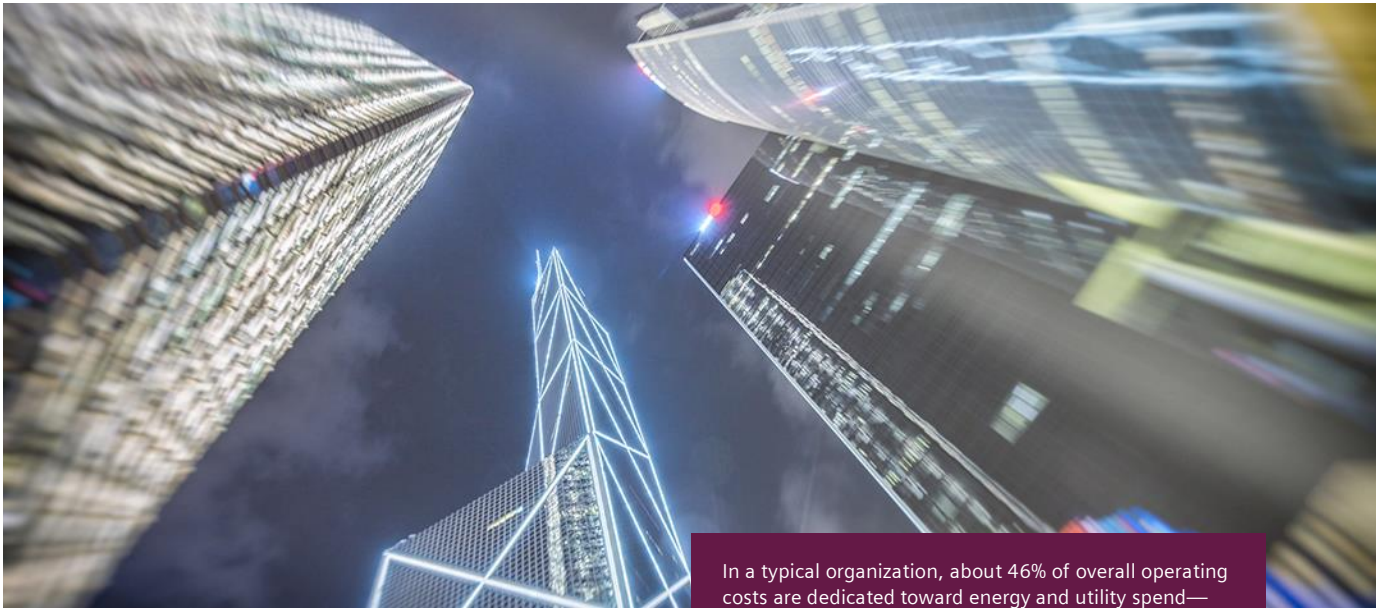


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In a typical organization, about 46% of overall operating costs are dedicated toward energy and utility spend—and about 33% of that energy spend is purely wasted energy.

### **Lack of capital hurting strategic energy investments**

Although the U.S. economy is improving from its recent recession, many of today's organizations still face limited capital availability, budgets that have been cut time and time again, and continued lack of resources to simply get the job done—all of which has led to a tremendous backlog of deferred maintenance.

In addition, the existing building maintenance workforce is aging and retiring, leading to a new, more technology-driven workforce. As the building automation industry continues on its path toward digitalization, building owners must be prepared for this shift.

Compounding these challenges is the fact that the U.S. energy market is shifting; natural gas takes up a larger portion of our fuel mix than it has traditionally, while renewables and biofuels continue to gain ground.

### **Lack of investment in energy, infrastructure, and sustainability initiatives costs more in the long run**

Despite a lack of capital and resources, the fact remains that aging infrastructure and building systems are draining your company of even more time, energy, and money than any organization can afford. You need a way to manage your energy comprehensively and invest in improvement projects, so that you can deliver long-term risk management; energy reliability; and significant, persistent cost savings to your organization.

In this white paper, we will highlight ways your organization can address your need for energy investment through innovative financial solutions that let you do more with less.

### **One-third of your energy spend is on wasted energy**

Our experiences have revealed that, in a typical organization, about 46% of overall operating costs are dedicated toward energy and utility spend—and about 33% of that energy spend is purely wasted energy.

Buildings—and the major systems that keep them running—are aging. Organizations find themselves trapped in a vicious cycle where reduced operations and maintenance budgets put additional stress on already aging equipment, causing equipment to break down more quickly and run less efficiently. This cycle increases “break and fix” costs, wasting more money from budgets that have no room for waste. It is also the most expensive way to replace equipment: on an emergency basis. In fact, we have found that about 22% of operations budgets are dedicated toward system replacement costs.

