



WI11 Non Domestic Energy Assessor (NDEA) Quality Assurance Requirements in Scotland

Quality Assurance (QA) audits are a requirement of your accreditation and are important to ensure that EPCs are produced to an accurate and consistent standard. Approved Organisations (AOs) must have QA procedures in place to check the quality of EPCs produced by their members and to undertake appropriate corrective action where the required standard is not met.

Audit Frequency

AOs must ensure that a **minimum of 2%** of the total number of EPCs produced by members are checked for accuracy. The sample should be based upon a random sample, augmented by any identified need for targeted audit as a result of complaints or requests from other organisations identified by the Scottish Government (e.g. Green deal Accreditation Body).

AOs must ensure that output from any active assessors is checked **at least every six months**. Where the number of certificates produced by an individual assessor is five or less within a six month period, the checking period may be extended to at least every 12 months.

All new members should have output checked within the first month of active membership.

The QA Audit Process

Independent assessment must check that:

- a) The assessor is certifying within their level of declared competence (where applicable);
- b) Sufficient evidence is recorded to allow assessment of the building;
- c) That information recorded was entered accurately;
- d) There is sufficient in the definition of the building model file;
- e) 95% of randomly sampled EPCs must be within a defined percentage accuracy compared to an independent assessment of the same building using the evidence contained in the assessor's records. Accuracy shall be:
 - **Approximate Energy Use and Approximate Carbon Dioxide Emissions within 5% (+/-)**

Defective EPCs

Certificates identified as being below standard (including incorrect data entry or recommendations) should be replaced within six weeks and corrective action to be taken where assessor activity is found to be outside accepted practice.

Responsibility for replacement of defective certificates rests with the assessor who provided the certificate.



Minimum Evidence Requirements

Assessors should ensure that sufficient evidence is provided to allow the data entry in the EPC generator software to be verified. It is also a mandatory requirement that NDEAs keep accurate records of their inspections.

The evidence provided by an energy assessor to a Scheme, and retained by that Scheme, must be sufficient for the QA Assessor to generate an EPC with an identical BER and EPC rating as the independent assessor based on the evidence provided, and that the evidence provided should be of such a nature that an independent assessor will be reasonably certain that the evidence provided relates to the particular EPC.

EXISTING L3/4 NON-DOMESTIC BUILDINGS

The correct and lodged Data File* and/or Software Data Collection Forms– This must detail the information used by the Energy Assessor to calculate the EPC, and allow the Scheme QA auditor to assess the accuracy of the EPC against each stage of data entry into the SBEM or DSM

*** Note – for PT Lifespan users there is no Data File to submit.**

Floor Plan– This should consist of a design or sketch plan covering all levels, annotated with measurements, areas, zones and Heat Loss Perimeter (HLP) etc. which allows the EPC to be recalculated.

Site Notes– The Energy Assessor must provide, within the site notes, anything used in support of decision making, reflective thought, or amendments to recommendations (e.g. identifying property age, construction, assessing any HVAC system etc., which is not provided elsewhere.

Recommended Photographic and Documentary Evidence– To include good quality fully dated photographs, where practical, and providing evidence of the following:

- Aerial view of the building (from Google Maps or similar) that clearly identifies the building and site layout in order to confirm orientation, or a hyperlink to the aerial view of the building
- Evidence in support of activities stipulated within zones
- All external elevations - front, rear and side(s)
- Construction – e.g. cavity or solid wall with insulation (if present), all construction types covered
- Glazing types, including the g-value (g-value EN ISO 410)
- Shading
- Roof construction and roof lights
- For each HVAC system depending on the system type: ‘effective heat generator seasonal efficiency’, Generator Seasonal Energy Efficiency Ratio (SEER) and Generator Nominal Energy Efficiency Ratio (EER), chiller and generator type, heat recovery system, presence of fans and pumps along with pump power and/or SFP, fuel type and controls (including HVAC manufacturer/make/model numbers and any third party evidence of calculations)
- Heat/cooling emitters within zone/areas
- Controls within zones/areas
- HWS type, efficiency, fuel, volume and/or storage losses, pump power, secondary circulation
- Lighting, including controls, within zones



- Evidence of LZC technologies and relevant data
- Sub-metering
- Power factor correction
- Accredited details
- Any other key feature of the building, or limitation whose presence or absence may affect the EPC rating or which would be required to support any claim made in the report, that could be subsequently queried or be the subject of a complaint

Where the Energy Assessor believes that photographs are not practically achievable, but a particular element / energy using device is present, the site notes should be expanded to compensate for the missing photograph(s) and a sufficient reason/explanation must be given as to why the missing photographic evidence was not provided.

It is possible that a number of the elements listed above may be shown in a single photograph. However, should you choose to adopt this approach, you must ensure that the photograph is of sufficient quality to allow our auditors to clearly identify all mandatory details.

Please note: photographs must be dated within the image to prevent the use of stock images. Electronic files will only be accepted if there is a 'foolproof' means of dating the file.

Supplementary Calculations Undertaken by the Assessor – examples of these may be:

- Overshading calculations
- Common values
- CoP/SEER/EER
- SFP
- Extraction rates

Other Evidence to Justify the Suppression/Inclusion of Additional Recommendations - examples of this may be:

- A guarantee or a Building Control notice for improvements
- Evidence of a building's age

Rating with Improvements

- Site notes must include enough information so that the QA Assessor can verify the 'Rating with Improvements' figure.
- Site notes must include recommendations used to contribute towards the 'Rating with Improvements' figure.

NEWLY CONSTRUCTED NON-DOMESTIC BUILDINGS

Data File and/or Software Data Collection Forms – this must detail the information used by the Energy Assessor to calculate the EPC, and allow the Scheme QA auditor to assess the accuracy of the EPC against each stage of data entry into the SBEM.

This information must also allow the Scheme to deduce the software (and version) used to produce the EPC.



Floor Plan – a Design floor plan, elevations, sections etc which allow the EPC to be recalculated. This should consist of a plan covering all levels, annotated with measurements, areas, zones and HLP etc.

AS-BUILT CHECKS (Newly Constructed Buildings Only)

Evidence that the property has been built as per the design – including:

- A statement from the developer, or equivalent person who is working for the client who is in the position to provide a professional judgment, that the building has been constructed (services, fabric U-value and glazing g-value etc) in line with the design and, if not, what the differences are between the finished building and the design
- A copy of the pressure test certificate which is relevant to the building
- An Accredited Construction Details (ACD) certificate, if applicable
- A copy of the BRUKL report

Supplementary calculations undertaken by the assessor – examples of these may be:

- Overshading calculations
- Common values
- CoP/SEER/EER
- SFP
- Extraction Rates
- Emission factors for district heating schemes (either calculated or provide documentation from the provider / ESCO)

Any other evidence - required to justify the suppression or inclusion of additional recommendations.

Avoid failing your QA

We strongly recommend downloading a copy of Elmhurst's conventions document TB19, this contains the current conventions that have been agreed between all Certification Schemes to ensure a consistent approach for the production of EPCs. Not following these conventions will most likely result in the failure of your QA audit. For the TB19 Non-Domestic EPC conventions document [click here](#)