

Energy Toolkit - Housing tool instructions

Contents

1)	Buildings List	2
2)	Building Dashboard	3
3)	Data Entry	4
	3.1) Retrieving technical EPC data	4
	3.2) Entering EPC technical data	5
4)	EPC recommendations	7
	4.1) Retrieving EPC recommendations	7
	4.2) Entering EPC recommendations	8
	4.3) Marking EPC recommendations as actioned	9
5)	Import / Export Screen	10

1) Buildings List

Admin

[Export Housing List](#)
[Add a House](#)
[Import/Export Data](#)

Energy Usage

Lighting kWh	887
Heating kWh	31022
Hot Water kWh	4165
Total	36074

Emissions

Lighting CO2	0.256
Heating CO2	6.446
Hot Water CO2	0.865
Total	7.567

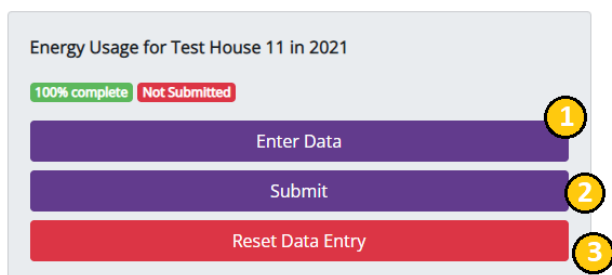
Name	Town	Progress	Current Rating	Potential Rating	
Test House 01	London	100%	D	C	🔍 ⚙️ ←

The housing list is slightly different from the building lists of the other tools in the toolkit. It includes summary tables for energy usage and emissions.

- 1) This table lists total energy usage across all houses within the diocese by lighting / heating / hot water.
- 2) This table lists the corresponding emissions
- 3) The columns here are different to the buildings list for other categories, they display the current and potential SAP ratings from the EPC certificate.

2) Building Dashboard

This screen leads to the data entry section and doubles up as a results summary page. Users will be returned to the same screen after completing their data entry.



Results

No EPC information has been supplied for this property. The kWh and CO₂ emissions recorded against this property have been estimated from averages

[Enter your data](#) to see results for this House.

Property	Test House 11	New SAP	-
Notes	-	New kWh	34,964.8
EPC Lodgement Date	No EPC	New CO ₂	7.564
Original SAP	No EPC	Heat pump installed (heating system)?	No
Original kWh	34,964.8	Heat pump installed (hot water system)?	No
Original CO ₂	7.564	Type of heat pump	-
		Occupant on green tariff (electricity)	No
		Occupant on green tariff (heating)	No

- 1) Progress to date and the button which takes you into the data entry screen
- 2) Marks any data recorded against the building as final. This prevents other users from editing the data that you have entered for the building without first manually “unsubmitting” the data
- 3) Erases any user entered data against the building
- 4) The panel on the left hand side of the screen shows the kWh energy usage and CO₂ emissions data calculated from the EPC report once the data has been entered. If no data has been entered then the panel will show an estimated kWh and CO₂ emissions figure based on averages calculated from the EPCs of diocesan owned housing stock.
- 5) The panel on the right hand side of the screen shows a recalculated kWh energy usage and CO₂ emissions data after any EPC recommendations have been marked as actioned, and taking into account whether the occupant is on a green tariff or if a heat pump has been installed (see section 3.2 on page 5). If no recommendations have been actioned then the figures on the left and right of the screen will be identical. The figures in the right hand panels are the ones used to calculate the diocesan totals on the building list page.

