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Building up on the frontrunners experiences- How to make it happen




- Peter Hug, eu.ESCO

SUSTAINABLE AND COMPETITIVE HOTELS THROUGH ENERGY INNOVATION - NEZEH 2015
L'INNOVATION ÉNERGÉTIQUE AU SERVICE D'UN TOURISME DURABLE ET COMPÉTITIF
HÔTELS PRESQUE ZÉRO ENERGIE – EDITION 2015
24 June, 2015 – Nice ACROPOLIS




Where should you focus?

1 € spent on more efficient energy use avoids 2 € in investment in energy supply
Source: IEA

Supply Side   **Demand Side** 

The greenest energy is the energy that isn't generated

25.06.2015



eu, bac european association of energy service companies

What is an Energy Performance Contract?

A **partnership** between a customer and an energy services company (ESCO) that allows the customer to **improve the demand-side energy efficiency** of their facilities **without** any up-front capital costs or special loans

Using wasted energy to fund risk free carbon and energy reduction

25.06.2015

neZEH NEARLY ZERO ENERGY HOTELS
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What an Energy Performance Contract enables you to...

1. Upgrade your buildings with modern, energy efficient equipment... **with no impact on current operational budgets**
2. Reduce building energy consumption typically by over 20% ... **without additional investment**
3. Meet your carbon emissions targets... **at no additional cost**
4. Make major improvements... **without the need for up front capital**

The EPC programme money is already in your budget, currently paying for wasted energy

Sustainable and competitive hotels through energy innovation - neZEH 2015, 24 June 2015 Nice, France
L'innovation énergétique au service d'un tourisme durable et compétitif - Hôtels Presque Zéro Energie

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Why use EPC?

1. Completely self funding
2. Guarantee transfers financial and equipment performance risk to the ESCO – if the savings target isn't made, the ESCO pays the difference
3. Immediate improvements are made
 - Buildings upgraded with modern, reliable energy efficient equipment
 - Comfort conditions are improved for occupants
 - Carbon reduction
 - Improvement path for CRC benefits
4. No need for additional personnel
5. Creates job opportunities
6. Proven process

