QUALICHeCK International WORKSHOP

Performance of thermal insulation in low energy buildings and advanced building renovation projects

Brussels 15 December 2016
Overall introduction

Peter Wouters
Manager INIVE EEIG
Coordinator QUALICHeCK project
Overall introduction

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INIVE

International Network for Information on Ventilation and Energy Performance
You expect a reliable label

... and you expect a good quality
You expect a reliable label

... and you expect a good quality
• Thermal insulation
• Solar shading
• Ventilative cooling
• ...

... and you expect a good quality
Article 18 Independent control system

1. Member States shall ensure that independent control systems for energy performance certificates and reports on the inspection of heating and air-conditioning systems are established in accordance with Annex II.

2. The Member States may delegate the responsibilities for implementing the independent control systems. Where the Member States decide to do so, they shall ensure that the independent control systems are implemented in compliance with Annex II.

3. Member States shall require the energy performance certificates and the inspection reports referred to in paragraph 1 to be made available to the competent authorities or bodies on request.
Article 27 Penalties

• Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that they are implemented.

• The penalties provided for must be effective, proportionate and dissuasive.

• Member States shall communicate those provisions to the Commission by 9 January 2013 at the latest and shall notify it without delay of any subsequent amendment affecting them.
Article 19 Review

The Commission, assisted by the Committee established by Article 26, shall evaluate this Directive by 1 January 2017 at the latest, in the light of the experience gained and progress made during its application, and, if necessary, make proposals.

November 30: Clean Energy Package
→ Presentation by Frances Bean - BPIE
The Concerted Action EPBD (CA EPBD) addresses the Energy Performance of Buildings Directive (EPBD). It aims to contribute to the reduction of energy use in European buildings, through the exchange of knowledge and best practices in the field of energy efficiency and energy savings between all 28 European Union Member States plus Norway.

News

CA3 Book Available Online
The country reports of the CA3 Book can now be individually downloaded on the CAIV website, under the country information section. These provide the status of the implementation of the EPBD in each MS up to the end of 2014.

Please find a link to the publication at www.epbd-ca.eu/ca-outcomes/2011-2015. Please note, the publication has
Compliance and Control

OVERVIEW AND OUTCOMES

AUGUST 2015

1. Introduction

The Energy Performance of Buildings Directive (EPBD) emphasises compliance and control as vital elements for its successful implementation. This report contains information, statistics, outcomes and conclusions from the dialogue on national approaches to compliance and control during the period 2011-2015.

The discussions within the Concerted Action EPBD (CA EPBD) focused mostly on compliance with the energy performance requirements and control of the Energy Performance Certificates (EPCs). As Member States (MSs) implemented the EPBD, experience of enforcing energy performance requirements and of EPC quality control has grown significantly, but it seems that there are still quite a few substantial challenges preventing the EPBD from being fully implemented and thus...

This report attempts to obtain the relevant information from every MS in the EU. However, as this was not possible for every aspect, the total number of countries covered in some statistics may be less than twenty-eight (or twenty-nine including Norway).

2. Objectives

Directive 2010/31/EU introduced two new obligations for the MSs, in order to improve the quality and effectiveness of its implementation:

- MSs shall lay down the rules on penalties for infringement of the national provisions adopted pursuant to the Directive (Article 27).
- MSs shall implement an independent control system for EPCs and for...

AUTHORS

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2 objectives of QUALICHeCK

• To set up a series of actions which should result in more attention and practical initiatives for **actual compliance with the EPC for new and renovated buildings**
  i.e. ‘Boundary conditions which force people to do what they declare’

• To set up a series of actions, which should result in more attention and practical initiatives for **achieving a better quality of the works**,  
  i.e. ‘Boundary conditions which stimulate and allow the building sector to deliver good quality of the works’
QualiCheck project (2014-2017)

Status of compliance and quality on the ground

Solutions

Easy access of compliant EPC input data

Towards more quality of the works

Towards better compliance and effective penalties
4 focus areas in QUALICHeCK

- Transmission characteristics
- Ventilation and airtightness
- Sustainable summer comfort techniques
- Renewables in multi-energy systems
QUALICHeCK products and outcomes

1. About the status on the ground...
2. About interesting approaches...
3. About guidance for improvements
QUALICHeCK products and outcomes

A whole range of QUALICHeCK outcomes

- Various reports
- 9 country reports
- +50 fact sheets
- 6 newsletters
- 16 webinars
- 3 conferences (Brussels)
- 4 workshops
- 9 national roadshows
- 3 special issue of REHVA Journal
- 2 booklets
- ...
Meeting of QUALICHeCK PLATFORM: Wednesday February 22 AM
Source book for improved compliance of Energy Performance Certificates (EPCs) of buildings

Source book on Guidelines for better enforcement of quality of the works
FACT SHEET #23 | Procedures for determining input data for the Energy Performance Certificate (EPC) of existing residential buildings in Belgium
Posted on 2016/09/01 by Maria Dimitropoulou

The Energy Performance Certification system of existing residential buildings in Belgium includes clear procedures describing how the experts can determine the necessary input data. In general, these input data are directly observed in the building.