3) Data Entry

3.1) Retrieving technical EPC data

To retrieve the required data to estimate the carbon footprint of a home, you will need to retrieve the EPC technical data. For any home that has had an EPC report after January 2008, this data is publicly available from the following webpage:¹

<https://epc.opendatacommunities.org/>

Department For Communities and Local Government
Energy Performance of Buildings Data England and Wales

11,999 Domestic EPCs found [Filter 5000 results \(skip\)](#)
[FAQ: why only 5000?](#)

Domestic EPC Non-domestic EPC DEC Help

ADDRESS
 Type a full or partial address
 Postcode
 Postcode

LOCAL GOVERNMENT
 Local Authority
 [Any]
 Constituency
 [Any]

PROPERTY TYPE
 bungalow
 flat
 house
 maisonette
 park home

PROPERTY TOTAL FLOOR AREA
 <30m²
 30-80m²
 80-200m²
 >200m²

CURRENT ENERGY RATING
 (91+) A
 (81-91) B
 (69-80) C
 (55-68) D

1 Oct 2016
 Charlton Park Farm, Charlton Drive, Wraxall BS48 1PD
 30 Sep 2016
 Velen House, Hills Avenue CB1 7UY
 30 Sep 2016
 Tirnalía House, Hills Avenue CB1 7UY
 30 Sep 2016
 2, Balsam Road, West Timperley WA14 SDR
 30 Sep 2016
 4, Tiberius Drive, Fairfields MK11 4AX
 30 Sep 2016
 Height Green Barn, Ripponden HX6 4HH
 30 Sep 2016
 241, St. Lukes Road SR4 0AL
 30 Sep 2016
 243, St. Lukes Road SR4 0AL
 30 Sep 2016
 239, St. Lukes Road SR4 0AL
 30 Sep 2016
 207, Runcorn Road, Barnton CW8 4HR
 30 Sep 2016
 6, Tiberius Drive, Fairfields MK11 4AX
 30 Sep 2016
 237, St. Lukes Road SR4 0AL
 30 Sep 2016
 247, St. Lukes Road SR4 0AL
 30 Sep 2016
 Calldore House, Hills Avenue CB1 7UY
 30 Sep 2016

You will need to register a free account in order to access the data. Once you have signed in, the easiest way to find a property is by searching by postcode.

¹ Note that there is a 5-6 month wait between an EPC being completed and it being made available on this website.

3.2) Entering EPC technical data

Diocese Dashboard / Housing List / House Dashboard / Data Entry

EPC Entry
0 of 12 complete 0%

Recommendations

Tick if there is no EPC for this building. N.B. This will clear all other data in the form

1

Date of Lodgement

2 No date selected
Enter a date

Current Rating

3 Please select...

Potential Rating

4 Please select...

Current Energy Efficiency

5

Potential Energy Efficiency

6

Lighting Cost

7

Heating Cost

8

Hot Water Cost

9

Total Floor Area

10

Main Heating System

11 Please select...

Secondary Heating System

12 Please select...

Hotwater System

13 Please select...

14 Has a heat pump been fitted since the EPC was issued which is now the heat source for hot water

Yes
 No

15 Has a heat pump been fitted since the EPC was issued which is now the heat source for central heating

Yes
 No

16 Is there a green tariff in place for electricity?

Yes
 No

17 Is there a green tariff in place for heating?

Yes
 No

[Next](#)

- 1) If the home has no EPC certificate, and you wish to record this in the database, then you may tick this box. Doing so will mean that the home's carbon footprint is estimated from averages.

If you are entering data, the variables you need to retrieve from the properties EPC entry on <https://epc.opendatacommunities.org/>, and the boxes you need to enter them into (above) are as follows:

- 2) LODGEMENT DATE
- 3) CURRENT ENERGY RATING
- 4) POTENTIAL ENERGY RATING
- 5) CURRENT ENERGY EFFICIENCY
- 6) POTENTIAL ENERGY EFFICIENCY
- 7) LIGHTING COST CURRENT
- 8) HEATING COST CURRENT
- 9) HOT WATER COST CURRENT
- 10) TOTAL FLOOR AREA
- 11) MAINHEAT DESCRIPTION
- 12) SECONDHEAT DESCRIPTION
- 13) HOTWATER DESCRIPTION

If the heating system has been upgraded to a heat pump after the EPC was commissioned, questions 14) and 15) allow users to specify this. Ticking yes to one or both of these boxes will re-estimate the energy usage for heating and hot water in the home to what it should be with a heat pump, and recalculate the CO₂ emissions accordingly.

