UK Government

Domestic NEED 2026 Annex C: Comparisons with other Sources

11 June 2026 **Accredited Official Statistics**

This document provides a comparative analysis and commentary assessing how representative the National Energy Efficiency Data-Framework (NEED) is of the domestic dwelling stock. In all cases, the NEED data are broadly consistent with the other sources available for comparison.

- The regional distribution of properties in NEED is representative and comparable to estimates of the number of households and the dwelling stock, with London showing the largest variation at around 1 per cent.

- NEED domestic gas and electricity consumption estimates are aligned with data published in the Subnational electricity and gas consumption publication and Energy Consumption in the UK (ECUK). The NEED and Subnational estimates are produced separately for England and Wales and Scotland, whereas ECUK provides estimates for the UK as a whole.

- In England and Wales, for the most recent years consumption estimates:

    - Mean domestic gas consumption in 2024 was 11,200 kWh in NEED, 11,300 kWh in the Subnational gas consumption statistics[1], and 10,900 kWh in ECUK[2].

    - Mean domestic electricity consumption in 2024 was 3,300 kWh across all three data sources: NEED, Subnational electricity consumption statistics and ECUK[3].

- In Scotland, for the most recent years consumption estimates:

    - Mean domestic gas consumption in 2024 was 11,800 kWh in NEED, which is slightly higher than the Subnational gas consumption statistics estimate of 11,500 kWh. In ECUK, mean domestic gas consumption was 10,900 kWh.

    - Mean domestic electricity consumption in 2024 was 3,300 kWh in both NEED and ECUK. It was slightly lower in the Subnational electricity consumption statistics (3,100 kWh in 2024).

- The composition of HM Revenue & Customs (HMRC) and Experian property attribute data contained in NEED is aligned with estimates published in the latest English Housing Survey (EHS) statistics. Overall, there is good alignment between HMRC and NEED with some variations, mainly due to lower address matching rates for flats.

- The composition of the NEED 2026 Scotland sample is aligned with estimates published in the latest Scottish Household Survey (SHS) and the Scottish House Condition Survey (SHCS). The results provide assurance that the proportion of properties within each category are broadly similar.

[1] The NEED and Subnational consumption statistics have slightly different values due to differences in what are considered valid data for each publication. For more information, please see Table 4 on page 11.
[2] Gas consumption for the United Kingdom is taken from ECUK (Table C9 - temperature corrected average consumption).
[3] Electricity consumption for the United Kingdom is taken from ECUK (Table C9 - unadjusted average consumption).

Contents

Introduction

The Domestic National Energy Efficiency Data-Framework (NEED) is based on data from various sources linked together using a unique property reference number (UPRN). This document provides information on the quality assurance of data used in the production of analysis using NEED. This section of Annex C covers properties in England and Wales. There is an additional section looking specifically at Scotland. For more information on NEED, please see the NEED publication page.

Address matching

Identifying properties using UPRNs is central to the NEED framework. The Department for Energy Security and Net Zero (DESNZ) matches the address information from different datasets to a UPRN. For example, using address information provided by energy suppliers, metered energy consumption is matched to a property using its UPRN. Household attributes such as the number of bedrooms in a property (supplied by HM Revenue & Customs) are also linked using the UPRN. With over 27.3 million properties, some properties have conflicting information, and it is not always possible to match to a UPRN. In other cases, incorrect property information may be matched to a meter, though these are a minority of cases. The address matching algorithm being used is estimated to have an error rate of around 1% for domestic addresses.

Outputs from England and Wales Domestic NEED are based on all UPRNs contained in the HMRC Council Tax Database[4] that have been successfully matched, via their UPRN, to gas and electricity meter data. Figure 1 shows the distribution of properties in NEED 2026 compared with the latest Office for National Statistics (ONS) English regional household and Welsh Government household estimates, and Ministry of Housing, Communities and Local Government (MHCLG) English regional (table 109) and Welsh Government estimates of the dwelling stock. The overall distribution of properties in NEED is aligned with ONS household estimates, with the largest discrepancy being in London at around 1 percentage point. This is largely due to loss of records from the address matching process, which is disproportionately higher in London due to the higher proportion of flats, for which the address matching process has a lower match rate. In comparison with estimates of the dwelling stock the picture is broadly the same, with overall alignment between NEED across regions, and the largest discrepancy being seen in London.

[4] Formerly Valuation Office Agency (VOA) Council Tax Database. As of 1st April 2026, the functions of the VOA were integrated into HM Revenue & Customs (HMRC), and the VOA no longer exists as an executive agency.

Figure 1: The composition of Domestic NEED compared with household and dwelling estimates by regions (England) and Wales

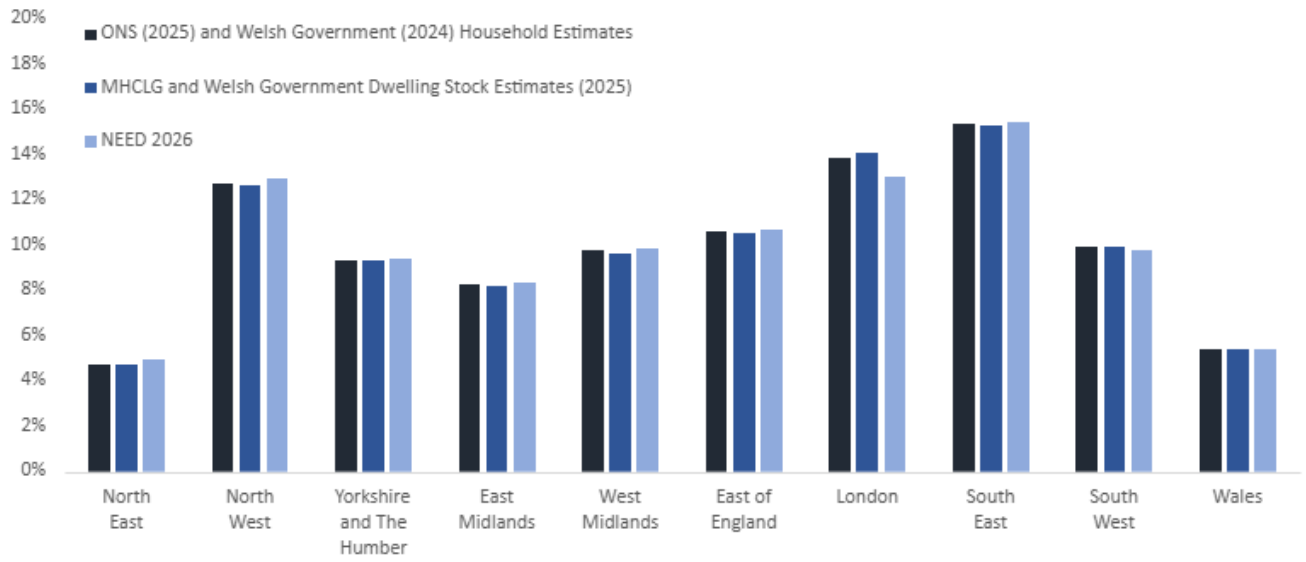


Table 1 summarises the strengths and weaknesses of each of the main data sources used for the June 2026 NEED publication. These strengths and weaknesses should be kept in mind when interpreting NEED statistics.

Table 1: Strengths and weaknesses of data in NEED

Data source and coverage	Strengths	Weaknesses
Consumption data, Great Britain	Good coverage of almost all properties. Data provided by energy suppliers. Gas data is weather-corrected.	Based on meter readings. Estimates are used in place of actuals where a meter is not read. Gas and electricity years do not align to the calendar year (or the same period as each other).
HMRC, England and Wales	Based on administrative data – it is a statutory requirement of HMRC to maintain accurate valuation lists.	No Scotland data. Some attributes data may not be up to date.
Experian, Great Britain	Best source of data for property level household characteristics.	Modelled data with varying accuracy at the property level.
Energy efficiency measure installations, Great Britain	Datasets contain details of energy efficiency measures installed under government schemes.	Only covers measures installed through government schemes; does not include measures installed by the householder or house builder.
Gas Safe Boiler Installations, Great Britain	Excellent coverage, contains information on all boiler installations in England and Wales.	Scotland data is less complete as registration of a new boiler is not mandatory in Scotland.

