Energy efficiency in ISO

the buildings example

Anna Caterina Rossi
Technical Programme Manager
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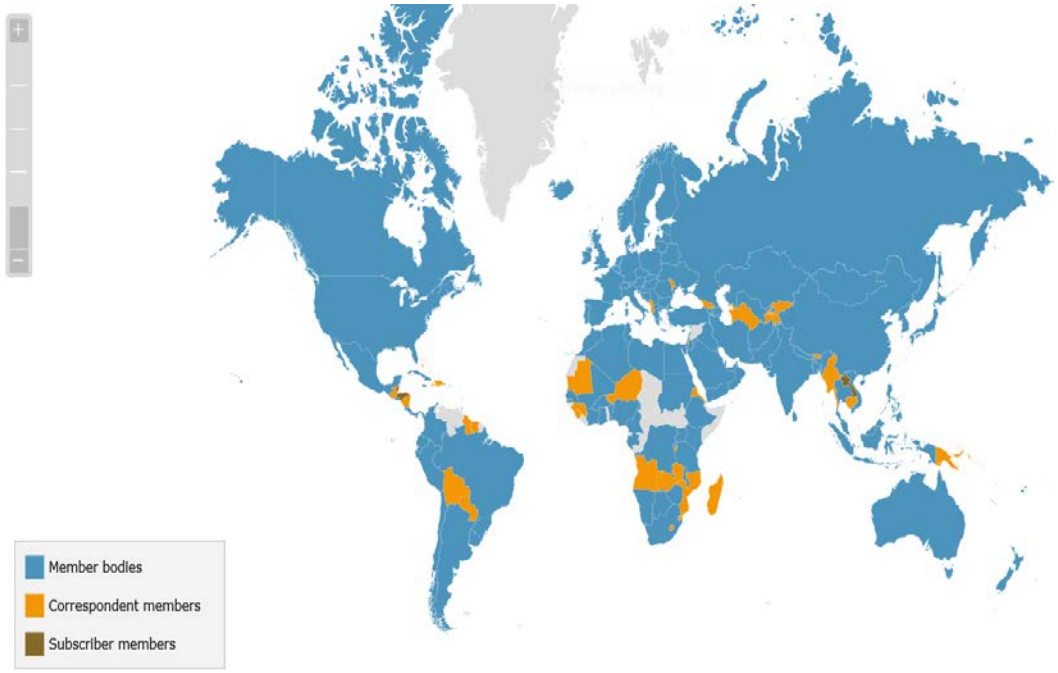
ISO in figures (April 2015)

International Organization for Standardization



- 163 members, 119 full members
- 235 technical committees
- more than 20500 standards in catalogue

Energy – The value added by International Standards

- Promote good energy practices
- Scientific cooperation and harmonization of public policies
- Improve consumers and users understanding and confidence
- Avoid technical barriers to trade related to energy policies
- Enable the creation of world markets for energy technologies

Using International standards in public policy

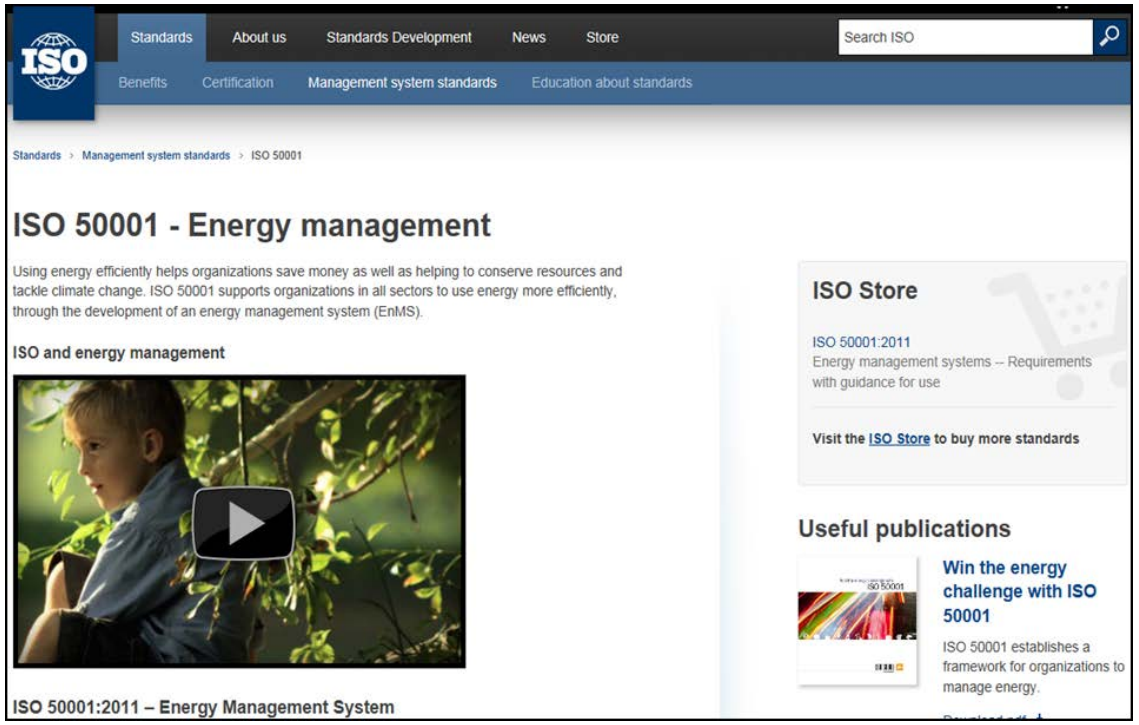
- Direct references to specific standards in the legal text
- Indirect references to the use of IEC and ISO standards
- Ensuring no delegation of legislative responsibility
- Maintenance procedures
- Conformity assessment
- Market surveillance

