



# STEPPING

*Supporting The EPC Public Procurement IN Going-beyond*

## **Module 7 – Implementation Phase: Development of EPC contract scheme and tender**



# Risks assessment

- In any performance contract, the contractor takes on the *risk of the expected savings* not being achieved. A contract can take account of factors that would affect the savings such as warmer winters or cooler summers, or changes in the use of the building. Other factors, such as insolvency of the energy user or non-payment of fees, are problems faced by any contractor.
- Risk can be diminished in several ways, including the use of due diligence when assessing the project.



# Risks assessment

If performance contracting is to be used, an institution should:

- Be able to finance the project itself or have sufficient financial health to meet the payments required;
- Have the authority to sign an energy performance contract;
- Have reasonable knowledge of expected major capital expansions, and changes in ownership, facility use and occupancy that are likely to occur over the life of the contract;
- Have internal technical, legal and managerial capability to understand performance contracting and to work with an ESCO or rely on an EPC facilitator.



## Risks assessment

- In terms of risk management, the ESCO normally assumes most of the related financial and technical risks in implementing energy saving measures.
- The contractor assumes the performance risk for the project based on contractually agreed cost savings generated by a marked decrease of the building's consumption of energy (electricity and gas), operational labour, and other resources.
- In most cases, guaranteed CO<sub>2</sub> reductions are not included in the contract. However CO<sub>2</sub> emissions reductions can be calculated based on the building's lower energy use.



## Risks assessment

The performance risk provision generally works according to one of the following three scenarios:

- ***Shared Savings***

The building owner and the ESCO or a third-party special purpose ownership and financing company agree to share the sums accrued through energy and other operational cost savings. The division of savings is contractually determined. In many cases, the ESCO will benefit from a higher percentage of savings in the first years of the contract in order to pay back its investments in installed equipment. The building owner thus benefits from increased savings over time.



## Risks assessment

The performance risk provision generally works according to one of the following three scenarios:

- ***Guaranteed Savings***

In this scenario the ESCO guarantees to the building owner that the efficiency improvements will lead to a certain percentage of energy savings over the lifetime of the contract. Details are, once again, contractually determined on a case-by-case basis, but in all cases the ESCO is obliged to pay the owner for any shortfall in the amount of guaranteed savings. The shortfall — should it occur — is revealed during regular measurement and verification (M&V) of the project's performance.



# Risks assessment

The performance risk provision generally works according to one of the following three scenarios:

- ***Shared Savings and Guaranteed Savings***

There are cases where customer and ESCO sign a contract that include characteristic of both models. For instance, there is an objective of certain percentage of energy savings (that is the same over the contract lifetime) and if there are more energy savings one month, these extra savings will be shared.

It is more and more common to find contracts with contractual penalties. If the ESCO does not achieve certain energy savings, ESCO must pay the difference, so this kind of financial penalties is a great tool in order to give confidence to the client.

To partially reduce this risk, nowadays it is possible to incorporate in the contract an insurance that could be cover all or part of the compromised savings during the O&M period.

On the other side, the ESCO, through its financial partner, must carefully analyse the final customer risk. The ESCO will invest in equipment that rarely would be able to recover in case of no payment from the customer.



# Variables affecting the economic/financial Plan

Often the detailed worked out financial plans have to be amended/updated since there are variables rapidly changing and significantly affecting the overall investments results over the time.

Among the most important variables to be monitored and taken into account are:

- *Interest rates*
- *Energy prices (electricity and thermal vector)*
- *Maintenance & Operation costs*
- *Variations of energy base line*



## Variables affecting the economic/financial Plan

- ***Interest rates***

Interest rate adjustments are common because rates at the time of contract signing cannot be held firm throughout the construction and payback periods. The protection for the energy service company against interest rate increases will extend the contract term to cover interest rate impacts. The impact of interest rate fluctuations can be partially managed by the energy service company decisions on financing terms. Although the Public Body may not be able to set the financing rate, it can suggest appropriate refinancing strategies.



## Variables affecting the economic/financial Plan

- ***Energy prices (electricity and thermal vector)***

The model contract terms should be designed to protect the energy service company and to ensure that it shares part of the windfall from a price drop with the public Body. In fact, in an EPC contract, ESCO usually takes into account only energy savings in kWh. Energy fluctuations have more impact in Energy Supply Contracts (ESC).

If prices go up, the model contract should allow the energy service company to collect more from energy savings, while the Public Body pays more for its energy. This accelerated collection retires the debt faster and allows the Public Body to pay off the project costs more quickly and take over the energy savings stream more quickly.

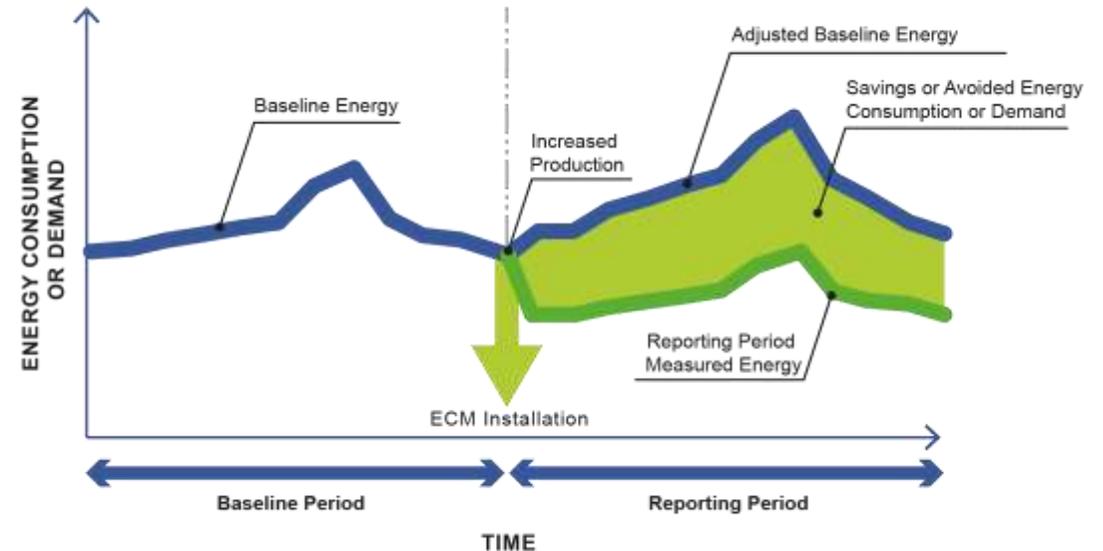


# Variables affecting the economic/financial Plan

- **Energy base line year adjustments**

At any time in the life of the contract, the energy service company may determine that your organization has modified conditions from those in the reference year. These modifications could range from an increase in the quantity of personal computers to a major addition to the building. They could also involve the extension of occupancy periods. Such factors erode the basis for energy savings agreed upon in the contract and therefore necessitate adjustments.

Any large building usually undergoes some changes each year that could be the subject of base year adjustments. Because each adjustment takes some effort to quantify and evaluate, it is usually wise to batch several adjustments together and consider them all at the same time, on an annual basis. Nevertheless, because if not wishing any significant unforeseen expenses, the Public Body should encourage presenting notable adjustments to the base year as soon as they are recognized.



**End of Module 7**

