PRESOURCE

ESCO

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

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CONTENT

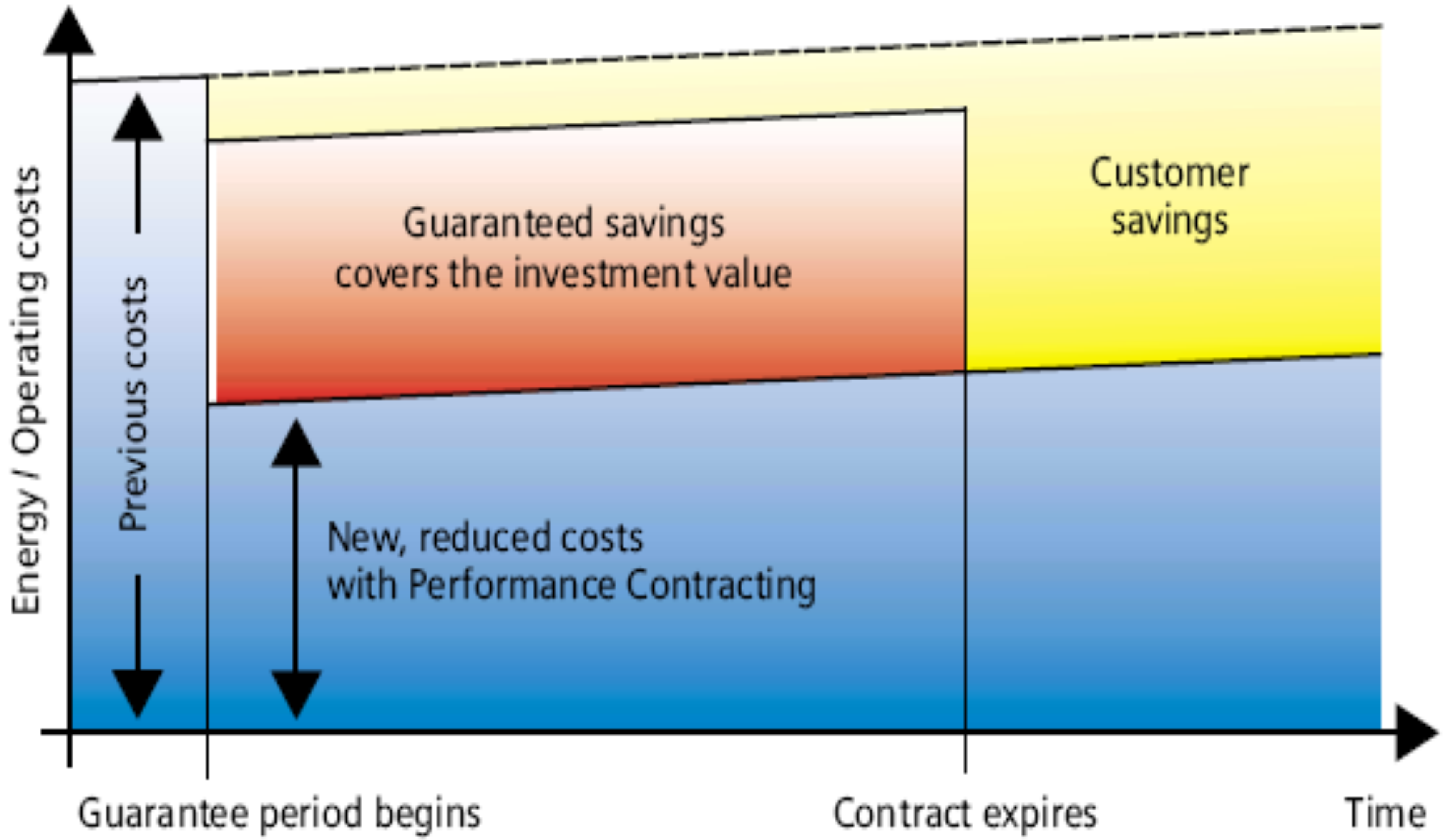
- Energy Performance Contracting (EPC)
- Monitoring and Targeting (M&T)
- M&T/ESCO
- Case study
- Conclusions

