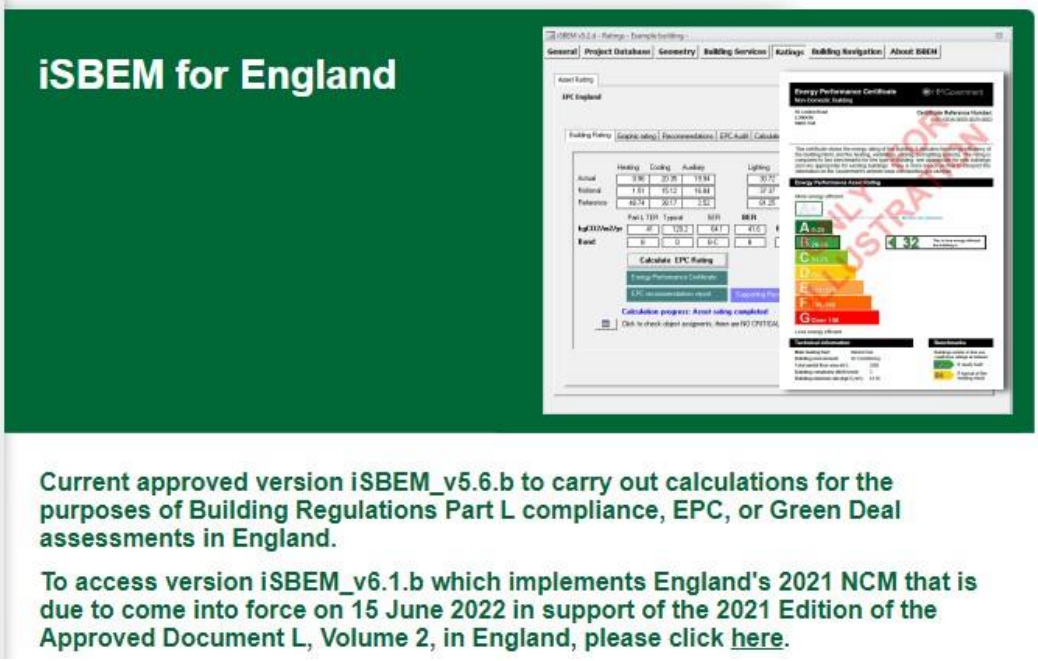
# iSBEM_v6.1.b has come into force on 15 June 2022




Effective 15th June 2022, the devolved administrations will implement the following SBEM requirements due to the uplift to the 2010 building regulations for non-domestic buildings in England.

- England – iSBEM v6
- Wales & Scotland – iSBEM v5.6b
- Northern Ireland – iSBEM v4.1h

**https://www.uk-ncm.org.uk/**download**.jsp?id=13**

**NOTE**: the SBEM 6.1b system update effective from 15th June 2022 is for **ENGLAND ONLY.**

**All other regions will continue to use current version until further notice.**

**WALES ONLY –** Building Regulation Compliance & EPC's to continue in 5.6b

**NORTHERN IRELAND ONLY** SBEM version 4.1h

**SCOTLAND –** Section 63 and EPC's SBEM version 5.6b

**ENGLAND ONLY** EPC's (For Sale or Rent)

EPC's in England to be lodged in SBEM version 6.1b from 15th June 2022

The new version of **SBEM v6.1b is applicable to England only**, all other regions of the UK should remain using the existing approved versions of SBEM until further notice.

For producing EPCs, the most recently approved version of the adopted software tool should be used, unless the latest version has been released less than one calendar month prior to the assessment date.

In such cases, the immediately previous version of the tool may be used. 6.1b was released on 29th April 2022. Therefore, the only approved software to lodge EPC's is SBEM as currently the only approved software.

**REFERENCE**

**Notice of approval of the methodologies for expressing the energy performance of buildings in England and Wales**

# Introduction

The main change effecting EPCs between versions 5.6 and 6.1 are the carbon factors utilised within SBEM.

