Energy Performance Certificates (EPCs)

Compliance of the input data

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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

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

*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
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