Shared Savings – economic examples

Big savings example

Suppose your heating system is inefficient and there's a prospective project that can reduce your space-heating costs by 30%. Let's also assume that the project cost for this efficiency improvement is about $7,000.

Determining whether or not you should proceed with this project requires a look at your annual energy use. Specifically, the energy use associated with space heating. To be accurate, we'll need to screen out all energy use unrelated to space heating, such as domestic hot water, cooking equipment and the like. MGE can help you estimate your heating-only values.

Let's say you use about $5,000 worth of natural gas per year for space heating. A 30% efficiency improvement amounts to savings of $1,500 per year. This results in a simple payback of about 4.7 years. However, we cannot forget the cost of interest on the loan, which will cause the true payback period to be longer.

If we assume an interest rate of 6% as part of our costs, breakeven occurs in the beginning of year 7. This tells us that we need a loan term of seven years or longer when depending solely on energy savings to pay for the project.

When you are heavily dependent on energy savings to pay for the loan obligation, it is best to use a longer term loan and be conservative in estimating your savings. This helps assure that if savings estimates fall short, then some margin for error is provided.

Little savings example

Now suppose you have a project similar to the above example in all ways except that the heating savings are only 5%. This results in annual savings of only $250. These savings are not able to pay back the loan within the Shared Savings program's ten-year term limit. The simple payback is: $7,000/250 = 28 years.

A poor payback does not disqualify this project from using Shared Savings financing. If the 5% savings is considered to be a reasonable efficiency improvement, it is eligible on a technical basis. It then becomes your choice whether or not to supplement the $250 estimated savings with the additional out-of-pocket dollars needed to satisfy your monthly loan payment obligation.

For example, if the loan were set up for ten years, the additional out-of-pocket payments would total about $685 per year. These are the extra dollars you must pay in order to make your loan payments over ten years. You may decide that the efficient project is important enough to justify installing, even though you're getting only a partial contribution from energy savings.

Bottom lines

Some key thoughts include:

- Your project decision will be based on economics that rely on savings estimates. Estimates are not guarantees, and they can vary greatly depending on who provides them.
- Be conservative and financially prepared if savings don't meet your expectations.
- You may be able to use Shared Savings even when energy savings are relatively small, just prepare to make some out-of-pocket payments.