The carbon factors within SBEM have now been changed to reflect the general decarbonisation of grid supplied electricity supporting the government's policies towards climate change.

In essence the Electricity carbon factor will now be changing to reflect a rating better than mains gas.

The figure for electricity will be changing from 0.519 to 0.139.

The figure for mains Gas will be changing from 0.216 To 0.210.

## What does that mean within SBEM?

Buildings that are now assessed through v6.1b and have electric HVAC and/or Hot Water systems on electric are more likely to show an improvement in the EPC rating compared to previous versions.

***NOTE***

*Any projects within the MEES sector may be worth reviewing.*

We have confirmation that if assessors are required to relodge an EPC using the new SBEM 6.1 software, then assessors must attend site. This is to ensure that the validity of the data gathered for the new EPC is accurate and up to date. The Government have written to all Schemes to confirm this.

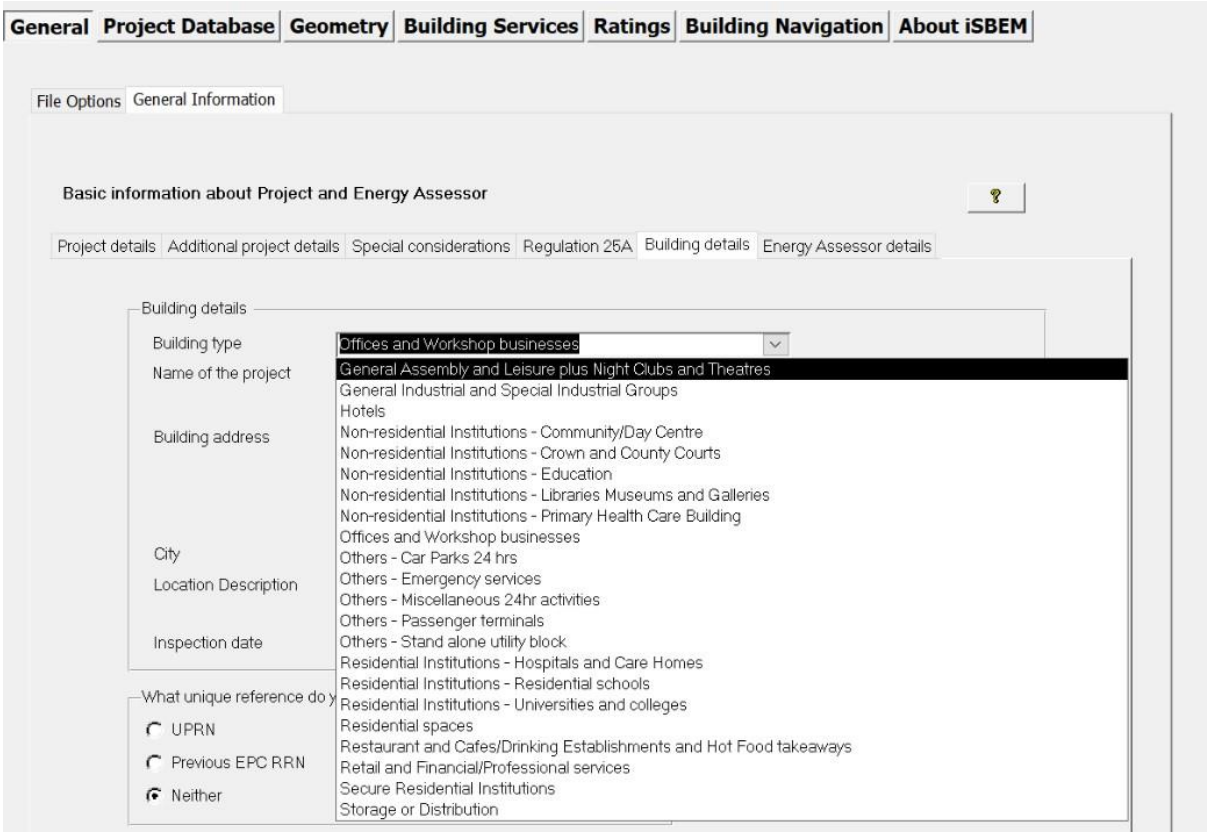
**A selection of the most prevalent SBEM data entry changes.**

# General Information

Instead of EPBD Recast, it says Regulation 25A.

