BER Assessors – Dwellings Technical Bulletin

Issue No. 3/10 April 2010

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The archive of previous bulletins is available under the BER reports of section of the SEAI website.

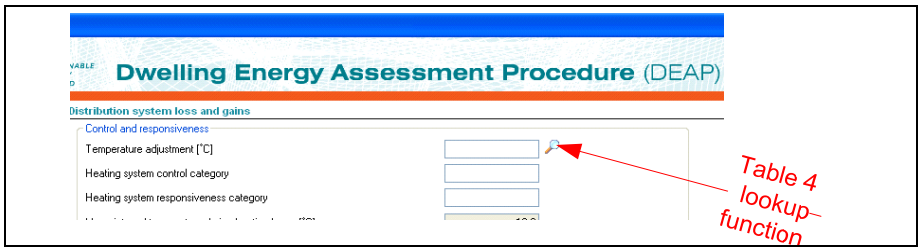
1 Guidance on DEAP data collection and data entry

1.1 Control and responsiveness entries in DEAP

The "Control and responsiveness" entries under "Distribution system losses and gains" in DEAP can have a significant bearing on the BER result for a dwelling. Assessors must take due care to ensure that they follow the guidance set out in Table 4 in deriving these entries for DEAP assessments.

The Table 4 lookup in DEAP is designed to help Assessors choose these entries correctly and determines the following parameters:

- Temperature adjustment
- Heating system control category
- Heating system responsiveness category
- Efficiency adjustment factors (for space and water heating in individual dwellings)



In compliance with Section 8 (Records, Data and Documentation) of the Code of Practice, BER assessors must ensure that acceptable evidence of heating controls is retained in support of entries in the DEAP assessment. Acceptable forms of evidence are listed below:

Existing Dwellings

- DEAP Survey form or equivalent BER Assessor survey form
  and
- Photographic evidence as detailed in the DEAP Survey guide.

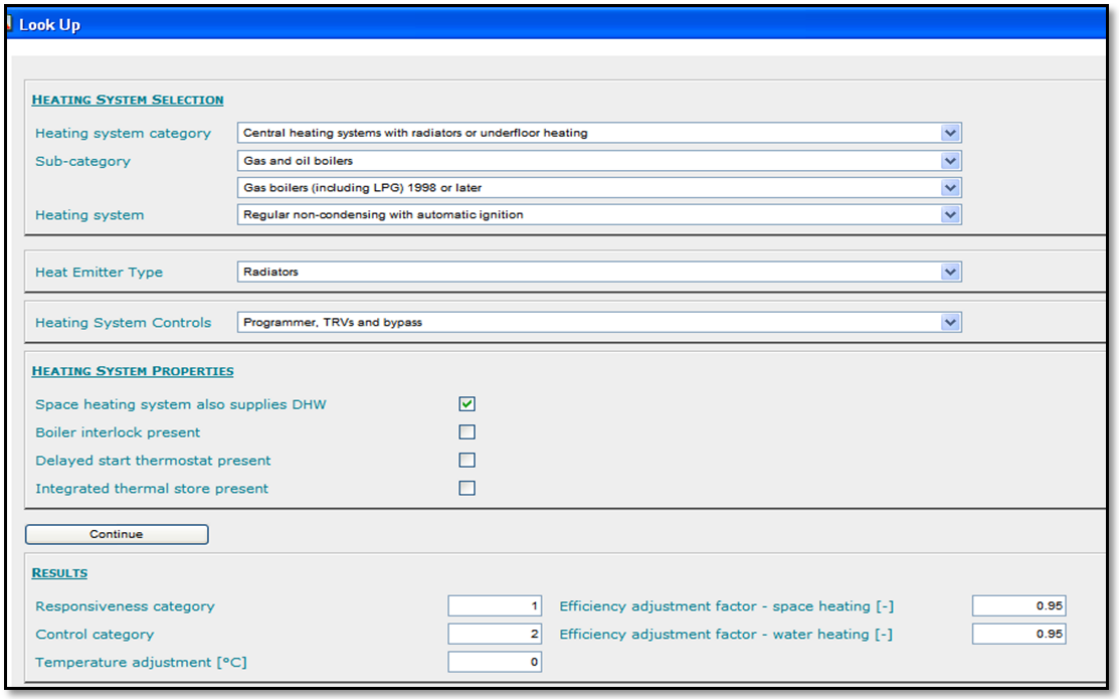
New Dwellings

- Plans and specifications submitted by or on behalf of the owner/client.
  and/or
- Specification owner/client sign off checklist.

