Continuity in management set of EPB standards

Sponsorship information

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EXECUTIVE SUMMARY

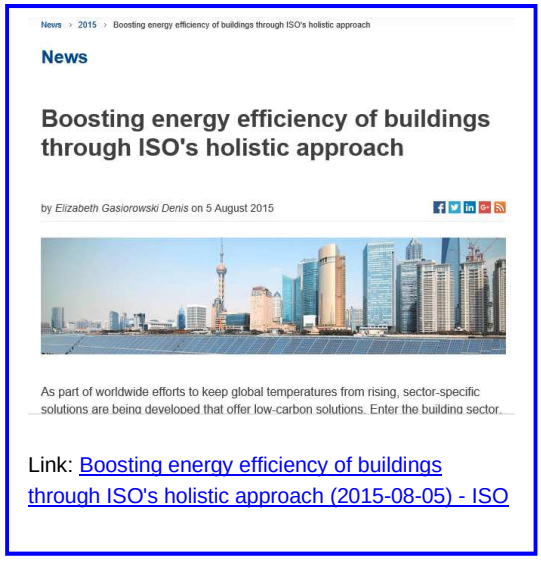
During the years 2011-2016 a set of standards on the energy performance of buildings (EPB) was developed in CEN and ISO. By mid-2016 the complete set of EPB standards and supporting documents will be submitted to CEN, and a subset also to ISO.

This standardization work was funded as a project by the European Commission. The funding of this project will end before the end of 2016. This concerns also the secretariat of the two key bodies in CEN and ISO for the coordination of the activities in CEN and ISO on the EPB standards development: ISO/TC 163/WG 4 and CEN/TC 371.

Without a continued central coordination of the process of maintenance and of keeping the technical content coherent and up to date, the work will disintegrate over individual Technical Committees, both in CEN and in ISO.

*This document concerns the **continued central coordination**: to plan, coordinate and guide the implementation and use of the standards and the preparation of technical content. Continuity in the process of maintenance and improvement of the set of EPB standards is needed to keep the set fit as an important instrument to support current and future national and international policy goals.*

The proposed activities lead to new standards and calculation products and to assistance in national implementation and on the relation with product performance (EU: Ecodesign). The idea is that the coordinating entity, the EPB center, will receive mid/term support by the industry both in terms of expertise and funding.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News

Boosting energy efficiency of buildings through ISO's holistic approach

by Elizabeth Gasiorowski Denis on 5 August 2015

As part of worldwide efforts to keep global temperatures from rising, sector-specific solutions are being developed that offer low-carbon solutions. Enter the building sector.

Link: Boosting energy efficiency of buildings through ISO's holistic approach (2015-08-05) - ISO

The initiators are key persons involved from the start in the development of international standards related to energy performance of buildings, and the main initiators for the development of the current set of EPB standards.

1 Energy policy for the building sector

Policy makers and building industry are confronted with a range of challenges and opportunities when it comes to reducing energy consumption and increasing the use of renewables. Several countries and regions in the world, including Europe, have set ambitious goals to reduce to (nearly) zero the energy in new buildings over the next few years. The EU Member States will eventually focus on net zero energy districts, with an emphasis on refurbishing existing buildings and increasing the share of renewable energy.

Supported by a mandate from the European Commission to CEN, during the years 2011-2016 a coherent set of internationally harmonized procedures has been developed to assess the overall energy performance of buildings, using the "holistic" or "systemic" approach: the EPB set of standards. It is expected that the coming years the relevance of the set of EPB standards, as an important instrument to support the national and international policy goals, will further increase.

Why a holistic approach?

The holistic approach is a key instrument to set and evaluate policy targets. Clear and consistent policy targets play an important role in driving innovation in the building sector.

In the past, energy performance requirements were set at component level – minimum thermal insulation levels and minimum efficiencies of products. This, however, leads to sub-optimal solutions and creates a barrier to the necessary technology transitions.

The approach is a key tool to overcome these barriers. Assessing the overall energy performance of buildings and the built environment is provided by the set of EPB standards (the ISO 52000 series of standards'.

The holistic approach triggers 'competition' between different technologies. This turns the approach into a key driver for technological innovation.