# Planning Use Classes

The planning use classes prefixes e.g. A1/A2 etc have been removed. The building types remain and require selecting an appropriate building type is still relevant? i.e. building use confirmation or what was its latest known use.



# Project Database

The project databases for walls, roofs, floors, doors and glazing have been simplified.
In addition, more rational categories have been added for fabric constructions.
These new databases will impact upon your selections for new calculations and for any files you intend to convert from older versions of SBEM for future use.

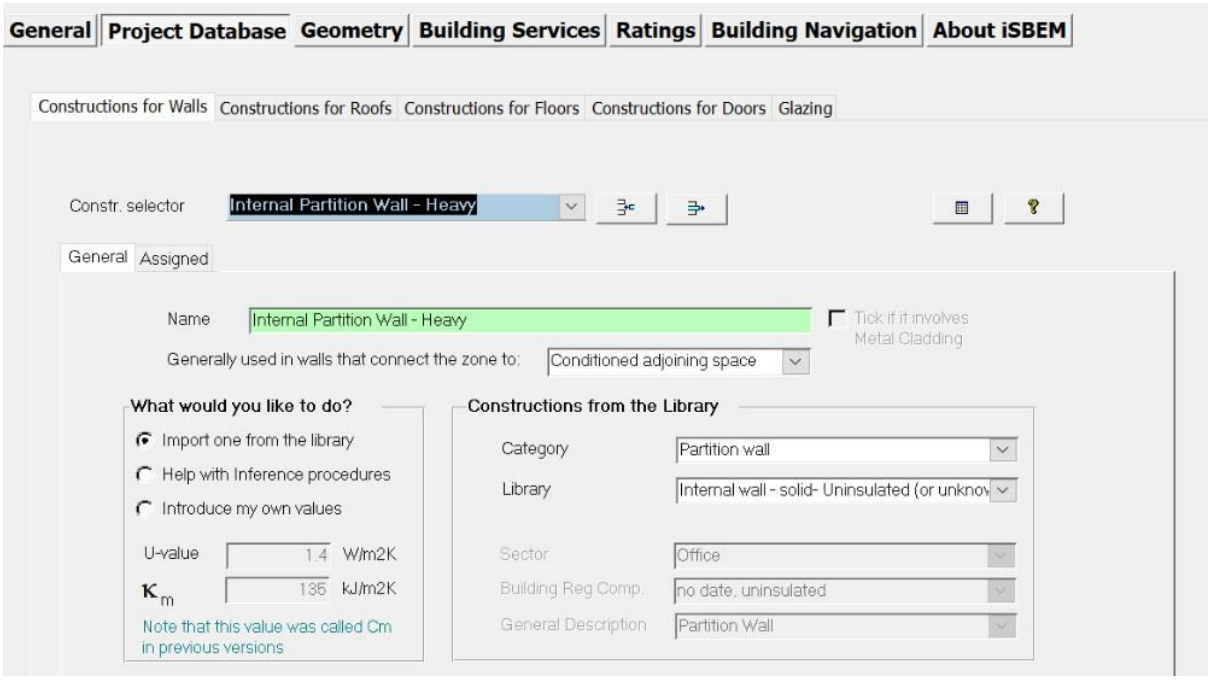
## (i) Partition walls

Internal solid walls have now been moved to the Library category along with several variations for Partition wall.