1.2 TRVs and when they are accounted for

In dwellings with a boiler system and radiators, a control category of "2" may be specified if **50% or more** of the radiators in the dwelling are equipped with Thermostatic Radiator Valves (TRVs), bearing in mind that:

- A programmer is always needed for TRVs to be considered as control category 2 (programmers are detailed in the May 2009 technical bulletin and Section 9.3.3 of the DEAP manual).
- If there is no room thermostat in the dwelling and the main heating system is a gas or oil boiler, there is no boiler interlock as per Table 4c. This will reduce the efficiency adjustment factor. The Table 4 lookup above will enact this reduction in efficiency adjustment factor in this case as shown in the diagram below.



1.3 Group heating schemes and water heating

Appendix C of the DEAP manual provides guidance on entry of group heating schemes in DEAP assessments. The September 2009 technical bulletin provides further information on specification of group heating schemes in DEAP.

DEAP assumes that dwellings with main space heating based on group heating schemes obtain their entire hot water requirement from the group heating scheme. In other words, the entry for "supplementary water heating used in summer" in DEAP should be set to "No" where the dwelling's main heating system is a group heating scheme.

1.4 Additional information on lighting and internal gains

As additional guidance to that already issued in relation to low energy lighting in the BER FAQs, Appendix L of the DEAP Manual and the 2009 BER Technical Bulletins (May, June and October), the following guidance should be noted:

- Lights on cooker hoods and bathroom shaving mirrors should not be included in the count of lighting in the dwelling for either low energy lighting or conventional lighting.

- As detailed in Appendix L of the DEAP manual, light bulbs and light fittings outside of the dwelling should not be counted. Bulbs in unheated spaces of the dwelling (such as garages or porches) should be counted.

1.5 Floors above commercial premises

The November 2009 Technical Bulletin details how floors adjoining other premises should be treated in BER assessments.

These floors are considered:

a) to have zero heat loss if the spaces directly below the dwelling are normally heated to similar levels as the dwelling (i.e. heated to a similar pattern and to similar temperatures). In this context, adjoining premises should be heated to 18^0C or more for at least 7 of the 8 hours per day coincident with the dwelling's heating schedule outlined in Section 7.1 of the DEAP manual. The adjoining

premises should maintain this pattern for at least the 8 months of the heating season (seven days a week) outlined in DEAP Section 8. Otherwise option (c) below would be considered.

b) as heat loss elements to an unheated space if the spaces below are unheated, heated only infrequently or heated only to a low level, or

c) as if they were external elements but with their U-value halved if the spaces are heated to a different pattern to that dwelling (e.g. commercial premises). Section S6.5 of the DEAP manual applies a default U-value of 1.0W/m^{2}K for existing dwellings in the absence of supporting information for a non-default U-value.

1.6 Use of defaults in new dwelling assessments

When performing a BER assessment on a dwelling which has not been previously sold or occupied, the dwelling should be treated as a new dwelling in DEAP. Assessors may encounter dwellings which are considered "new" in this regard where there is a lack of availability of plans, U-values and other details. These cases should be approached follows by the BER Assessor:

- The assessor should always make every effort to obtain plans and insulation details for the new dwelling. Defaults should only be relied upon when there is insufficient supporting evidence to use non-defaults;
- Where details are not available from plans, the BER Assessor should carry out a site survey to determine any unavailable details for the new dwelling;
- The Assessor may use DEAP defaults from Appendix S to determine any details which are unavailable despite having carried out the steps above;
- The dwelling is entered as a "new dwelling" in DEAP. The assessor must evaluate the dwelling's compliance with the relevant building regulations as per the November 2009 Technical Bulletin;
- The Assessor should keep a record with the assessment detailing the reasons why defaults were chosen. This will help provide clarity if the assessment is audited by SEAI;
- The defaults in DEAP are conservative and could result in a failure of the TGD L compliance check. This therefore should encourage Assessors and clients to ensure that sufficient supporting evidence is provided to use non-default values.

Note that for new dwellings, the "room in roof" approximation should not be used. Treat the room in roof as you would for a regular new assessment from plans.

1.7 Using non-default window U-values: variations in window size

The March 2009 Technical Bulletin outlines the data required to use non-default window U-values in DEAP. Non-default U-values should be based on calculations or measurements carried out using IS EN SO 12567-1, IS EN ISO 10077-1 or IS EN SO 10077-2.

If the standard sized window (1.48 high * 1.23 wide) is used to establish the U-value using one of the standards above by testing or calculation as appropriate, then that U-value can be used for a window of the same type with different dimensions. If calculation or test outputs from the above standards are not based on the standard sized windows (1.48 high * 1.23 wide), then the windows in the tests or calculations must match the size of those in the actual dwelling. This is stated in Section 11 of BRE 443.

Note that non-default U-values for windows may only be used where certified solar transmittance data is included in the BER assessment.

