

HSCD – Housing Stock Condition Database

User guide

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1 Introduction

The BRE Housing Stock Condition Database (HSCD) provides the dwelling level data from the BRE Housing Stock Models. The HSCD has been designed to allow local authorities to access their local area data. There are several different options for summarising or investigating the data and generating lists of properties of interest. This document provides details of how to use the HSCD.

1.1 Overview

To ensure data security the interface will automatically open on the login page shown in **Figure 1**. Should you forget your password details, these can be reset and emailed to you using the function provided on the login page.

Upon login, the home page will open with a dashboard showing the key indicators for your housing stock, similar to that shown in **Figure 2**. The navigation pane is along the top and is visible on all pages; the options shown on the navigation pane will depend upon the options purchased.

Figure 1: Login screen

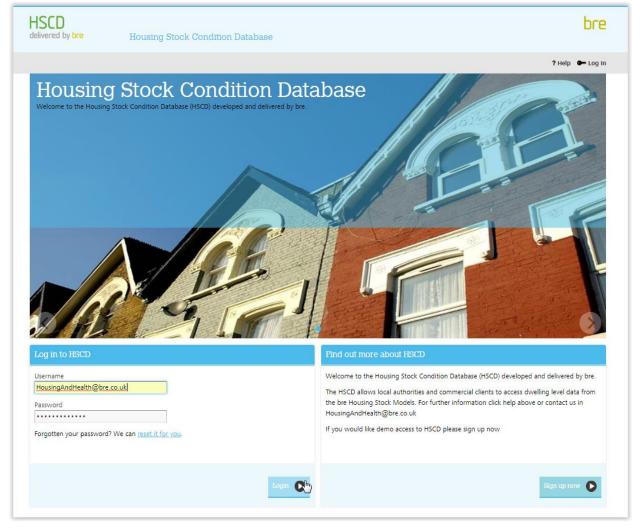




Figure 2: Home page





2 Querying the database

The database has been designed to easily enable the user to view and query data. Querying functions are available for both dwelling level (filter dwelling data, see **Figure 3**) and geographic level (LA, ward, COA etc.) summaries (summary reports, see **Figure 5**). Depending on the options purchased, more functions/variables may be present, however the same principles apply. It is also possible to query the raw EPC data using the EPC data page (**Figure 6**).

2.1 Filter data – dwelling level

The filter data interface has three main sections; data source selection, filter by criteria, and a run and saving option. These are described in more detail below:

2.1.1 Data Source selection

By default, the database will query the "Organisation's data". The radio button at the top of the filter dwelling data page allows the user to switch this to the "Latest BRE data". The purpose of the Organisation's data is to allow the user to introduce their own data and enable this data to be queried in the first instance. Where no Organisation data has been added, the latest BRE data will be queried.

2.1.2 Filter by Criteria

Queries can be created using a combination of address based and housing indicator queries. They can be run independently or combined with each other.

Address based queries

These options allow the user to search for areas, either by street name, postcode or ward. A table will then be shown which provides a list of all dwellings in the street or postcode requested.

If the full name of the street is not known, the interface will include all similar matches. For example, entering "Abbey" will return any street name starting with "Abbey", for example, "Abbey Road", "Abbey Close", "Abbeyfield", "Old Abbey Road" etc.

The street names used are those provided in the Local Land and Property Gazetteer if provided, or alternatively as they were provided in AddressBase. It can sometimes be the case that a street name can be written differently across databases (e.g. "Rose Wood Close" or "Rosewood Close"). If a road name does not appear to be present, try using the first few characters to check for alternatives.

The postcode and ward search facilities work in a similar manner. Entering "BN15 0AD" will find all dwellings in that exact post code but entering "BN15" will find all dwellings whose postcode contains BN15.

Housing indicators queries

This section allows the user to select dwellings based on one or more criteria / key indicators of interest.

Choose one or more of the indicators of interest either by selecting an indicator e.g. HHSRS Cat.1 hazards will return dwelling which fail HHSRS, or for SimpleSAP enter a rating to select dwellings on and below the rating.



2.1.3 Run and Save



Once the selections have been made, queries can be executed by clicking return all addresses matching the chosen criteria.

Each query selection can be saved for re-use using the checkbox at the bottom of the screen and entering a name for the query. Saved queries can be accessed from both the Home and Dashboard pages, Figure 4.