Address matching and sample creation

The NEED dataset compiled for the 2026 publication is comprised of data sets covering different time periods: the most recent gas and electricity consumption data covers 2024 (mid-May 2024 to mid-May 2025 for gas, and February 2024 to January 2025 for electricity), HMRC property data extracted in autumn 2025, ONS unique property reference number (UPRN) directory data extracted in December 2025 and Experian data covers 2025 household characteristics.

Prior to 2019, a stratified random sample of approximately one in five records was selected from the complete property attribute dataset held by HMRC. The resulting sample contained approximately 4 million records. From 2019, NEED has utilised all properties contained in the HMRC Council Tax Database.

Table 2: How the samples of properties used in the NEED domestic energy consumption estimates for 2024 in England and Wales are arrived at

	Number of Properties			Percentage of starting population		
	Gas	**Electric**	**Either**	**Gas**	**Electric**	**Either**
Step 1: All domestic properties (HMRC)	27.3	27.3	27.3	100%	100%	100%
Step 2: Matching meter points (all Domestic NEED 2026)	21.0	25.2	25.6	77%	92%	94%
Step 3: Removing invalid consumption for 2024	19.2	23.9	24.9	70%	88%	91%
Step 4: Removing cases with missing attributes	19.0	23.6	24.5	70%	86%	90%
Step 5: Removing uncommon property types	18.9	23.5	24.4	69%	86%	89%
Final	**18.9**	**23.5**	**24.4**	**69%**	**86%**	**89%**

Table 2 shows the number of properties used for the latest (2024) consumption estimates for England and Wales. More details on the five steps set out in Table 2 can be found in Annex D: Methodology Note. After processing the data, a total of 18.9 million properties were used for gas (69% of all domestic properties) and 23.5 million properties were used for electricity (86% of all domestic properties).

The lower number of properties used for the 2024 gas estimates than for the 2024 electricity estimates is due to a lower proportion of domestic properties with a meter matched to them for gas (77%) than for electricity (92%). This is to be expected as not all domestic properties are connected to the gas grid.

The *Consumption data* section of this document is based on 18.9 million properties for gas and 23.5 million properties for electricity. All subsequent sections of this document (which look at attributes of the properties used for the 2024 estimates) are based on the 24.4 million properties which had either gas or electricity estimates in the 2024 consumption year.

To create NEED, the addresses corresponding to each record in a given dataset are matched to addresses in AddressBase (Ordnance Survey's database of all addresses in Great Britain).

This is to retrieve the unique property reference number (UPRN) that Ordnance Survey have assigned to the address. This process is referred to as “address-matching”. Once the records in each dataset have been address-matched, the various datasets can be matched to each other using the UPRN. Table 3 shows the proportion of records in each dataset which could be matched to AddressBase.

Table 3: Address matching rates for data sources Used for England and Wales in Domestic NEED

Data source	Match rate
Matched using DESNZ address matching algorithm	
Meter point electricity (all meters)	91%
Meter point electricity (profile classes 1-2)	95%
Meter point gas (all meters)	95%
Meter point gas (less than 50,000 kWh)	95%
Central Feed-in Tariff Register	84%
MCS	87%
ECO measures	94%
GBIS	98%
GHGV	86%
HUG	90%
LAD	91%
SHDF	96%
HEED	94%
Green Deal measures	90%
SHF3	100%
WHLG	100%
Gas safe	91%
Data sources with UPRNs included	
HMRC (property attributes)	100%
Experian (household characteristics)	97%
Energy Performance Certificates	98%

Consumption data

The UK Government has collected and published energy consumption data in the Digest of UK Energy Statistics (DUKES) since 1948. A time series on how energy has been used, including data back to 1970, is also published in Energy Consumption in the UK. Data at individual meter point level (which makes up the consumption aspect of NEED) were first obtained in 2004 to produce local area estimates of consumption – this work was awarded a Royal Statistical Society Award for innovation in 2010. These meter point consumption data cover both gas and electricity consumption for all homes and businesses in Great Britain. Property-level data are not available for other heating fuels such as oil, wood or coal.

The electricity and gas data are from energy suppliers' administrative systems and cover all domestic and non-domestic meters in Great Britain. In 2024, there were 31.8 million

consuming electricity meters and 24.9 million consuming gas meters. Consumption data based on these meter level readings are published by DESNZ down to postcode level for domestic meters and Middle Layer Super Output Area (MSOA) for non-domestic meters for both electricity and gas meters. This section provides more detail on the gas and electricity consumption data used in NEED.

Gas consumption data

Data collection

DESNZ obtains annualised consumption estimates for all gas meters in Great Britain from Xoserve – the data service provider responsible for the collation and aggregation of gas consumption. DESNZ is provided with annualised estimates of consumption for all the Meter Point Reference Numbers (MPRNs) in Great Britain based on an Annual Quantity (AQ). The AQ is an estimate of annualised consumption using consumption recorded between two meter readings at least six months apart. The estimate is then adjusted using a weather correction factor. The AQ for each MPRN represents consumption relating to the gas period – for the 2024 consumption year this covers consumption from mid-May 2024 through to mid-May 2025.

The data are provided with permission from the owners of the Local Distribution Zones (LDZ) network (these are the four major gas transporters in Great Britain – Cadent, SGN, Wales and West Utilities) and with agreement from the gas suppliers.

Within the meter-point data alone there is currently no reliable way to distinguish between gas used by domestic customers and that used by industry – Subnational consumption statistics use the gas industry cut off of 73,200 kWh, with customers using less than this cut-off value assumed to be domestic. NEED uses domestic council tax information to define which meter-points are domestic.

Data validation

Gas consumption in the majority (99.4 per cent) of HMRC classified domestic properties is below 50,000 kWh and the relatively small number of properties with consumption greater than this have been excluded. This should reduce the likelihood of including non-domestic properties or domestic properties with invalid consumption in the analysis.

At the lower end of the consumption figures distribution, there is a cluster of values less than 100 kWh. In 2024, 0.6 per cent of gas consumption records in NEED fell into this category. These have also been excluded from all analysis, as they are likely to be properties with gas supplies which are not used, unoccupied new build properties or where there has previously been an overestimate of the gas consumed at a property.

In addition, suspected estimated values have been excluded from the data before analysis was undertaken. For any given year, if a property has a consumption value identical to either of the two previous years it is assumed to be an estimate.

Comparison with other sources

To check that the sample used for analysis is consistent with the other estimates of domestic consumption published by DESNZ and to lend confidence in use of the data, the mean

consumption for NEED[5] has been compared with the data published by DESNZ in Energy Consumption in the UK (ECUK) and the Subnational consumption statistics.

