

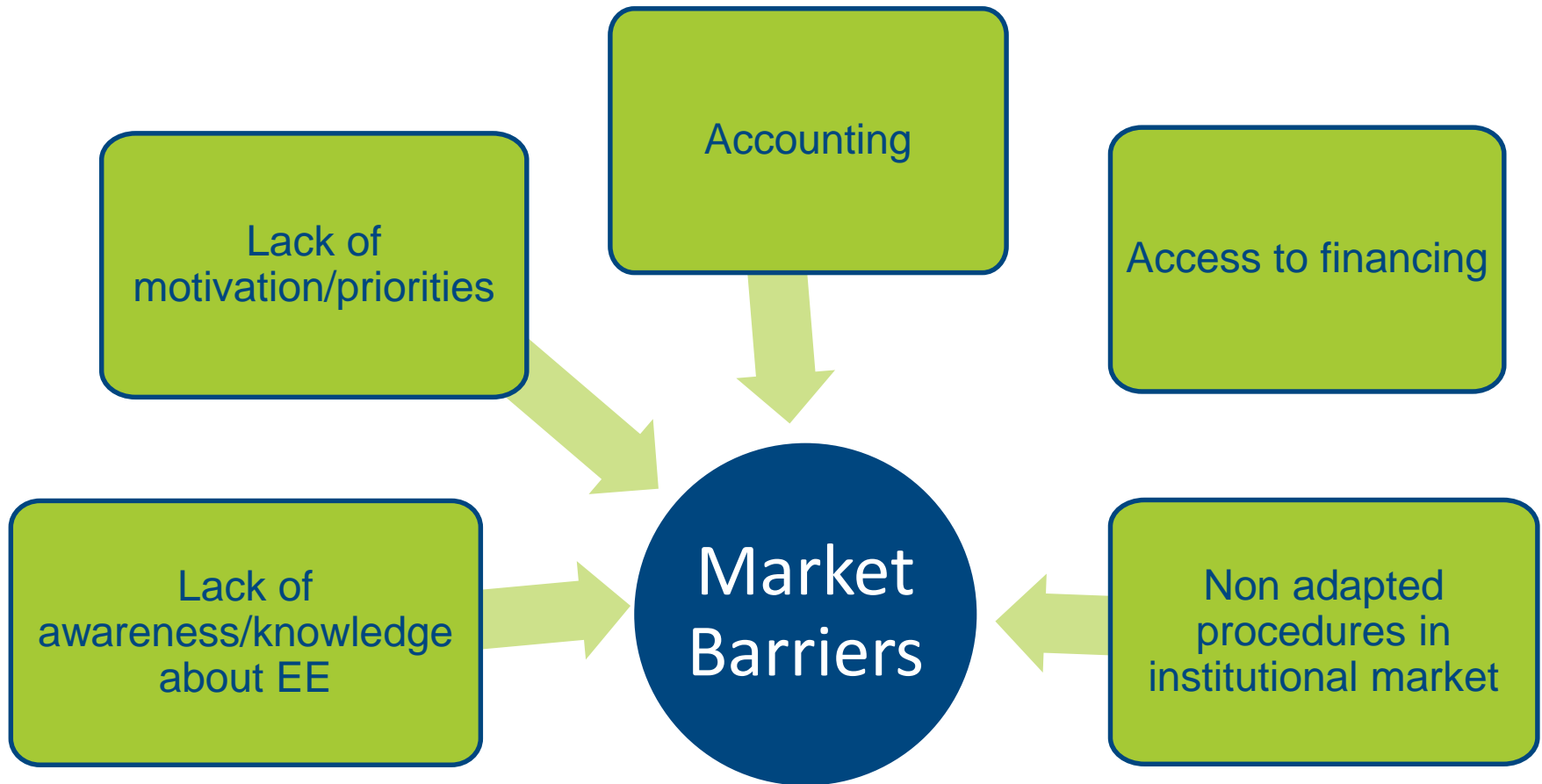


**ECONOLER**

# **Energy Performance Contracting**

## **The essential role of M&V**

# EE PROJECT'S BARRIERS TO MARKET

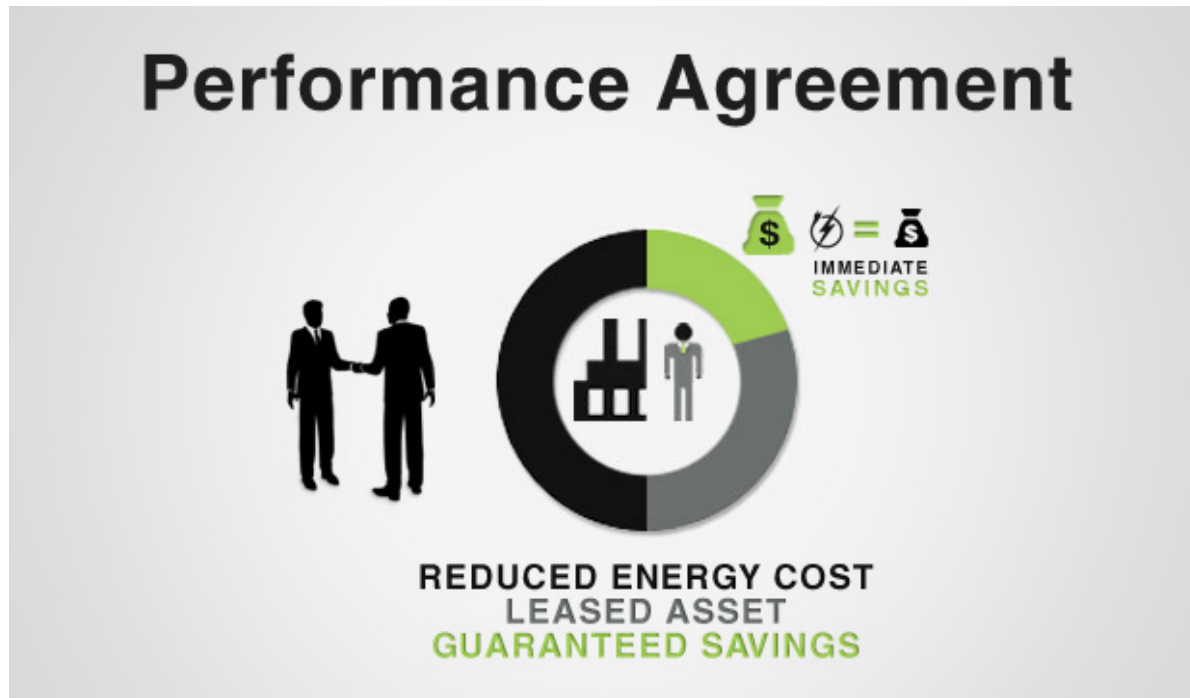


# Energy Performance Contracting

# AN ADAPTED SOLUTION

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## Energy Performance Contracting



# DEFINITIONS

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## **Energy Performance Contracting (EPC)**

Contractual arrangement between a beneficiary and a service provider for implementation of an EE project, where the investments in that project are paid for on the basis of a contractually agreed level of EE improvement

## **Energy Service Company (ESCO)**

A legal entity that delivers energy services in a user's facility under an EPC agreement

# PROCUREMENT PROCESS

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- › ESCOs most often selected through a competitive bidding process
- › Energy performance, NPV of investments as selection criteria
- › Without insurance that good M&V will be done, the procurement process will be spoiled and will invite ESCOs to overbid to win projects

# Role of M&V

# ROLE OF M&V

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**M&V is a Fundamental Part of EPC:**

**No EPC without M&V!!!**



# ROLE OF M&V

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## M&V still faces issues in the market:

- › Lack of knowledge by stakeholders
- › Horror stories come often from a lack of understanding and pre-agreement (plan) on M&V.

# Case study

# CASE STUDY

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## Regional hospital in Canada

- › One main building, 15 smaller buildings
- › EPC agreement with one ESCO for 10 years
- › Annual energy costs
  - › over 1,5M\$ in main hospital
  - › Between 250k\$ and 350\$ in 3 facilities
  - › Lower than 100k\$ in all others