Figure 3: Filter Dwelling Data page

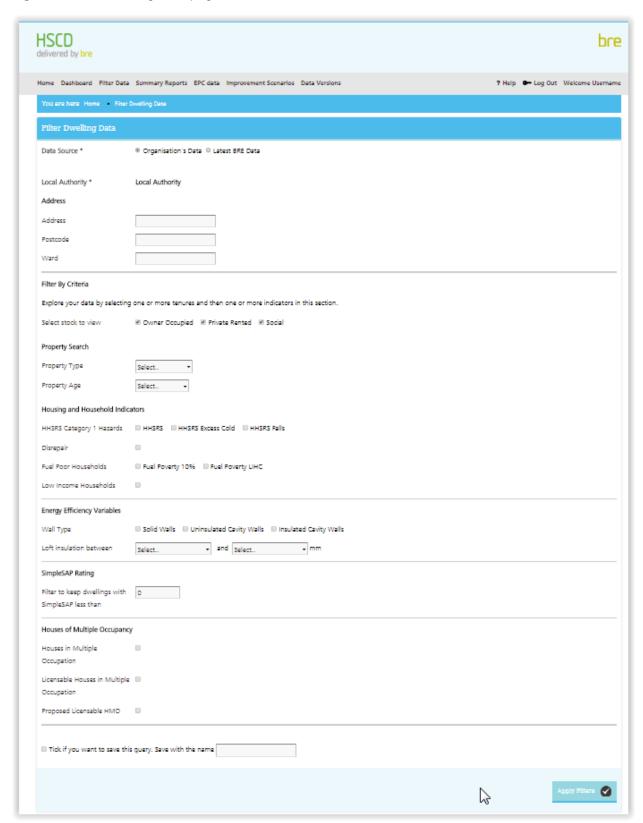
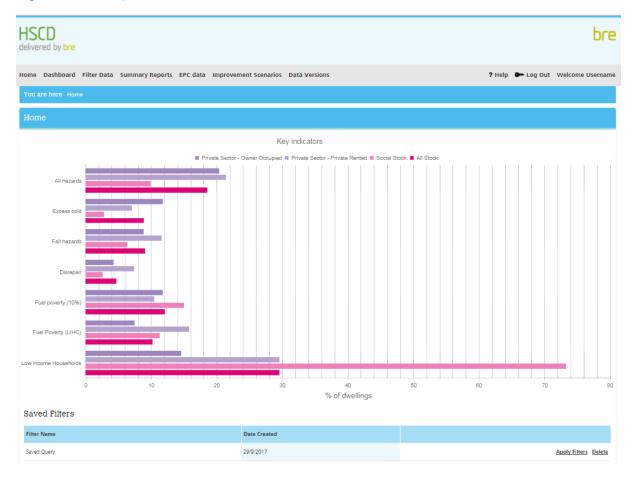




Figure 4: Saved queries



2.2 Summary reports – geographic level

The summary reports interface has been developed to allow the user to generate summaries of their data at different levels of aggregation. The different levels of aggregation are;

- Local authority
- Ward
- • MSOA
- • LSOA
- COA

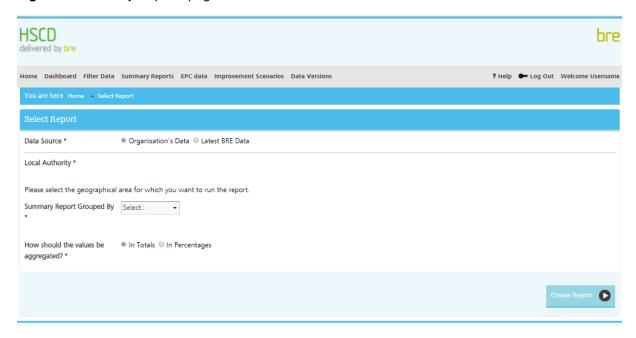
There are two types of summaries available at each level - totals and percentages:

- Totals give the user the total number of dwellings that fail a standard, for example, the total number of dwellings that have a HHSRS category 1 hazard in the authority.
- Percentages tell the user the percentage of dwellings that fail a criterion, for example, the percentage of dwellings suffering from HHSRS category 1 excess cold hazards.

As with the filter data interface, the summary reports interface allows the user to choose the source data, by default it is set to the Organisation's Data.



Figure 5: Summary Reports page





2.3 EPC data

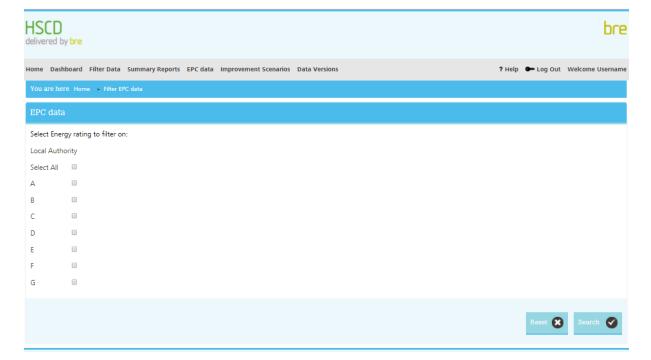
EPCs are required whenever a property is built, sold or rented. An EPC provides individual dwellings with an energy efficiency rating from A (most efficient) to G (least efficient). The EPC records are a valuable source of surveyed data which, from experience, cover roughly one third of the housing stock in most local authorities.

When the EPC data was first made available to purchase from Landmark there was no requirement for local authorities to use this information. More recently, however, new legislation under the Energy Act 20112 stipulated that all privately rented properties must have an EPC rating of band E or higher from April 2018. The legislation specifies that any existing EPC records should be used as part of the evidence to support cases against landlords whose dwellings do not fit this criterion.