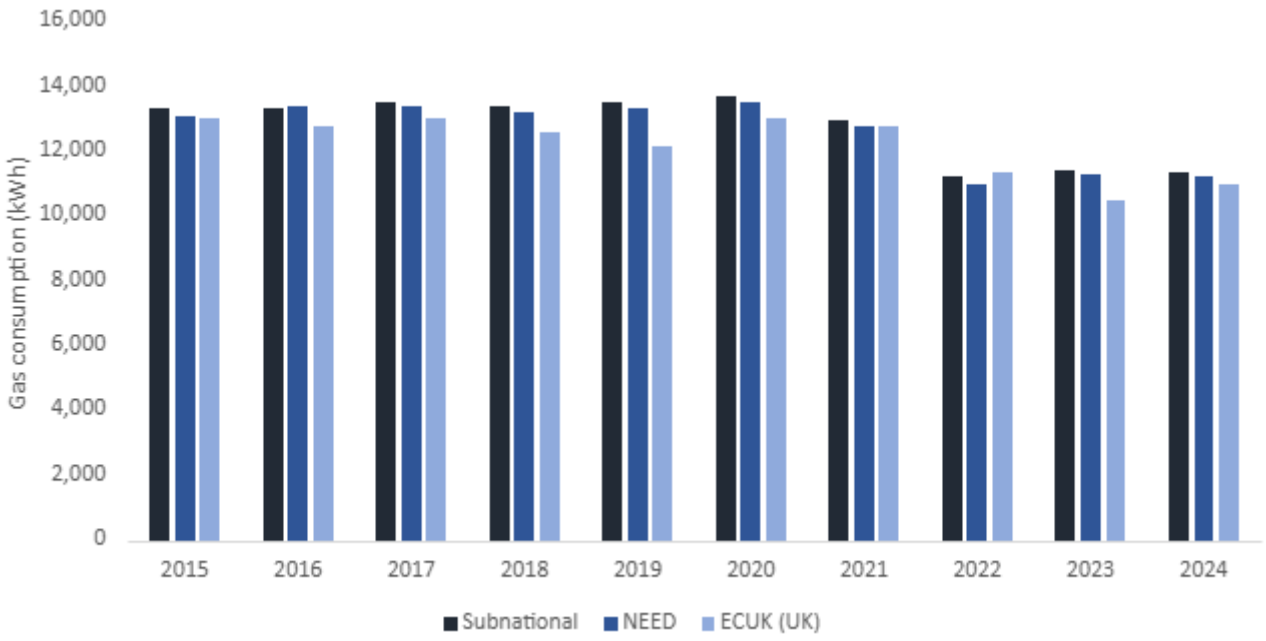
Figure 2 shows that when looking at gas consumption for 2024, the mean is similar for the published subnational consumption statistics[6] and NEED at 11,300 kWh and 11,200 kWh respectively (when rounded to the nearest 100 kWh). The subnational estimate is based on the meter readings alone (with a maximum reading of 73,200 kWh being classed as domestic, as per the gas industry cut-off). For the NEED estimates, gas meters are matched to properties in the HMRC database of domestic properties, which provides a more reliable way of isolating domestic properties.

Figure 2 also illustrates that there is some variation when comparing the mean consumption in NEED with that presented in ECUK. There are several reasons why gas consumption data in the NEED sample cannot be exactly reconciled with ECUK:

- the consumption data in ECUK covers the United Kingdom, whereas the NEED data presented here covers England and Wales only (NEED consumption data for Scotland is detailed later in this Annex).
- the consumption data in ECUK are based on a calendar year whereas the gas consumption data in NEED cover the "gas year" which has varied over the years covered.
- there are differences in the weather correction method used for ECUK and that for the meter point consumption data.
- the different sources of data used for these publications: ECUK estimates are based on aggregate estimates of energy supplied, while NEED is based on end use consumption from gas meters.
- ECUK data are based on the number of customers. This differs from the number of meter points since it is possible for a single property to have more than one meter installed.

[5] The consumption estimates cover England only for 2005 to 2010, and England and Wales from 2011 onwards.
[6] For more information, see Table 4 below, and Annex D: Methodology Note.

Figure 2: Comparison of estimates of mean gas consumption (kWh) per property, 2015 – 2024



Electricity consumption data

Data collection

Data are collected with the full co-operation of the electricity industry. Annualised consumption data are generated by data aggregators acting on behalf of electricity suppliers, who collate and aggregate electricity consumption for each Meter Point Administration Number (MPAN). Address information for each meter is obtained from the Electricity Enquiry Service (EES). These two data sources are then linked together using the MPAN.

Electricity consumption data are generated for both Non-Half Hourly (NHH) meters and for Half Hourly (HH) meters. For the NHH data, annualised estimates are based on either an Annualised Advance (AA) or Estimated Annual Consumption (EAC). The AA is an estimate of annualised consumption based on consumption recorded between two meter readings. In comparison, an EAC is used where two meter readings are not available, and an estimate of annualised consumption is produced by the energy company using historical information. These data provide a good approximation of annualised consumption, but do not exactly cover the calendar year. For example, 2024 annualised consumption estimates cover the period from 31 January 2024 up to 30 January 2025. For the half hourly meter consumption estimates, data aggregators produce a report for each MPAN for the relevant calendar year.

DESNZ publishes estimates of domestic and non-domestic electricity consumption, with total consumption and average consumption figures provided for each local authority. The domestic consumption is based on meters with profiles 1 and 2 (standard domestic and economy 7 meters respectively). Non-domestic consumption is based on meters with profiles 3 to 8 and HH non-domestic meters. Meters with a profile class of 1 or 2 are reassigned to non-domestic if they have an annual consumption of more than 100,000 kWh or have an annual consumption between 50,000 kWh and 100,000 kWh with accompanying address information that suggests they are non-domestic meters. These assumptions differ from those used in NEED, where the additional data available mean it is more appropriate to use a slightly different approach to ensuring a property is domestic and has valid consumption. This is described in more detail in the data validation section below.

Data validation

There are differences in the consumption records included in the Subnational consumption statistics and those used in NEED.

Electricity consumption in the majority of HMRC classified domestic properties (99.6 per cent) is below 25,000 kWh. The relatively small number of properties with consumption greater than this have been excluded from NEED, which should reduce the likelihood of including non-domestic properties or domestic properties with invalid consumption in the analysis.

At the lower end of the distribution, there is a further cluster of values (1.2 per cent) including negatives with consumption up to 100 kWh. These have been excluded from all analysis, as they are likely to represent properties with electricity supplies which are not used (or new build properties which are not yet occupied). Unlike in Subnational consumption statistics, all negative meter readings are also excluded[7], which raises the overall mean of NEED electricity data.

In addition, suspected estimated values have been excluded from the data before analysis was undertaken. For any given year, if a property has a consumption value identical to either of the two previous years it is assumed to be an estimate.

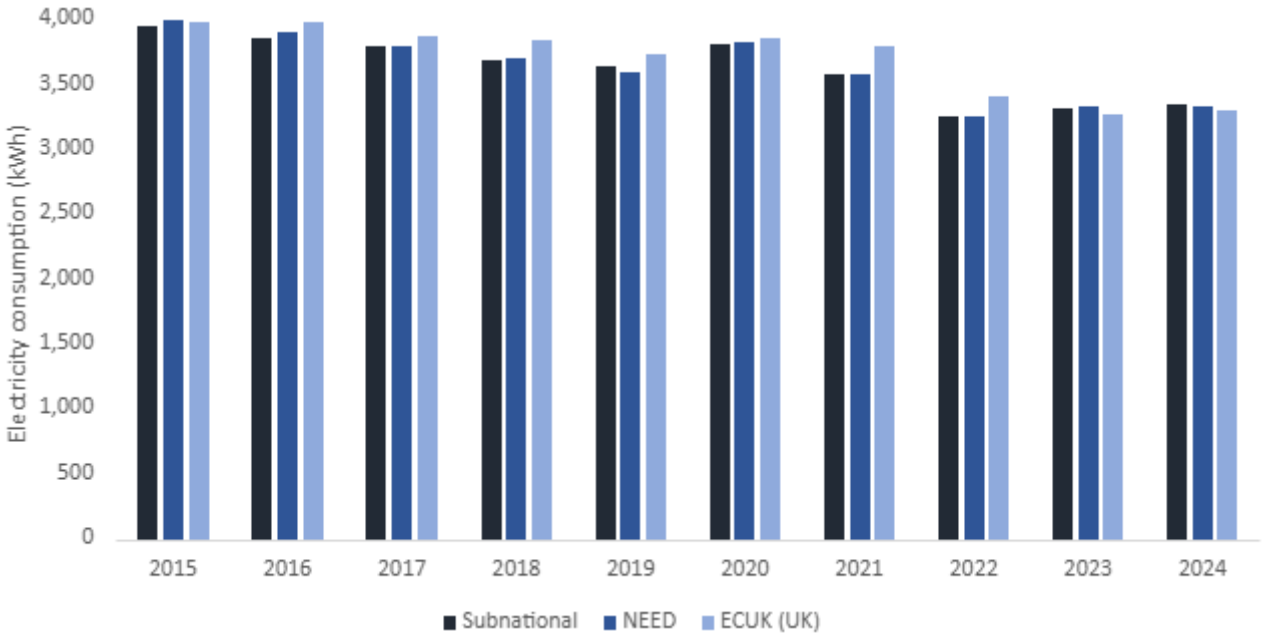
Comparison with other sources

To assess the consistency of the analysis sample with other DESNZ estimates of domestic electricity consumption – and therefore increase confidence in use of the data – mean consumption for NEED was compared with figures published in ECUK and the Subnational consumption statistics.