Question 16) and 17) allow you to specify whether or not the occupant of the home is on a green electricity or heating tariff. Entering yes in these boxes will mark the emissions from lighting and/or heating and hot water in the home as offset. You will not be able to retrieve this information from the epc.opendata website. Instead, you should ask the occupant of the building if they are using a green tariff if you wish to answer "yes" to these questions – otherwise assume the answer is "no".

4) EPC recommendations

Entering EPC recommendations into the toolkit allows users to estimate the impact of actioning them in terms of energy and carbon savings. This may be of use to dioceses who have started a programme of works to improve the efficiency of their housing stock as it means that you can identify which improvements are most effective in terms of carbon reductions, and allows you re-estimate the carbon footprint of a home without going through the cost and rigmarole of commissioning a new EPC each time you make an improvement.

Entering recommendations into the toolkit is optional. Only those EPC recommendations that are marked as actions will make a difference to the homes carbon footprint. Therefore if your diocese has no plans to action any improvements to its housing stock then the benefits to you for entering this data may be limited.

4.1) Retrieving EPC recommendations

The recommendations on an EPC report can be retrieved from: <https://www.gov.uk/find-energy-certificate>. Click on “start now”, then on the next page “a domestic property” and then search for the home using its postcode.

The screenshot shows the GOV.UK website interface for finding an energy certificate. The browser address bar shows www.gov.uk/find-energy-certificate. The page title is "Find an energy certificate". The main heading is "Find an energy certificate". Below the heading, there is a "Start now" button circled in red. The next screen asks "What type of property is the certificate for?" with two radio button options: "A domestic property" (selected and circled in red) and "A non-domestic property". The final screen is titled "Find an energy performance certificate (EPC) by postcode" and features a text input field for the postcode and a "Find" button circled in red.

4.2) Entering EPC recommendations

The example below shows how to correctly enter the recommendations:

g List / House Dashboard / Data Entry

Use the table below to enter the recommendations made. You can enter as many recommendations as needed, more rows will appear as required. Leave any unneeded rows blank.

	Improvement	Potential Rating	Installation Cost	Annual Saving
# 1	1 Floor insulation	2 71	3 £800 - £1,200	4 £52
# 2	1 Solar water heating	2 72	3 £4,000 - £6,000	4 £28
# 3	Replace single glazed windows with low-E	75	£3,300 - £	£75
# 4	Solar photovoltaic panels, 2.5 kWp	85	£3,500 - £	£347
# 5	Please select...			

1 Step 1: Floor insulation (suspended floor)

Floor insulation (suspended floor)

Typical installation cost £800 - £1,200 3

Typical yearly saving £52 4

Potential rating after completing step 1 71 | C 2

1 Step 2: Solar water heating

Solar water heating

Typical installation cost £4,000 - £6,000 3

Typical yearly saving £28 4

Potential rating after completing steps 1 and 2 72 | C 2

- 1) Select the type of recommendation from the dropdown list
- 2) Enter the number of potential rating for this specific improvement. So in the above example we have entered 71 for the floor insulation, and 72 for the solar water heating. Do not enter the letter grade associated with the rating.
- 3) Enter the installation cost (NB this field is optional – it does not affect the calculations, but is included for the benefit of users who wish to use the toolkit to store this information for reference)
- 4) Enter the typical yearly saving (NB this field is optional – it does not affect the calculations, but is included for the benefit of users who wish to use the toolkit to store this information for reference)

Recommendations must be entered in the sequential order that they appear in on the EPC form.

