

ENERGY PERFORMANCE CONTRACTS (EPCs)

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An Energy Performance Contract (EPC) is a financing mechanism executed by Energy Service Companies (ESCOs) who coordinate the installation of new equipment and split the value of energy savings with the customer throughout a contract term. The energy efficiency improvements are owned by the customer and may be installed with little or no up-front cost.

EPCs are one of the most successful and long-standing financing mechanisms specifically for energy efficiency. Although most EPCs to date have been used to fund government efficiency projects, they have also worked effectively for the private sector.

Why should you use it?

- Your company wants to invest in its facilities for the long-term (10-20 years).
- Your project consists of many energy conservation measures and you need third-party project management and expertise.
- Your company is pursuing a large installation or retrofit in one or more of your facilities, but you need upfront capital and an energy savings guarantee to move forward.

Who has used it in the past?

The federal government has utilized EPCs for over 20 years, [investing more than \\$3.49 billion](#) in federal energy efficiency and renewable energy improvements. These improvements are generating more than 402 trillion Btu in life-cycle energy savings and more than \$8.71 billion of cumulative energy cost savings for the federal government.

According to National Renewable Energy Laboratory, [the ESCO industry secured only 8%](#) of its revenues from commercial and industrial clients in 2011, but today there is more attention on this segment of the market.

[Simon Property Group](#) has utilized EPCs to lower energy consumption and associated costs in some of its properties by working with [Ameresco](#). To date Simon and Ameresco have implemented more than \$20 million in efficiency measures and capital improvements at 42 properties throughout the United States, including Puerto Rico.

Some of the major ESCOs that offer EPCs are [Schneider Electric](#), [Constellation Energy](#), [NORESKO](#), [Ameresco](#), [Siemens](#), and [Johnson Controls](#). They report having worked with companies like Simon Property Group, BMW, Alcoa, General Motors, and others.

What are the advantages?

- **Avoided Capital Outlay** – There are little to no upfront costs.
- **Energy Savings Guaranteed** – Performance guarantees reduce project risks, which is valuable in large, complex retrofits.
- **Enhanced Reliability of Operations** – Projects are maintained through rigorous monitoring and verification by the company issuing the performance contract.



This resource was completed with support from the Department of Energy's Office of Energy Efficiency and Renewable Energy and the Better Buildings Initiative to highlight innovative proven energy solutions from market leaders in the Retail sector. Find more ideas at the Better Buildings Solution Center at betterbuildingsolutioncenter.energy.gov

- **Standardized Process** – ESCOs have a long history of contracting experience and standardized processes.
- **Flexible & Scalable Financing** – Most EPCs use Tax-Exempt Lease-Purchase Agreements, which is an effective alternative to traditional debt financing. It allows organizations to pay for energy upgrades by using money that is already set aside in its annual utility budget. EPCs can also be used for portfolio-wide initiatives.