Your link http://www.iso.org/iso/PUB100358.pdf

ISO 50001:2011 Energy management systems - Requirements with guidance for use

Helps organizations to systematically plan and manage their energy use

Revision works are starting!



Energy in ISO

Over 20 ISO/TCs involved in aspects of energy efficiency and renewable energy sources

Energy efficiency in buildings

ISO

ISO/TC 163 "*Thermal performance and energy use in the built environment*"

&

ISO/TC 205 *"Building environment design"*

Joint Working Group *"Energy performance of buildings using holistic approach"*

CEN

Under the EPBD

CEN/TC 88 *"Thermal insulating materials and products"*

CEN/TC 89 *"Thermal performance of buildings and building components"*

CEN/PC 371 *"Energy Performance of Building project group"*

136 published standards on…

Test methods
*(**ISO 14857** Determination of air permeance of building materials)*

Calculations
*(*series ***ISO 15927*** *Hygrothermal performance of buildings - Calculation and presentation of climatic data)*

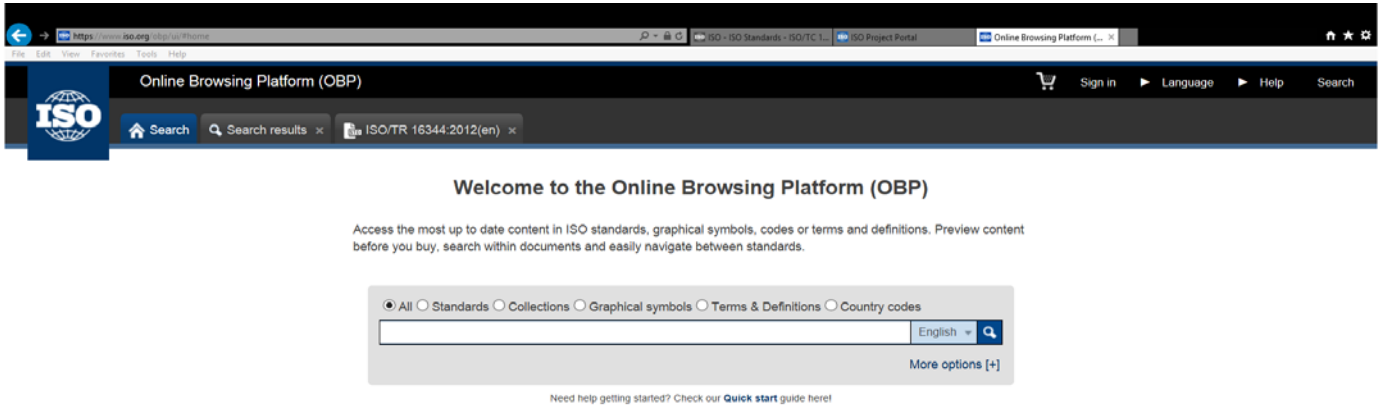
Thermal insulation products
*(*series ***ISO 12575*** *Thermal insulation products - Exterior insulating systems for foundations)*

Building environment design
*(*series ***ISO 13612*** *Heating and cooling systems in buildings - Method for calculation of the system performance and system design for heat pump systems)*