Due to this change in legislation and the resultant need to potentially use lodged EPC data it is now important that the BRE Databases include the lodged EPC ratings where available. Therefore, a separate table has been provided within the database which contains these figures (this table is called "EPC data").

This is the lodged EPC data provided to BRE and is appropriate as a tool to identify dwellings with certain lodged EPC ratings.

Figure 6: EPC data page





2.4 Improvement Scenarios - optional

Where purchased, there are two methods to access improvement scenarios. An additional page will be available for filtering and within the filter data results page, a hyperlink will be present to view the scenarios associated with a UPRN.

2.4.1 Improvement Scenario Page

There are two search options available to view improvement scenarios; search by UPRN and search by improvement scenario, Figure 7.

- Search by UPRN provides the baseline results along with the improvement scenarios purchased, Figure 8
- Search by Improvement Scenario provides the results for all dwellings for the chosen improvement scenario, Figure 9

Figure 7: Improvement Scenario page

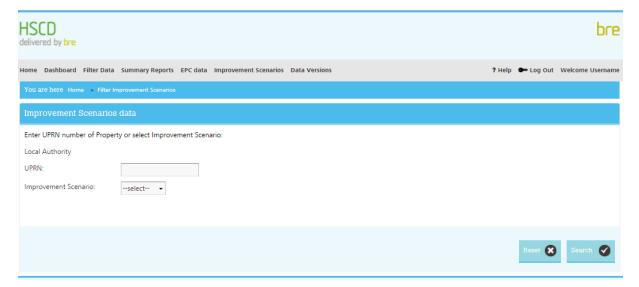


Figure 8: Search by UPRN - Improvement Scenario

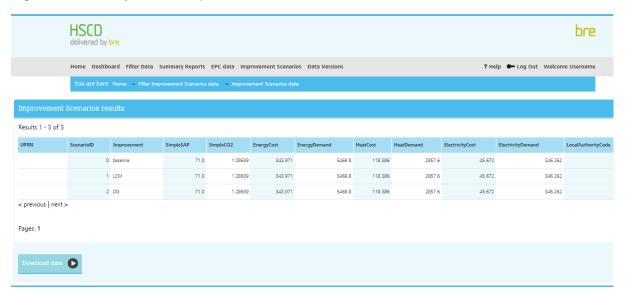
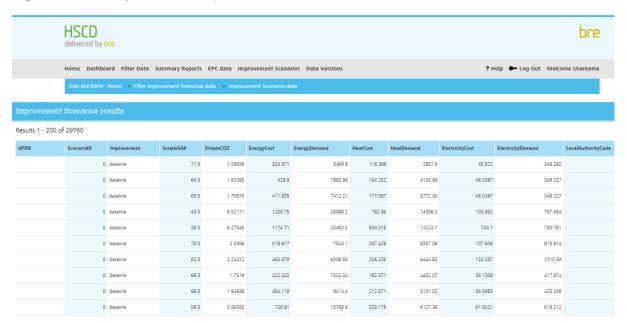




Figure 9: Search by scenario - Improvement Scenario



2.4.2 Improvement Scenario using Filter Data

This option is designed to view the improvement scenario results for a particular dwelling where the UPRN is not known. Using the filter data function, search for the desired property, a hyperlink will appear on the results page next to the UPRN to view the improvement scenarios. The results for the relevant improvement scenarios will appear like that shown in Figure 10.

Figure 10: Improvement Scenarios using Filter Data





2.5 Commercial Ownership - optional

The Commercial Ownership feature makes use of the recently released Commercial and Corporate Ownership Data (CCOD) and Overseas Companies Ownership Data (OCOD) from Land Registry to identify company owned properties. If purchased, this feature allows you to see title number of properties on the CCOD and OCOD. When the property address is also present on the CCOD and OCOD, you will see the ownership information for that address. You will also be able to query the CCOD and OCOD data on different fields (nationally and at your local area level) as well as obtaining a ranked list of companies that own properties in your area.

2.5.1 Title Number in Filtered Results page

The Title Number is also accessible in the "Filter dwelling data" page (see Figure 3) once a filter has been applied. If a Title Number is featured in the Land Registry data, it will be shown as in Figure 11 and you can click on the Title Number to see the ownership information provided by CCOD or OCOD.

Figure 11: Title Number in Filter Results page

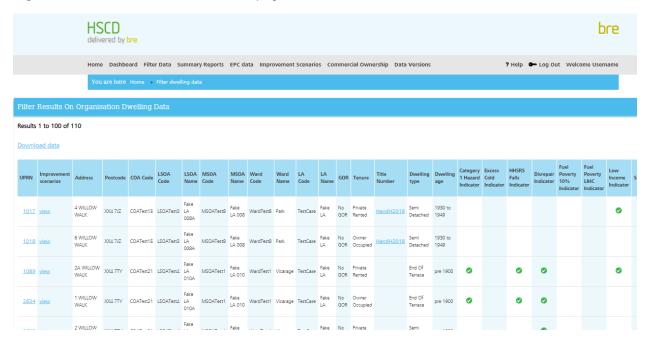
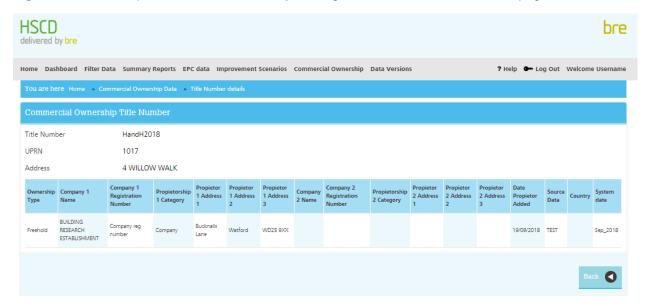