Library>Partition wall>Internal wall

**Heavy partition walls**- these are no longer selected from Library>Solid masonry wall> Heavy partition wall> Internal walls

Example- brick or block solid internal wall adjacent to an unheated space with no other information or features, should be input as -
Library> Partition wall> Internal wall-solid-uninsulated (or unknown)



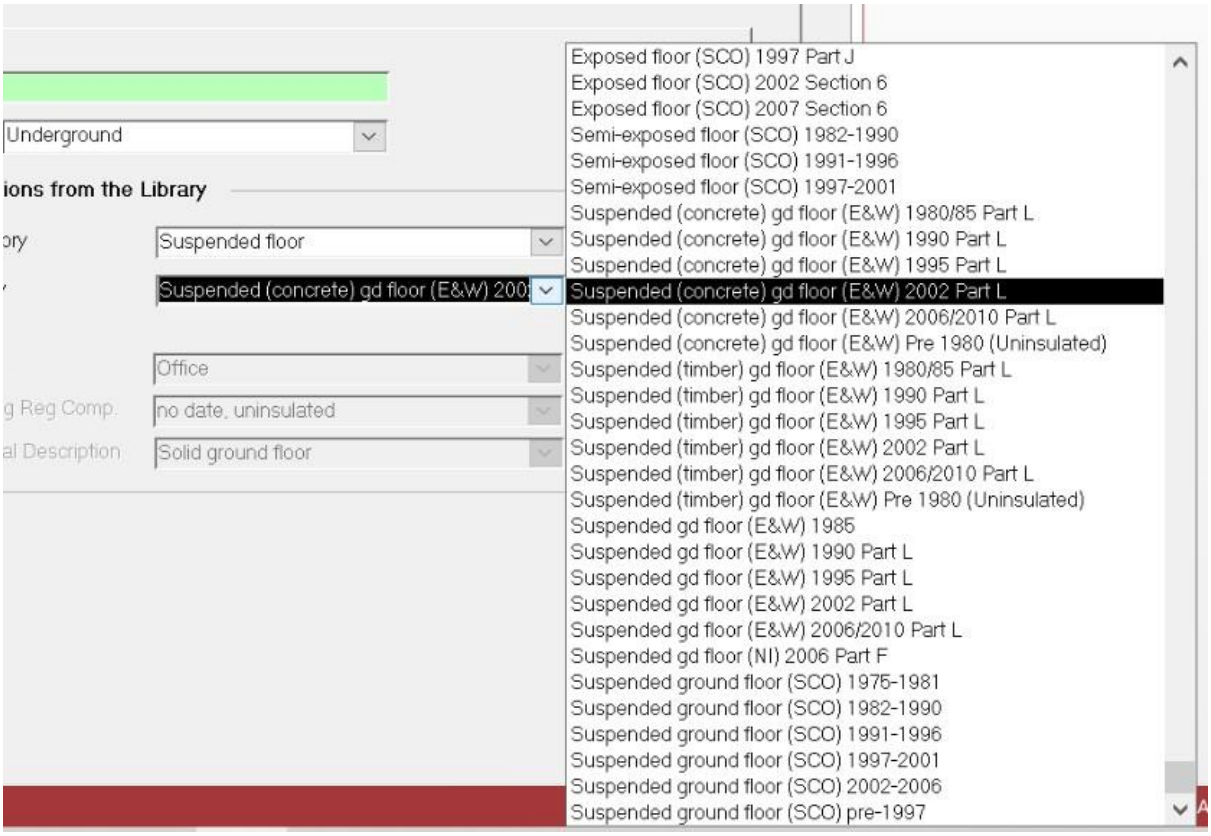
## (i) Internal walls

Light partitioning will be a separate database entry to Internal wall – Stud partitioning. Internal light partitioning now selected where internal type partitions are present.


