

ESCO

Transnational Workshop on Innovative Financing
Instruments for Eco-Innovation in Central Europe

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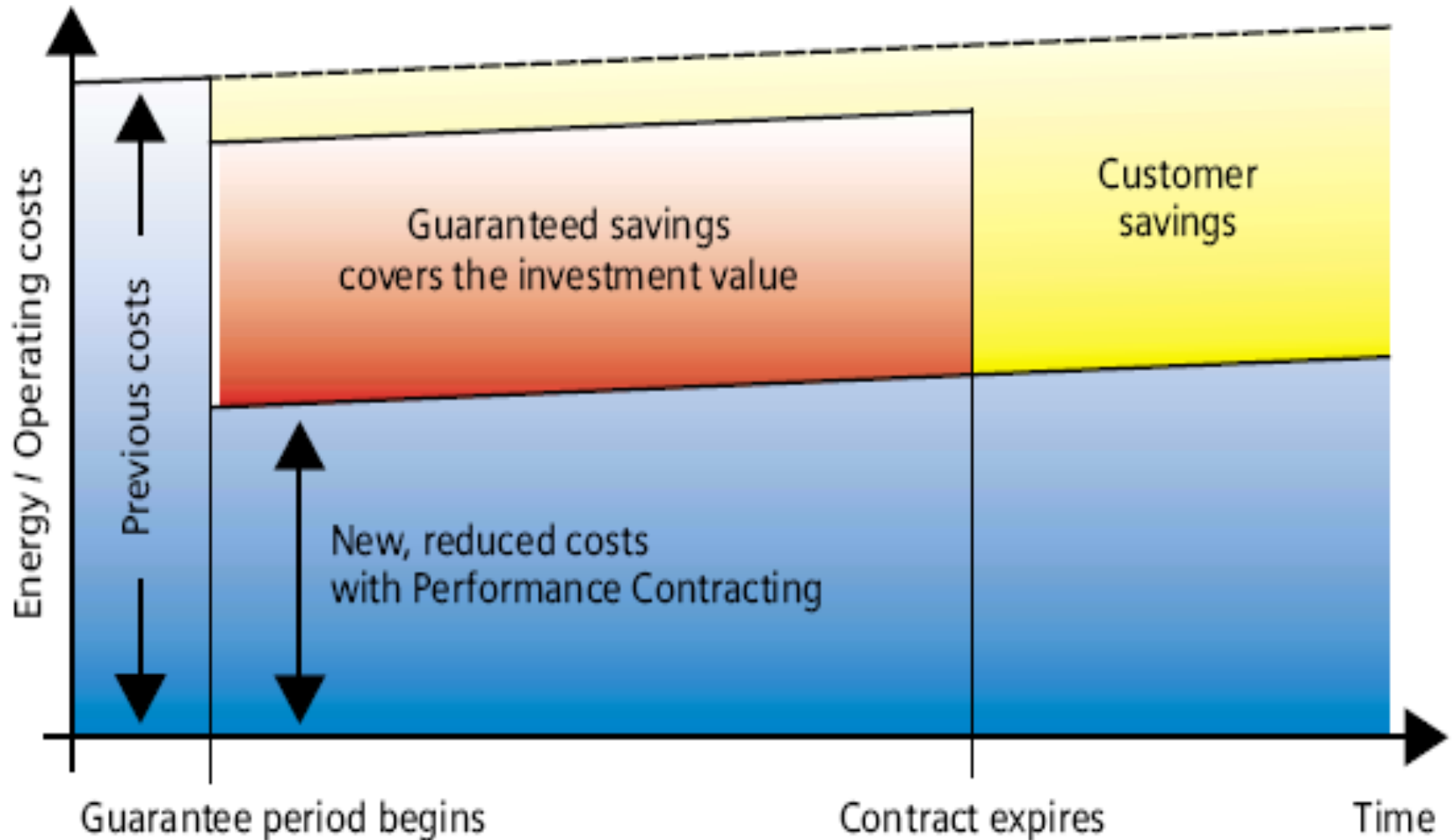
- **Energy Performance Contracting (EPC)**
- **Monitoring and Targeting (M&T)**
- **M&T/ESCO**
- **Case study**
- **Conclusions**