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



Project risk is taken by ESCO

- 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

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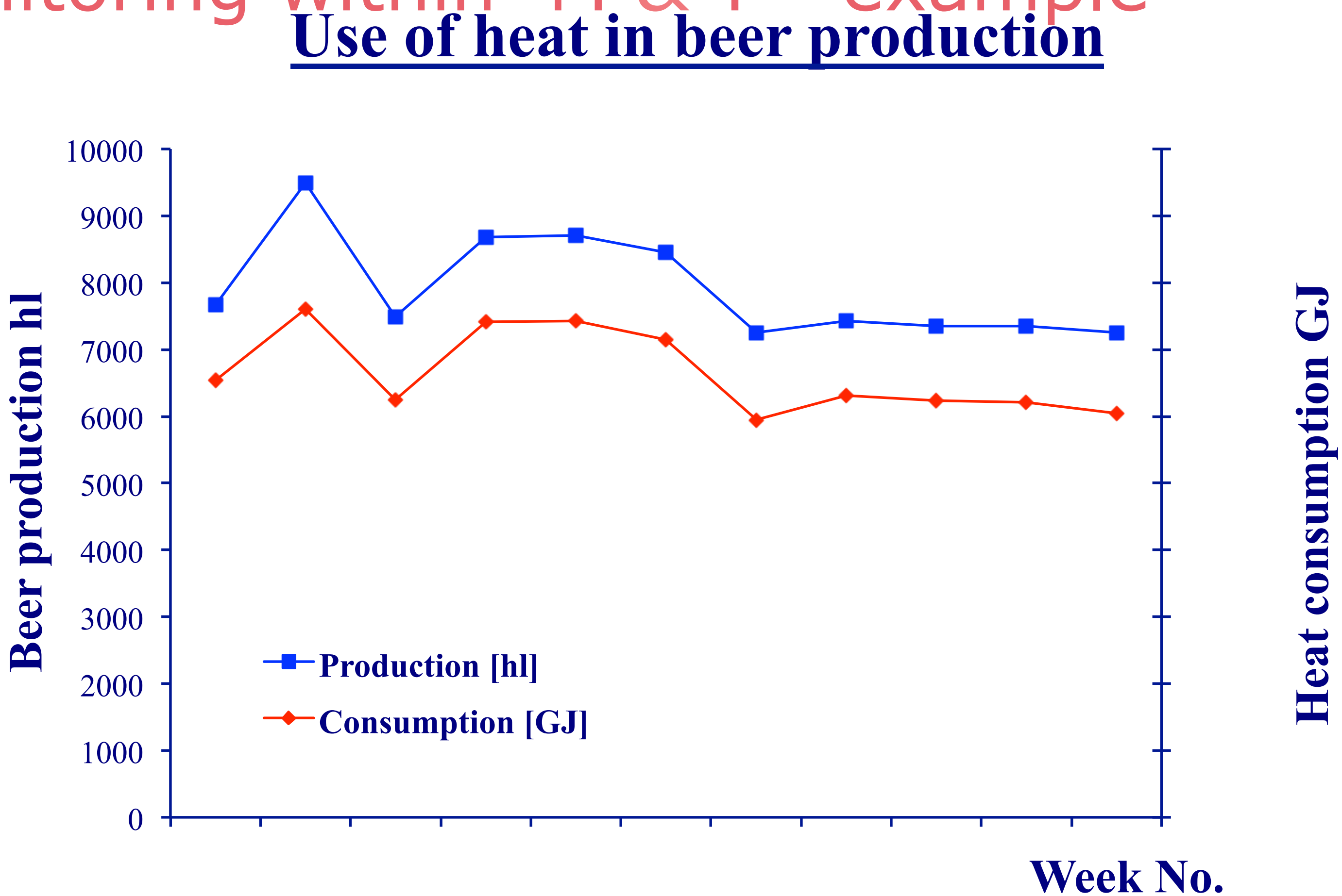
Monitoring within M & T - example