Holistic approach
*(**ISO 16346** Assessment of overall energy performance)*

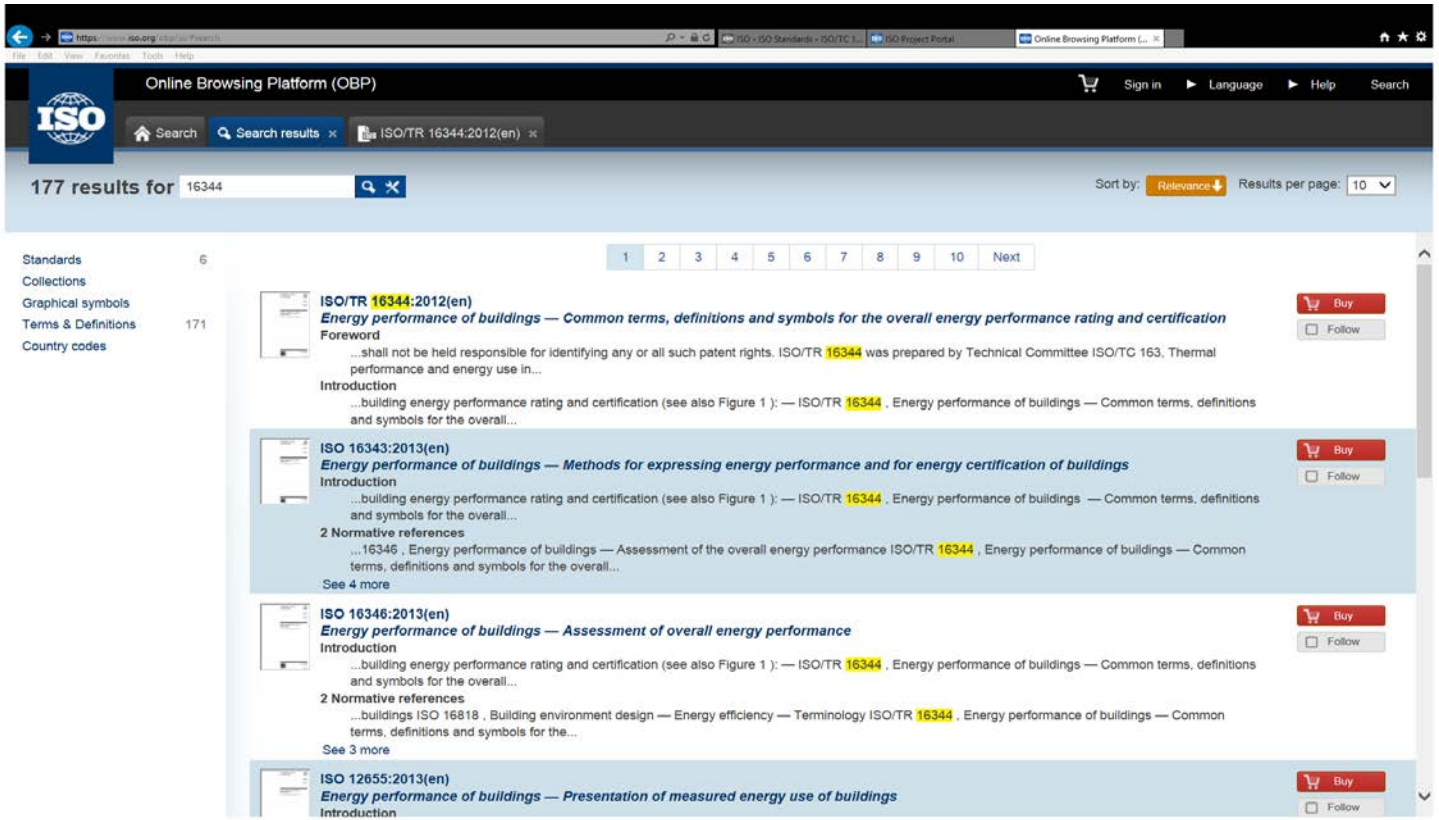
Have a look...