Figure 3 shows that the mean electricity consumption is similar for all three sources being compared, particularly in the last two years. When looking at consumption in 2024, the difference between the mean electricity consumption in NEED and ECUK is 35 kWh. The 2024 Subnational electricity consumption mean is very similar to that reported by NEED (a difference of 10 kWh).

[7] As data are based on billed consumption, it is possible that a negative reading is valid if an estimated reading provided in a previous year was too high, as at the aggregate level the effect of this will cancel out. However, these reading are not considered valid in NEED.

Figure 3: Comparison of estimates of mean electricity consumption (kWh) per property, 2015 – 2024



Conclusion

Electricity consumption data are a rich data source and form the core of NEED. Table 4 summarises the approaches taken towards using the meter point consumption data in domestic NEED and DESNZ Subnational estimates of electricity and gas consumption.

The differences lead to small discrepancies in mean consumption but provide confidence in the analysis carried out by NEED, including in relation to the impact of installing energy efficiency measures. The comparisons carried out against other data sources confirm that the consumption estimates based on NEED are consistent with other sources.

Table 4: Differences in domestic consumption data

NEED data	Subnational consumption estimates
The property must be a domestic property in the HMRC property attribute dataset to be included in the domestic NEED analysis.	Domestic properties are based on consumption for gas (less than 73,200 kWh) and profile class for electricity (profiles 1 and 2 are domestic).
Gas consumption between 100 kWh and 50,000 kWh. Suspected estimated readings removed.	Gas consumption below 73,200 kWh. Estimated readings included.
Electricity consumption between 100 kWh and 25,000 kWh. Suspected estimated readings removed.	Electricity consumption below 100,000 kWh and profile class 1 or 2 (including negative readings). Electricity consumption of between 50,000 kWh and 100,000 kWh is reviewed and if it is considered to have a non-domestic address then it is also excluded from the domestic estimates. Estimated readings included.
Data matched to other sources via the UPRN at property level.	Data assigned to subnational geographies using postcode. This means that some properties can be assigned accurately if the street is identified even if the exact property is not known.

HM Revenue & Customs data

Introduction

Prior to 1st April 2026, the Valuation Office Agency (VOA) was an Executive Agency of HM Revenue & Customs (HMRC), however all functions and responsibilities of the VOA have now been incorporated into HMRC. One of their responsibilities is to provide Council Tax bands for properties in England and Wales. It does not set the level of Council Tax nor collect the tax; these are tasks for local government. Council Tax is a local tax set by local authority districts to help pay for local services. It uses the relative value of properties to determine each household's contribution to these local services.

It is the duty of HMRC to make sure that each property is correctly assessed and placed in the right band. This ensures that there is a consistent and objective basis on which local authority districts can determine the amount they charge each household in Council Tax. HMRC maintains a high level of professionalism when carrying out this duty. It does this in several ways, including:

- Obtaining information from the local authority when a home is extended or altered to the extent that planning permission is required;
- Using voluntary questionnaires to enable the occupier to confirm information about a property;
- In addition, HMRC will sometimes ask to visit a property when the information it needs cannot be ascertained from other sources. This can be at the occupier's request; for example, when they have challenged the council tax banding of their property and wish HMRC to carry out a review.

Further information about how domestic properties are assessed for council tax bands is published by HMRC.

The following HMRC property attributes are used in NEED analysis:

- property type
- property age
- floor area (m^2)
- number of bedrooms

Coverage

Table 5 below shows the categories of data used in the analysis for each of the HMRC variables. In most cases, the HMRC property attribute data has more detailed categories than available in the English Housing Survey (EHS) which is being used here as the comparison source. Therefore, in the charts that follow, the HMRC categories have been grouped into the broader EHS categories. Full details of the breakdowns included in the dataset are available in the published HMRC manuals.

Table 5: HMRC property attribute data categories used in NEED

	Property age	Property type	Number of bedrooms	Floor area (m^2)
Categories	Pre-1919	Detached	1	1-50
	1919-44	Semi-detached	2	51-100
	1945-64	End terrace	3	101-150
	1965-82	Mid terrace	4	151-200
	1983-92	Bungalow	5 or more	Greater than 200
	1993-99	Purpose-built flat		
	Post 1999	Converted flat		

Summary of data and comparison with other sources

This section shows how NEED compares with the distribution of the data in the full HMRC property attribute database and with the English Housing Survey (EHS).

The EHS will vary compared with the HMRC data as it is a sample survey and only covers England, whereas HMRC data and NEED cover England and Wales. However, it still provides a useful context to validate the NEED data.

Figures 4 to 6 show the proportion of properties in each category for three of the HMRC variables used in NEED. EHS calculate different floor area categories which make meaningful comparison between sources difficult, and they are therefore not presented here.

Overall, the NEED data is in good agreement with the EHS data, with a maximum 2 per cent difference between the data sources across the number of bedrooms, property type and property age variables. The most notable variations between NEED and other data sources are seen for converted flats and for one-bedroom properties. This is likely to reflect difficulties in address matching flats.