PRESOURCE Energy Performance Contracting (EPC)

- **EPC is a contractual relationship** within which the supplier (ESCO company) defines an investment based on expected future savings within the client energy bill

- **EPC project includes:**
 - Design of energy conservation measures
 - Financing of energy conservation measures (own ESCO funding, bank loan)
 - Implementation of energy conservation measures
 - Energy management and evaluation of actual savings
 - Payment of project costs from the reduced energy bill (+ premium)

Energy Performance Contracting (EPC) method utilised by ESCOs



- ESCO provides guarantee of contractually agreed savings (based on expected business performance of the client)
 - If the contractual savings are not achieved, ESCO compensates the difference to the client
 - If the actual savings are higher, ESCO can receive a premium agreed in the contract

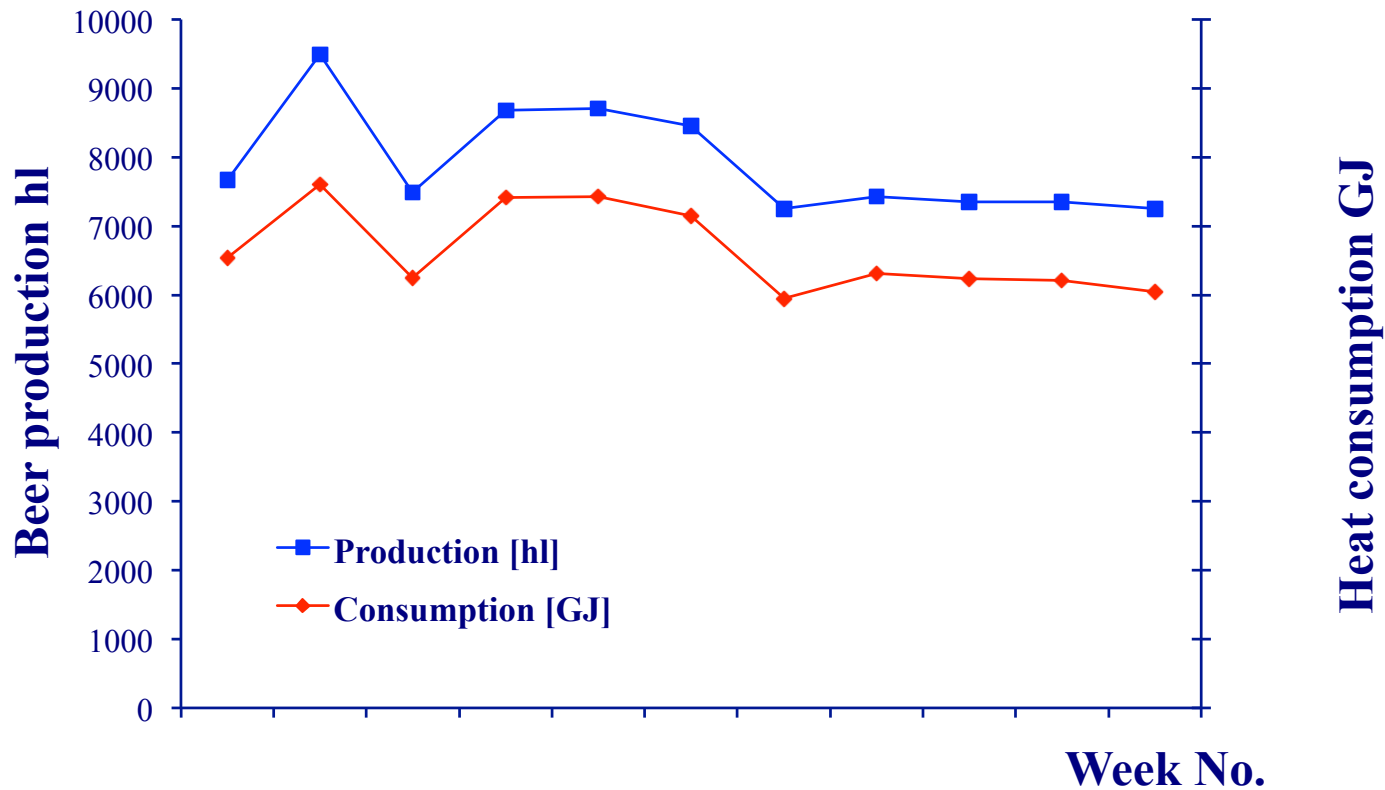
PRESOURCE **Baseline – EPC problem in industry**