## (ii) Suspended floors

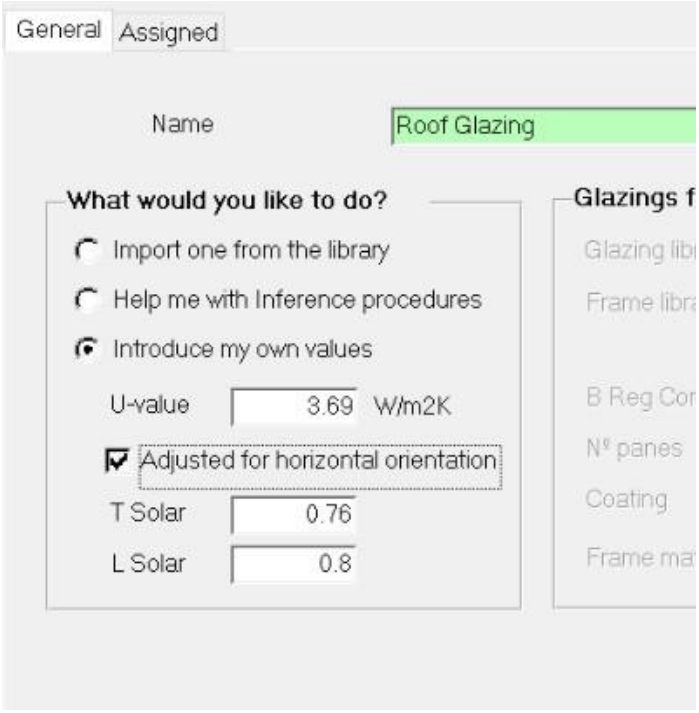
The project database entries for exposed floors and suspended ground floors have been brought together in the Library>Suspended floor category and have been extended to include both concrete and timber options.

Example- suspended concrete ground floor, built 2002, should be input as - Library>Suspended floor>Suspended (concrete) ground floor (E&W)2002



## (iii) Horizontal orientation adjustment for glazing in roof

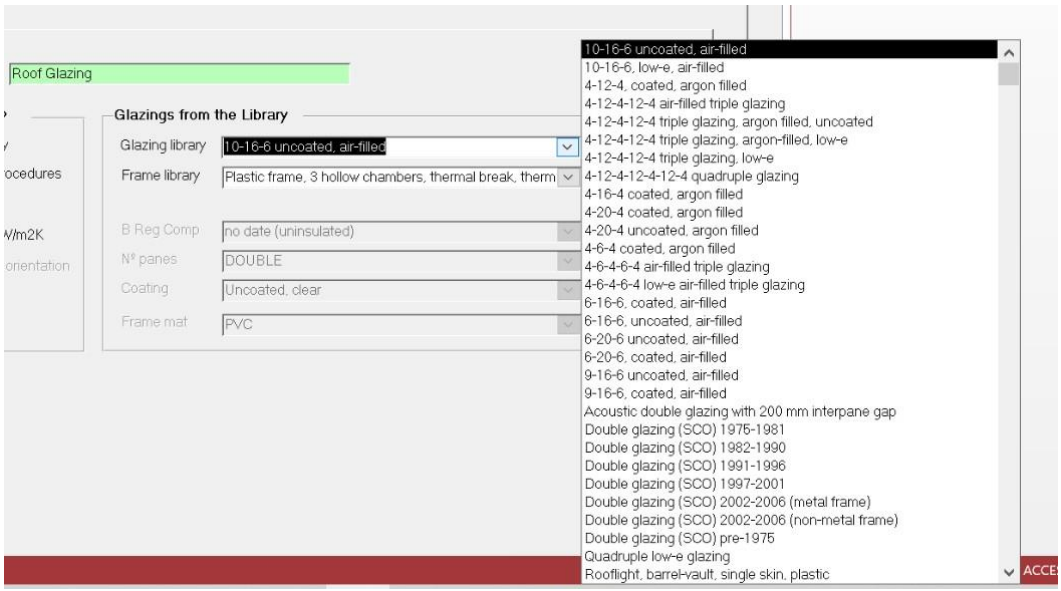
If entering own U-values for glazing in roofs, it is now a requirement to indicate whether the adjustment for horizontal orientation.




## (iv) Simplified glazing options

Glazing options have been simplified.

Example- 4mm single glazing no longer in the Library options. You should now use Inference to select glazing options no longer available in the Library databases.



# Geometry

## (i) Building foundation area

The Building foundation area must now be calculated in accordance with the NCM modelling guide 2021.