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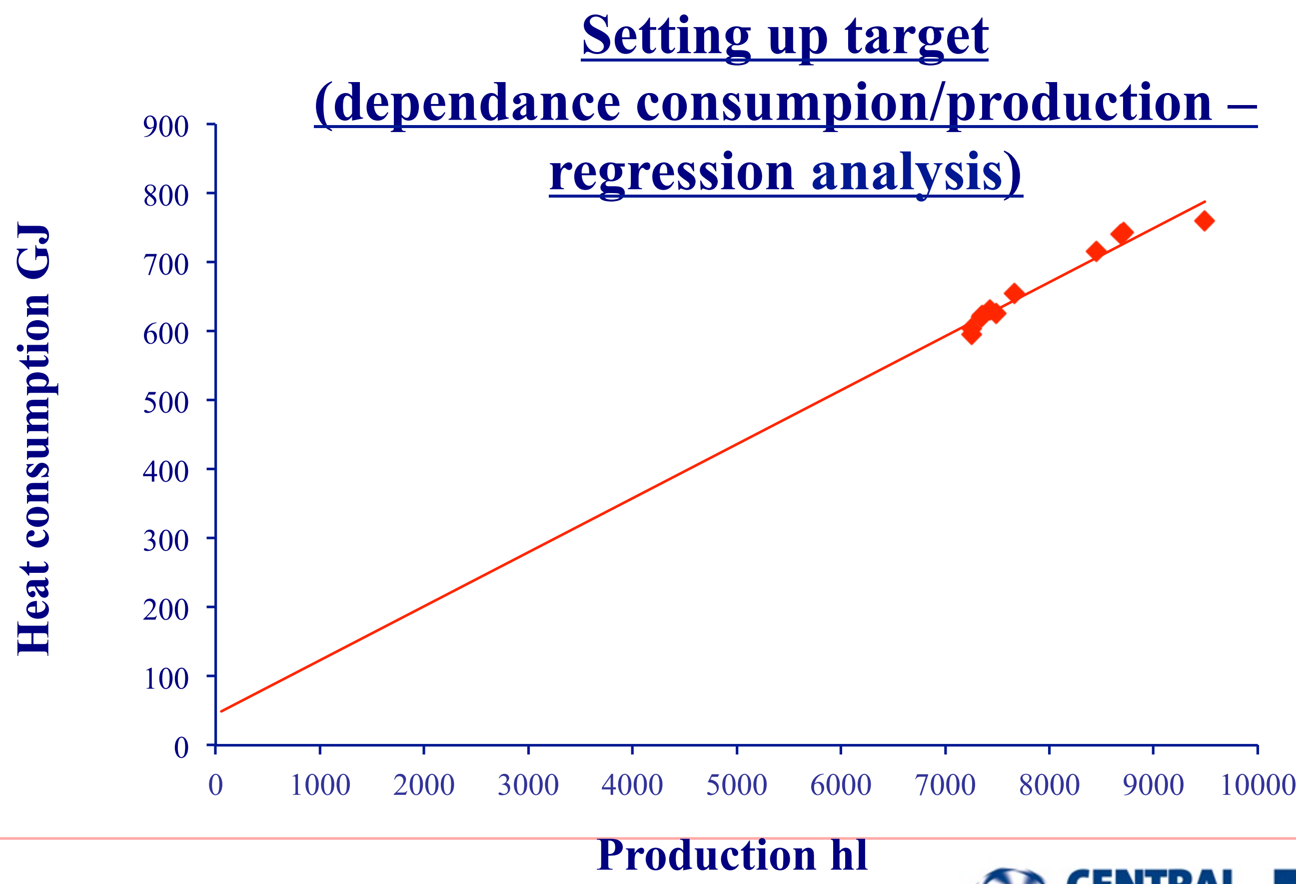
Targeting within M & T - example