This problem can be addressed through **Monitoring and Targeting (M&T)** which for each subprocess:

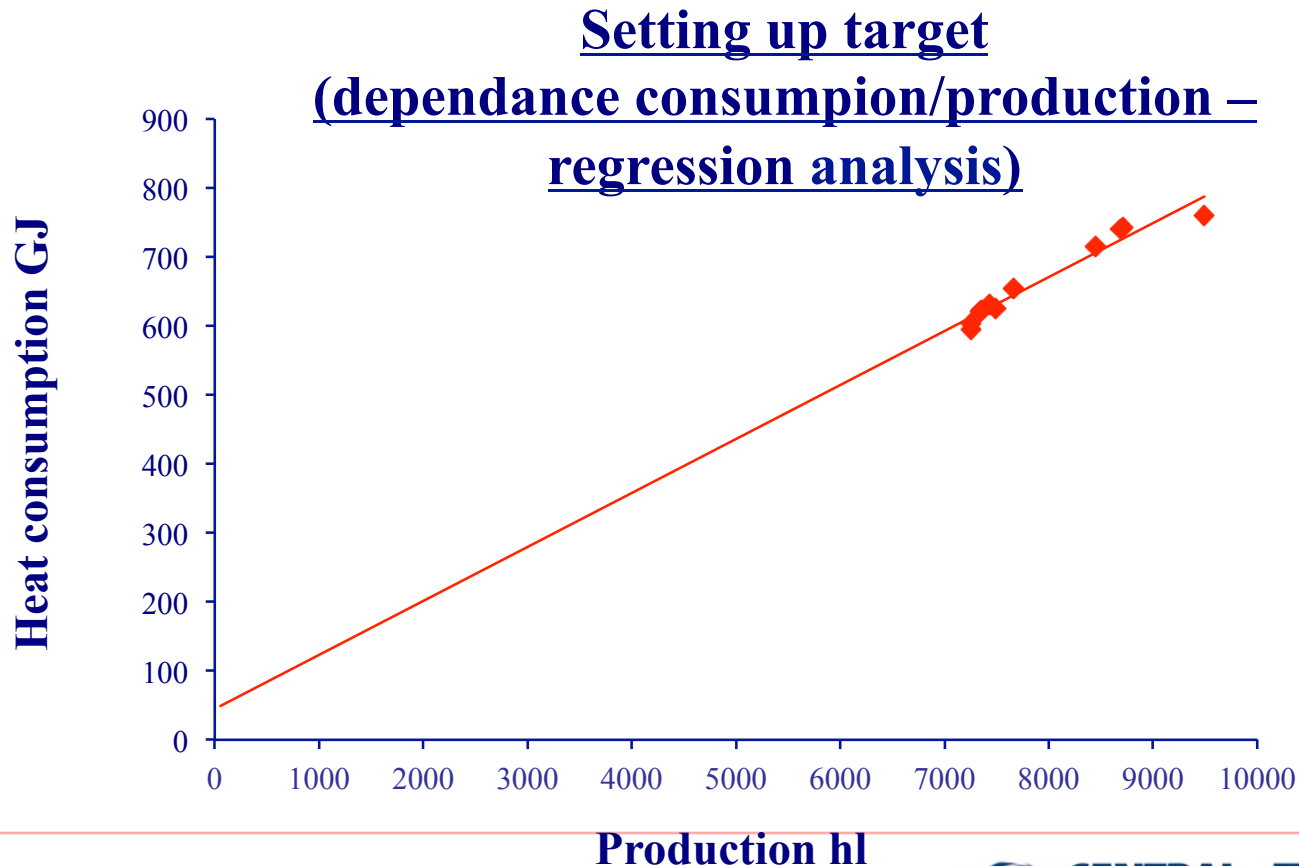
- Measure the energy consumed
- Measure the “production” as a driving factor
- Measure any other influencing factors
- Calculate the process energy efficiency
- Compare with “expected values”
- Report on results
- Take action based on variances