The foundation area must be calculated using the methodology below and the pre-populated value of 10000 must be overwritten.

The area of building's foundation is calculated using the following equation:

**Equation 10 -** *where: Page 24/25 NCM Modelling Guide* 2021.

$$\boldsymbol{Afoundation} = \boldsymbol{Aconditioned} / \boldsymbol{Nstorey}\text{s}$$

$\boldsymbol{Aconditioned}$ = *the total floor area of all the spaces in the modelled building which are conditioned or intended to be conditioned, e.g., after fit-out, by a space heating or space cooling system (i.e., areas of permanently unconditioned21 spaces are excluded), and*

$\boldsymbol{Nstoreys}$ = *the total number of storeys in the entire structure that encases the modelled building, including partial storeys and storeys containing dwellings and buildings other than dwellings (whether or not they are part of the building being assessed, i.e., represented in the software model).*

**NOTE-** You must provide evidence of the foundation calculation in your site notes.

Example-
If Assessing a one storey office within a Five storey office block.
The total gross internal floor area of the office is 500m2.
There are no unconditioned areas within the office.

OFFICES
OFFICES
OFFICES
OFFICES = 500m2
OFFICES

*Afoundation = Aconditioned / Nstoreys*
*Afoundation* = 500m2 (Office floor area)/ 5 storeys (total number of storeys in entire block)
*Afoundation* = 100m2


## (ii) Glazing in a roof envelope

Roof glazing now needs to be identified as to whether it's a roof window or a rooflight in the Windows and rooflights geometry tab.

# Building Services

## (i) Heating options

Two new heating options now included in the HVAC systems:

- Variable refrigerant flow.
- Chilled ceilings or passive chilled ceiling beams and mixing ventilation.


## (ii) District heating

When district heating is present you are required to confirm whether this is a new district heating system or not.

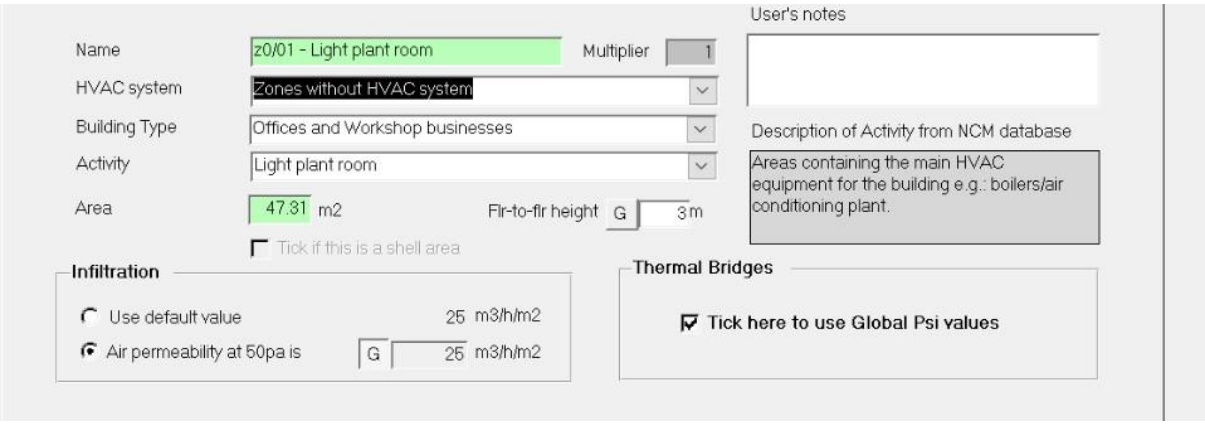
This parameter allows the user to indicate whether the district heating network is 'new' (yes) or 'existing' (no), as defined in the Approved Document Part L, Volume 2.