www.iso.org/obp



Have a look – ISO/TR 16344

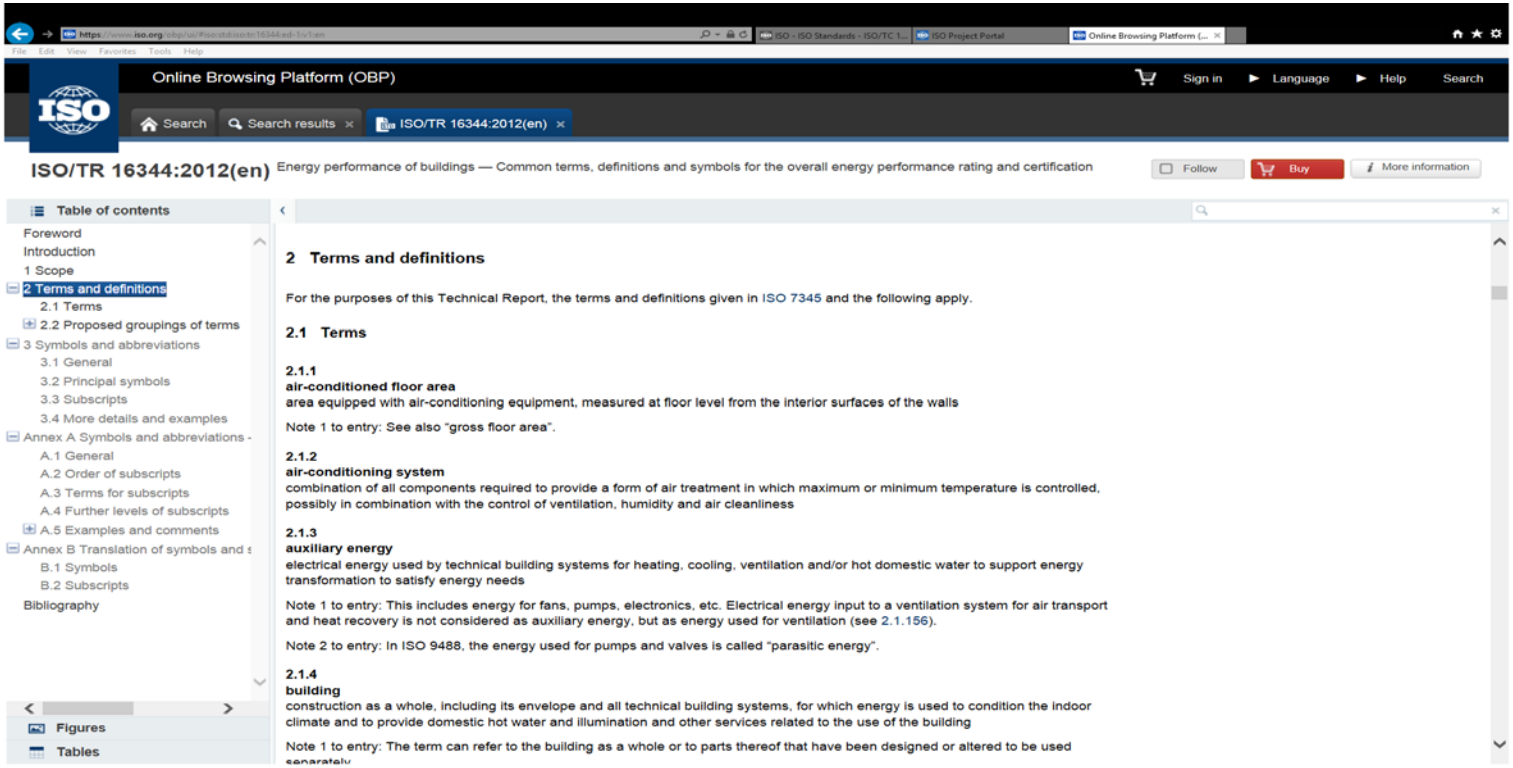
Search results



Have a look – deep inside

Until clause 3 for all publications

Whole text for terminology documents



Energy efficiency of buildings: holistic approach

Energy performance comprises :

- Heating
- Cooling
- Lighting
- Ventilation
- Domestic hot water
- Appliances (in some cases)

The approach can be applied to evaluate the energy performance of badly insulated existing buildings, for example, compared to that of new, nearly zero-energy buildings, in order to assess compliance with minimum primary energy performance requirements in building regulations. A nearly zero-energy performance can only be achieved if all expertise and disciplines are effectively combined and coordinated.

Holistic approach: ISO…

ISO/TR 16344: common terminology and symbols

Common terms, definitions and symbols

ISO 16346: common rules on assessment boundary, calculation procedure for different energy uses interaction and aggregation

Assessment of overall energy performance

ISO 16343: numerical indicators to be used for building classification

Methods for expressing energy performance and for energy certification of buildings

ISO 12655: facilitating analytical comparisons by unifying the collected data of measured building energy use

Presentation of measured energy use of buildings

Family 52000

Under development:

- ISO 52000 general framework
- ISO 52001 terms and definitions
- ISO 52002 symbols
- ISO 52… overall requirements, energy balance, inspection procedures, calculation procedures, thermal characteristics, ventilation, …

… thank you for your attention

For further questions:

- Energy efficiency and renewable energy sources:
  Mrs. Kirsi Silander silander@iso.org

- Energy efficiency of buildings:
  Ms. Anna Caterina Rossi rossi@iso.org