Monitoring within M & T - example

Use of heat in beer production

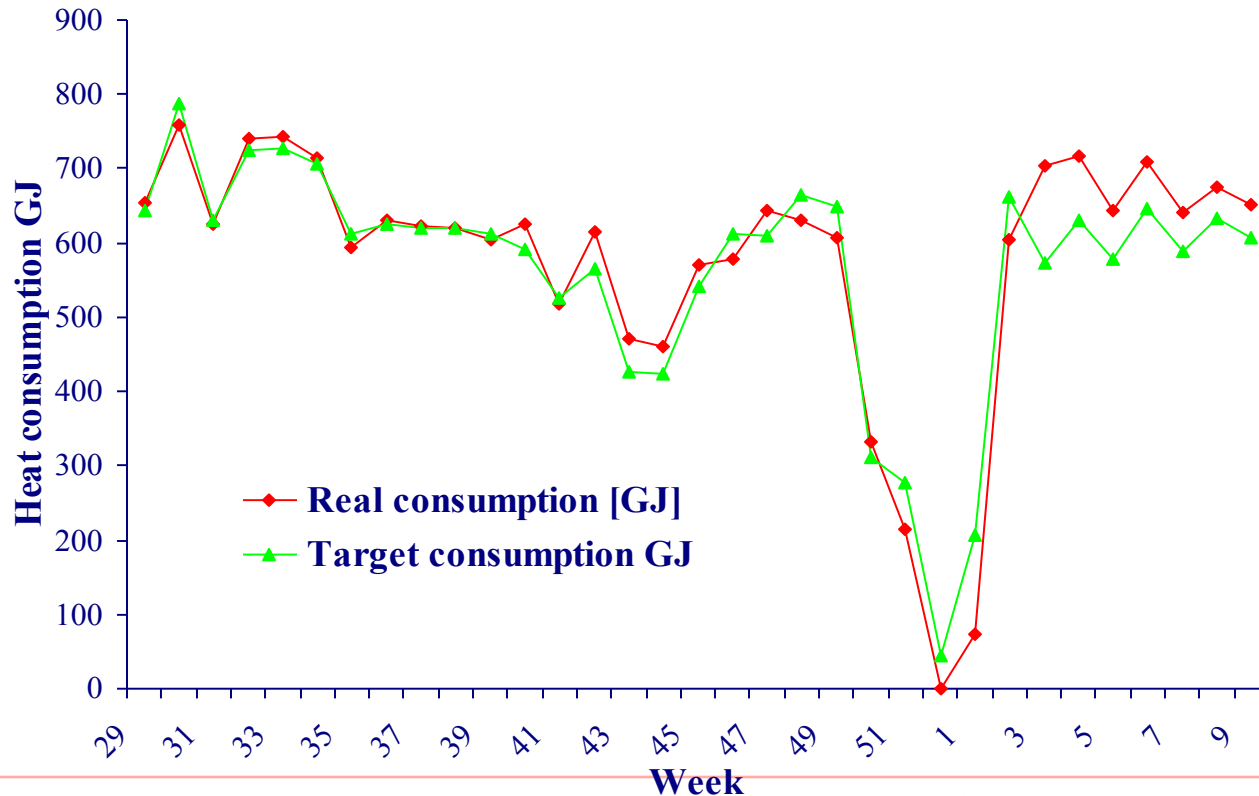


Targeting within M & T - example



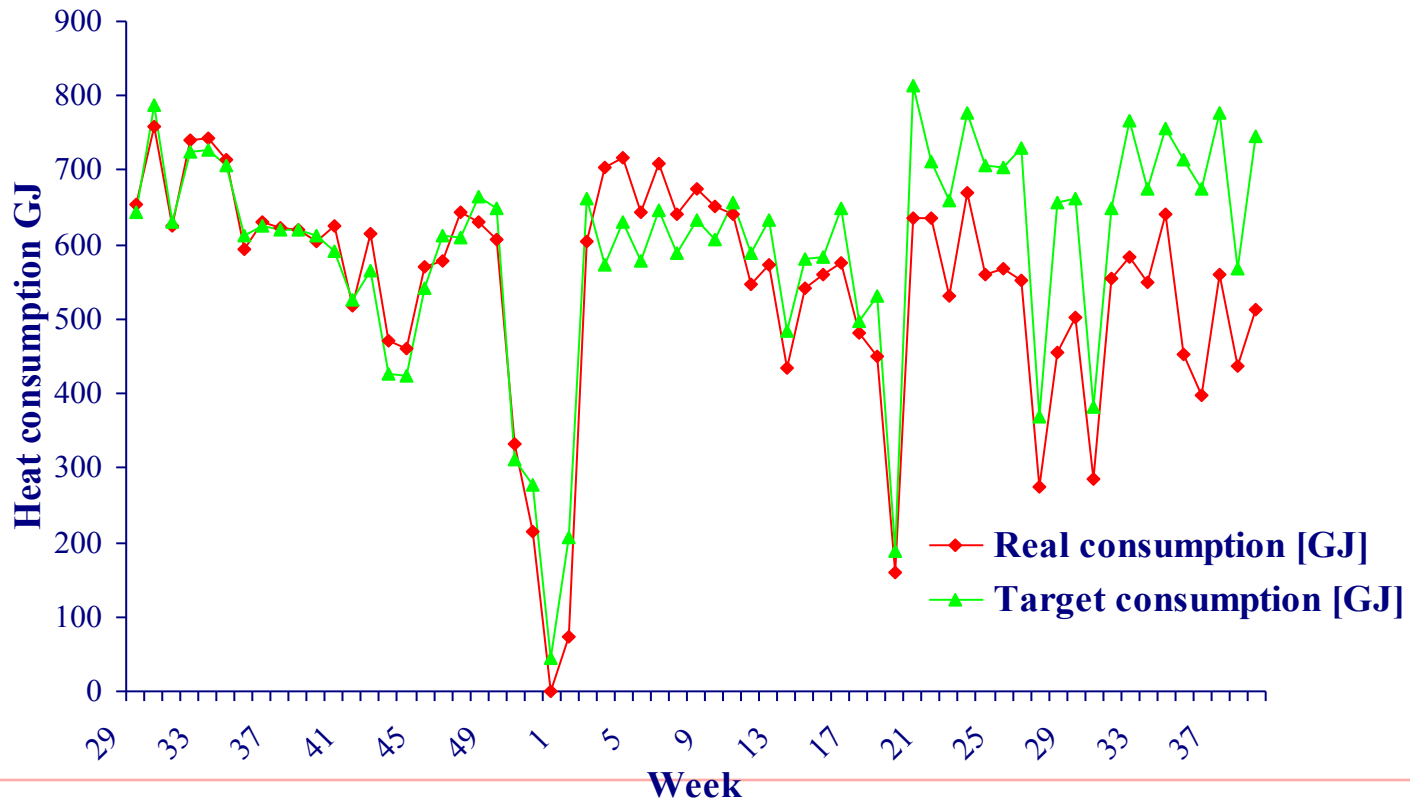
Implementation of M & T - example

Problem identification



Implementation of M & T - example