## (iii) Light plant rooms

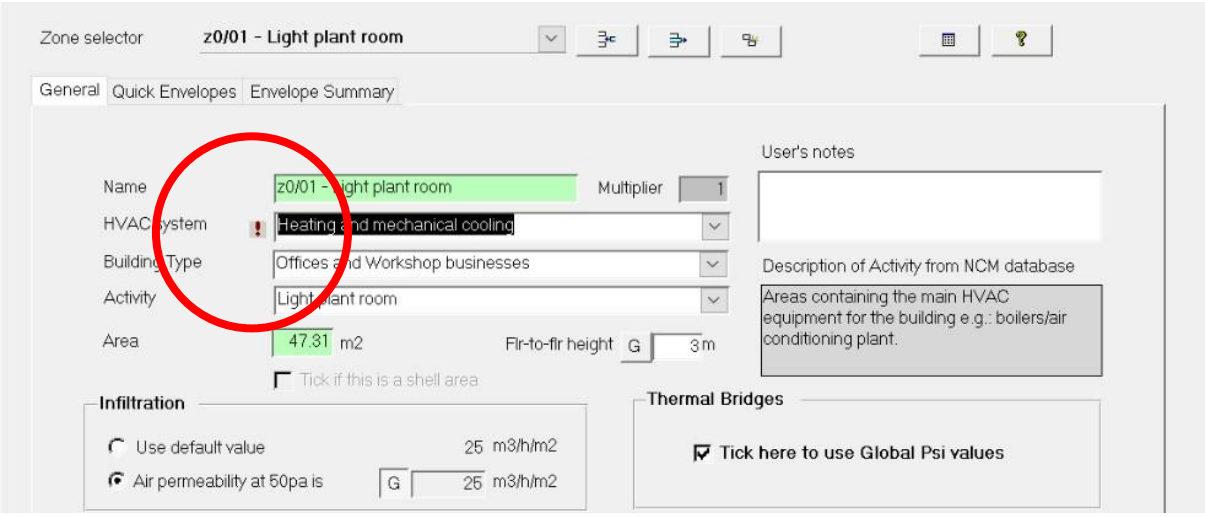
All light plant rooms within SBEM **must now be allocated 'Zone without HVAC'** as the heating system.

Allocating a heating system to a Light plant room will create an error code. You must change to 'Zone without HVAC'.

The convention for indirectly conditioned space does not apply for zones with light plant rooms.



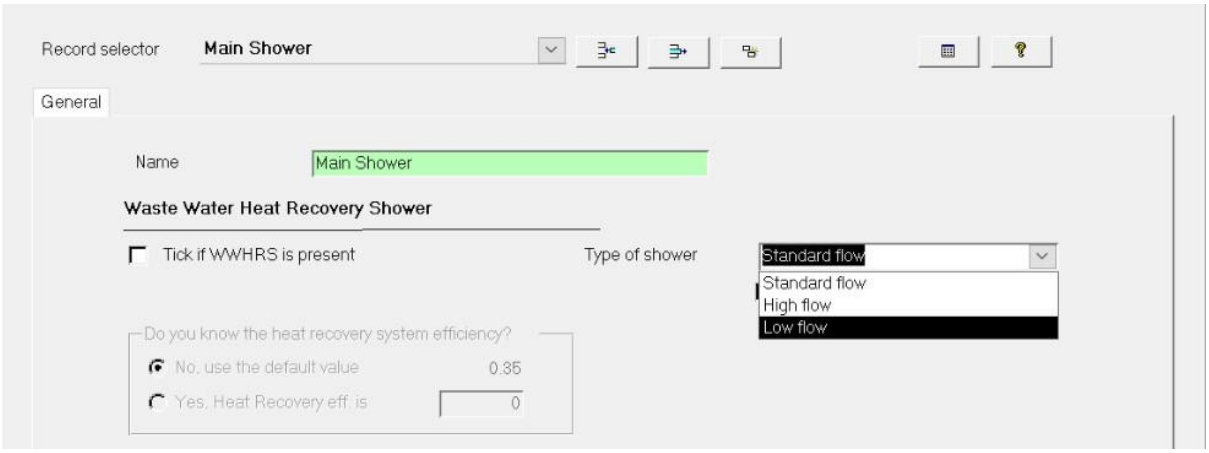

If heating is allocated to light plant room the data file will not calculate.