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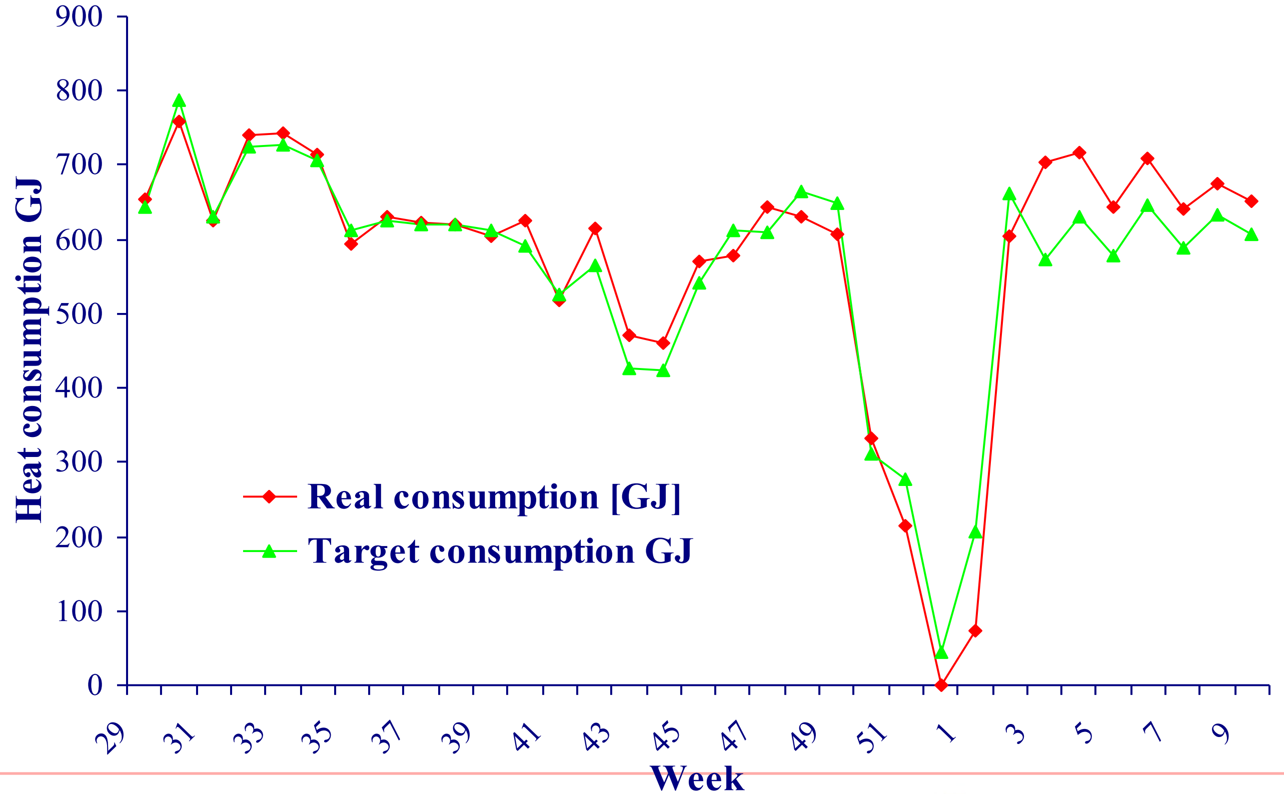
Implementation of M & T - example

