DEAP Cooling Update

28 February 2022

Notification of upcoming DEAP methodology update

The DEAP methodology is being updated to take account of the energy demand for cooling in dwellings. This update to the methodology will affect the calculation of a BER when there is a fixed space cooling system installed in the dwelling. The following guidance sets out the proposed dates for the introduction of cooling in DEAP and information on how cooling will impact BER assessments.

Implementation dates for cooling update in DEAP

The cooling calculation update will be implemented in the DEAP software on May 2022. In advance of this update, we have published the following ***draft*** documents on our website to assist you in preparing for the update.

- DEAP Manual 4.2.3
- DEAP Workbook 4.2 v1.3
- DEAP Survey Guide 4.0.1

Implementation Dates for Cooling Update in DEAP	
28 February 2022	Notification of upcoming changes to the DEAP methodology and draft DEAP methodology and DEAP workbook published
May 2022	DEAP methodology and software updated

Notes

1. Transitional arrangements will apply. Where cooling is present in a dwelling, it must be accounted for in BER assessments, (and associated Part L compliance reports) of dwellings published after 23 September 2023.
2. A BER assessment with cooling will be accepted from May 2022.
3. Where the construction of a new dwelling will be completed after 23 September 2023, cooling, if present, will need to be included in the Part L compliance report. You will be able to use the DEAP software to check the impact of cooling on Part L compliance and the BER result from May 2022.

Official DEAP methodology documents and software:	
Current	DEAP Manual 4.2.2 DEAP Workbook 4.2 v1.2 DEAP Survey Guide 4.0 DEAP Software 4.2.19
From May 2022	DEAP Manual 4.2.3 DEAP Workbook 4.2 v1.3 DEAP Survey Guide 4.0.1 DEAP Software 4.2.20

Background to the cooling update in DEAP

DEAP is being updated to include the energy demand for cooling, in accordance with the requirements of the Energy Performance of Buildings Directive which states:

"The energy performance of a building shall be determined on the basis of the calculated or actual annual energy that is consumed in order to meet the different needs associated with its typical use and shall reflect the heating energy needs ***and cooling energy needs*** *(energy needed to avoid overheating) to maintain the envisaged temperature conditions of the building, and domestic hot water needs."*

How Cooling affects the BER calculation:

Energy for cooling is calculated for dwellings with a fixed cooling system installed (i.e., air conditioning or heat pump providing cooling) in accordance with the EPBD Overarching CEN standards (EN ISO 52016-1:2017). The calculation derives the 'Net Space Cooling Requirement' and accounts for the impact of thermal mass on heat losses as offset by heat gains. The cooling system is assumed to operate for six hours per day and maintain an internal temperature of 24˚C for the months of June, July and August. The resulting energy requirement is calculated based on this Net Space Cooling Requirement and the cooling Seasonal Energy Efficiency Ratio (SEER) as entered by the user. If there is no SEER available, the default SEER in Table 12 of the updated DEAP manual applies.

How Cooling affects the BER assessment:

You will need to determine if there is cooling installed in the dwelling. Fixed cooling may be provided by an air conditioning system or heat pump system. When a warm air heat pump is present (e.g. air-to-air, brine-to-air, etc.), it is assumed that this also provides cooling (i.e., it is reversible), unless evidence is available to confirm that the cycle cannot be reversed.

Where cooling is installed, you will need to input the following information on the cooling system:

- Manufacturer and Model,
- Fuel type,
- Seasonal Energy Efficiency Ratio (SEER value). You will find this value within the manufacturer's data, or if not available, use the default value as stated in DEAP Manual 4.2.3.

The following supporting documentary evidence will be required for the BER assessment:

- Photographs of the cooling system (e.g., heat pump, air conditioning) must be taken to support data inputs.
- Photographs of nameplates with make and model can also be taken to support non-default efficiencies.
- The heat pump designer/installer sign-off sheet must be completed for systems using heat pump technology (heat pumps and air conditioning systems).
- Cooling system manuals or installation certificates can be copied and used as supporting data.
- In the absence of supporting SEER data, default SEER as per the DEAP Manual may be used.

SEAI is funded by the Government of Ireland. *Tá an SEAI maoinithe ag Rialtas na hÉireann.*

Part L compliance

The reference dwelling does not assume cooling at present. The presence of cooling in the assessment dwelling may therefore impact on the EPC, CPC and RER. For new dwellings, cooling should be accounted for in the BER assessment of dwellings where construction of the dwelling is completed after 23 September 2023.

Preparing for the update:

- Familiarise yourself with the draft documents.
- Assess if any of your assessments will be impacted by the introduction of the cooling calculation and inform your client, if necessary.
- Dwellings with cooling that are expected to be completed after 23 September 2023 should be checked to ensure the final BER, when published, will meet Part L compliance requirements. You can use the DEAP software from May 2022 to check the impact of cooling on the BER and EPC/CPC and RER calculations.
- SEAI will provide you with guidance on inputting cooling data in DEAP in advance of the release of the updated software,
- SEAI will deliver a short webinar on cooling updates in advance of May 2022.