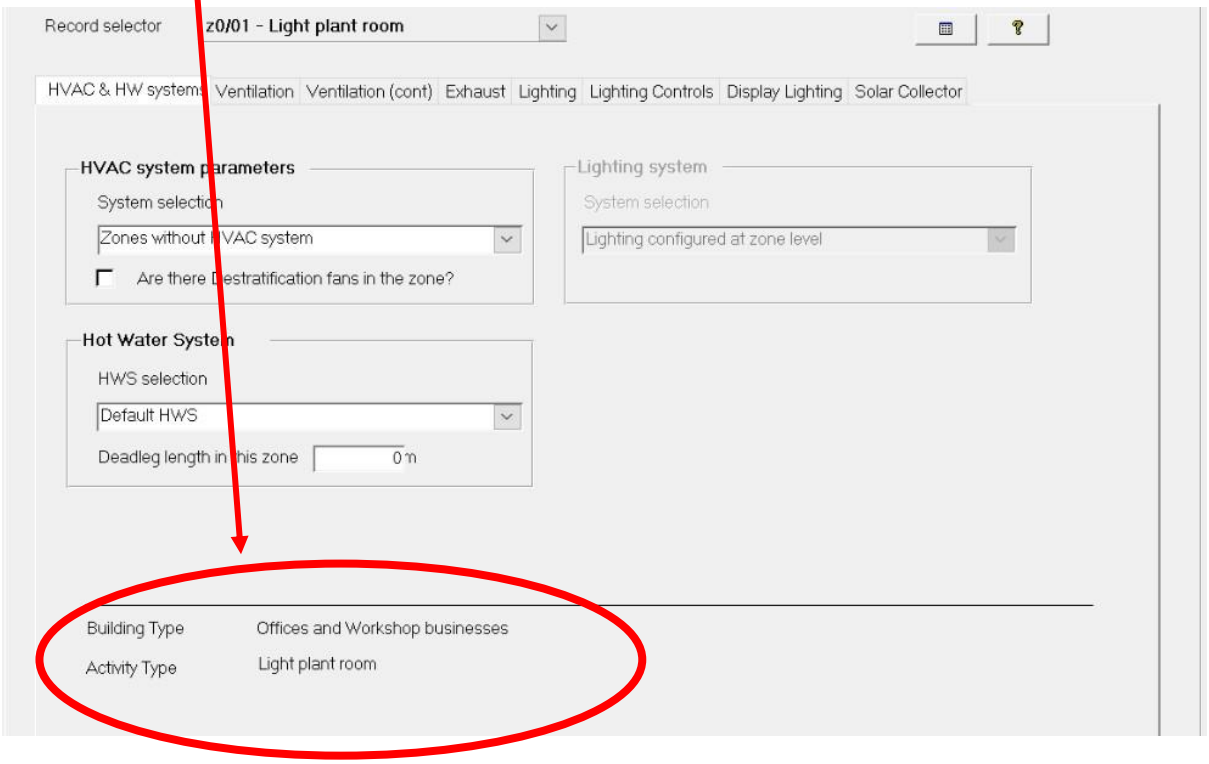
## (iv) Showers

When showers are present you must specify the type of shower as either Standard flow/ Low flow or High Flow.

- Low flow – an electric instantaneous shower
- High flow – power showers
- Standard flow – anything in between- i.e. mixer showers




**NOTE-** At the bottom of the screen on the Building Services>Zones tab. The building type and activity for each zone and each sub tab is now displayed.



# Rating Page

Building Regulation compliance 2021 calculations now include carbon emissions and primary energy targets.

The display on the ratings page now includes Actual and Target Primary Energy values. For a compliance to pass, both the carbon emissions and primary energy must be passed.

**NOTE**- If converting older data files into v6.1b all data must be reviewed and amend data entries where applicable.