Figure 4: Comparison of distributions – number of bedrooms

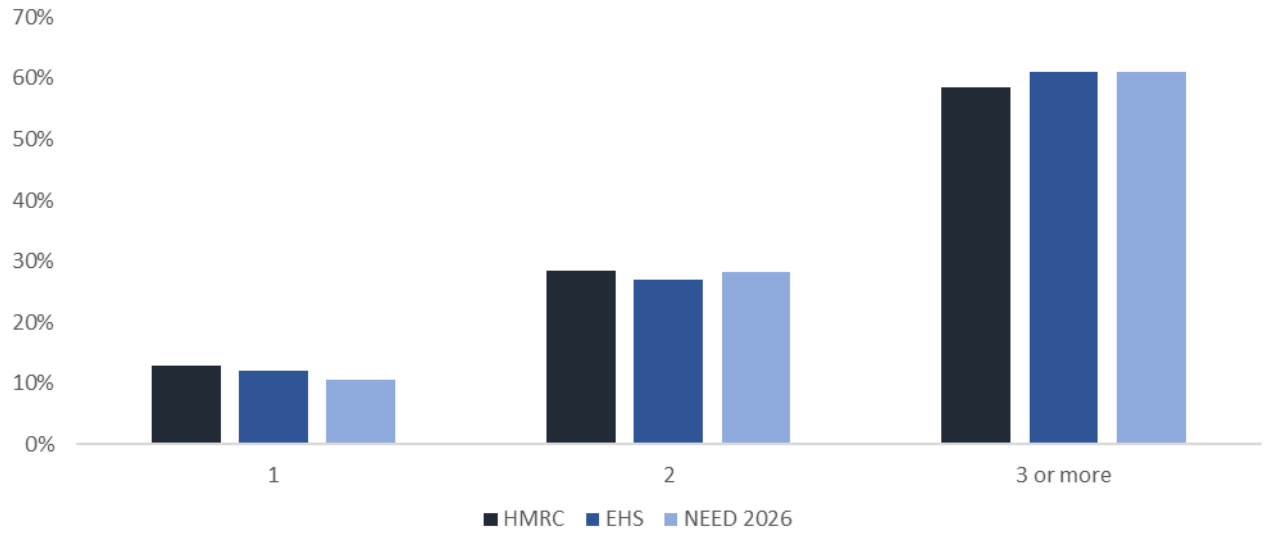


Figure 5: Comparison of distributions – property type

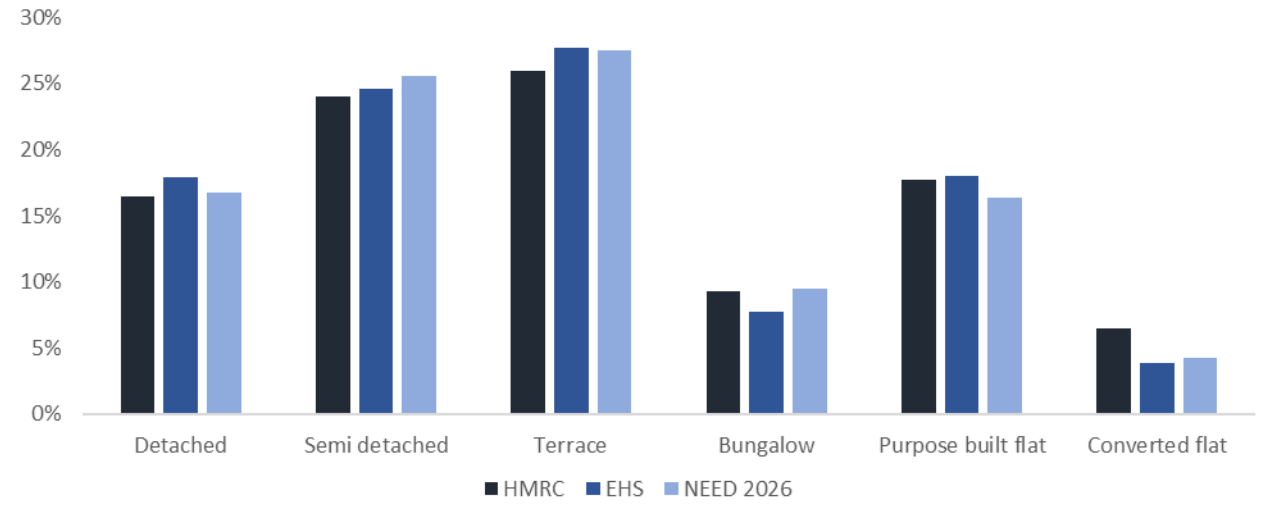
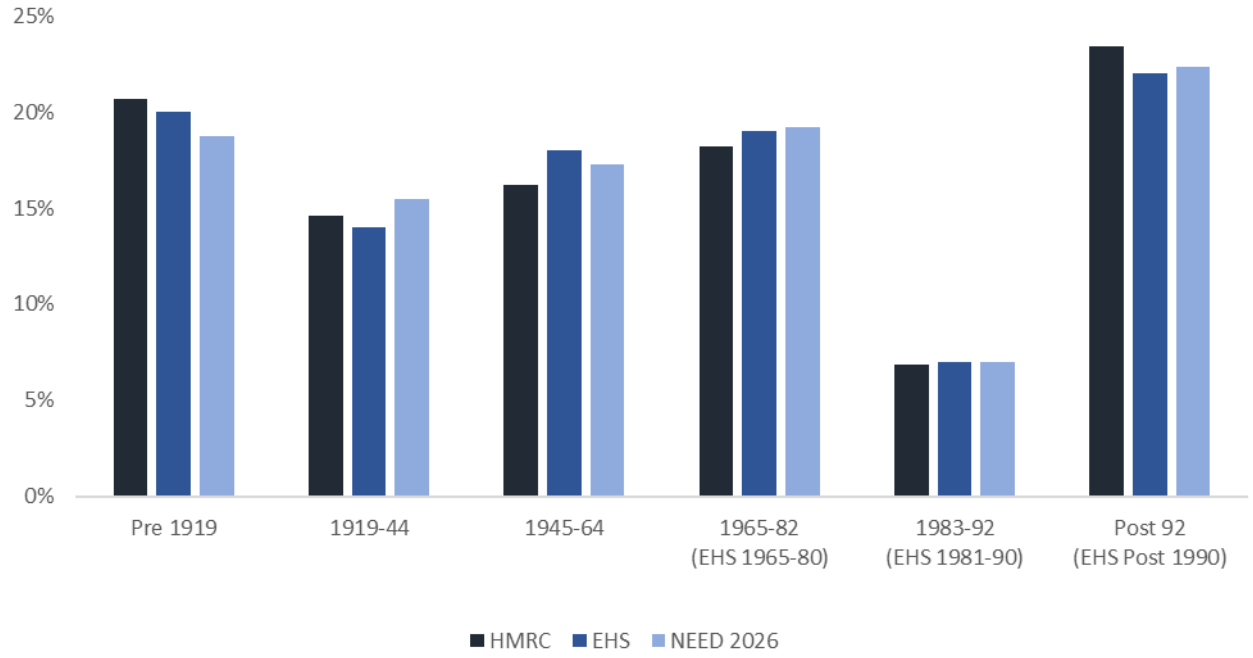


Figure 6: Comparisons of distributions – property age



Conclusion

The NEED data shows similar distributions of property attributes compared to the HMRC administrative dataset and the EHS (2024) sample survey data. There are some differences for flats (more pronounced for converted flats) which should be considered when interpreting analysis based on NEED.

Experian data

DESNZ purchased data from Experian for each property in the UK based on the dwelling stock in 2025. Data are modelled by Experian based on other data sources including Experian surveys and aggregate published data (such as the Census). The Experian household characteristics data used in NEED are:

- household income
- tenure
- the number of adult occupants

Note that the Experian full dataset covers the UK, the NEED sample covers England and Wales, and the EHS covers England only. This section compares household income and tenure data from Experian with the EHS. The number of adult occupants is not compared as there is not a suitable comparable data source.

Household income

The household income variable identifies the likely household income for each property. The data are based on results from responses to Experian's consumer survey, which is then used alongside other predictive data (including Experian's person and household level demographics and Mosaic) to build a model. Household income is available in ten income bands which are set out below in Table 6.

Table 6: Distribution of income band using the 2025 full Experian dataset

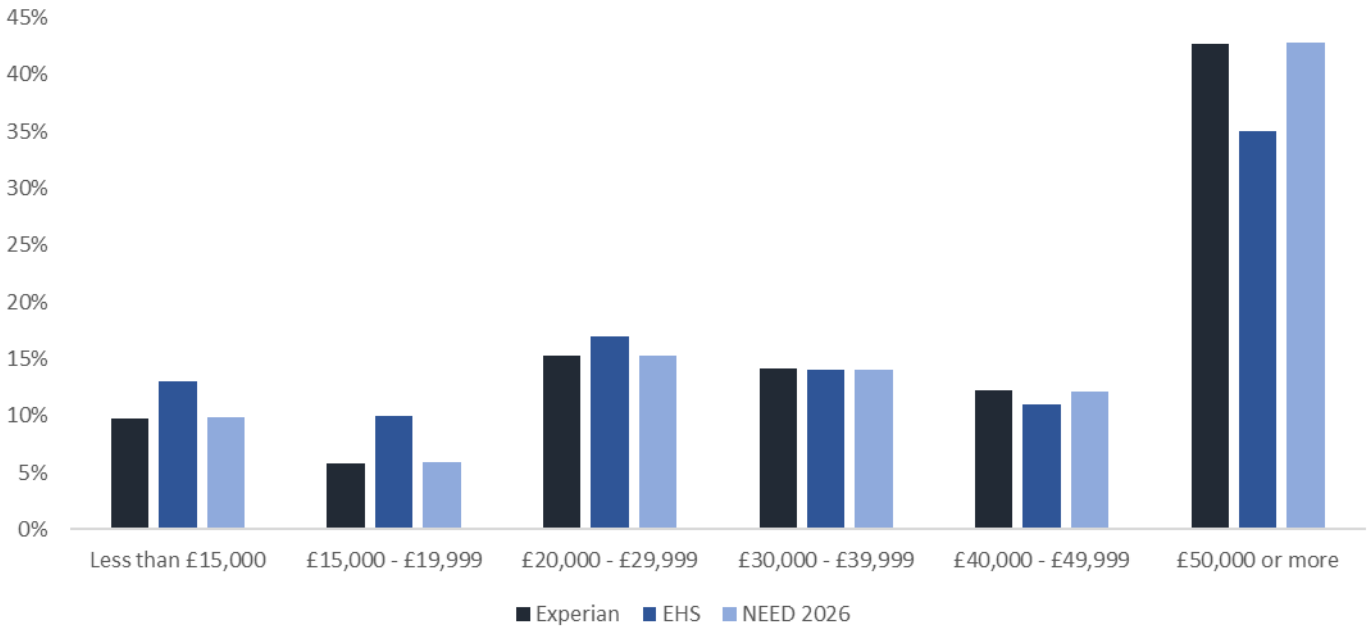
Band	Description	Households (%)
1	Less than £15,000	9.8%
2	£15,000 - £19,999	5.8%
3	£20,000 - £29,999	15.3%
4	£30,000 - £39,999	14.2%
5	£40,000 - £49,999	12.2%
6	£50,000 - £59,999	9.2%
7	£60,000 - £69,999	7.6%
8	£70,000 - £99,999	14.7%
9	£100,000 - £149,999	7.9%
10	£150,000 or more	3.3%

When interpreting any analysis of income in the NEED report it should be noted that data for each property are modelled and therefore are indicative of the income a household is likely to have rather than being an actual value for the current occupant of the property.

