

# Energy Performance Certificates (EPCs)

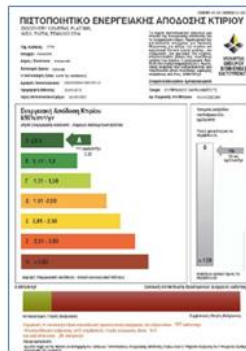
## Compliance of the input data

François DURIER



# EPC input data

- **Used to:**
  - calculate building energy performance and/or
  - declare its energy performance in the Energy Performance Certificate (EPC)
- **They describe:**
  - building, systems (HVAC, lighting,...), building operation



# Status on the ground

- Often **differences** between “declared” and “determined-as-per-the-rules” EPC input data
- Reasons include:
  - Design modifications
  - Mistakes
  - Fraud
  - Unclear procedures
  - Uneasy access to input data



# Compliant input data

- In order to get compliant Energy Performance Certificates, it is essential to use **compliant** input data
- An EPC input data is **compliant** if

established by following the procedures of the applicable legislation.

# Procedures for determining EPC input data

- Clear **technical** procedures
  - how to determine the data (quantity, unit, method)
- Clear **organisational** procedures
  - for example:
    - need that the data is controlled or certified
    - way to declare the data
    - need for competence of the expert
    - ...
- Clear procedures for **evidence of compliance**
  - set of elements to prove compliance

# Ways to prove compliance

The **evidence** that EPC input data has been obtained according to the procedures can rely on:

- **Control by an independent third-party**
- **Declaration**
  - the one involved in determining the data states that applicable procedure has been followed
  - relies on honour of the one who declares, self-control procedure, final verification, quality insurance scheme...
- **Proven competence**
  - persons or companies
  - certification, qualification, accreditation, label...
  - shown by a certificate

# Evidence of compliance

|  | Ways to prove compliance        |  |  |
|--|---------------------------------|--|--|
|  | Independent third-party control | Declaration that procedure has been followed | Proven competence of persons/companies |
| Input data   |                                 |  |  |
| Made available by manufacturer   | X                               | X  | X                                      |
| Found into database  | X                               | X  | X                                      |
| Recorded   | X                               | X  | X                                      |
| Measured on site   | X                               | X  | X                                      |
| Fixed by legislation (default values, fixed average values, pre-calculated values) | X                               | X  | X                                      |

**Only if foreseen by the applicable legislation**

# Easy access to EPC input data

For example:

- Easy access to description of building and systems
- Documentation about products and systems
- Database of product and system characteristics
- Easy access to on site measurement results
- Easy access to the actual energy consumption of the building
- ...

Important role of information and communication technologies, BIM, database...



# Interesting approaches

- Compliance and easy access
  - Product characteristics **databases** (B, F, GB)
  - EPC input data for **innovative products** (B)
  - **Pre-calculated** values for thermal bridges (D, RO)
- Compliance
  - **Certification** of building airtightness testers (CZ, D, DK, F, GB, IRL, SW)
- Easy access
  - Harmonised **publication** of ventilation product performance (F)

# Interesting approaches

- Other schemes that could provide compliant and easily accessible input data (if referred to by the procedures):
  - European **rating** programme for cool roofing products
  - Ductwork airtightness **checks** (SW)
  - **Certification** of HVAC system characteristics at the European level (Eurovent Certification)

# To know more

- QUALICHeCK draft report:  
“How to get compliant and accessible data for the energy rating calculation of a building”



- 8 examples of existing approaches for compliant and/or easily accessible EPC input data
- available at <http://qualicheck-platform.eu>
- comments welcome before 31/10/2015



Co-funded by the Intelligent Energy Europe  
Programme of the European Union

*The sole responsibility for the content of this presentation lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EASME nor the European Commission are responsible for any use that may be made of the information contained therein.*