FACT SHEET #24 | EPC database and control system for compliant EPC input data in Sweden
Posted on 2016/09/01 by Maria Dimitropoulou

The Energy Performance Certificates (EPCs) database is a precondition for the implementation of an effective control system which is needed to ensure and enforce EPC compliance. This fact sheet describes the data entered in the Swedish EPC database, the automatic ... Continue reading →
The 3rd QUALICHeCK Conference took place in Brussels, Belgium, on 10 May 2016. The conference covered, among others:

- Lessons learned from new QUALICHeCK studies regarding quality of the works and compliant data for Energy Performance Certificates (EPCs)
- Guidelines for robust legal frameworks for better enforcement of EPC regulations
- The potential impact of Building Information Modelling (BIM) uptake regarding EPC calculations
- Energy Performance of Buildings Directive (EPBD) related databases

Initiatives to ensure quality of the works

You may download the Conference presentations from the table below (Right click on the PDF links and Save As...).

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<td>Outcome of Athens QUALICHeCK workshop on sustainable summer comfort</td>
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<td>Jarek Kurnitski, Tallinn University</td>
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<td>Towards better frameworks for EPC (Energy Performance Certificate) compliance</td>
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The BUILD UP initiative was established by the European Commission in 2009 to support EU Member States in implementing the Energy Performance of Buildings Directive (EPBD).

The BUILD UP web portal is intended to reap the benefits of Europe's collective intelligence on energy reduction in buildings for all relevant audiences. It will bring together new practitioners and professional associations while motivating them to exchange best working practices and knowledge and to transfer tools and resources. The BUILD web portal targets professionals working in the building sector (public or private) with an interest on the latest developments at technical or practice level, policy legislation, financial issues, etc.

BUILD UP is funded under the Intelligent Energy Europe programme that is managed by the Executive Agency for Small and Medium-sized Enterprises (EASME) on behalf of the European Commission.

The BUILD UP web portal is provided by the service providers PRACSIS sprl, INIVE EEIG and Sympraxis Team in the frame of a service contract signed with the EASME. The BUILD UP web portal is engineered based on open source software, including Drupal.
OVERVIEW - Nearly Zero-Energy Buildings – National applications of the EPBD definition

3 October 2016

The Recast EPBD Article 9 requires Member States to ensure that all new buildings are nearly zero-energy buildings (NZEBs) by 31 December 2020, and new buildings occupied and owned by public authorities are NZEBs after 31 December 2018.

Energy Savings Calculations under the Energy Efficiency Directive, Art. 7

12 February 2016
EPBD Map of Country Fact Sheets

EPBD List of Country Fact Sheets

- Austria
- Belgium Brussels
- Belgium Flanders
- Belgium Walloon
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Slovak Republic
- Slovenia
- Spain
- Sweden
- United Kingdom | England
- United Kingdom | Northern Ireland
- United Kingdom | Scotland
- United Kingdom | Wales

This content is provided by the Concerted Action Energy Performance of Buildings Directive (CA EPBD)
4 focus areas in QUALICHeCK

- Transmission characteristics
- Ventilation and airtightness
- Sustainable summer comfort techniques
- Renewables in multi-energy systems
MODULE 1:
Opening - the overall scene

• Welcome - Overall context for QUALICHeCK project and for this workshop
  Peter Wouters - INIVE

• Progress and challenges in achieving high performance building envelopes
  Arnold Janssens - UGent - Belgium

• The Clean Energy Package
  Frances Bean - BPIE
MODULE 2: Building junctions & databases

- Barriers and opportunities for achieving compliance and enforcement: application to transmission aspects
  Peter Wouters - INIVE

- Quality framework for the internal insulation of existing brick walls in Belgium
  Timo De Mets – BBRI - Belgium

- Thermal bridges calculation rules and accounting in energy calculation in various countries
  Jarek Kurnitski – Tallinn University of Technology - Estonia
MODULE 3: Super insulation materials

- Superinsulation materials: an overview of international research activities and new products on the market
  Daniel Quenard - CSTB - France

- How to determine the long term performance of vacuum insulation panels
  Roland Caps - VIPA

- Retrofitted listed buildings using vacuum insulation panels
  Pär Johansson - Chalmers University - Sweden

- How to ensure the quality of ETICS? Examples of what EAE members do to ensure durability and reliability of thermal insulation sytems
  Ralf Pasker - EAE-ETICS
MODULE 4: Insulation of walls - Quality of the works

- PANEL DISCUSSION moderated by Eric Winnepenninckx
  Jan Coumans, president FIEC TEC 1
  Benny De Blaere, president UEAtc
  Karsten Kathage, president EOTA and DIBt vice-President
  Georges Timmermans, director CIR

- Voluntary approach: Eurima technical research and guidelines for the design and installation of high thermal performance roofs
  Ross Holleron - Knauf Insulation
  Jelle Langmans - KU Leuven

- BUILT2SPEC: Tools for the 21st Century Construction Worksite
  Andrea Costa - R2M Solution Srl
Workshop

SPEAK UP!
This workshop is organised with the support from EURIMA (partner of QUALICHeCK Platform)
QUALICHeCK International WORKSHOP

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Brussels  15 December 2016