Tool-Kit for "Passive House Retrofit"

E-RETROFIT-KIT

Social housing companies in 14 countries were given the chance to benefit from a tool kit designed to help them carry out retrofitting in such a way as to considerably reduce primary energy consumption (by up to 120 kWh/m² a year.) The tool kit includes best practices, “Passivhaus” standards and a methodology. Retrofitting methods include better insulation, air-tightness and balanced ventilation which encompass cooling in southern climes.

Results

- Web-tool describing possible measures for typical buildings now operational in 11 languages.
- 35 energy saving measures for low energy retrofitting using the Passivhaus technology.
- Links to manufacturers of products, components and materials to help the implementation of such measures are provided in the web-tool.
- Developments of low energy concepts for retrofitting in hot southern European climates.

Lesson learned

- The retrofitting to 'Passivhaus' standards can take place in buildings, which have to carry out a thorough retrofitting, typically due to physical degradation of the building, bad housing comfort or social degradation of the neighbourhood.
- Specific products for the retrofitting to "Passivhaus" standards have not yet been identified as part of the certification process, e.g. insulation systems for existing buildings, pre-fabricated roof top housing elements or ventilation systems adapted to existing buildings. Such products shall be identified.
- Specific and concrete concepts for the retrofitting of social housing to the "Passivhaus" standards have not been developed for Southern European climates with problems of over-heating. These concepts have to be developed as part of the project.

Partners and coordinator

<table>
<thead>
<tr>
<th>Partner</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faellesbo Amba</td>
<td>Denmark</td>
</tr>
<tr>
<td>Energieinstitut Vorarlberg</td>
<td>Austria</td>
</tr>
<tr>
<td>COWI A/S</td>
<td>Denmark</td>
</tr>
<tr>
<td>Busto Agentura Public Institution Housing Agency</td>
<td>Lithuania</td>
</tr>
<tr>
<td>Energy research Centre of the Netherlands</td>
<td>Netherlands</td>
</tr>
<tr>
<td>Asociación de Investigación y Cooperación Industrial de Andalucía</td>
<td>Spain</td>
</tr>
</tbody>
</table>
Contact

Faellesbo Amba
Denmark

Contact point

Name: Hans Bjerregaard
E-mail: hans@bjerregaard.com
Tel: 0045 8676 0917 - 0045 2015 0520

Budget

Overall budget: 877.230,00 € (EU contribution: 50,00 %)

Key documents

- E-retrofit Kit Project Report [7]
  PDF 1.86 MB

In brief

Sector: Buildings

Duration: 01/01/2006 to 31/12/2007

Contract number: EISAV/EIE/05/091/2005

Website: http://www.energieinstitut.at/retrofit/

Tags:

building

Related projects

- [EPLABEL] [8] A programme to deliver energy certificates for display in public buildings...
- [AVASH] [9] Advanced Ventilation Approaches for Social Housing
- [ENPER EXIST] [10] Applying the EPBD to improve the ENergy PErformance Requirements to...
- [ASIEPI] [11] Assessment and improvement of the EPBD Impact (for new buildings and...
- [BESTFACADE] [12] Best Practice for Double Skin Facades
- [BUILDING ADVENT] [13] Building Advanced Ventilation Technological examples to demonstrate...
- [CEPH] [14] Certified European Passive House Designer
- [CHECK IT OUT!] [15] Check and improve the energy performance of schools and disseminate best...
• [DATAMINE] Collecting data from energy certification to monitor performance...
• [COMMONCENSE] 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...
• [EDUCA RUE] 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...
• [EL-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] European fuel Poverty and Energy Efficiency
• [EULEB] European High Quality and Low Energy Architecture
• [ENFORCE] European Network for the Energy Performance Certification of Buildings
• [E-SEAP] European Sustainable Energy Award for Prisons
• [AUDITAC] Field benchmarking and Market development for Audit methods in Air...
• [GREENBUILDING] GREENBUILDING
• [HARMONAC] Harmonizing air-conditioning inspection and audit procedures in the...
• [IMPLEMENT] IMPLEMENT - The EPBD in Action
• [IMPACT] Improving energy Performance Assessments and Certification schemes by Tests
• [ISEES] Improving the Social Dialogue for Energy Efficient Social Housing
• [ILETE] Initiative for Low Energy Training in Europe
• [INOFIN] Innovative Financing of Social Housing Refurbishment in Enlarged Europe
• [CENSE] Leading the CEN standards on energy performance of buildings to practice....
• [GREENBUILDINGPLUS] Leveraging the GreenBuilding Programme (GBP) to promote energy-efficiency...
• [LCC-DATA] Life-Cycle-Cost in the Planning Process. Constructing Energy Efficient...
• [ENERGY TROPHY+] Magnify success: Extension of the European Energy Trophy competition to 18...
• [PASSIVE-ON] Marketable Passive Homes for Winter and Summer Comfort
• [IDES-EDU] Master and Post Graduate education and training in multidisciplinary teams...
• [NIRSEPES] New Integrated Renovation Strategy to improve Energy PErformance of Social...
• [NZB2021] NZB2021 ‘Doors Open Days’ – sharing experiences from low energy buildings...
• [FACTOR 4] Programme of actions Factor 4 in existing social housing in Europe
• [COOL ROOFS] Promotion of cool roofs in the EU
• [PEP] Promotion of European Passive Houses
• [NEZER] Promotion of smart and integrated NZEB renovation measures in the European...
• [NORTHPASS] Promotion of the Passive House Concept to the North European Building...
• [RE-CQ] Re-Commissioning – Raising Energy Performance in Existing Non-Residential...
• [REPUBLIC_ZEB] Refurbishment of the Public building stock towards nZEB
• [REQUEST2ACTION] Removing barriers to low carbon retrofit by improving access to data and...
• [RESHAPE] Retrofitting Social Housing and Active Preparation for EPBD
• [SAVE@WORK4HOMES] SAVE@Work4Homes - Supporting European Housing Tenants in Optimising...
• [STABLE] Securing The Take-off of Building Energy Certification: Improving Market...
• [KEEPCOOL] Service Buildings Keep Cool: Promotion of "sustainable cooling"...
• [SMART-E BUILDINGS] Smart-e buildings - yes we canEnable the building sector to contribute to...
• [SHARE] Social Housing Action to Reduce Energy Consumption
• [STEP-2-SPORT] STEP-by-STEP renovation towards nearly zero energy SPORT buildings
• [SAVE AGE] Strenghtening Energy Efficiency Awareness Among Residential Homes for...
• [SENTRO] Sustainable Energy systems in New buildings- market inTROdution of...
• [SURE-FIT] Sustainable Roof Extension Retrofit for High-Rise Social Housing in Europe
• [TACKOBST] Tackling Obstacles in Social Housing
• [THERMCO] Thermal comfort in buildings with low-energy cooling
• [BUILDING EQ] Tools and methods for linking EPDB and continuous commissioning
• [TOWARDS CLASS A] Towards Class A - Municipal Buildings as Shining Examples
• [TREES] Training for Renovated Energy Efficient Social housing
• [REE_TROFIT] Training on Renewable Energy solutions and energy Efficiency in...
• [KEEP COOL II] Transforming the market from "cooling" to "sustainable...  
• [TABULA] Typology Approach for Building Stock Energy Assessment
• [USE EFFICIENCY] Universities and Students for Energy Efficiency


Links
roject_report_en.pdf