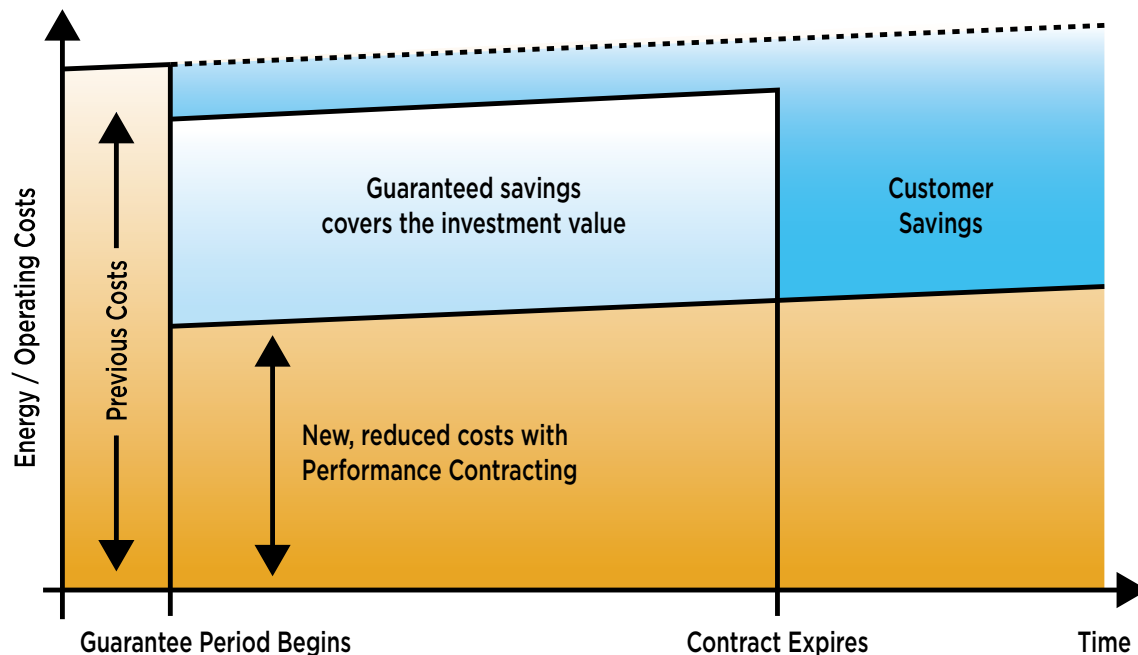
What are the downsides?

- EPCs can have high transaction costs and long negotiation periods (typically over a year).
- EPCs are not viable in leased spaces unless the lease term matches the contract term (average contract term is 17 years).
- EPCs will most likely be on-balance sheet.
- Providers tend to look for larger project sizes (\$1 million and above).

Who should you talk to next?

- Talk to your internal finance team to learn about the company’s history and comfort working with energy service providers.
- Reach out to energy service providers like [Schneider Electric](#) and [Ameresco](#) to learn more about how an EPC can help you meet your project goals.

Energy Performance Contract Savings Model



Source: Codema

EPCs IN THE MARKET

In an Energy Performance Contract (EPC), energy efficiency improvements are owned by the customer and may be installed with little or no up-front cost. Typically, an Energy Service Company (ESCO) will play multiple roles, from originator and developer to the arranger of the financing. For very large retrofit projects this level of centralized coordination and project management can be extremely useful. After project construction and implementation is complete, the ESCO monitors the savings and may also provide service upgrades for a period of time.

EPCs are typically designed so that the value of energy savings is split between the customer and the ESCO throughout the contract term, such that the customer's total savings exceed all of their payments over the 10-20 year contract term. After the EPC term, payments to the ESCO cease and the customer operates and maintains the energy efficiency improvements and retains all energy savings. In many cases, an ESCO will guarantee a certain level of energy savings to the customer. If the guaranteed level of energy savings is not delivered, the ESCO will have to pay the difference between the guaranteed and the actual level of savings. An energy savings guarantee from a creditworthy ESCO can improve the finance ability of the EPC if the customer is securing financing.

[Simon Property Group has utilized EPCs](#) to lower energy consumption and associated costs in some of its properties by working with [Ameresco](#).

Simon targeted several of its shopping malls where upgrades included lighting and energy management systems to provide increased control of equipment, such as chillers, air handlers, and common-area lighting panels. In addition to energy efficiency, Simon was also able to address water efficiency with variable and/or low flow technology. To date Simon and Ameresco have implemented more than \$20 million in efficiency measures and capital improvements at 42 properties throughout the United States, including Puerto Rico.

General Motors (GM) began using EPCs in their facilities in 2012. Since then, [GM has executed projects totaling more than \\$40 million](#) in ESCO investment, resulting in immediate energy and operational savings to the company. Even after making payments to the ESCO, GM has been cash ahead from day one with no financial investment whatsoever. Over the past several years GM has doubled the amount of money directed towards energy conservation, from \$40 million to \$80 million, using EPC methods. EPCs have resulted in a reduction of an additional 120,000 megawatt hours of annual energy consumption.

In sum, EPCs are ideal for retailers that hold or lease facilities long-term (20 years or more). Although an EPC may not be the best option for retail stores, it could be a viable option to address the efficiency needs of warehouses, distribution centers, and corporate offices.

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