

IS EPC RIGHT FOR ME?

Energy performance contracting (EPC) is an alternative method of reducing utility and operating costs. The intent is to finance an improvement project with little or no capital upfront and use the savings to pay for the financing. EPC may apply to most public facilities. However, it is important to understand that EPC is not for every facility. Some guidelines to use to determine if EPC is appropriate for your facility

1. Put together a list of facilities to consider for EPC.
2. Determine the area for each facility in square feet. Use the outside measurements for the building and subtract the upper levels of any atrium or similar open space.
3. Gather utility information for each facility for the most current 36 months. The information should include consumption (kWh, kW, DKT, therms, gallons, etc.) as well as costs for each commodity (electricity, gas, fuel oil, propane, water, etc.). This information will be needed if you proceed with the EPC process.
4. Determine the average annual energy use and cost for each facility.
5. Energy use per square foot may be useful as well in determining potential energy savings. This is usually expressed as BTU/sq. ft. /year. To convert from energy units to BTU, use the following factors.

Unit	Multiply by:	Unit	Multiply by:
Electricity (kWh)	3,413	Natural Gas (Therm)	100,000
Propane (gallon)	92,000	Natural Gas (DKT)	1,000,000
Gallon Fuel Oil (#2)	138,000	Wood (ton)	15,380,000
Coal (ton) e.g. Colstrip	17,000,000	Coal (ton) Signal Peak	20,600,000

6. Compare the facility energy use to the following:

	Range (kBTU/SF/yr)	Median
Elementary School	30 – 80	55
Middle/High School	35 – 120	60
Vocational Shop	40 – 120	60
Office	40 – 125	70
Nursing Home	75 – 175	125
Hospital	150 – 300	195
City/County Shop	25 – 100	60
Fire Station	45 – 150	90
Multifamily Housing	50 – 125	80

kBTU = thousands of BTU

7. If the facility energy use is toward the bottom of the range, the savings from an EPC are likely to be 10% or less. If the energy use is around the median, the savings are likely to be 20-25%. If the energy use is near the top of the range, the potential savings are likely

to be in the 30-40% range. Utility savings for most facilities generally do not exceed 40%. The typical range is 15-25%.

8. Review your financing requirements. Depending on the source, the finance term is typically 10 to 20 years. EPC is limited to a maximum of 20 years.
9. Ignoring cost escalation (escalation is generally not guaranteed in EPC), the savings should pay for the financing over a period of 75- 80% of the finance term (11-12 years for a 15 year term or 15-16 years for a 20 year term). This will allow the savings to also cover the cost of financing (origination fees, interest, etc.).
10. The potential project size that could be supported by an EPC may be estimated by the product of the utility costs, savings percentage, and 80% of the finance term.

Based on these guidelines, a facility with \$20,000 annual utility costs and 25% savings could potentially support an EPC project of \$75-80,000.

Other Factors to Consider

When considering an EPC, funds to cover the cost of the Investment Grade Audit (IGA) should be included in the budget. Although the cost of the IGA may be included in the financing of an EPC, the funds to cover the cost of the IGA should be available in case the project does not proceed to an EPC.

The total cost of an EPC project includes the cost of the IGA, the EPC including all financing costs, and measurement and verification for a minimum of three years. EPC allows a portion of the total project cost to be paid up front, thereby reducing the financed amount. Although there are a variety of sources allowed by statute, the most common are available cash and utility incentives.

Some EPC projects include components that are not cost-effective from a utility savings perspective. These components often include deferred maintenance or major capital improvements such as boiler replacement that have longer paybacks. In this case the upfront payments may be used to pay for these components. However, the energy component is the majority of the total project cost.