that, they were even more motivated to turn off the lights in unoccupied rooms and do all of the other things we had been encouraging them to do for several years.

We have a whole lot of posters we put up in schools reminding people to save energy. One is called the Energy Management Tips poster ([download the PDF](#)). It has about 30 suggestions of things teachers, staff and students can do to save energy. It really condenses our program into a one-sheeter. The poster is in every room in the district, from the Xerox room to the boardroom. We have stickers that go on every electrical appliance that say, “Turn me off.” We have “Turn off the light” stickers, “Close this door” stickers. We put up a poster at each school that tracks the school's energy savings each month.

“We want to be viewed as good stewards not only of the environment but of the tax dollars that we use”

To help keep the idea of energy savings in the minds of everyone in the school, we also have energy savings announcements that we encourage principals to include in morning announcements. Every classroom does the Energy Saving Pledge. Schools participate in events throughout the year—Energy Awareness Month; the Energy Star Challenge; Environmental Education Week; Earth Hour. And Earth Day is a very big event. That will be especially true next year, now that we have this terrible oil spill out in the Gulf of Mexico, which is only 40 miles away from us. We will really be emphasizing Earth Day.

Staff involvement is really important. We have a volunteer teacher Energy Leader in every school. That person is the point of contact between the energy management program and the faculty of the school, along with the school principal. This teacher really facilitates the initiatives and is a very important part of our program. And our custodians really are the people who know how well a school is doing with energy management, because they are all over the school. We depend greatly upon them.

And including our community is very, very important to us. We try to involve our parents, government officials, business owners, and churches. We want to be viewed as good stewards not only of the environment but of the tax dollars that we use. And the community is very receptive.

Facing the Challenges

Public School Insights: What are some of the challenges you have encountered with this program?

“Since we are here on the front lines dealing with hurricanes and oil spills, it is not that challenging to get people’s attention about conserving energy”

Swang: In the beginning, there was some resistance. I cannot say that is a challenge today. Especially now with the Gulf oil spill devastating the Louisiana coastline and with climate change and the state of the environment, especially the hurricanes that are getting more frequent and bigger down here, people are starting to realize we cannot just continue to do what we were doing in regards to energy use. Since we are here on the front lines dealing with hurricanes and oil spills, it is not that challenging to get people’s attention about conserving energy.

Another issue is that to save energy, you’ve got to expend energy. Like money. The program does cost money to implement. We have a little less than \$300,000 per year to run it. About half goes into getting automated systems into schools. And in the very beginning, when we were spending \$250,000 or \$300,000, our return on investment was minimal. We just barely covered that investment, and that was good in and of itself. But now that we are saving \$1 million a year, that return on investment is wonderful. So it is much easier now to spend money to save energy than it was in the very beginning.

Changes in attitudes, values, beliefs and behaviors have occurred. It just takes time and patience and repeating your message over and over and over again, which is what we are doing.

Public School Insights: Are there any questions that I should have asked you but did not?

Swang: I can tell you one thing that is really important. It is very important that the district as a whole, from the board down, embraces the idea and supports it for the long term. In many instances, schools will start feeling the pain of increased energy costs. They will put someone in charge of energy management, but soon that person will start to take on other responsibilities. Their focus becomes diffused. And in many instances, if you do not stay focused on your goal, you will lose the program.

“It is important that we save energy here in the school system, but the ultimate goal is to give these skills to the students for their adult lives”

Swang: And also, as regards our energy education program...The skills and knowledge we teach our children about energy, environmental stewardship and conservation are vital. These are skills and knowledge that our children are going to need in order to succeed in the world and to live healthy lives as adults. So it is important

that we save energy here in the school system, but the ultimate goal is to give these skills to the students for their adult lives. It is a long-term investment.

Link to this story: <http://www.learningfirst.org/visionaries/saving-money-and-environment>