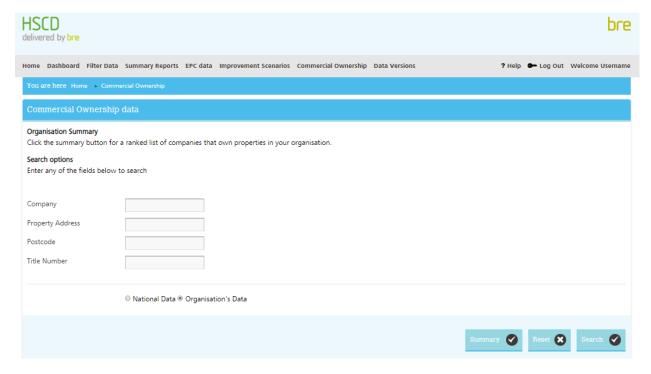
Figure 12: Ownership information accessed by clicking Title Number in Filter Results page



2.5.2 Commercial Ownership page

Through the Commercial Ownership tab on the HSCD you can obtain a list of companies that own properties in your local area. This can be ranked by the number of properties owned by each company to allow easy identification of the larger companies operating in your authority. It is also possible to search the CCOD and OCOD data by company name, property address, postcode or title number. It is possible to query the commercial ownership data at both the national or local level, see Figure 13.

Figure 13: Commercial Ownership data filter





When clicking the "Summary" button in Figure 13 you can see and download (using the "Download data" button at the bottom of the page) a ranked list of companies that own properties in your local area. The company owning the most properties in your authority will be shown at the top of the list, see Figure 14.

You can search the Commercial Ownership data at both national or local level using the following fields: Company name, Property address, Postcode and Title number. This query displays all the information from the CCOD and OCOD within your search. See Figure 15 for a more detailed view.

Figure 14: Ranked list of companies obtained through Summary button

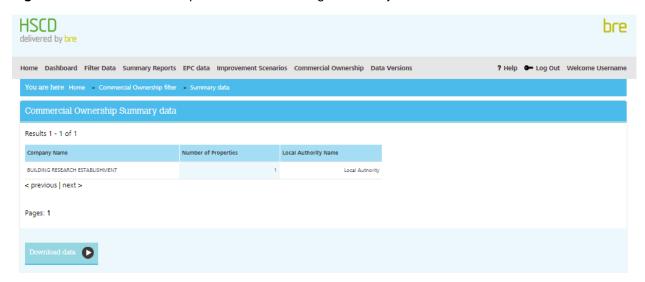
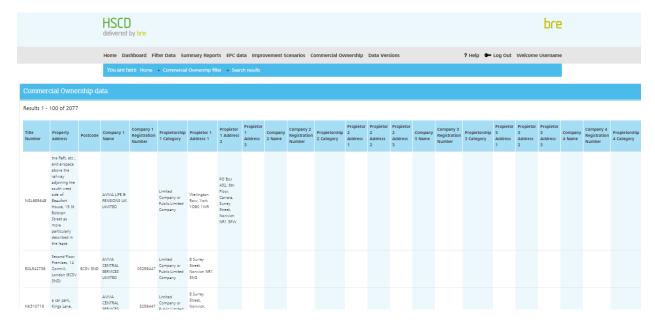


Figure 15: Commercial Ownership search display





2.6 Viewing and Exporting results

Once the queries you have chosen have been run, the resultant data table will open automatically. Due to the number of variables and the number of records shown, it may be necessary to use the scroll up/down and left/right bars as well as the numbered pages to view the data.

To enable further analysis, data can be downloaded to other applications e.g. Excel, using the "Download data" button at the bottom of the results page.



3 Updating the database

The database has been designed to facilitate updating of records in the event of works completed or more recent information being made available to the authority. Only users with read/write access will be permitted to edit dwelling information. Should a mistake be made, a roll back facility is available to return to a previous version of the data.

3.1 Individual Record update

The individual record update facility is designed to simplify the process of updating records. Drop down menus are provided where relevant and saving is not permitted without entering all the required fields, Figure 16. The user can update as many or as few of the variables as required. Only variables deemed suitable for editing are included in the menu; e.g. SimpleSAP has not been included.