4.3) Marking EPC recommendations as actioned

After recording the EPC recommendations, users are taken to a dashboard as shown:

Results

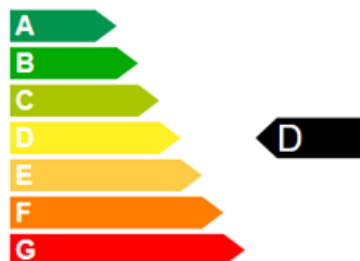
Property	Test House 01	New SAP	C
EPC Lodgement Date	18 July 2018	New kWh	31617.0
Original SAP	D	New CO2	6.283
Original kWh	36074.1	Heat pump installed (heating system)?	No
Original CO2	7.567	Heat pump installed (hot water system)?	No
	1	Type of heat pump	2 -
		Occupant on green tariff (electricity)	No
		Occupant on green tariff (heating)	No

Recommendations

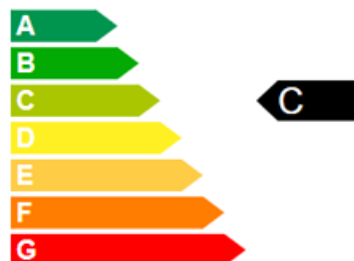
Use the switches in the right column to toggle which of the recommendations have been actioned. Your new SAP rating will be calculated accounting for these changes. It will also take into account whether a heat pump has been installed since the EPC was issued and whether the occupant is on green tariffs.

	Description	Indicative cost	Type	kWh saving	Carbon saving	Actioned
#1	Low energy lighting for all fixed outlets	£25	Electric	1222.5	0.352	<input type="checkbox"/>
#2	Solar photovoltaic panels, 2.5 kWp	£5000	Electric	4457.1	1.284	<input checked="" type="checkbox"/>

Current rating



New rating



- 1) This table shows the original energy ratings as input without any recommendations being actioned.
- 2) This table shows the updated ratings taking into account all recommendations which have been marked as having been actioned as well as the effect of installation of a new heat pump or moving to a green tariff.
- 3) The switches in the far right column of the table allow users to toggle on and off each recommendation to see the effect.

5) Import / Export Screen

Dioceses entering data for more than one house at a time may wish to import data in bulk by navigating to “Import/Export” data from the building list or the toolkit’s header navigation bar. Note that you can only enter the EPC technical data using this function, and not the EPC recommendations.

When clicking the general Import/Export link in the top menu users are first asked what type of building they’d like to import/export data for. Direct links to the category specific import / export screen exist in the Buildings List screen.

The screenshot shows the Import/Export interface. On the left is the 'Export' section, and on the right is the 'Import' section.

Export Section:

- 1. Select a building category: Schools Import/Export
- 2. Select a year: 2021
- 3. Select a format for export: Excel (.xlsx)
- 4. Select data to include: All Records
- 5. Select type of field names: Database field names
- 6. Download Results to XLSX
- 7. Download XLSX Template for Import

Import Section:

- 8. Choose a file (with a 'Browse' button)
- Submit button

Two informational boxes are present in the Import section: a light blue box stating 'In order to upload data we recommend first downloading a template file which will contain the correct column headings and building ids. You can use this as a basis to prepare your file for upload.' and a yellow box stating 'If you are uploading a .xlsx file with multiple worksheets, ensure that the worksheet with the data you wish to upload is active when you save the file.'

- 1) Specify the type of building you wish to download/upload data for (schools, housing, offices etc)
- 2) Select the year that you wish to download data for
- 3) Select a file format to export the data to (either CSV or XLSX format). XLSX has the advantage of being able to include validation lists for fields which only accept specific values.
- 4) Choose whether to include records only for buildings for which data has been submitted or to include blank records.
- 5) Chose the type of field names you want your exported data to have.

Select human field names to use full labels in the header row for each field as they are displayed in the data entry form. In some cases this may make it easier to identify fields at the expense of a more verbose header row.

Select database field names to use short field names as used in the database.

This option does not apply if you download a template file in order to import data in bulk.

- 6) Downloads a file containing results suitable for further analysis in Excel. The file generated will contain read-only calculated fields and is unsuitable for importing data back into the system. If you need to import data download a template instead.
- 7) Downloads a template file in the correct format for uploading data to the system.
- 8) Upload a file to import data in bulk. For this process to work it is important that the CSV file have the correct headings so that the ET can correctly identify which fields each represents. Each row must also have an ID which uniquely identifies each building. It is therefore recommended that you download a template file and do not rename, add or remove any columns.