Problem identification



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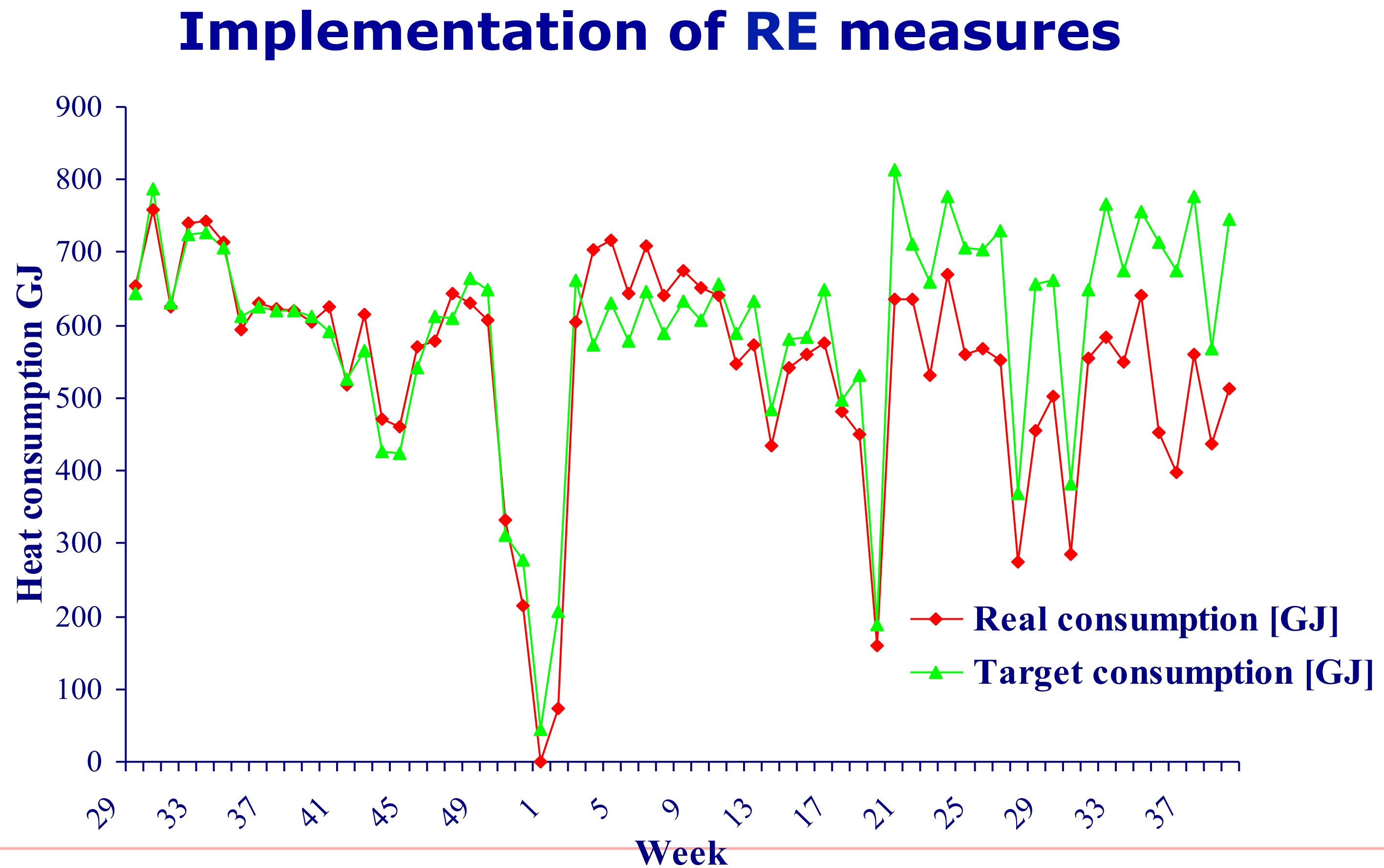
Implementation of M & T - example



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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

Strong initial review	Scoping Audit – potential for improvement
Signing M&T/ESCO contact	No cure no pay arrangement
RE management system	Information system and baseline
RE measures	Improvements verified against the baseline