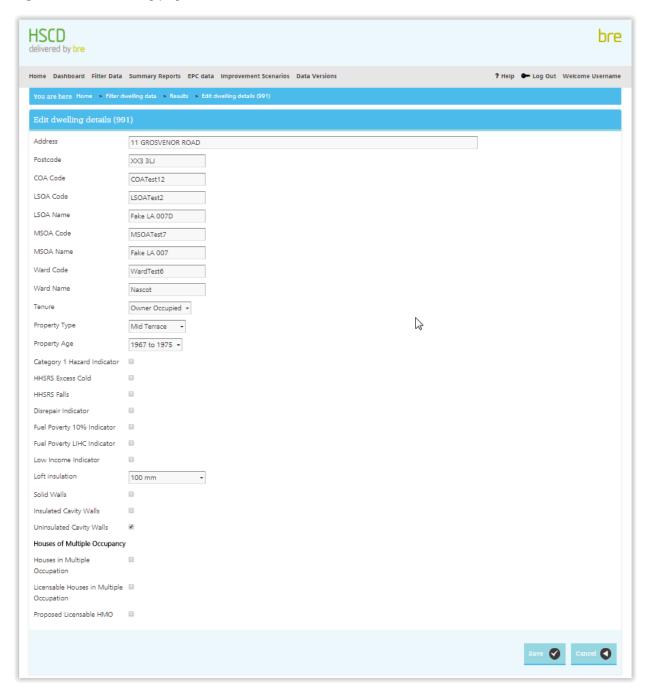
The edit dwelling details page is accessed through the results of the filter data option where Organisation's Data has been selected.

The following steps are provided to aid updating a single record.

- 1. Select Filter Data function
- 2. Ensure Organisation's Data is selected
- 3. Use queries e.g. address to find relevant property
- 4. Run query
- 5. Click the UPRN to open the editor



Figure 16: Edit dwelling page

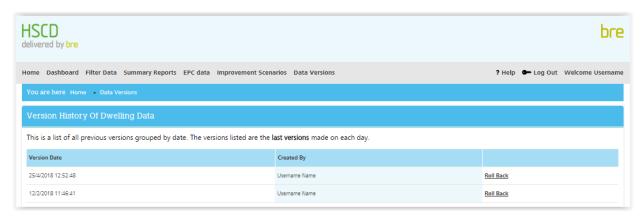




3.2 Data Versions

There is a data version page to see the date and creator of any modification. Once data has been modified, a rollback option appears. Should a mistake be made during a modification, it is possible to return the data to its previous state.

Figure 17: Data Versions page





4 Add and Modify users

The database will be initially made available to the primary contact, unless directed otherwise. This user will be given administrative rights by default. An organisation can add as many other users as desired, however, only 3 active users are permitted unless additional licensing has been agreed.

4.1 Add additional users

Additional users can be added to the organisation by the administrator. There are three user types; administrative, read/write and read only. There can only be one administrator and as many read/write or read only users as desired. Read only users are limited to viewing information, while read/write users can update the dwelling information.

The following steps provide details on how to add additional users:

- 1. Click in 'Welcome Username' in top right-hand corner
- 2. Click

 List of accounts

 3. Click

 Add new user
- 4. Enter details and select user type
- 5. Click active checkbox

4.2 Modify users

User details can be edited or deleted from the list of accounts page. It is also possible to get an overview of which users are currently active and what access levels are assigned. The process is similar to the adding of users.



5 Maps

This new feature allows HSCD users to visualise their data at different geographical levels, different tenure and for different property indicators against the Google Map background which we are all so familiar with. This feature makes easier the investigation and analysis of the organisation's housing stock.

5.1 Map filters

The online map is accessible under the Maps tab (See Figure 18). You can select the local authority you would like to see (if your organisation has access to multiple local authorities), the geographical level, which tenure and which data layer.

The first time you access the Maps tab, a window will pop up explaining the terms of usage of this feature. We expect you to read it an accept it when you are happy. Failure doing so would take you out of the tab and won't allow you to visualise your data in the map.

We provide the data in the map at Ward, MSOA (Middle Super Output Area), LSOA (Lower Super Output Area) and COA (Census Output Area) level.

The tenures available are Private Rented, Owner Occupied, Social, Private Stock (Private Rented and Owner Occupied) and All Stock. If your Tenure license has expired this feature will be set to All Stock as default.

The list of data layers will vary depending on how many of the optional packages your organisation has purchased. As default, you will get basic address details information (see 7.1) and most of the housing standard variables (see 7.3).

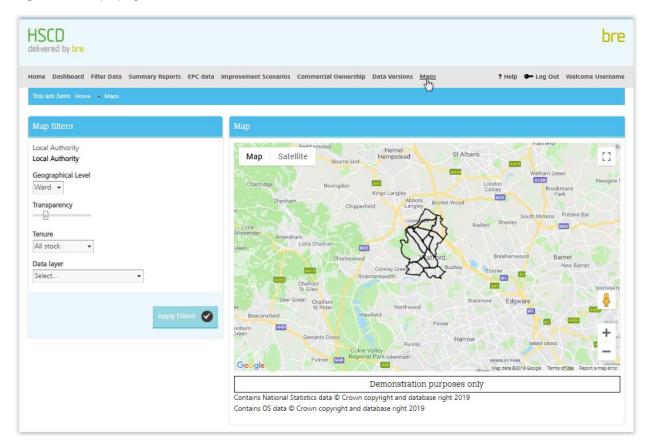
We offer you the possibility to increase/decrease the transparency of the colours in each data layer for easier dwelling level analysis. You can zoom into map areas by pressing the plus sign or Ctrl+scroll.

