



BER Assessors – Dwellings Technical Bulletin

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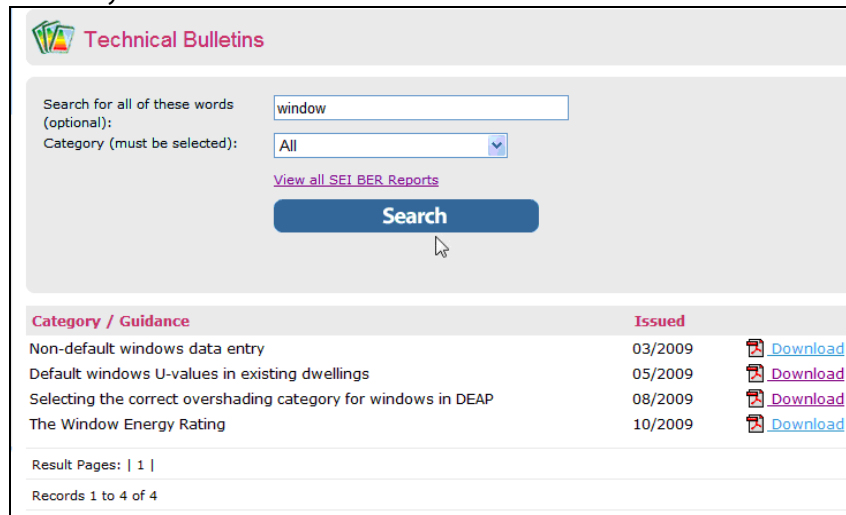
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The archive of previous bulletins is available under the [BER reports](#) of section of the SEI website.

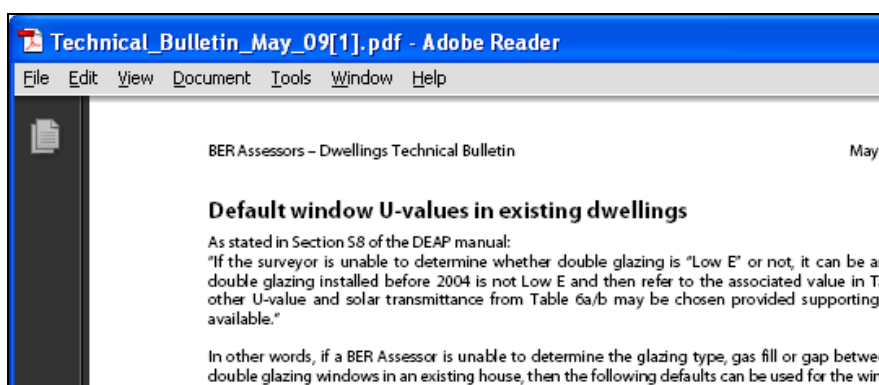
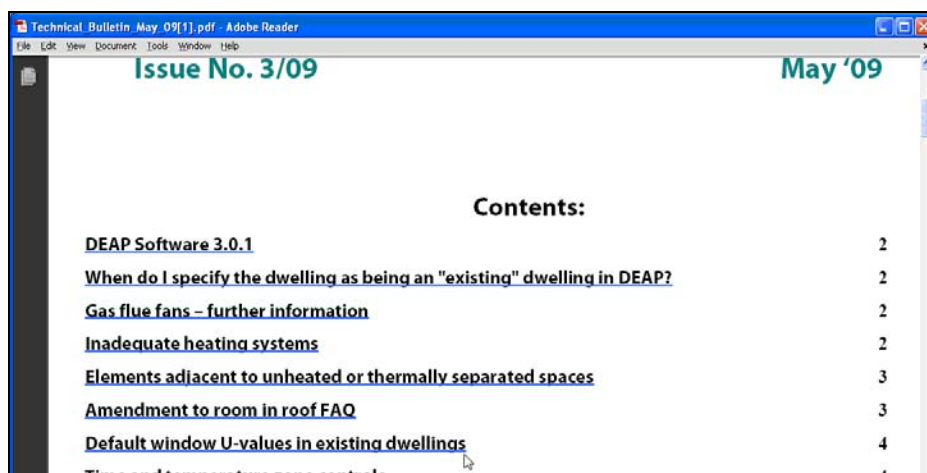
1 Technical Bulletin search function now available

BER Technical Bulletins can now be searched using [the Technical Bulletin Search Function](#). This search function allows the user to search the title of each Technical Bulletin article published since March 2009. Searches may be carried out across all categories, or filtered by the relevant category (such as “Dimensions”, “Survey” etc.).