2 Coordination (process, technical content, feedback)

The variety of involved technologies and aspects necessitates that different Technical Committees are involved, both in ISO and in CEN. It goes without saying that to come to and maintain overall consistency and transparency of the *technical content* central coordination and management is required. Especially because one of the main purposes of the EPB standards is to enable their use in laws and regulations and, in some cases, make them compulsory. This requires a systematic, clear, comprehensive and unambiguous set of energy performance assessment procedures.

What's more, the set of EPB standards have to take into account differences in national and regional climate, energy infrastructure, culture and building tradition, as well as policy and legal frameworks. Different options are given for procedures, input data and boundary conditions. For each option, a clear template is provided that can be used to tailor the energy performance assessment to a specific situation. An informative ("default") set of choices is also suggested.

So, also a central management of collection and analysis of the *feedback* from the individual countries and regions who are gaining practical experience with these EPB procedures will be necessary to maintain and further improve the quality (*aftercare*) and to prepare *proposals and plans* for a coordinated process of further improvement of the consistency, transparency and usability. Consistency, transparency and usability, as well as unambiguity, but also flexibility, are essential qualities of the EPB standards to create a level playing field when expressing the energy performance of buildings and when offering various energy (or CO_2) saving solutions.

3 Current status of work

To coordinate the actual standardization work, the secretariat of two key bodies in CEN and ISO is executed by NEN:

- CEN/TC 371, *Project Committee* - Energy Performance of Building project group
- ISO/TC 163/WG 4, *the Joint Working Group of ISO/TC 163 and ISO/TC 205 on the energy performance of buildings using the holistic approach*.

The current project funded by the European Commission (2011-2016) as a whole includes support in the management of the standardization process by preparing work item proposals, leading the discussion in the working groups, analysis of the comments on draft standards, preparation of draft responses, reporting to the

vertical Technical Committees and final preparation and editing of the standards. It also includes, for each EPB standard, the preparation of an accompanying spreadsheet for demonstration and validation and an accompanying Technical Report with explanation and justification. Finally, horizontal coordination between the different EPB standards - consistency in e.g. overall set up, scope, input-output relations and overall accuracy – is part of the secretariat.

4 Reflection on a future, more permanent support organization

There is a clear need for central coordination of the support (management and technical) of the further development, maintenance (aftercare) and improvement of the EPB standards for CEN and ISO and for safeguarding the coherence in the technical content. The holistic, horizontal approach embedded in the current set of EPB standards has to be safeguarded.

Especially, because the maintenance and further development of the individual EPB standards is carried out by the various individual Technical Committees, both in CEN and in ISO. Without a permanent maintenance and coordination organization, the risk exists that the set of EPB standards will disintegrate.

A number of coordination activities have been identified. Some belong to the regular (standardization) activities within ISO or CEN, other activities have a so called pre- or co-normative character like research and initiation and preparation of proposals for new standards work, and others are typically carried out outside the ISO or CEN structure, like help with implementation of the standards in practice.

The management of these activities and the communication with the wide variety of interested parties requires a permanent coordinating entity. The initiators are currently exploring what is the most effective type of organizational entity.

The highest priority for this permanent organization is to uphold and maintain the central coordination of the overall quality assurance of the EPB set of standards, support of the CEN and ISO secretariats and collection and analysis of feed back on national implementation of the standards. This requires financial support which could be obtained by contributions from e.g. stakeholder organizations as described in the next section.

Who are the potential users of the set of EPB standards?

The energy assessment of buildings is carried out for various purposes, such as:

- Judging compliance with building regulations expressed in terms of limited energy use or a related quantity
- Increasing transparency in real-estate transactions through an energy performance certification and/or display of the level of energy
- Monitoring and improving the energy efficiency of the building and its technical building systems
- Helping to plan retrofit measures through predicting energy savings that would result from various actions

The potential users are:

building industry, policy makers, real estate, building owners, property developers, consultants, software houses, research, regulators

Other and more specific activities could be organized e.g. via partnerships in international research and demonstration or policy related projects where the EPB standards and their implementation plays a role. For example: related to the common voluntary certification scheme for non-residential buildings in Europe.

The activities within and supporting ISO/CEN are closely linked and are administered from the coordinating organisational entity. The sponsors do not need to be bothered about the distinction between ‘core’ standardization activities and supporting activities.