Based on Experian's assessment of the 2025 data, 22 per cent of properties are in the correct category and 53 per cent of properties are assigned to within one band of the correct category. Figure 7 shows how the distribution of income for the Experian dataset and NEED compares with the income reported by the EHS (table FA1331). Note that some of the income categories from the Experian data have been grouped together to allow comparison with the categories used in the EHS.

Figure 7 shows that Experian appears to be under-assigning properties to the lowest income band and over-assigning them at the higher income bands, compared to the EHS (2023-24) data. This is consistent with DESNZ understanding that the Experian income data is less reliable at the extremes. However, it should also be noted that the EHS is a survey and therefore subject to variation. Income is a self-reported variable and therefore likely to be less reliable compared to the EHS property variables which are based on a physical survey on the property carried out by a trained surveyor.

Figure 7: Comparison of distributions – household income band

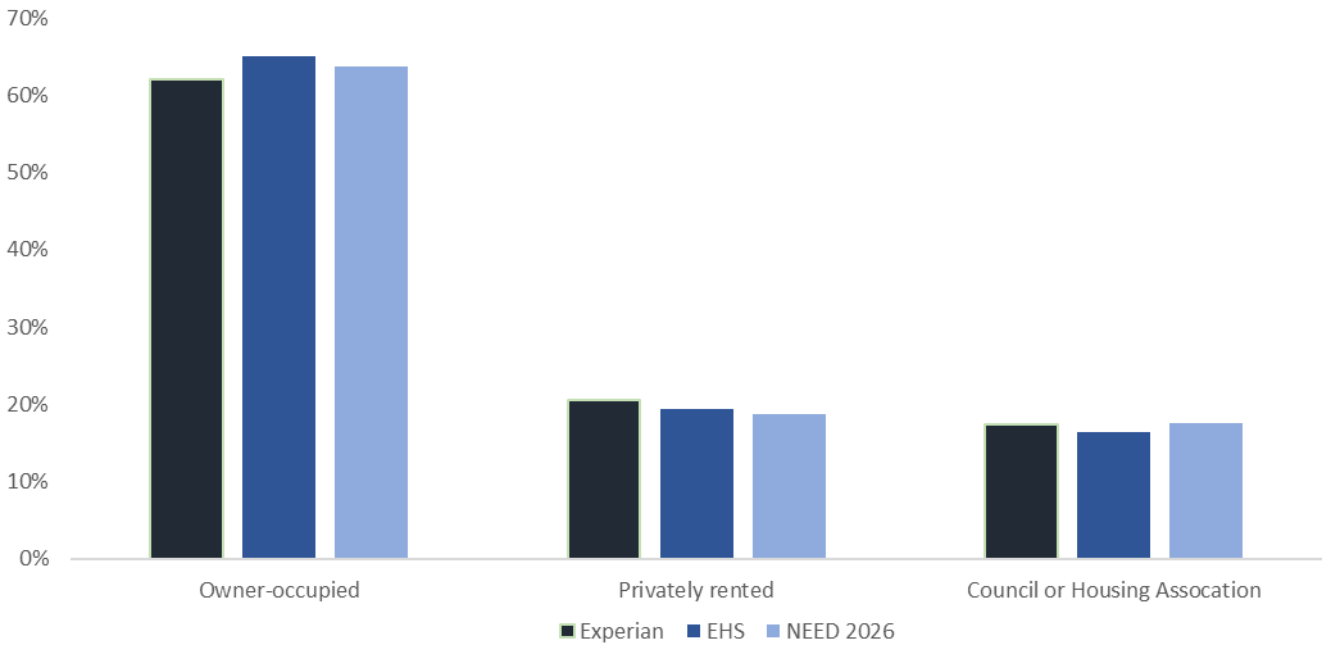


Tenure

Tenure data from Experian allocates each household in the UK to one of three categories; owner occupied, council/housing association or privately rented. The data are based on responses to Experian's lifestyle survey which are then used to predict the status of all households. As with the household income variable, a model is used to predict the tenure for each property.

Figure 8 shows how the Experian data compares with NEED and EHS (2024) at the national level. It shows that the proportion of properties assigned to each tenure category is similar for all sources.

Figure 8: Comparison of distributions – tenure



Conclusion

The Experian data are valuable for providing a more detailed understanding of the properties in NEED, and how energy consumption and the impact of energy efficiency measures vary across household types. However, it is important that results relating to household income, tenure and number of adult occupants are interpreted within the context of the limitations of the data.

Scotland data

For NEED 2026 a database of domestic properties in Scotland was constructed using Ordnance Survey AddressBase Plus (OSAB). This is the same approach as used in NEED 2024 and 2025. Previously a Scottish Assessors Association (SAA) dataset of domestic properties has been used as the Scotland database of domestic properties. This dataset was provided over 10 years ago, and therefore some of the attribute information was out of date, and it also doesn't include domestic properties built in Scotland since the dataset was received. SAA data is no longer being used as part of the Scotland NEED estimates.

Gas and electricity consumption data

This section of Annex C covers properties in Scotland. To check that the sample used for analysis is consistent with the other estimates of domestic consumption published by DESNZ and to lend confidence in use of the data, the mean consumption for NEED has been compared with the data published by DESNZ in ECUK and the Subnational consumption statistics. It should be noted that ECUK covers the UK, whereas the NEED and Subnational figures used in this section are for Scotland only.

Figure 9 compares estimates for mean gas consumption per domestic property across three DESNZ publications, from 2018 to 2024. It shows that when looking at gas consumption for 2024, the mean is similar for the published Subnational consumption statistics and NEED at 11,500 kWh and 11,800 kWh respectively (when rounded to the nearest 100 kWh). There are larger differences when comparing with ECUK; possible explanations for this are covered in the England and Wales gas consumption data comparison with other sources section of this annex.

Figure 9: Comparison of estimates of mean gas consumption (kWh) per property, 2018 – 2024