As an example, to find any Technical Bulletin articles related to “window”:



Any relevant articles are listed below the search window as shown above. If the user wishes to view the article entitled “Default windows U-values in existing dwellings”, select the associated “PDF” icon for this article. The PDF will open on the contents page of the relevant Technical Bulletin with links to each article. Click on the “Default windows U-values in existing dwellings” link to go directly to that article as shown in the diagrams below.



2 Updates to the National Administration System (NAS)

A number of updates have been made to NAS recently. These are summarised as follows:

Advisory Reports

- Minor changes have been made to the format and content of the Advisory Report.
- Advisory Reports can be recreated at anytime over the life of a published BER rating. Access to this functionality is via the following path:
[NAS > Ratings > Search Ratings > Search Results > Notice Details](#) and select the Re-Create AR option.

This enables the following:

- Ratings published throughout 2008 – i.e. before automated Advisory Reports were available, can now have Advisory Reports generated for them retrospectively.
- At any time, Assessors can regenerate any Advisory Reports that they have access to in order to incorporate new advice or to change any suppression options they may have selected.

Note: The most recent Advisory Report rules and recommendations will be applied to the data in the specific XML for that dwelling. You will need to review the recommendations carefully as they may differ from the recommendations in the old Advisory Report. The new Advisory Report can be viewed without saving, but if saved will replace the existing Advisory Report. There are no charges associated with regeneration of Advisory reports.

Expired ratings

Ratings that are past their validity date are now marked with a status of “Expired”. These ratings will be excluded from normal searches on the NAS but a tick box option on the Search Ratings screen will allow them to be included if you so wish.

Registration Certificates

Assessors may download a current Assessor Registration Certificate at any time through the “My Account” option on the top screen menu in NAS:

[| Change Password | My Account | Logout](#)

Dwellings with no MPRN number

Existing dwellings that are not connected to the electricity grid and therefore have no MPRN number allocated to them can now be accommodated for upload on an exceptions basis by allocation of a manual MPRN substitute number by SEI. Contact BER Admin for assistance, as required.

New technical tests and messages

New technical tests have been created and will give rise to the following notices when relevant on submission of an XML file to NAS:

093 “Same Assessor and DEAP Address lines 1, 2, 3 and County as a previous submission - Verify that this is a first submission” - refer to **Notice 014** on the BER FAQ for further details.

The purpose of this test is to highlight where an assessor may have accidentally uploaded the same rating twice. Message “093” is flagged as an error.

094 “One of the heating systems in this assessment has efficiency less than 20%”

The purpose of this test is to highlight where an assessor may have inputted an incorrect value for the heating system efficiency. Message 094 is a Notice (severity 3).

095 “The living area percentage of this dwelling is less than 10%. Please ensure that the living area has been measured correctly as per the guidance in the DEAP manual”

The purpose of this test is to highlight where an assessor may have inputted an incorrect value for the living area percentage. Message 095 is a Notice (severity 3).

096 “Efficiency adjustment factor cannot be set to 0 for space or water heating in individual heating systems”

The purpose of this test is to highlight where an assessor may have inputted an incorrect “zero” value for the efficiency adjustment factor. Message 096 is an Error.

098 "This dwelling has very high energy consumption"

The purpose of this test is to highlight where the energy consumption appears to be very high for the dwelling being assessed. Message 098 is a Notice (severity 2).

099 "This dwelling has lower than expected energy consumption"

The purpose of this test is to highlight where the energy consumption appears to be very low for the type/age of the dwelling. Message 099 is a Notice (severity 2).

100 "Group heating scheme "Percentage of Heat" column in DEAP must total 100%. This is not the case in this assessment."

The purpose of this test is to highlight that the Group Heating "percentage of heat" value is incorrect and must be amended. Message 100 is a Notice (severity 2).

Further explanation to these rules can be found under the [BER FAQ](#) as follows:

Amended technical tests and messages

The conditions triggering the technical tests below have been amended. A description of the notices can be found under the [BER FAQ](#).

025 "Exposed Wall U Value differs from default U Value on N areas for Existing dwelling. Ensure that all non default U values are fully substantiated"

This notice now caters for adjusted default U-values of semi-exposed walls in existing dwellings.

060 "Ensure data entered in the Renewable and Energy Saving Technologies section conforms to Appendix M, N or Q"

This notice now checks for renewables in each of the "Renewable Energy 1/2/3" entries under the "Energy Requirements" section of DEAP.

3 Guidance on DEAP data collection and data entry

3.1 Electricity and Building Energy Rating

A number of homeowners and BER Assessors have commented on the high energy usage as reflected in BER assessments of dwellings which are primarily heated using electricity. There are significant inefficiencies in thermal electricity production (in the generation and transmission of electricity) resulting in a high primary energy factor for electricity as outlined in this [BER FAQ](#).

