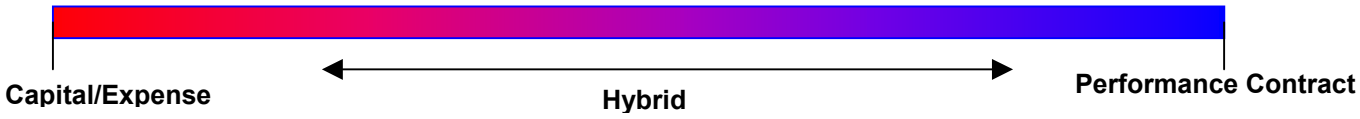
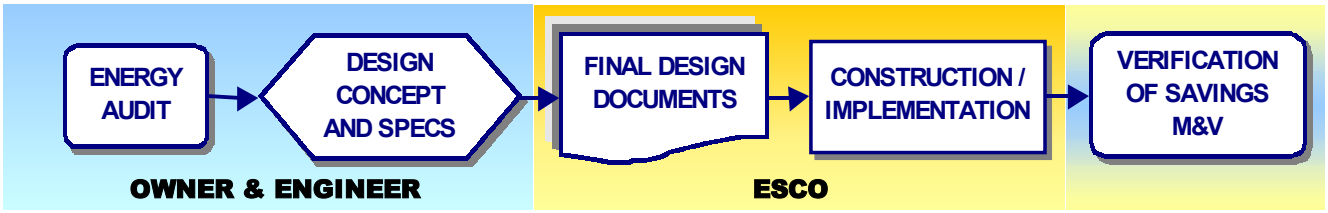
Three Approaches to Energy Projects

The two most common ways of implementing energy saving facilities projects are the traditional Capital/Expense or Bid-Spec, and a Performance Contract or ESPC. A hybrid approach is a third way known as Engineered Savings. It combines the best of both Bid-Spec and ESPC according to the needs of the building owners, operators, and occupants.



The Capital/Expense type project is what most facility professionals are accustomed to. The building owner pays for all components of the project outright. A staff engineer or a consulting engineer performs an energy survey. Design and construction are paid for directly with a purchase order or contract arrangement. For simple energy projects, such as a lighting change-out, the contractor completes the design. Projects that are more complex require an engineering design. There is usually a basic verification of savings procedure based on utility bills.

In a Hybrid-ESPC the ESCO finances the two most costly of the five main components of an energy project.



Facility managers responsible for implementing energy programs are typically not as familiar with the Performance Contract or ESPC method. With a turnkey performance contract, the audit, design, construction, and savings verification are taken care of by the energy service company (ESCO). It is the responsibility of the client to repay the ESCO, based on a guaranteed savings amount determined by the ESCO.

The hybrid **Engineered Savings** approach combines the benefits of the traditional capital/expense project with the financial ease of performance contracting. An engineering or consulting firm performs an audit and produces a design concept. From that point, the utility company or ESCO produces a final design, and finances construction. The engineering firm provides design and construction oversight, and measurement & verification of performance and savings. The audit, design concept, oversight, and savings verification can be paid for outright. The ESCO finances the equipment and construction (usually 75-90% of the total project cost), and the ESCO is repaid based on the agreed upon estimate of savings.

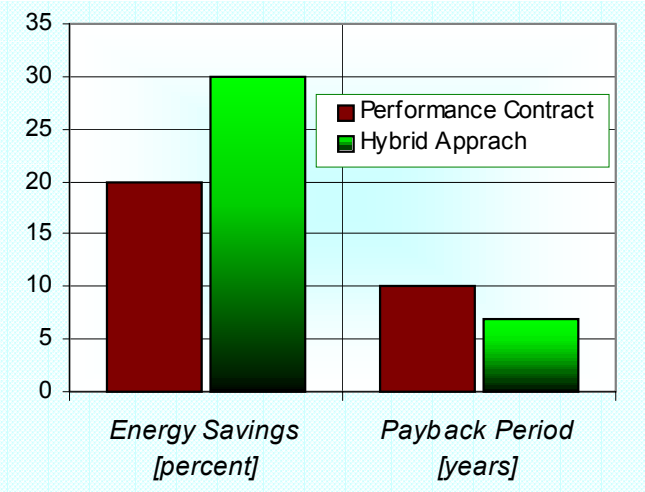
Performance Contracting versus Engineered Savings

Rationale

- The checks and balances inherent in a three-way effort (owner - consultant - ESCO) minimize conflicts of interest. Turn-key performance contracts can leave *the fox guarding the hen house*. That is, the company responsible for generating savings is also the same company verifying those savings.

- Some energy projects are inherently more profitable, while others may produce more savings. The resulting practices have come to be referred to as "picking the low hanging fruit" or "taking the cream off the top." There can be a trade-off between projects that produce the most savings versus projects that produce the most profit.

- Most ESCOs offer a full range of related services, from financing to construction management. In contrast, engineering or consulting companies that *specialize* in energy auditing, design, and verification will likely identify more energy saving measures. For example, an ESCO audit may identify projects resulting in 10-25% savings. A specialist, working directly for the client or the ESCO, may identify more and better ways of implementing projects resulting in 30-45% savings. This frees the ESCO to focus on what they do best: construction management, financing and design/build.



- Since there may be unavoidable conflicts and unexpected costs, a time consuming tug-of-war sometimes develops between facilities and contracting staff and the ESCO's project staff. An unbiased, third party can significantly reduce project costs and the amount of time and effort that the owner's staff spends negotiating and cross checking.

- Using the hybrid approach, the financed debt amount is lower than with a turnkey performance contract. This is because there are fewer risks, and because the less expensive project components can be paid outright or from a no-interest financing pool. This significantly reduces total project cost and shortens the payback period because the accumulated interest amount is much less. Often, the audit, design concept, oversight, and savings verification (typically 10-25% of the project cost) can be paid for with expense funds.