Implementation of RE measures

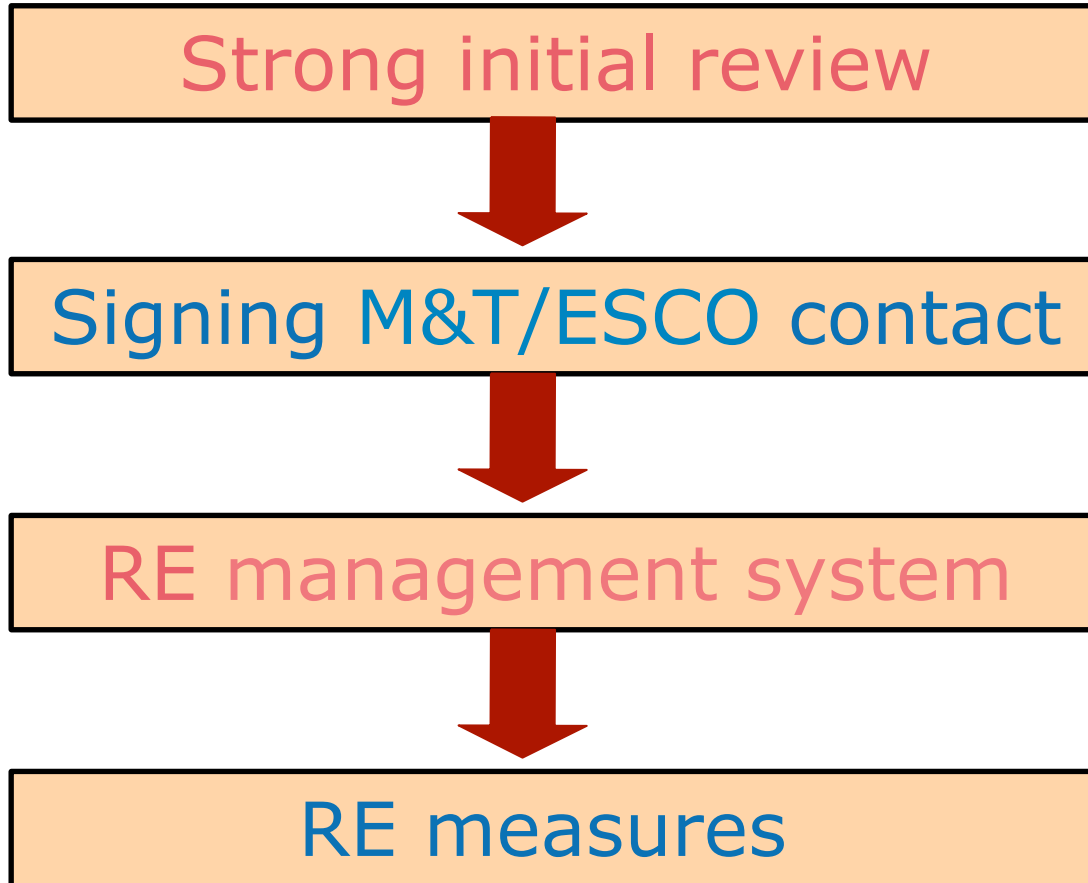


M&T/ESCO – tool for introduction of Resource Efficiency (RE) with no technical or financial risks for an enterprise (no cure, no pay) was developed within the

EMPRESS* *project of United Nations Environment Programme (UNEP) was financed by Global Environment Facility (GEF) and implemented with technical assistance of ENVIROS in the Czech and Slovak Republics (2008)*

* **E**nergy **M**anagement **P**erformance **R**elated **E**nergy **S**avings **S**cheme

