

Energy performance contracting: the tax-neutral way to upgrade

By Kendra McQuilton

Does your district have a mounting list of capital needs with limited or no viable means of funding? Would you like to move forward on many or all of those needs with no-out-of-pocket costs, lower your energy bills, and at the same time generate a positive cash flow?

If so, your school board should learn more about energy performance contracting (EPC). Over the past 10 years, schools in New York state have used EPCs on 1,150 projects worth a total of \$738 million, according to the State Education Department.

Once viewed as a niche program used primarily to replace only lighting, EPC's have evolved to become key components in many school districts' long-term capital funding strategies. The EPC concept is also being used as a taxpayer-friendly way to bring the benefits of renewable energy sources to districts.

Here's how it works: A school district retains a third party representative with expertise in the design and evaluation of energy performance contracts. That consultant will draft a request for proposals on behalf of the school district to secure competing proposals from energy services companies. Each energy services company (ESCO) identifies the project scope and determines the energy savings and the payback period

in its bid.

The winning ESCO builds the project, assists the school district in securing financing, and guarantees that the energy savings will pay for the entire cost of the upgrades.

In addition to the project paying for itself through savings, the school district typically will receive rebates, grants and building aid. This creates a positive cash flow.

Administrators at the Sachem school district on Long Island have repeatedly turned to EPCs as a means to fund district-wide capital projects without increasing taxes. The district's first EPC was performed in 1996. The project paid for itself in 10 years – eight years faster than the scheduled payback period. The district later embarked on a \$16 million EPC in 2009 and a \$22 million "Phase 3" EPC in March 2015. The Phase 3 project includes the retrofit by Johnson Controls of nearly 1,000 exterior lighting fixtures with LED technology and the installation of more than 2 megawatts of rooftop solar power. The district anticipates \$14 million in positive cash flow over the project term.

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One district, three energy performance projects ... and millions in positive cash flow

The Sachem school district on Long Island has completed two phases of energy conservation upgrades and plans to submit a third phase for state approval in June.

Phase 1 - 1996

Key upgrades: Boiler removals and replacements, asbestos abatement, domestic hot water tank replacements, electric to hydronic heating conversion, propane to natural gas conversions

Cost: \$8.3 million

Financial benefit to district: \$10.1 million



Phase 2 - 2009

Key upgrades: District-wide lighting upgrades, 10 kilowatt wind turbine, six 5 kilowatt solar arrays, complete residing with new insulation on elementary school exterior

Cost: \$16 million

Annual energy savings: \$828,144

Annual operations & maintenance savings: \$77,230

Anticipated positive cash flow over 18 years: \$11.1 million



Phase 3 - 2015

Upgrades proposed: About 2.2 megawatts of solar capacity on elementary school roofs; about 1 megawatt of cogeneration systems in high school and middle schools; complete exterior lighting retrofit with LED technology

Estimated cost: \$21.7 million

Anticipated annual savings: \$1.2 million

Anticipated positive cash flow over 18 years: \$14 million



Six ways to get the most out of an energy performance contract

1. Get an expert owner's rep on board first

Dealing directly with an energy services company (ESCO) is similar to trying to manage a construction project without an architect. From writing a strong RFP, to technically evaluating ESCO proposals, to effectively answering tough questions in a public forum, your district should consider retaining an expert owner's rep as the first step in the process. The firm's fee is usually paid by the ESCO selected.

2. Get a preliminary assessment before jumping in to an RFP

If you have a small district or just replaced all the lighting district-wide, you may not be a candidate for an EPC. Know where you stand before issuing an RFP so you go confidently into that process knowing that your district has a viable opportunity. This is something your owner's rep can prepare, usually at no cost.

3. Understand what drives positive cash flow

A combination of guaranteed energy savings and state building aid can result in a positive cash flow to districts over the project term, which can be as long as 18 years. While state building aid will be based on the cost of the entire project, the aid can only be used to pay interest on debt. Assuming capital borrowing costs remain at the current rate of about 4 percent, a district can have an aid reimbursement rate as low as 30 percent and still cover all interest costs when project costs are amortized over a 15-year loan period. Note that shortening the project term to 10 years would sacrifice five years of state aid support, and reducing the scope of the project would lower the amount of aid available to pay for interest. Your consultant can help you determine the ideal term and scope of your project.

4. Question out-of-pocket costs

Districts need not pay out-of-pocket costs to ESCOs or technical consultants. Ensure your RFPs for an owner's rep and ESCO are structured to prohibit this.

5. Structuring the savings guarantee - know your options

The strength of the savings guarantee hinges on the measurement and verification (M&V) methodology that is assigned to each individual upgrade, and some methodologies are more stringent than others. The protocol used to verify the savings for lighting, for example, is completely inappropriate for thermal measures such as energy management system upgrades. Further, it may not make long-term financial sense to elect an 18-year term for M&V services if in post-construction years 1, 2, and 3 the project is meeting or exceeding the annual savings guarantee. Don't sign a contract with an ESCO without fully understanding the M&V protocols and term options for your district.

6. Think you've done it all? Think again.

If it's been more than five years since your last EPC it's likely that you can enjoy the benefits of a new EPC that is larger and contains many new technologies such as large solar, cogeneration, LED lighting and other new energy conservation measures.

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