Also, the DEAP methodology cannot take account of the homeowner's choice of electricity supplier. As is stated in the DEAP manual, the calculation is an asset rating. This enables the consumer to make a fair comparison between a dwelling's energy performance and that of other dwellings. For example, if a potential purchaser/tenant of a dwelling were interested in buying/renting a house, the current occupier's behaviour (including choice of electricity supplier) is irrelevant. Changing electricity supplier does not involve any physical change to the dwelling asset.

3.2 Calculating floor area in DEAP

Section 1 of the DEAP Manual describes the areas of a dwelling which should and should not be accounted for under the dimensions tab in DEAP as "floor area". The dimensions are measured from the internal faces of the dwelling's boundary walls. A number of previous technical bulletins provide details supplementary to that in Section 1 of the DEAP manual on various spaces which may or may not be included as part of floor area. It is critical that these areas are accounted for correctly in BER assessments as per the guidance set out by SEI. The floor area under the dimensions tab has a significant bearing on the BER result (which is expressed in kWh of primary energy per m² of **floor area** per year) and is therefore a key piece of data. This is an area which SEI pays close attention to during audits.

3.3 Mezzanine floors

A “mezzanine” or internal balcony is typically an area of floor in a dwelling which tends to overhang the storey below. The mezzanine/balcony should be accounted for under the “dimensions” tab in DEAP. If the only area of floor at the level of the mezzanine is the mezzanine floor area itself, then the mezzanine can be entered under “Other floors” in the DEAP “Dimensions” tab.

The average storey height for the mezzanine is the height between the ceiling surface under the mezzanine and the ceiling surface of the mezzanine.

The storey height for the storey below the mezzanine is weighted based on the following floor areas:

- The area below the mezzanine has height to the ceiling surface below the mezzanine.
- The remaining area is likely to extend in height to the same upper ceiling as that of the mezzanine.

As an example, take a dwelling consisting of total ground floor area 125m², part of which is below a mezzanine of floor area 25m². The total storey height of the dwelling (from ground floor to upper ceiling) is 5m. The height from ground floor to the ceiling below the mezzanine is 2.5m. There are no other floor areas in this sample dwelling.

The storey height of the mezzanine is 2.5m (from the ceiling below the mezzanine to the upper ceiling).

The ground storey height (weighted by area) is:

$$\frac{(2.5 * 25) + (5 * 100)}{125} = 4.5m$$

The DEAP “Dimensions” tab is as follows in this case:

Dimensions			
	Area[m ²]	Average room height [m]	Volume [m ³]
Ground floor	125	4.5	562
First floor			
Second floor			
Other floors	25	2.5	62

Living area	
Living area [m ²]	Living area percentage [%]
32	21.33

Totals	
Total floor area [m ²]	150
Dwelling volume [m ³]	625
No. of storeys	2

3.4 Room heaters with back boilers

Section 9.2.4 of the DEAP manual discusses gas, oil and solid fuel room heaters which are equipped with a back boiler for heating space and/or water. It is important to note that gas back boilers are treated differently to oil and solid fuel back boilers. The following text assumes there is no other system which would be considered as the main space heating system (such as a conventional central heating boiler).

Gas back boilers

Separate efficiencies apply to the boiler and to the associated room heater. This means that:

- if the back boiler provides space heating, it should be defined as the main heating system, and the gas fire should be indicated as the secondary heater subject to guidance under Appendix A;
- if the back boiler provides domestic hot water only, the boiler gross efficiency is used for water heating and the gas fire efficiency for space heating subject to guidance under DEAP Appendix A.

Oil and solid fuel room heaters with boilers

The gross efficiency is an overall value (i.e. sum of heat to water and heat to room). This means that:

- if the boiler provides space heating, the combination of boiler and room heater should be defined as the main heating system if the criteria in Appendix A are met;
- if the boiler provides domestic hot water (with or without space heating), the overall efficiency should be used as the efficiency both for water heating and for the room heater (room heater as main or as secondary heater).

3.5 Identifying extensions

Identifying an extension in an existing dwelling may well make a significant improvement in the BER result for the dwelling. This is particularly the case where the extension was constructed more recently than the original dwelling and therefore will be assigned a more recent age band. The July 2009 technical bulletin provides details on how to identify the year of construction of an extension.

In addition to this, there are a number of potential indicators as to the existence and area covered by the extension such as:

- Homeowner knowledge;
- Different windows to the original dwelling;
- Different roof type to the original dwelling;
- Different radiators to the original dwelling;
- Different room height to the original dwelling;
- Different natural ventilation (such as background wall/window vents) to the original dwelling;
- Change in rendering from the original dwelling;
- The presence of two heating systems may indicate the existence of an extension.

This list is not exhaustive, but is merely to give a suggestion as to how the extension might be identified.