As just one example, consider that, in the United States, most schools were built before 1970, which means their boilers and chillers have well outlived their expected useful lives of 40 years. Some school districts have found ways to replace aging infrastructure, but the fact remains that most simply lack the capital to make improvements that not only create a reliable HVAC system, but also take advantage of new, reliable, energy-efficient technologies.

# Uncovering funds for critical upgrades

## You have options

The reliability and stability of critical building systems, coupled with the availability of power—even when the grid is unavailable—are essential to the business of saving lives.

Rather than using a traditional “low-bid” procurement methodology, performance contracting is a value-based procurement process that allows for the implementation of a variety of improvement projects.

Setting aside infrastructure challenges, organizations must also meet sustainability objectives, and mitigate risk and exposure to volatile energy prices. Focusing on sustainability and energy efficiency improvements is not just a way to “green” the business, but also to drive out cost and even attract new customers.

The increasing frequency of natural disasters plays a role here, too. Consider hospitals located on the east coast of the U.S. that, in the wake of a hurricane, need to be well-equipped to not only respond to the emergency and care for patients, but also for employees and their families. The reliability and stability of critical building systems, coupled with the availability of power—even when the grid is unavailable—are essential to the business of saving lives.

The good news is that you have options; you can, in fact, meet your building and energy management objectives through a variety of innovative and standard financing mechanisms.

Organizations have two sources of funds to pay for energy and infrastructure projects—capital and operating funds. In the public sector, if you have cash in your capital budget, you may simply choose to pay for the project outright. If there are insufficient funds in the capital budget, however, you might consider borrowing what you need; the repayment of those funds becomes an operating expense called debt service.

In the private sector, if you lack cash on hand, you can consider an “off-balance sheet” option, a capital lease, a capital loan, an operating lease, or a service agreement. Any of these options will allow for you to invest in your strategic energy program; in fact, a lack of capital should no longer stand in the way of infrastructure, energy, and sustainability improvements.



### Making changes through performance contracting

In both public and private sectors, Energy Service Companies, or ESCOs, offer another innovative option through guaranteed performance-based solutions. These energy-savings performance contracts (ESPCs) allow you to use the savings that will be generated by the project to fund infrastructure improvement programs.

Rather than using a traditional “low-bid” procurement methodology, performance contracting is a value-based procurement process that allows for the implementation of a variety of improvement projects. Once implemented, these projects will deliver savings in the form of reduced utility consumption and operating expenses; these savings should meet or exceed the cost of the project, essentially letting your organization pay for today’s improvements with tomorrow’s savings. That is, there’s no upfront capital investment, and traditional ESCOs have been executing performance contracts successfully for a number of years.

Because performance contracts guarantee energy and operational savings to the organization, ESCOs take great care to ensure that performance contracts deliver results. Throughout the term of the guarantee, measurement and verification processes (M&V) measure energy usage and verify savings to ensure the ESPC project is a success.



Look for an ESCO that offers solutions on both sides of the meter, complemented by continuous data analysis and support, to help ensure a comprehensive plan well into the future.

The right ESCO for your organization will formulate, design, and implement customized solutions that help achieve business and sustainability goals, while also delivering new, energy-efficient, and environmentally responsible equipment. But in reality, you should be expecting much more from an ESCO in today's environment; leading edge ESCOs can help achieve much more than standard infrastructure improvements.

**Expect more from today's ESCOs**

A truly comprehensive ESCO will help you take a holistic view of your energy and infrastructure needs, and create a strategic plan that helps:

- Implement, sustain, and protect energy efficiency improvements, ensuring that savings are persistent, and protecting your assets for greater reliability
- Determine whether on-site energy generation makes sense for your organization, creating the right mix of energy for enhanced reliability and sustainability

- Manage your energy procurement and take a proactive approach that minimizes your risk and exposure to volatile energy prices while helping generate savings
- Manage your environmental footprint to help achieve carbon reduction, LEED, and other green building initiatives
- Leverage data and other technologies to track, measure, and advance your progress

Today's ESCOs should offer a wide, broad range of energy solutions that not only help reduce energy consumption, but also allow you to produce energy, procure energy more strategically, and protect that investment for the long term. Look for an ESCO that offers solutions on both sides of the meter, complemented by continuous data analysis and support, to help ensure a comprehensive plan that meets today's strategic and technical goals, while also protecting and optimizing your investment well into the future.

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