# CASE STUDY

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## Regional hospital in Canada

- › Expected savings between 10% and 30% in all facilities
- › Clients only understand IPMVP M&V Option C (whole facility)

**IMPOSSIBLE TO BE PRECISE ENOUGH  
AND COST EFFICIENT  
IN ALL BUILDINGS EXCEPT MAIN ONE**



# CASE STUDY

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## Regional hospital in Canada

- › Long procedures to bring the client to accept the use of option A and B in smaller buildings
- › Client refused other alternatives than option C in main building
  - › 20% of savings can not be measured otherwise
  - › Hospital consumption naturally grow 2-4%/year

# CASE STUDY

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## Regional hospital in Canada

- › Solution proposed
  - › Brought a facilitator to ease the discussion and develop the most acceptable solution for all
  - › Option A was accepted in all small facilities with only the obligation of monitoring good performance of the equipment on an annual basis
  - › Option Bs were accepted in main building with assumed savings for the 20% that could not be measured

# Role of Government

# ROLE OF GOVERNMENTS

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## Lessons Learned

- › Need for the promotion of internationally accepted standardized protocol to structure the market

# IPMVP

already recognized as the reference M&V protocol  
in Asia, Europe and North America



# ROLE OF GOVERNMENT

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## Lessons Learned

- › Need trained and certified experts on all side on M&V to ease M&V plan's development and approval
- › Increase awareness of the facilitator role

## **EVO certified CMVP and CESV**

to play a major role in achieving those recommendations

# Thank You

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