The map has all the features of a usual Google map; map, terrain or satellite background, toggle full screen view and Pegman for Street View.

When clicking any of the coloured areas for any of the data layers you can see a summary. Furthermore, you can click the values in the pop-up window to see the data that informs then. See 5.2 for more details on this.



Figure 18: Maps page



5.2 Map data

When selecting any of the data layers in the map and clicking in any of the coloured areas, a pop-up window will show. This pop-up summarises the data shown in the clicked area. You will be able to see the geographical area selected and its code, the name of the Ward to which the clicked area belongs to and the value, which represents a percentage, count or average depending on the data layer. All the fields mentioned before are hyperlinks, i.e., you can click then to query the background data.

Clicking the geographical area code will open a new tab with all the records in that code. For example, if the geographical area is LSOA and the code "LSOATest33", clicking on the code will open a new tab showing all the dwellings that belong to the "LSOATest33". See Figure 19 and Figure 20.



Figure 19: Preview of pop-up window

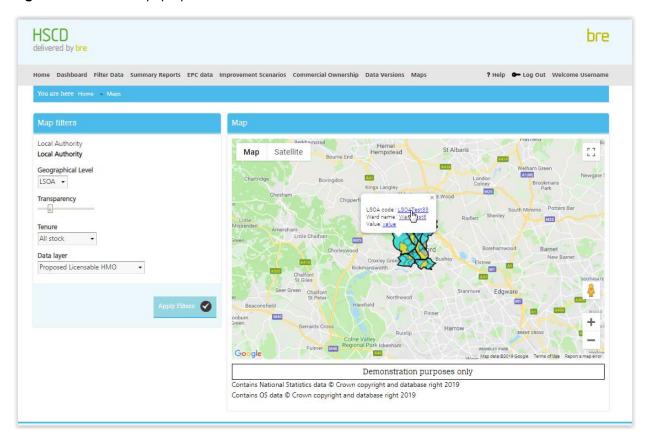
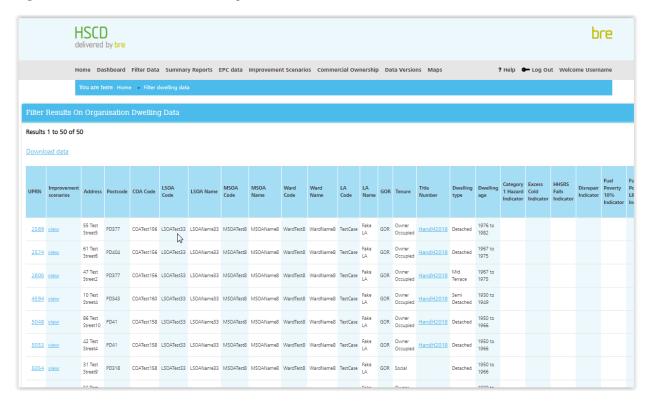




Figure 20: Preview data when clicking LSOA code



Same when clicking the Ward name, a new tab will open with a data table containing all the properties under that ward name.

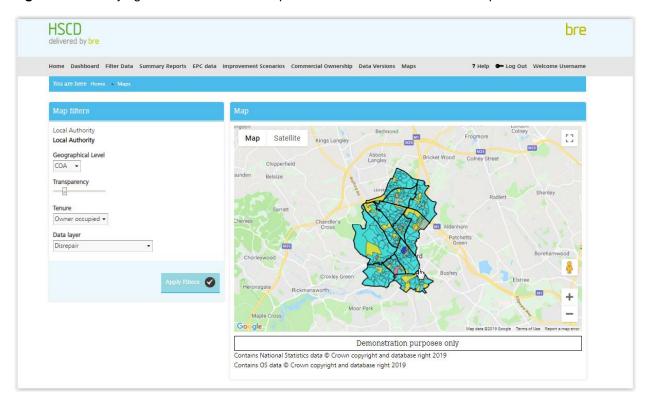
Also, you can click the value field. This will bring you to the specific properties that match all the characteristics selected and form the value for the coloured area. See 5.3 for a hands-on example.

5.3 Map filter example

Let's assume we want to identify the COAs with high levels of owner-occupied dwellings in disrepair in a local authority in your organisation. We would select the local authority (if more than one), select COA in the Geographical level drop down menu, select Owner Occupied in the Tenure drop down menu (if tenure is purchased, see 7.2), select disrepair from the list of Data layers and click "Apply filters". In the demo account this would produce Figure 21.



Figure 21: Identifying concentrations of disrepair at COA level in the owner-occupied tenure sector.