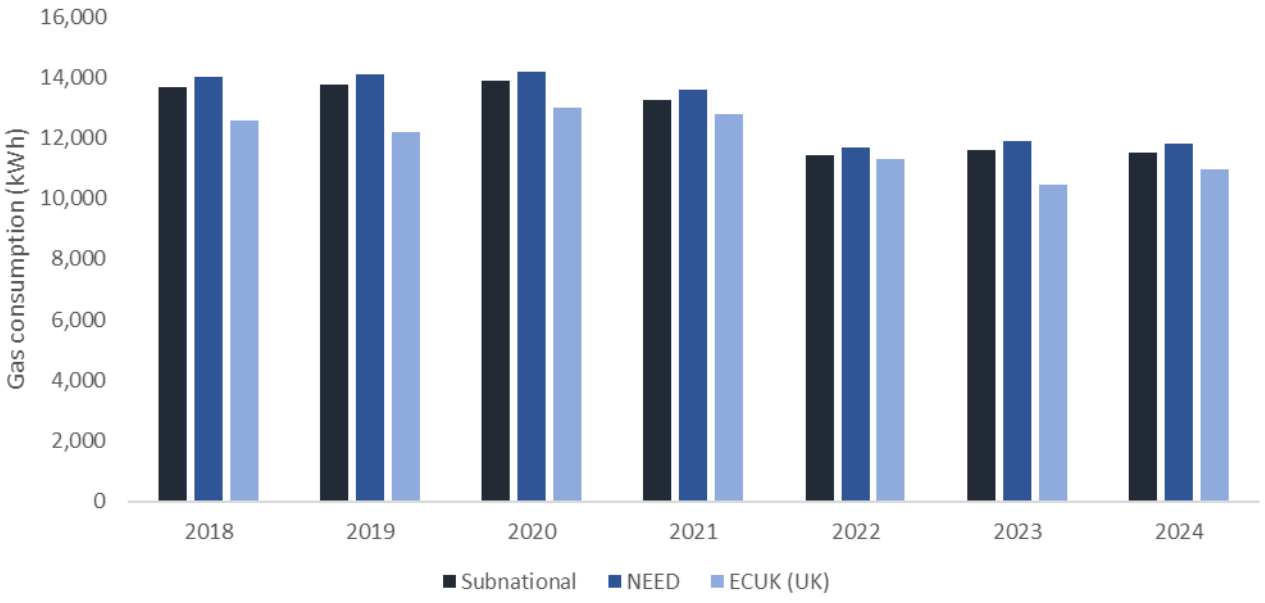
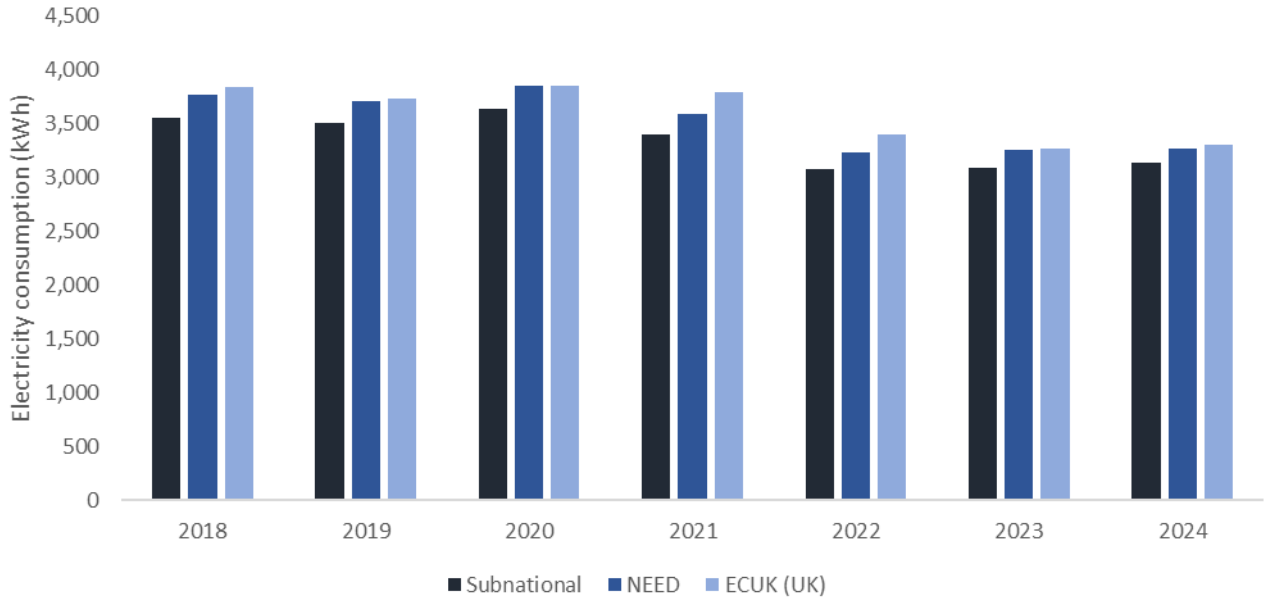


Figure 10 is the equivalent of Figure 9, but for electricity consumption. It shows that mean electricity consumption is similar for all three sources being compared. When looking at consumption in 2024, the difference between the mean electricity consumption for the

published subnational consumption statistics and NEED is 120 kWh. There is also good agreement between NEED and ECUK, with the difference in the most recent year being 40 kWh. Consistently the mean consumption reported by ECUK is higher than that reported in NEED.

Figure 10: Comparison of estimates of mean electricity consumption (kWh) per property, 2018 – 2024



Property attributes and household characteristics

This final section of Annex C covers properties in Scotland and compares the NEED 2026 Scotland sample with data from the Scottish Household Survey (SHS) and the Scottish House Condition Survey (SHCS). Both the SHS and SHCS may differ from the Experian data because they are sample surveys and because the Experian data (used for all property and household characteristics in Scotland, except property type) is modelled data and therefore also subject to uncertainty. Nevertheless, the results provide assurance that the proportion of properties within each category are broadly similar.

Figures 11 to 15 show the proportion of properties in each category by different property and household characteristics. When looking at number of bedrooms, the SHS and NEED datasets show close alignment, with the two datasets within 1 per cent of one another. For property type, the largest variation is seen for flats, likely due to lower address matching rates for flats compared to other property types. The proportions by property age compare fairly well; there is a larger difference for the last age category, but it should be noted that the Experian age categories do not align exactly with those in the SHCS. When looking at household income, as is seen for England and Wales, there are larger differences at the extremes and the income bands do not align exactly between the two sources. Finally, there is good alignment between tenure, when comparing the NEED sample with tenure as reported by the SHCS.

