

## Tier 2 Overview

### 1.1 Overview of data and information

Tier 2 data includes more quantitative details, such as energy consumption and fuel used in transport or heating. It will build on Tier 1 information. In some cases, Tier 2 data may fill gaps in understanding not available through the Tier 1 efforts.

Most of the data will need to be requested from individual organisations. The process of collecting data for each energy source (electricity, LPG, oil, etc.) is the same, and will ideally come from billing information.

#### 1.1.1 Residential Data

Details of energy consumption in residential buildings may be available from a number of sources. These include:

Local authorities – where they own and manage properties. This won't include billing information where tenants are responsible for their own payments.

Registered social landlords (RSL) – information about buildings operated by the RSL and their overall energy efficiency (as measured by Energy Performance Certificates) or similar. This also won't include billing information where tenants are responsible for their own payments.

Housing surveys – Local-area housing surveys can provide information about energy efficiency and estimated annual energy use.

Table 1 Example of data that may be available (residential)

Reference	Owner	Building	Floor Area (m <sup>2</sup> )	Construction	Age	Primary Fuel	EPC Rating
Building 1	RSL	Multi-occupancy flats	50	Solid wall	Pre-1919	LPG	69
Building 2	Local Authority	Terraced House	60	Cavity wall	1984 – 1991	Oil	Not Available
Building 3	Owner-Occupied	Bungalow	80	Timber frame	1992 – 2002	Electric	60
Building 4	Owner-Occupied	Semi-detached	110	Cavity wall	1950 – 1983	Electric	Not Available

Note: Illustrative example only.

#### 1.1.2 Non-Residential Data

Data can be obtained for individual non-residential buildings. To begin with, focus on:

- Local authorities – Annual energy consumption within individual buildings, such as offices, schools and other facilities
- Businesses – Energy consumption for heat and power in business premises
- Health boards – Annual energy consumption within local healthcare facilities

To build a picture of energy consumption in the area, look at a 12-month period so you can account for fluctuations in energy demand during changing seasons.

Compile the data to understand the total energy demand in the area for each type of fuel. An example of heating energy requirements for buildings is shown below.

Table 2 Example of heating energy data for buildings

Month	Building 1 (MWh)	Building 1 (MWh)	Building 1 (MWh)	Sub Total (MWh)
January	1	138	134	273
February	0	131	86	217
March	0	127	71	198
April	0	89	39	128
May	83	39	22	144
June	51	0	0	51
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	6	16	21
November	5	98	92	195
December	15	124	133	271
Total	154	753	592	1,499

Note: Illustrative example only.

### 1.1.3 Renewable Energy Generation

If there are community energy-generation assets in your local area, it's useful to collect data about their energy output.

Similarly to how meter data is collected for building energy consumption, meter data should be available for renewable generators. This will typically provide a monthly summary figure and an annual total for all energy output from the system. This will be measured in kWh.

Household generation data, such as from solar PV panels, is less likely to be readily available. In this case, an estimate of its annual output (using supplier technical information or high-level assessment tools) is sufficient.