The colours shown in Figure 21 are not meaningful of concentration as we are in the demo account with artificial data only for demonstration purposes. When the map is active for an organisation every data layer has different set colours in a gradient scale and you would be able to see a legend like Figure 22.

Figure 22: Legend

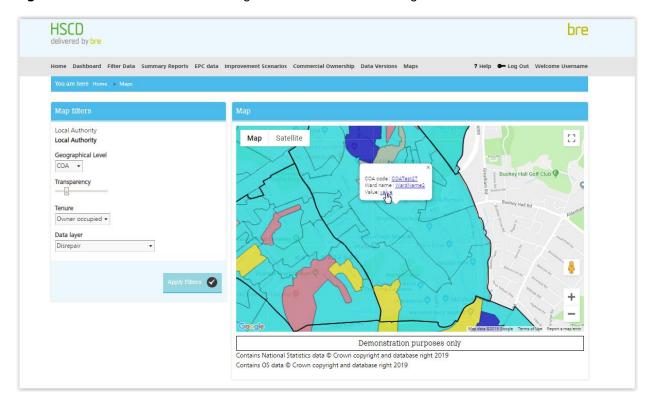
```
HHSRS Cat.1 Hazards
% at Ward level
6 - 8 (5) 9 - 10 (3) 13 - 13 (2) 17 - 17 (1) 19 - 19 (1)
```

The number in brackets represent the count of wards in the colour range in this specific legend example.

Let's assume the blue coloured COAs are the ones with highest concentration. We can investigate which dwellings need improvements to tackle disrepair in the owner-occupied tenure sector by clicking in those areas (we need to zoom the map first with ctr+Scroll) and then clicking the value field with the hyperlink in the pop-up window. See Figure 23.



Figure 23: Zoom in in areas and seeing the data behind for dwelling identification.



Clicking the value as shown in Figure 23, will show you the exact properties in the blue COA that are owner occupied and in disrepair.

We will make available an on-demand webinar recording on how to use the map feature, please contact <u>HousingAndHealth@bre.co.uk</u> if you would like to obtain the link to access it.



6 Other Queries

Should the above not answer a question you have, please contact us at HousingAndHealth@bre.co.uk
For a more detailed explanation and examples of use see our HSCD on-demand webinars:

HSCD introduction - https://vimeo.com/266642614/d3768a9d09

HSCD Commercial Ownership - https://vimeo.com/291697727/d6a4840782

Making the most of HSCD - <u>https://vimeo.com/314251700/16f9653f16</u>

HSCD online maps, XCC and HHCC - coming soon!





7 Appendix

Here is a list of the packages available and, the variables and data layers that you would have access if purchased. Please put special attention to the default and independent purchasable ones.

You can also see this list under 'Welcome username'.

7.1 Address details

This package gives you access to the following variables and data layers:

| Default | Independent purchase | Мар |
|--|--------------------------------------|-------------------------|
| UPRN | X_COORDINATE | Available to filter by: |
| Address | Y_COORDINATE | COA |
| Postcode | BLPU_Class | LSOA |
| COA Code – Census Output Area Code | No. of dwellings within the building | MSOA |
| LSOA Code – Lower Super Output Area Code | | Ward |
| LSOA Name – Lower Super Output Area Name | | Local Authority |
| MSOA Code – Middle Super Output Area Code | | |
| MSOA Name – Middle Super Output Area Name | | |
| Ward Code | | |
| Ward Name | | |
| LA Code – Local Authority Code | | |
| LA Name – Local Authority Name | | |
| GOR – Government Office Region | | |

The length of access to the variables above would be specified in your contract.

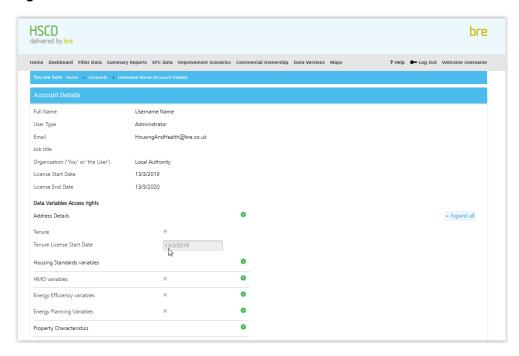
7.2 Tenure

This package indicates that you have purchased a Tenure license from Experian and therefore you have access to Tenure variable for one year, from the date specified under tenure license start date (See Figure 24).

Having access to the Tenure variable also means you can query maps by the different tenures; All stock, private stock, private rented, owner occupied and social, using the 'BRE Model Tenure layer'.



Figure 24: Tenure license start date



HSCD send automatic notifications one month before Tenure expires and when it expires to give you the chance to purchase a new yearly license.