Figure 11: Comparison of distributions – number of bedrooms

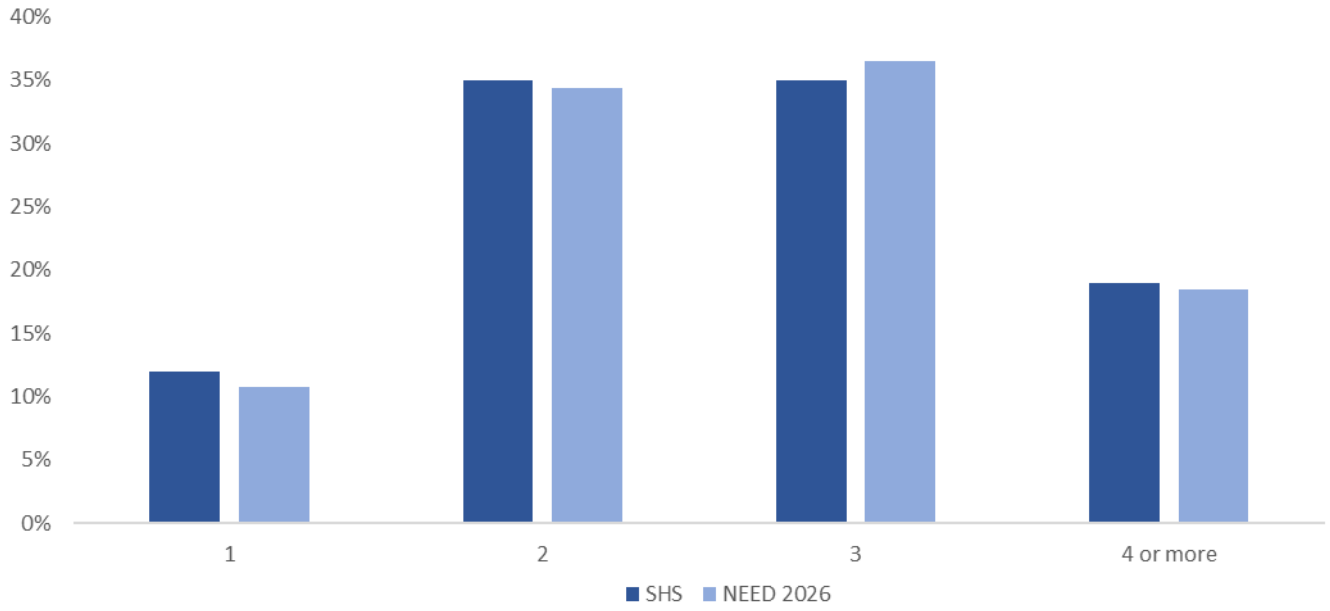


Figure 12: Comparison of distributions – property type

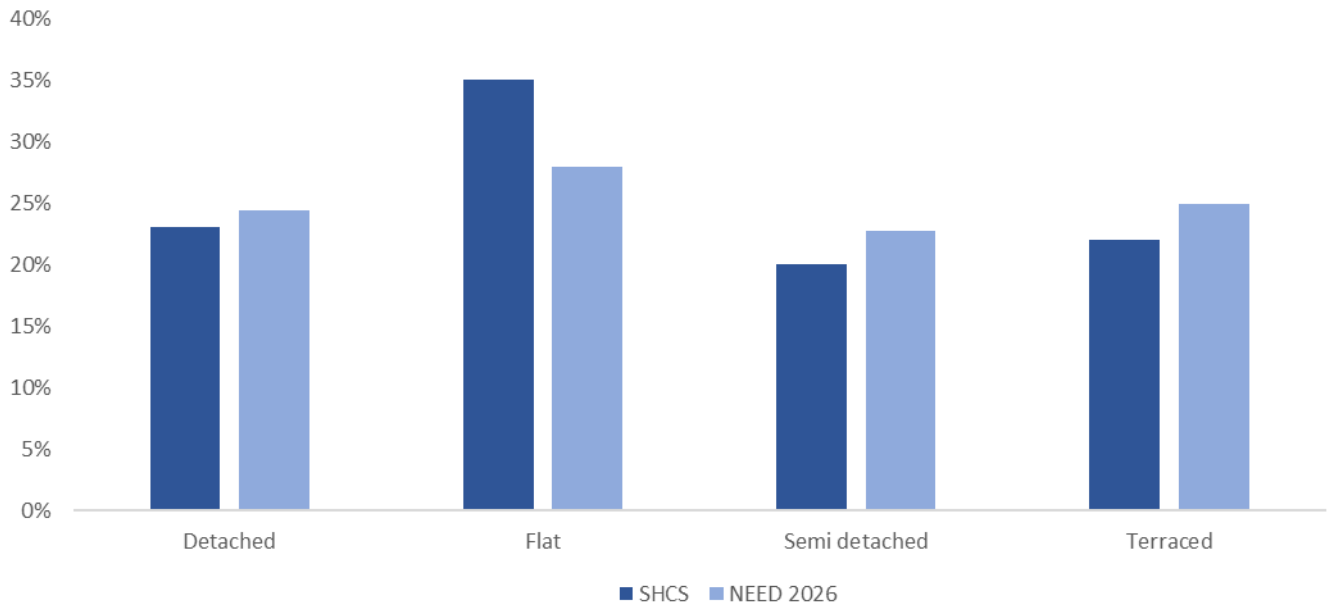


Figure 13: Comparisons of distributions – property age

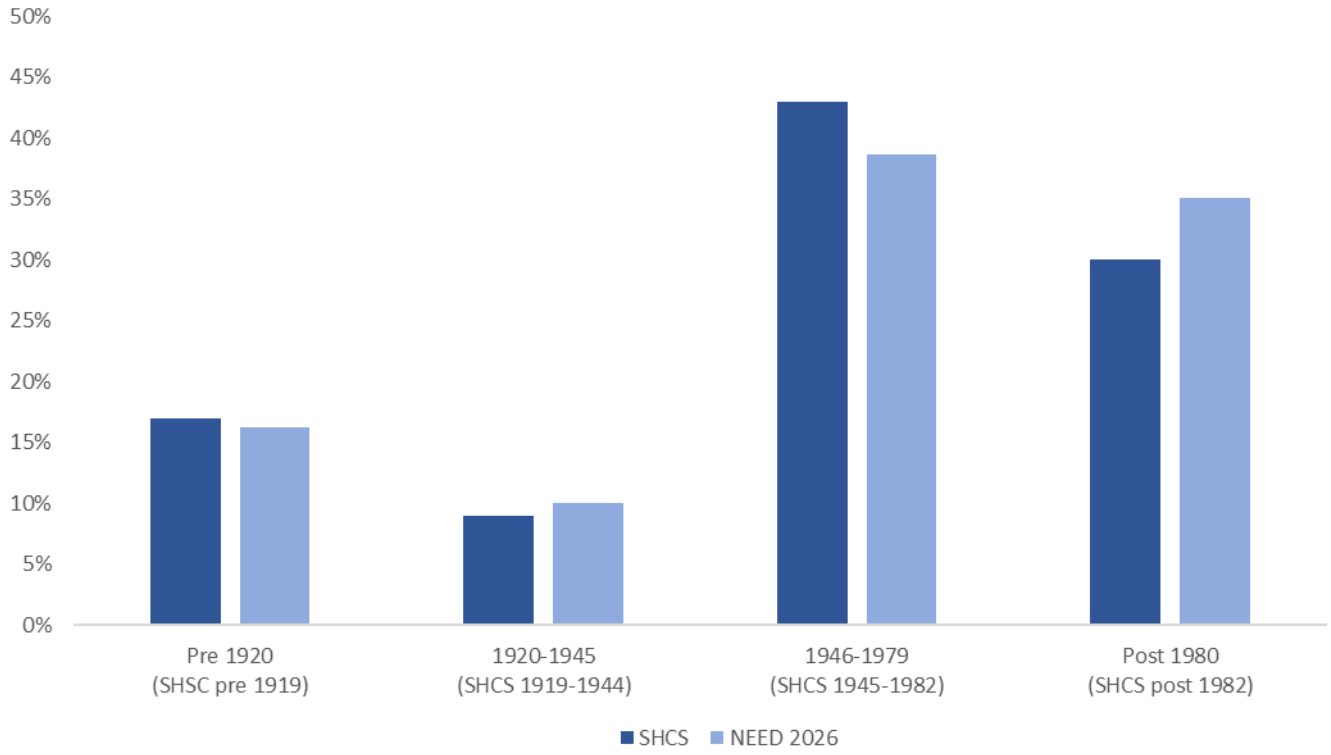
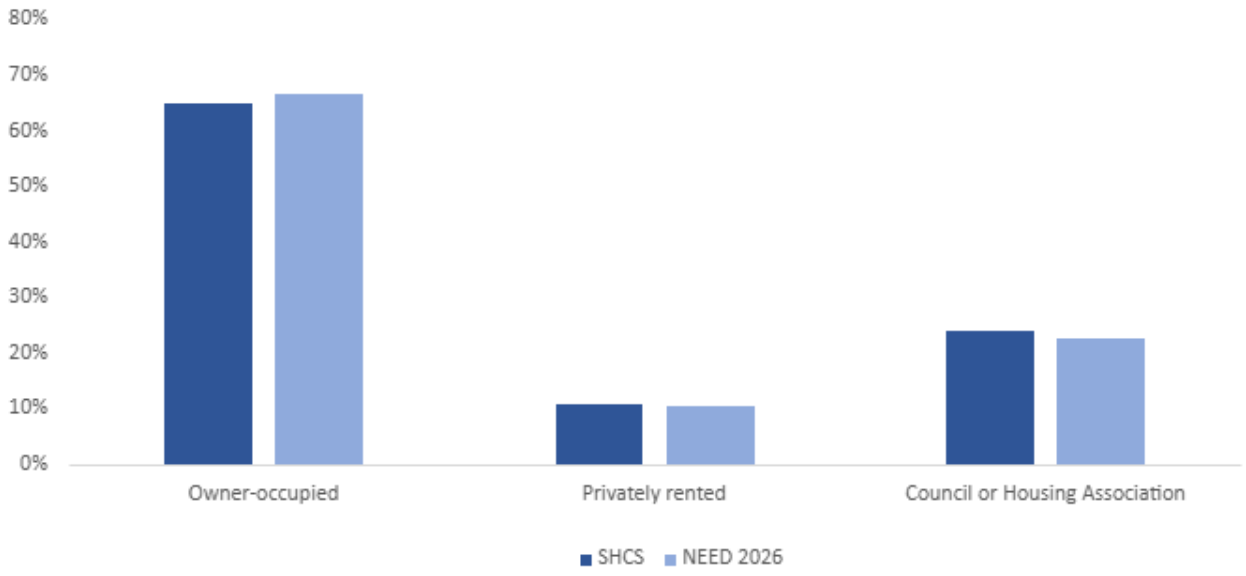


Figure 14: Comparisons of distributions – household income

Figure 15: Comparison of distributions – tenure



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