EMPRESS: selected activities and outputs



Scoping Audit
– potential for improvement

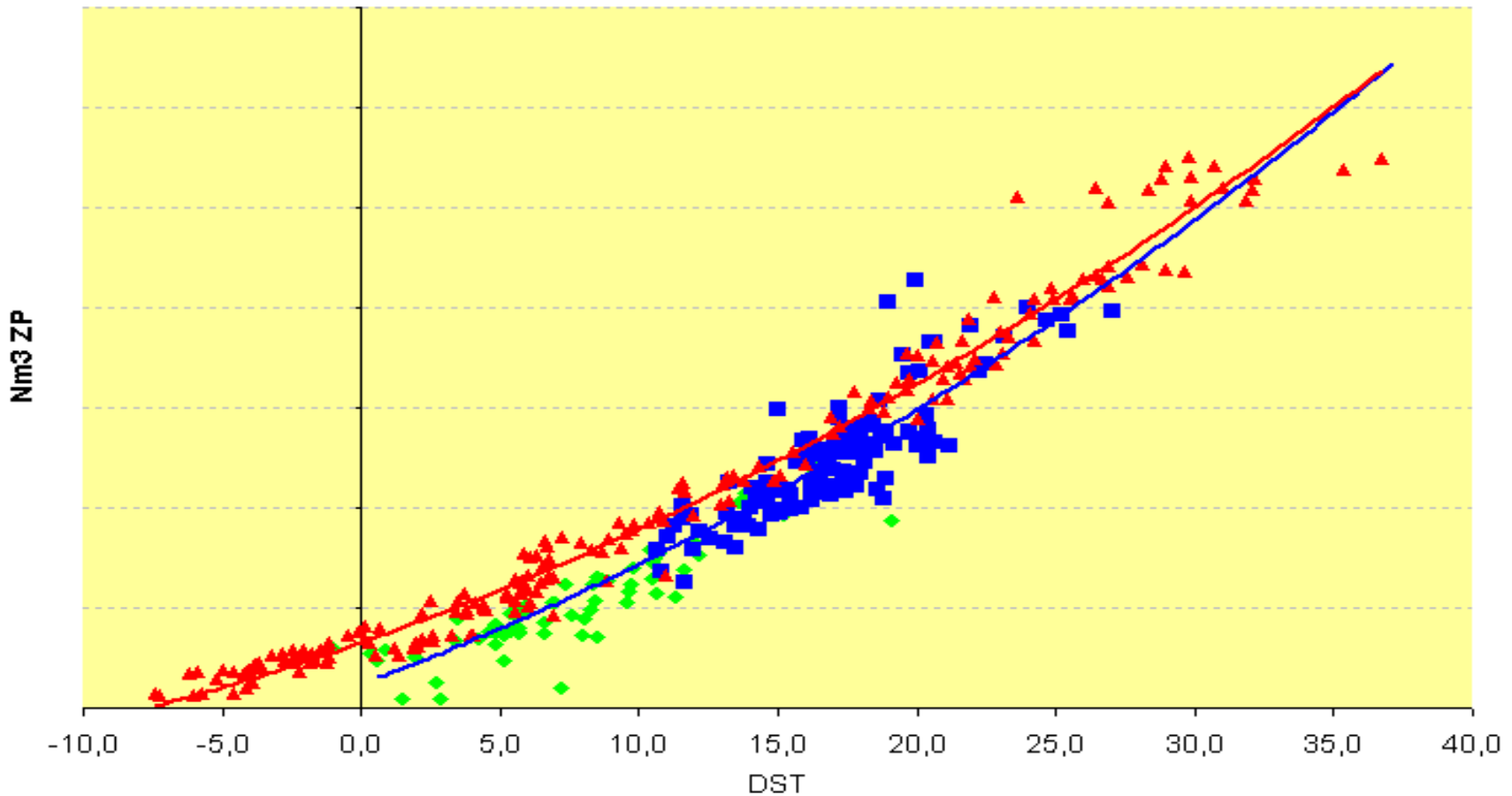
No cure no pay arrangement

Information system and baseline

Improvements verified against the baseline

- The initial review revealed sufficient potential for RE savings for entering into the M&T/ESCO contract in 88% of the sites reviewed
- ESCOs invested their own funds in implementation of M&T in 10 pilot sites
- Guaranteed savings were achieved in all pilot sites leading to CO₂ emission reductions of 83,000 tons of CO₂
- Due to the business risks (substantial reduction of production) one site did not fulfilled its contractual duties and did not pay ESCO the investment back