1.8 Provisional and final BERs

As per Section 5 of the BER Assessor's Code of Practice, "A provisional BER can be carried out by BER Assessors based on design drawings and specifications of an uncompleted building provided that, on completion of the building in question, a non-provisional BER is carried out on the completed building". The non-provisional, or final BER on the dwelling, must be representative of the dwelling and DEAP methodology at the time of that final BER. The BER Assessor therefore must verify each item entered in the final BER. This includes the usual requirement of supporting evidence such as certified test reports, HARP listings, U-value calculations and so on.

As an example, if the client specifies that a different boiler is being installed in the constructed dwelling than had been specified at the time of the provisional rating, then the final BER would have a different boiler (and associated efficiency) to the provisional rating.

2 Guidance on publication of BER assessments

2.1 Dwelling floor area and the BER requirement

Statutory Instrument 666 of 2006 details the European Communities Energy Performance of Buildings Regulations. These regulations provide details on buildings for which a BER Certificate must be provided. While some buildings are exempt from the BER requirements (as detailed in S.I. 666), the owners of these buildings may choose to obtain a BER for the building on a voluntary basis. For example, a homeowner may choose to obtain a BER for an existing dwelling which is not for sale or rent.

S.I. 666 exempts a number of building types from the BER requirement including buildings which are "a stand alone building with a total useful floor area of less than 50m^2". In other words, a detached house with "useful floor area" of less than 50m^2 does not require a BER.

In this context, the "useful floor area" should be considered as a space within the dwelling which can be occupied and serves a purpose within the dwelling. Areas which should be considered as potential "useful floor area" in the context of SI 666 include:

- All conservatories (including those which can be excluded from the BER assessment as per DEAP section 3.3.3);
- All porches;
- All basements;
- All converted attics (accessible via fixed staircases);
- Heated garages;
- All habitable rooms;
- Other rooms (such as kitchens, utility room, hallways, landings, bathroom, cloakroom, en-suite accommodation and similar).

2.2 BER certificates on the National Administration System

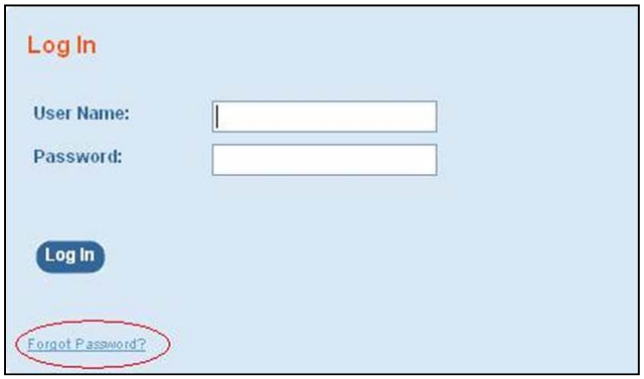
The National Administration System (NAS) holds the BER certificate associated with the latest published version of each BER number's assessment. In the cases where more than one rating is associated with a single BER number, only the most recent published rating's certificate is available on NAS.

The BER certificate should not be altered after it is downloaded from the NAS. Changes such as addition of the client or BER Assessor's name should not be made to the certificate.

2.3 NAS login

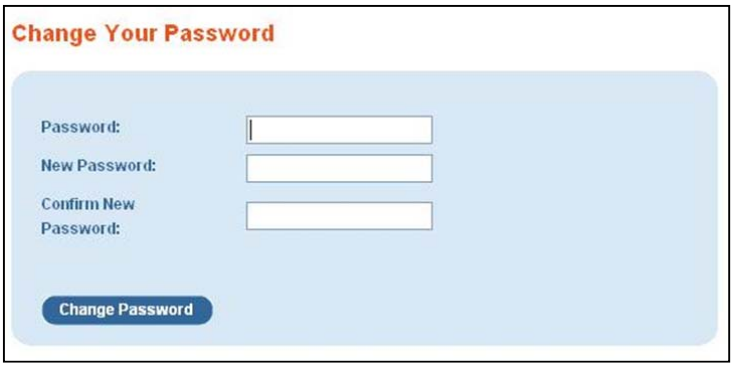
In cases where an Assessor attempts to login to NAS and uses an incorrect password three times in succession, then their NAS account will become locked. The Assessor should then contact the BER Helpdesk to have the account unlocked, and, if required, the helpdesk can then assist in getting a new password.

If an Assessor has lost their password, then they should select the "Forgot Password?" option on the NAS login window.



The assessor is then required to enter their user name (Assessor number) and date of birth (dd/mm/yyyy format).

A new password is then emailed automatically to the Assessor's registered email address. This password is case-sensitive and can be copied+pasted into the NAS login window. Once logged in, the assessor can change to a new password if they wish to do so. The password must be at least six characters in length containing at least one "symbol" character.



In the case of any difficulties with passwords or login, assessors are advised to contact the BER Helpdesk for assistance.