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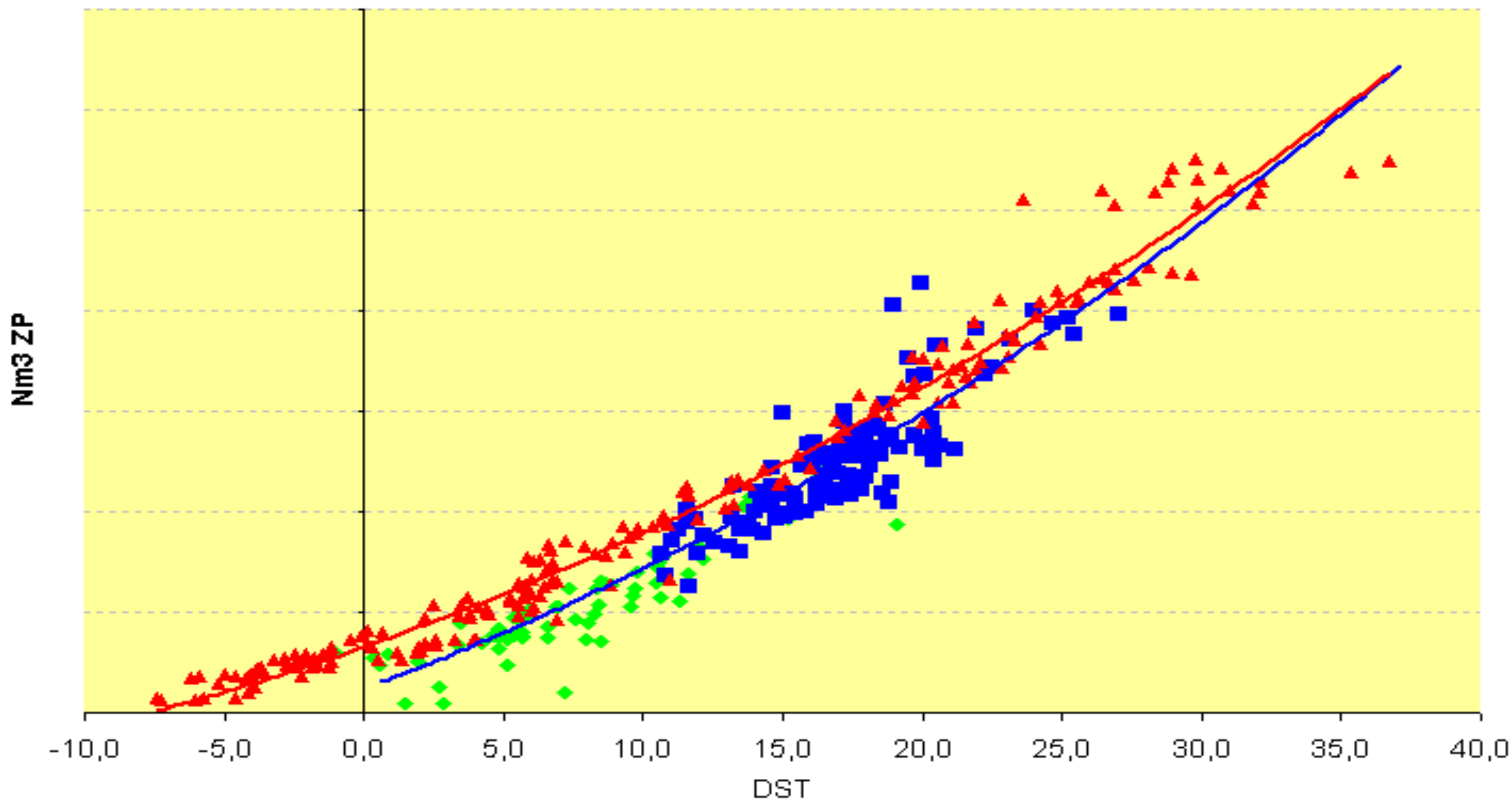
Selected results

- 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 CO_2 emission reductions of 83,000 tons of CO_2
- 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

