

COMMERCIAL BANKING

Energy Performance Contract Financing in Higher Education:

Unclogging the Deferred Maintenance Bottleneck



Landscape At-A-Glance

Challenged by an uncertain economy and rising costs, U.S. colleges and universities are under pressure to reduce maintenance and operating budgets while simultaneously providing a quality education to students and quality services across the campus.

As a result of these budget constraints, many schools have deferred or cancelled much-needed facilities maintenance projects. This inaction becomes somewhat problematic in light of the issues confronting CFOs, facilities managers and other senior administrators:

- Aging infrastructure and equipment that inefficiently consume energy.
- Lack of funds to invest in improvements, upgrades and maintenance.

Faced with these realities, and influenced by the cost and sustainability benefits of clean energy initiatives, higher-education institutions hope to optimize energy efficiency at their facilities by lowering energy consumption and cutting greenhouse gas emissions. From an economic standpoint, an Energy Performance Contract (EPC) project offers a prudent solution.

An EPC engagement can unlock trapped capital enabling schools to pursue growth, add new faculty or purchase state-of-the-art technologies to improve the overall student experience. Funded by a range of financial vehicles, including Tax-Exempt Lease Purchase (TELP) agreements, EPC has become the preferred solution for working capital.

Energy Performance Contracting Snapshot

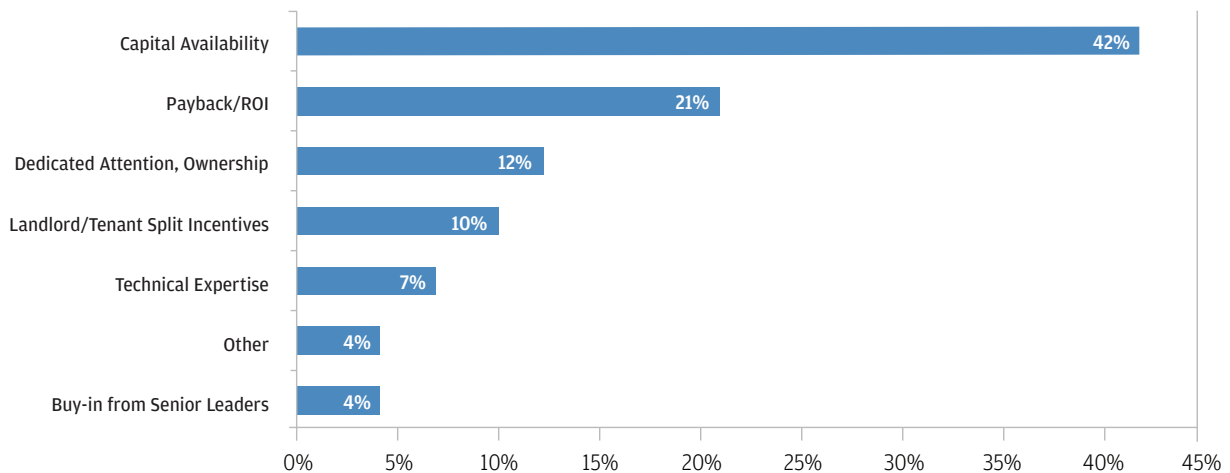
A typical EPC engagement provides institutions with a set of comprehensive energy efficiency measures. It represents an innovative form of contracting designed to overcome the major obstacles to deliver cost-effective energy efficiency and:

- Ensure the savings generated will be sufficient to finance the total project without pursuing capital funding.
- Reduce utility bill costs.
- Cut greenhouse gas emissions.
- Improve air quality, indoor space comfort and productivity of building occupants.

EPC is a viable alternative to traditional bidding and specifying whereby the burden of performance and guaranteed results is placed on highly specialized Energy Services Companies (ESCOs). With performance contracting a key deliverable, the ESCO provides all services required to design and implement an EPC engagement at a specific facility with long-term project financing usually provided by a third-party lending institution. In addition:

- Covering the initial energy audit through long-term monitoring and verification of project savings, the ESCO customizes a comprehensive set of measures to fit customer goals. These often include energy efficiency, distributed generation, water conservation, and sustainable materials and operations.

WHAT IS THE TOP BARRIER TO CAPTURING POTENTIAL ENERGY SAVINGS FOR YOUR ORGANIZATION?



Source: Supple, Derek, Financing Models for Energy Efficiency and Renewable Energy in Existing Buildings, Institute for Building Efficiency, An Initiative of Johnson Controls, September 2010. Page 2.

- The ESCO “performance guarantee” is the distinguishing feature in this arrangement. It represents their commitment that a project will yield a specified reduction in energy and water use over a contracted term and guarantees the savings will be sufficient to cover the cost of financing for the life of the project.
- Energy cost reduction creates a favorable situation. At contract completion, the customer retains the full value of the savings. However, if the guaranteed reduction in energy use is not realized due to ESCO performance, the ESCO pays the customer the difference using pre-determined utility rate calculations.

There is one important distinction to be made. ESCOs do not guarantee reductions in utility bill charges since they cannot control utility rates. At the end of the contracted guarantee period, the client retains the full value of the energy savings.

Financing Strategies

Clean energy projects depend on significant upfront investment and face a long payback period through energy bill savings. Fortunately, decision makers have access to an array of funding options offered through third-party financial institutions.