5 Sponsoring

In general, the national standardization institute holding the secretariat of a CEN or ISO Committee or working group is responsible for the funding thereof. It is up to them to realize enough support so they can fulfil their duties. NEN is a not-for-profit organization. It is not to be expected that the funding will come from national authorities. Funding for this part of the work of the coordination entity should therefore come from the stakeholders. The same goes for the supporting activities. The stakeholders are mainly the European and other international branch organizations for e.g. construction products, thermal insulation, windows & facades, heating, cooling, ventilation, lighting, solar and BAC/BMS products and systems, but also software manufacturers, property developers, consulting engineers, consumers, to name a few. Because of the

international impact, branches and organizations at that level are being addressed, rather than national companies. Note that the coordinating organisation has a policy to keep strict neutrality in the standardization activities; no sponsor can ask them to favour certain points of view.

Sponsoring can be based on a total project, in a conditional form, or on separate parts as the coordination also has priorities and additional necessities. Note the fact that specific standardization activities require up-front agreement from the CEN or ISO members. Notwithstanding all of that, a budget plan is available. On request of potential sponsors a work plan for specific activities can be worked out in more detail.

6 Benefits for sponsoring partners

The main benefit of the continued central coordination of the management of the EPB standards is to ensure that the knowledge and experience gained in the previous years is kept. Many organizations have over the past years, directly and indirectly invested millions of Euro's to set this up. We are now at a time where the set of EPB standards is being implemented and used (Europe) and completed (ISO). The coordination structure proposed makes it possible to do this, making it easier and more efficient.

Sponsoring partners:

- get the benefit of all the knowledge that is concentrated in the EPB organization;
- can influence which standards or systems need extra attention in the form of explanatory documents, webinars, examples etc.;
- get the benefit of early inside information on the overall planning both in CEN/ISO and in the EC; meaning they can anticipate towards future changes;
- can easier, more direct and quicker ask for amendments or revisions to existing standards and will be supported in their efforts to explain these needs;
- can contribute to the prioritization of the proposed activities as indicated in the budget plan;
- have the opportunity to donate promotion material (folders, white papers, gadgets) for distribution at the 'social events' surrounding the meetings;
- have the opportunity to publish their logo on the supporting material during meetings, e.g. on name badges, on banners, on the menu if they sponsor the diner, etc.

A business approach to offering sponsorship opportunities will be applied, and to the negotiation of the commercial terms of sponsorship.

The following should be noted as a last matter:

- There is a minimum budget needed for the most urgent and important activities as central coordination entity. It may happen that a first round of acquiring sponsors just covers these basic needs, i.e. the coordination of ongoing EPB standardization activities, collection and analysis of feed back from national implementation, communication and preparation of plans. This means that a step-wise funding approach can be applied, leading to the attraction of more sponsors for the other activities.
- As there are different types of potential sponsors – whereas some organisations do not have the resources for financial support – alternative support "in kind", such as facilitating meetings, organizing workshops, arranging mediation or initiating studies can be considered. Also different categories of sponsors could be envisaged, with different levels of rights and obligations.

7 Who are the initiators

The initiators are the key persons involved from the start in the development of international standards related to energy performance of buildings, and the main initiators for the development of the current set of standards.

Jaap Hogeling: Chairperson of CEN/TC 371, the Project Committee on EPB standards. Coordinating standardization work on national, European (CEN) and international (ISO) level in this application field of HVAC, and other technical systems for buildings. Member of the CAG on Ecodesign and Climate Change Adaptation groups in CEN as well the CEN/CSN Core Group (horizontal coordination building sector).

Dick van Dijk: Co-convenor of ISO/TC 163 – TC 205 Joint Working Group on Energy Performance of Buildings using the holistic approach. Coordinating standardization work on national, European (CEN) and international (ISO) level in the application field of overall Energy Performance of Buildings and building physics. Initiator and coordinator of the European CENSE project (2007-2010) to prepare a second generation of Energy Performance of Buildings standards to support the EPBD. The recommendations of this project led to the Mandate M/480.

Annet van der Horn (NEN): Secretary of CEN/TC 371, the Project Committee on EPB standards and of ISO/TC 163 – TC 205 JWG on Energy Performance of Buildings using the holistic approach. Standardization consultant on national, European (CEN) and international (ISO) level. Since early 2013, responsible for the M/480 project (2011-2016) for the development of the set of EPB standards to support the EPBD.

8 Additional information

Draft work plan EPB center, June 2016