Case Study M&T/ESCO

1) POTENTIAL FOR SAVINGS



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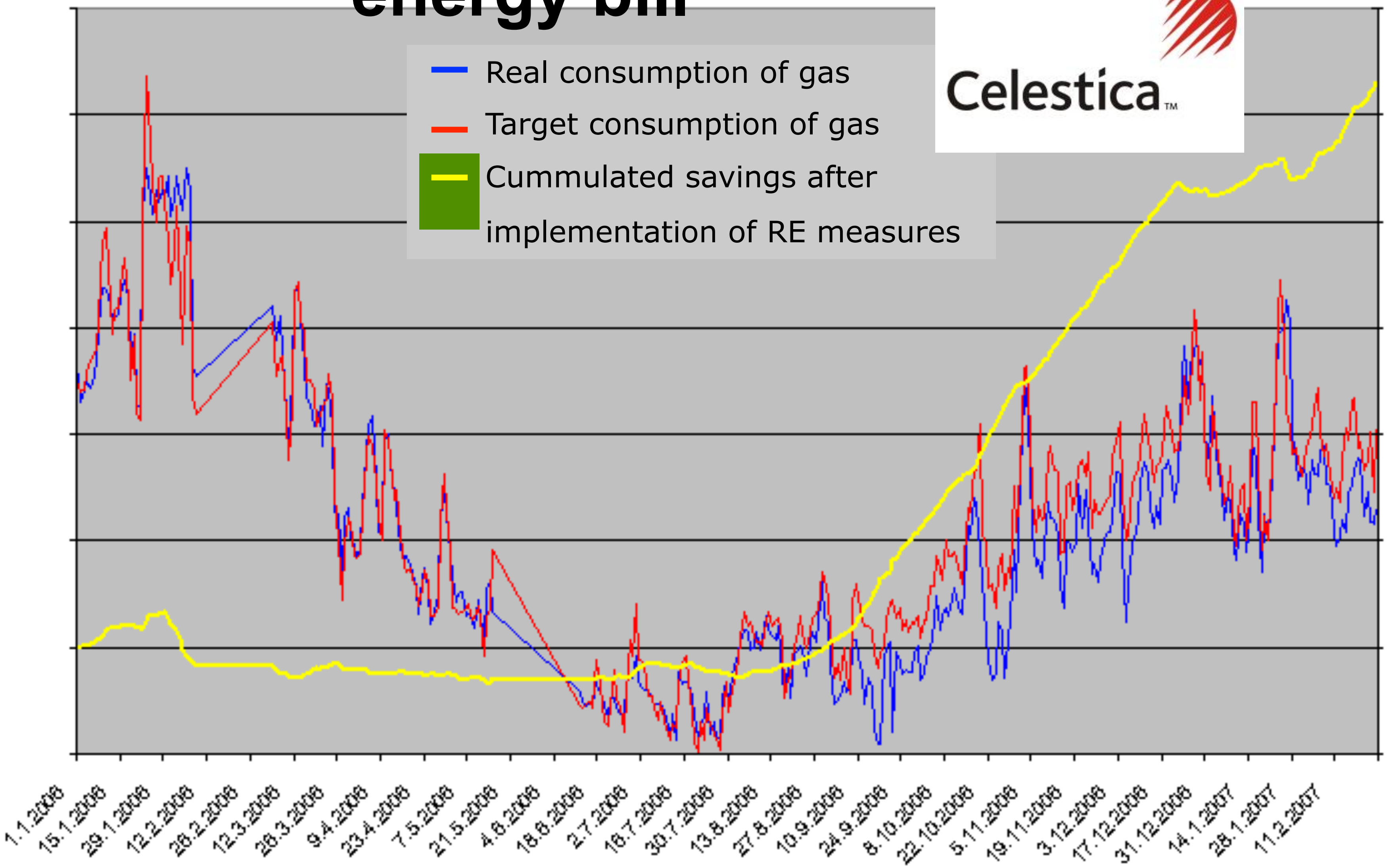
Case Study M&T/ESCO

2) 12% reduction of energy bill

Celestica



Major findings

- **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**

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Conclusions

- 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 brodear use of EPC in SMEs as they:**
  - possess significant energy conservation potential
  - lack own resources for its exploration

PRESOURCE EPC in SMEs – major challenges

- 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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