TELP Agreement financing strikes the simplest yet most important chord of an EPC engagement strategy by bringing the awareness of both the energy savings and the cost of the lease payments into alignment over the life of the contract. A well-structured TELP agreement - also known as a municipal or an abatement lease - enables the school to draw on dollars saved from their future utility bills to pay for new, energy-efficient equipment and upgrades today.

Due to the non-appropriation language typically included in TELP agreements, they may be considered operating rather than capital expenses. As a result, payments may not be considered “debt” in most states, and allow public universities to avoid a voter referendum that might otherwise be required.

There may be cases when a TELP agreement is inadvisable, particularly where a state statute or charter may prohibit these financing alternatives from being implemented. In addition, the approval process may be too challenging to a point where the outcome would be compromised.

Capital Leases enable equipment acquisition through installment payments with little or no upfront capital required by treating the project as capital equipment owned by the financing organization and leased over a fixed term by the institution. Upon termination, ownership transfers to the

school. While this represents a capital asset on the balance sheet requiring accountability for depreciation, it also provides tax advantages.

Power Purchase Agreements improve energy efficiency from onsite renewable energy systems without investment upfront. The energy efficiency or renewable energy assets are legally owned by an entity separate and apart from the facility owner. In a common application, one might permit a qualified third party to install a solar photovoltaic system on your property and agree to buy the resulting energy at a set price for a specific term, usually 15-20 years. As a result, the school can capitalize on a number of tangible benefits including lower electricity cost.

Certificates of Participation (COPs) offer an efficient means for large energy efficiency projects to get funded. COPs provide institutions with access to capital by syndicating the investment but not the ownership in a lease to multiple investors.

Rather than pay interest or guarantee a face value at the end of the project, investors receive a return based on the lease revenues associated with the offering. By not requiring voter approval, COPs reduce transaction cost and can be attractive to CFOs and treasurers.

Measurement and Verification

As energy costs and consumption are too often invisible to all but a select few within an organization, a sound measurement and verification plan can help confirm actual energy cost savings through:

- **Comprehensive measurement** that uses industry best practices to measure savings created within an individual facility through an energy efficiency, water efficiency or renewable energy initiative. Since costs can be expensive based on project type and scope, matching the approved measurement strategy to the level of risk is vitally important. If risk is low, the effort applied to measure and verify may be limited in intensity. Adjustments, such as changes in square feet, effect energy savings measurement by enabling a realistic comparison of post-retrofit conditions to those of the base year. If these factors are left unaccounted for, any realized savings might be improperly calculated.
- **Third party verification** When the ESCO has more experience than the organization that has contracted with it, employing a qualified third party to audit the ESCO’s reports becomes key to ensuring transparency, unbiased results, and compliance with the energy savings guarantee. This “trust but verify” arrangement ensures both parties agree the information determining payments is accurate.

CASE STUDIES

Kentucky Community and Technical College, Various Locations, KY

This EPC project includes improvements at Ashland Community and Technical College, Big Sandy Community and Technical College, Gateway Community and Technical College, and Maysville Community and Technical College. After 13 years, the dollars saved in utility costs from the project will exceed the original cost of funding, offsetting the costs of these improvements. The project is valued at \$4,662,066 and will save \$480,000 annually in energy costs. To achieve the savings, the four colleges will receive upgrades that include building retrofits for lighting, water, electrical, mechanical, and controls. The project's energy usage savings are expected to reduce the four community and technical colleges' combined annual carbon dioxide (CO₂) emissions by more than 2,800 metric tons each year. This annual reduction in CO₂ emissions is equivalent to removing approximately 555 typical passenger cars from the road, removing the electrical usage of more than 353 typical homes and reducing the equivalent of more than 6,575 barrels of oil consumption.

Source: AMERESCO, INC. 2012.

Kutztown University, Kutztown, PA

Growing enrollment and pressure to expand compelled Kutztown University to make infrastructure upgrades while tackling needed capital improvements to generate both energy and operational savings. Working with ESCO partner NORESKO, the school launched an EPC project to install electric, steam, water, and gas utility meters and integrate them with both the existing direct digital control system and their utilities monitoring system. With a cost of \$6.6 million, the project is estimated to save the University \$718,000 annually over the 15-year life of the contract.

Source: NORESKO.com, Case Studies, NORESKO, LLC 2012.

- Taking steps to reduce **post-project risk** by including all deliverables and line item costs in the total economic snapshot to improve budgeting. Document all financial transactions to enable a thorough audit - critical where energy savings are central to performance-based payments and/or EPC guarantees.

Best Practices

Consider the following steps to enhance the chances for success:

- Compare efforts required for handling energy efficiency initiatives internally vs. the holistic approach inherent in working with an investment-grade ESCO.
- Clearly define the scope of work, identify ESCO-related responsibilities and issue an RFP.
- Make the ESCO decision process inclusive across all stakeholder departments.
- Conduct a thorough energy audit of facility systems - lighting, heating, ventilation, air conditioning and water.
- Align goals with recognized energy conservation protocols.
- Engage unbiased third party to review/confirm results of measurement and verification reports/savings.
- Increase the chances of securing financing with the best terms possible. A realistic plan can boost investor confidence in your energy efficiency initiatives.

EPC financing gives college and university administrations the chance to capture lost utility and operating costs and channel those funds to meet critical infrastructure, growth and expansion needs - often with minimal disruption to campus operations. Project funding can be sourced through best-in-class, third party financial institutions with capital to lend. To optimize opportunities and minimize exposure to risk, choose a partner with a strong track record of success in higher education EPC financing.

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