Re-Commissioning – Raising Energy Performance in Existing Non-Residential Buildings (Hospitals, Universities, Office Buildings)

The Re-Co project aimed at developing, testing and promoting a systematic Re-Commissioning approach to improve the operation and maintenance of non residential complex buildings with no- or low-cost measures. The Re-Commissioning approach is based on 5 key components: 1. Energy information systems, 2. Data analyses and selected measurement, 3. Optimization of existing building technology, 4. Information and motivation of building occupants and 5. Performance measurement and quality assurance. The project was guided by three main objectives: 1. All project partners had to perform one concrete pilot Re-commissioning projects and save at least 10% of final energy through low-or-no-cost measures in their pilot buildings. 2. The project partners had to share their various know-how and experiences to define the best available Re-Commissioning process. 3. All project partners had to execute a national dissemination and networking strategy to spread Re-Co experiences and good practice examples.

Results

The 14 Re-Co pilot projects have shown in practice that final energy savings in the range of 10-15% are realistic when applying re-commissioning, leading to payback periods of 1 year or less. The average internal rate of return (IRR) of the pilot projects is 73%, proving that investments in carrying out the Re-Co measures are also financially attractive. In situations where there is currently no money or willingness to invest in new installations, by applying only no-or-low-cost measures, re-commissioning can open the door to energy efficiency investments and can therefore be seen as THE WAY TO START energy efficiency activities.

In addition to the pilot projects, the project has also produced valuable and useful support tools on Re-Commissioning such as the Re-Commissioning Guidebook and the Re-Co brochure, the market survey on re-commissioning, a paper on policy drivers and regulatory frameworks, the Triple C Concept (Creating Commitment to Change), the pilot projects’ videos and much more.

Lesson learned

- The Re-Co pilot projects actually point to a very attractive economic performance with high profit margins and an average internal rate of return (IRR) of 69% for hospitals and 78% for offices.
- On the condition that the savings benchmark of 10% is largely achieved, Re-Co projects show a
very attractive economic performance with high profit margins (see Table 1). Because the Re-Co approach reveals quite a high share of fixed costs (costs that cannot be directly attributed to implementation of the savings measures; these costs are mainly ‘start-up costs’ including energy analysis, identification of measures and overall project management), the profitability depends strongly on the size of the projects: Large projects tend to be remarkably more profitable than smaller ones.

- User motivation activities are an integral and important part of Re-Co projects since users have a considerable impact on the energy consumption of buildings. Different user motivation approaches were tested in the pilot projects.

**Partners and coordinator**

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**Contact point**

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**Budget**

Overall budget: 1.637.788,00 € (EU contribution: 75,00 %)

**Key documents**

- [Brochure on Re-Commissioning](#) [2]  
  PDF 2.33 MB  
- [Guidebook re-commissioning](#) [3]

**In brief**

Sector: Buildings  
Duration: 01/09/2011 to 01/06/2014  
Contract number: IEE/10/328  
Website: http://www.re-co.eu
Tags:
building
energy audit
Energy Service Company (ESCO)
good practice
monitoring
performance
refurbishment
renovation

Related projects

- [EPLABEL] A programme to deliver energy certificates for display in public buildings...
- [AVASH] Advanced Ventilation Approaches for Social Housing
- [ENPER EXIST] Applying the EPBD to improve the ENergy PErformance Requirements to...
- [ASIEPI] Assessment and improvement of the EPBD Impact (for new buildings and...
- [BESTFACADE] Best Practice for Double Skin Facades
- [BUILDING ADVENT] Building Advanced Ventilation Technological examples to demonstrate...
- [CEPH] Certified European Passive House Designer
- [CHECK IT OUT!] Check and improve the energy performance of schools and disseminate best...
- [DATAMINE] Collecting data from energy certification to monitor performance...
- [COMMONONSE] Comfort monitoring for CEN Standard EN15251 linked to EPBD
- [CYBER DISPLAY] Communicate Your Buildings Energy Rating
- [CA EPBD II] Concerted Action supporting transposition and implementation of Directive...
- [CONSTRUCTION21] CONSTRUCTION21- A EUROPEAN GREEN BUILDING EXCHANGE
- [CERTuS] Cost Efficient Options and Financing Mechanisms for nearly Zero Energy...
- [AFTER] Cost Optimum and Standard Solutions for Maintenance and Management of the...
- [ROSH] Development and marketing of integrated concepts for energy efficient and...
- [EEBD] Development of an interactive vocational Web training tool for the take-...
- [VENT DISCOURSE] Development of Distance Learning Vocational Training Material for the...
- [EDUCATION21] Energy Efficiency Paths in Educational Buildings
- [COOLREGION] Energy efficient Cooling in regions of North and Central Europe
- [ECOLISH] Energy Exploitation and Performance Contracting for Low Income and Social...
- [EI-EDUCATION] Energy Intelligent Education for Retrofitting of Social Houses
- [EPI-CREM] Energy Performance Integration in Corporate Public Real Estate Management
- [EPI-SOHO] Energy Performance Integration in Social Housing, a strategic approach for...
- [ENSILIC BUILDING] Energy Saving through promotion of Life Cycle analysis in Building
- [INTELLIGENT METERING] Energy Savings from Intelligent Metering and Behavioural Change
- [ESAM] Energy Strategic Asset Management in Social Housing Operators in Europe
- [E-TOOL] Energy-toolset for improving the energy performance of existing buildings
- [EDUCATE] Environmental Design in University Curricula and Architectural Training in...
• [EPEE [35]] European fuel Poverty and Energy Efficiency
• [EULEB [36]] European High Quality and Low Energy Architecture
• [ENFORCE [37]] European Network for the Energy Performance Certification of Buildings
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### Videos and Photos

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<tr>
<td>Energy savings through low- or no-cost measures [89]</td>
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Source URL: https://ec.europa.eu/energy/intelligent/projects/en/projects/re-co

Links

[88] http://www.youtube.com/watch?v=qVHsvV5FlqU
[89] http://www.youtube.com/watch?v=vM2_Sp53ATk