7.3 Housing Standard Variables

This package gives you access to the following variables and data layers:

| Default | Map Data Layer | Independent purchase | Map Data Layer |
|-----------------------------|--------------------------|-----------------------------|--------------------------------|
| Category 1 Hazard Indicator | HHSRS Cat.1 Hazards | Category 2 Hazard Indicator | Category 2 Hazard Indicator |
| Excess Cold Indicator | HHSRS Excess Cold | | |
| HHSRS Falls Indicator | HHSRS Falls Hazards | | |
| Disrepair Indicator | Disrepair | | |
| Fuel Poverty 10% Indicator | Fuel Poverty 10% | | |
| Fuel Poverty LIHC Indicator | Fuel Poverty LIHC | | |
| Low Income Indicator | Low Income Households | | |
| SimpleSAP | Average Simple SAP | | |
| SimpleSAP Band | - | | |
| EPC F&G Indicator | EPC F and G | | |

The length of access to the variables above would be specified in your contract.



7.4 HMO variables

This package gives you access to the following variables and data layers:

| Default | Map Data Layer | Independent purchase | Map Data Layer |
|--|-------------------|----------------------------|----------------------------|
| HMO – Households in Multiple Occupation | НМО | Proposed Licensable HMO | Proposed Licensable HMO |
| Licensable HMO | Licensable HMO | HMO Section 257 | Section 257 HMO |
| | | Extra HMO option 1 | Extra HMO option 1 |
| | | Extra HMO option 2 | Extra HMO option 2 |
| | | Extra HMO option 3 | Extra HMO option 3 |
| | | Extra HMO option 4 | Extra HMO option 4 |

The extra HMO options are auxiliary variables for those organisations looking for additional HMO licensing analysis.

7.5 Energy Efficiency variables

This package gives you access to the following variables and data layers:

| Default | Map Data Layer |
|--------------------------|---------------------------------|
| Loft Insulation | Loft Insulation Less than 100mm |
| Solid Walls | Solid Walls |
| Insulated Cavity Walls | Insulated Cavity Walls |
| Uninsulated Cavity Walls | Uninsulated Cavity Walls |

7.6 Energy Planning variables

This package gives you access to the following variables and data layers:

| Default | Map Data Layer |
|-----------------------|----------------------------|
| CO2Emissions | Average CO2 Emissions |
| Energy Demand | Average Energy Demand |
| Heat Demand | Average Heat Demand |
| Electricity Demand | Average Electricity Demand |
| Energy Cost | Average Energy Cost |
| Heat Cost | Average Heat Cost |
| Electricity Cost | Average Electricity Cost |



7.7 Property Characteristics

This package gives you access to the following variables:

| Independent purchase |
|-----------------------|
| Property Type |
| Property Age |
| Non-Residential Floor |
| Mobile Homes |
| Empty Dwelling |
| Months Vacant |

No data layers are available for these variables in the map now.

Watch this space for more variables being made available under this package in the future.

7.8 Household Information

This package gives you access to the following variables and data layers:

| Independent purchase | Map Data layer |
|---|----------------------------|
| IMD 20 -Index of Multiple Depravation under Percentile 20 | IMD 20 |
| IMD Decile | |
| Household Composition | |
| Households with children indicator | |
| Mosaic Public Sector 6 Group | |
| Mosaic Public Sector 6 Type | |
| Mosaic UK 6 Group | |
| Mosaic UK 6 Type | |
| Age of Head of Household | |
| Vulnerable person under 5 | Vulnerable person under 5 |
| Vulnerable person under 14 | Vulnerable person under 14 |
| Vulnerable person over 60 | Vulnerable person over 60 |
| Vulnerable person over 65 | Vulnerable person over 65 |
| Number of Bedrooms | |

Some of these variables require a yearly Experian data license.



7.9 Data Flags

This package gives you access to the following variables and data layers:

| Independent purchase | Map Data layer |
|-------------------------------------|----------------|
| LA Data flag | LA Data flag |
| EPC Data flag | EPC Data flag |
| LA Energy Data | LA Energy Data |
| No. of variables updated using data | |

7.10 Hard to Treat (HTT) Variables

This package gives you access to the following variables and data layers:

| Default |
|---------------|
| HTT |
| HTT_Disrepair |
| HTT_Narrow |
| HTT_Storeys |

7.11 Decent Homes Variables

This package gives you access to the following variables and data layers:

| Default | Map Data layer |
|---------------------|---------------------|
| Non Decent Homes | Non Decent Homes |
| Thermal Comfort | Thermal Comfort |
| Modernisation | Modernisation |

7.12 Improvement Scenarios

This package gives you access to different improvement scenarios that you could apply to properties in your local authority. It shows the value of energy planning variables before and after the improvements through a filter page. See a greater explanation of this package in 2.4.

7.13 Commercial Ownership data

This package gives you access to the Commercial Ownership filter page of Land Registry's Commercial Corporate Ownership data (CCOD) and Overseas Corporate Ownership data (OCOD), as well as, Title Number variable in filter results page when a property is owned by a private company and features in the mentioned datasets. See 2.5 for a greater description on this package.

A data layer called 'Commercial Ownership' is made available when this package is purchased showing the concentration of commercially owned properties in your organisation.



7.14 Map

This feature will be available to all HSCD users during the length of their data license.

If you would like information about pricing, please contact HousingAndHealth@bre.co.uk