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EPC – How the funding works

€

Energy and O&M Costs

Your annual costs today

Energy savings fund the improvement programme

Energy and O&M Costs

Your annual costs during EPC

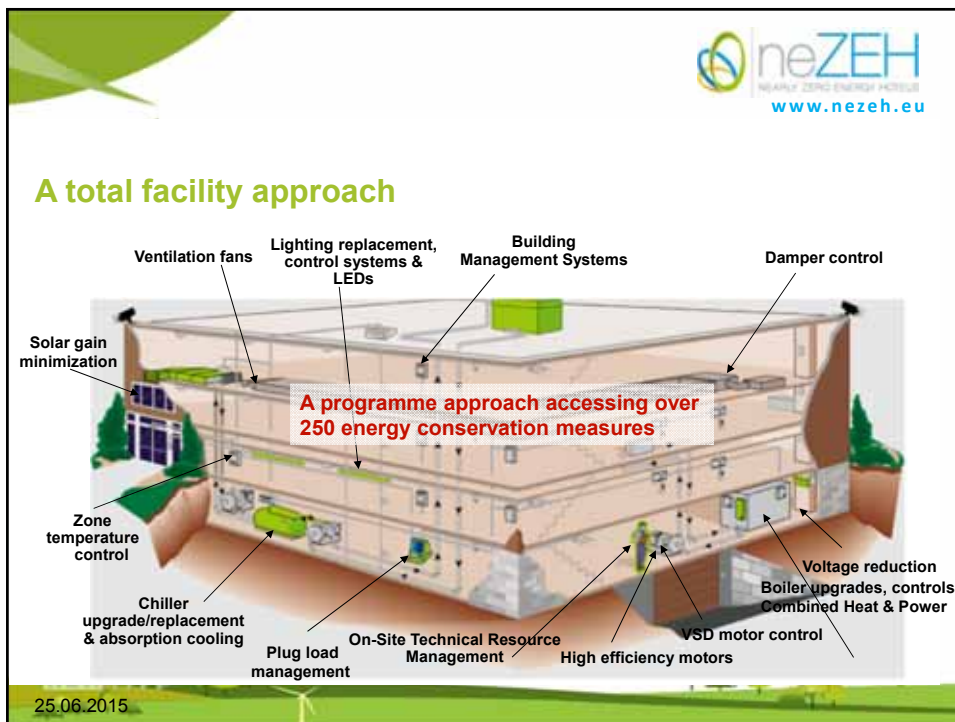
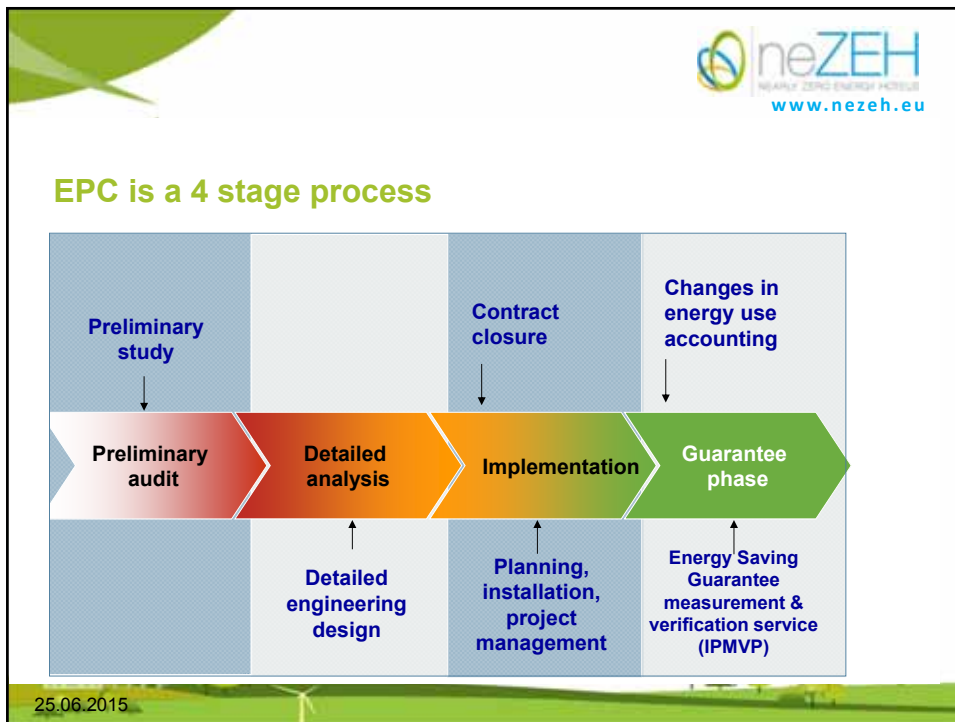
Savings continue

Energy and O&M Costs

Your annual costs after EPC

Current During EPC Programme After EPC Programme

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Energy efficiency is the unseen elephant in the room






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References – Building Automation

Boutique Hotel Stadthalle Vienna, AT


Customer requirements
Presenting a zero-energy balance within twelve months.

Siemens solution
130 m² solar thermal system is used for fresh air preheating for ventilation and water heating. The necessary air exchange is realized through a residential ventilation system with ≥ 90% heat recovery.

Customer benefit
The building management system DESIGO with PXC controllers and Web – operation as flexible measurement and control technology for heating and ventilation, regulation, concrete core activation, water heating, solar panel system and buffer management.




Building automation (2011)



References – Energy Efficiency

Hotel Excelsior, Hong Kong



Energy efficiency (2011)


Customer requirements
Renovation and modernization and optimize energy efficiency.

Siemens solution

- Chillers upgrade for efficiency enhancement
- Chilled Water Pumps & Condensing Water Pumps upgrade for better cooling load
- Building Automation system upgrade
- Cooling Plant optimization
- Energy Monitoring System for measurement and verification


Customer benefit

- Increase cooling capacity to serve extra cooling load after hotel's renovation
- Hotel group's energy efficiency plan
- No interruption to operation during retrofit



References – Energy Efficiency

Lindner Hotels, DE




Energy efficiency (2011)

Customer requirements
The hotel planned to cut its energy consumption by at least 10% through zero-investment and investment measures with a payback period of less than one year.

Siemens solution
Following a thorough analysis of all building systems, Siemens upgraded the heating, ventilation, and air-conditioning systems as well as the lighting of the eight buildings within a year as a part of Energy Saving Performance Contracting.

Customer benefit
Reduction of energy costs by a contractually guaranteed total of 3.6 million euros per year, and CO₂ emissions are reduced by 19,000 t.





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Thank you for your attention

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