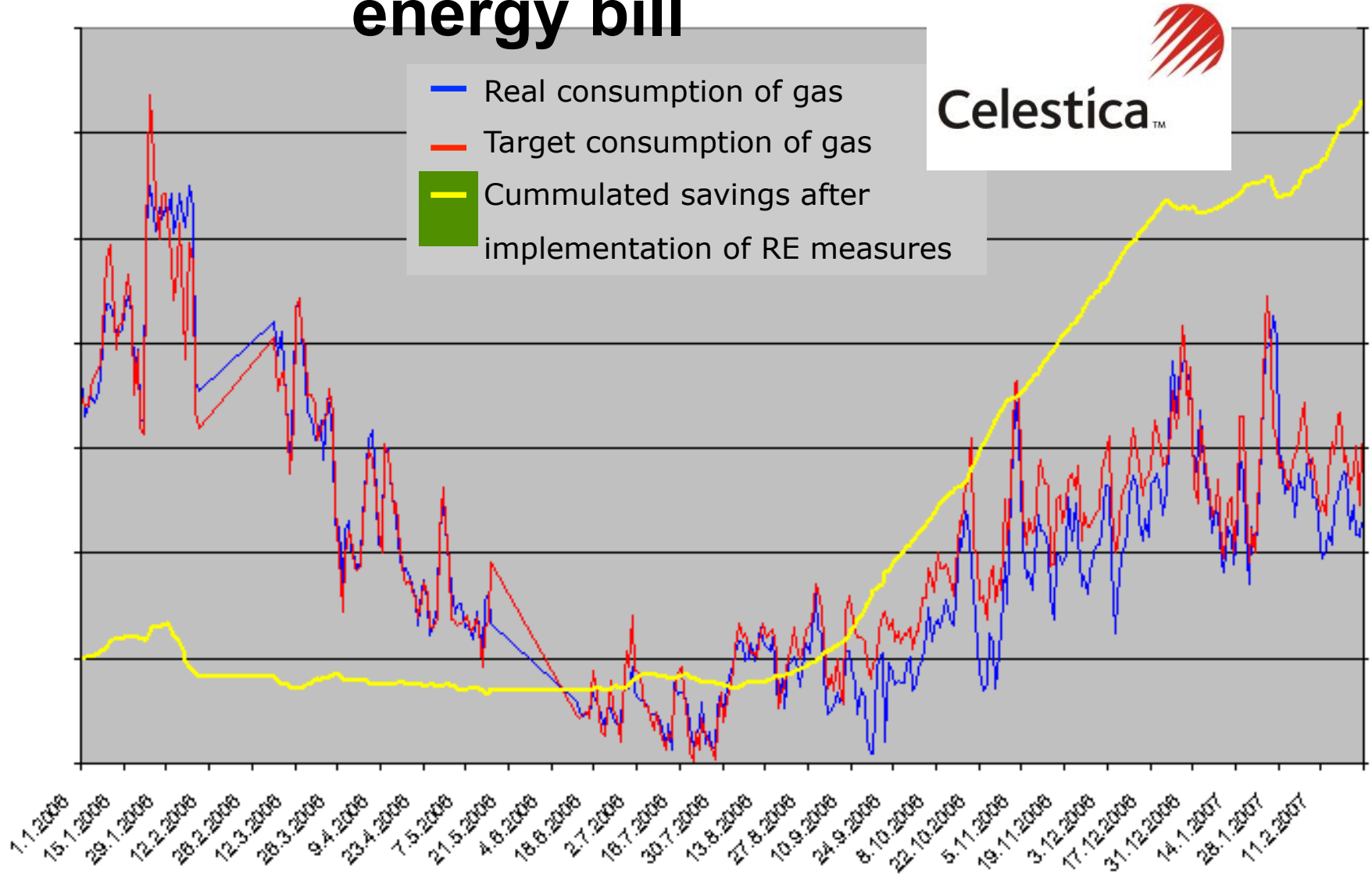
1) POTENTIAL FOR SAVINGS



Case Study M&T/ESCO

PRESURCE

2) 12% reduction of energy bill



- **M&T/ESCO has a potential to bring a break through in promotion of Resource Efficiency (RE)**
- **M&T/ESCO is a risky business for providers of technical assistance and financing**

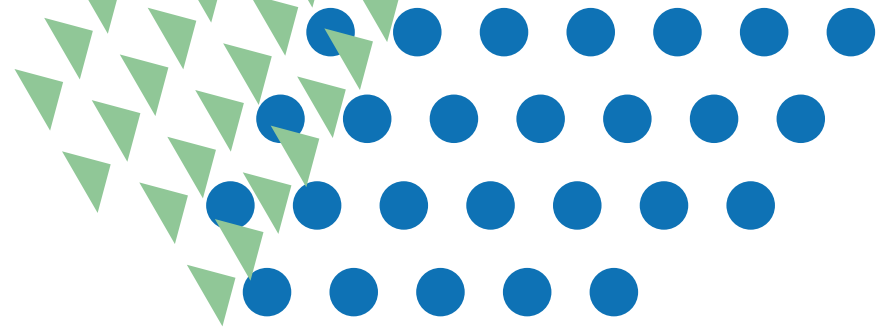
- EPC is a no cure, no pay arrangement which converts money wasted on energy intensive processes into energy conservation measures – needed investments are paid back from the reduced energy bill
- **This is a big challenge for broader use of EPC in SMEs as they:**
 - possess significant energy conservation potential
 - lack own resources for its exploration

- Baseline for verification of savings

Can be addressed through **Monitoring and Targeting**

- Business risk of client

Can be addressed through **FORFAITING** (turning financing of EPC project into an active debt and selling it to a bank)



Thank you for your attention!

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