

# Vulnerable customers in Britain's energy market

## HOW REGIONAL DIFFERENCES AFFECT ENERGY NETWORKS

### Overview

Caring for vulnerable consumers in Britain's energy market is a high priority for Ofgem, as the regulator for gas and electricity markets in Great Britain. Since it released its first annual report on the subject in 2017<sup>1</sup>, the regulator has pressed the country's energy networks to demonstrate how they can provide additional help for what is a large proportion of their customer base: in 2018 fully one person in four fell into one of Ofgem's 30 vulnerability categories, making them eligible for distinct treatment. With the next set of price controls, known as RII0-2, taking effect from next year<sup>2</sup>, now is an opportune moment for energy companies to demonstrate how they are providing the high-quality services that are needed.

The social and economic disruptions caused by the Covid-19 pandemic can only increase pressure on politicians and regulators to mitigate the difficulties facing vulnerable households. However, for energy networks to plan the provision of appropriate services, they must first have an accurate understanding of the demographics of the regions that they serve. Who exactly is vulnerable and in what way? The answers, which will inevitably vary, will determine what sort of special care energy companies need to provide: pensioners are likely to have different requirements from customers with debilitating illnesses.

This article attempts to draw up a regional map of vulnerability in Britain and to identify its causes. But first things first. What exactly do we mean by vulnerability?

### Framing the issue

In a strategy paper released in 2013<sup>3</sup>, Ofgem said the term vulnerability applied when personal circumstances and characteristics combine with aspects of the market to make a consumer significantly less able than a typical customer to protect or represent their interests in the energy market. As a result, they are much more likely to suffer detriment and/or that detriment is likely to be greater. Vulnerability in the energy market is not wholly about rising prices, Ofgem explained. It can also be struggling to access and choose the best tariffs, or living in a cold, damp home.

Specifically, Ofgem defines vulnerability using the Priority Services Register (PSR), a free service provided by suppliers and network operators to customers in need<sup>4</sup>. The PSR breaks vulnerability down into 30 categories. It is the responsibility of every network to maintain its own register for the region in which it operates, but this is a Herculean task given that companies are unlikely to have dealt with every single customer. We have devised a simpler, alternative method to highlight regional variations, classifying publicly available data across seven categories that cover the majority of the underlying conditions of vulnerability<sup>5</sup>. These categories are:

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<sup>1</sup> Ofgem, customer vulnerability reports <https://www.ofgem.gov.uk/about-us/how-we-work/working-consumers/protecting-and-empowering-consumers-vulnerable-situations/consumer-vulnerability-strategy/consumer-vulnerability-strategy-reporting-progress>

<sup>2</sup> In gas distribution, gas transmission, and electricity transmission. The next price control for electricity distribution begins in 2023.

<sup>3</sup> Ofgem, customer vulnerability strategy <https://www.ofgem.gov.uk/publications-and-updates/consumer-vulnerability-strategy>

<sup>4</sup> The priority services register <https://www.ofgem.gov.uk/consumers/household-gas-and-electricity-guide/extra-help-energy-services/priority-services-register-people-need>

<sup>5</sup> **Table 2** provides the breakdown of Ofgem vulnerability categories and our grouping.

- **Communication impairment:** Individuals who are blind, partially sighted, deaf or dumb.
- **Medical conditions:** Individuals who require special medication, medical facilities or assistance, or who have chronic illnesses.
- **Mental health and neurological conditions:** Individuals suffering from mental health illnesses, developmental conditions or neurological disorders.
- **Movement restriction.**
- **Dependent families:** Individuals with dependent children, aged 0-4.
- **English skills:** Individuals lacking proficiency in English.
- **Pensionable age:** Individuals aged above 65.

$$\begin{aligned} \text{Total Vulnerable} = & \text{Communication impairment} + \text{Medical Condition} + \text{Mental Health} + \\ & \text{Movement restriction} + \text{Dependent Families} + \text{English Skills} + \\ & \text{Pensionable Age} \end{aligned}$$

A complete list of data sources and a note on our methodology are shown in Table 3 in the Annex.

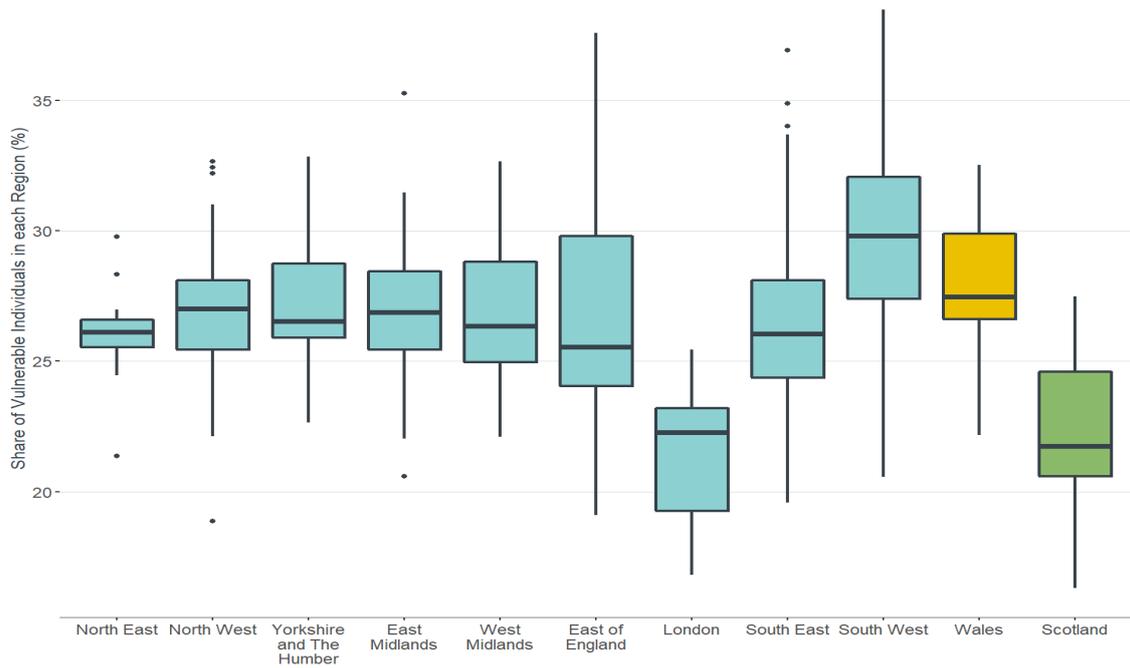
### The vulnerable regions

On average, one in four people fall into one of Ofgem's vulnerability categories, meaning that they require priority energy services. They are spread across the country, with significant variations between regions. Figure 1 shows almost 30% of individuals the South West of England are classed as vulnerable; in London and Scotland<sup>6</sup> the median share is only 21.5%.

The boxplot highlights that variations within each region/country are also substantial. In the East of England, for example, the proportion of vulnerable people in some Local Authority Districts (LADs) is only 19%, but in others it is almost twice that. The region with the least variation is the North East, where the majority of LADs display similar levels of vulnerability.

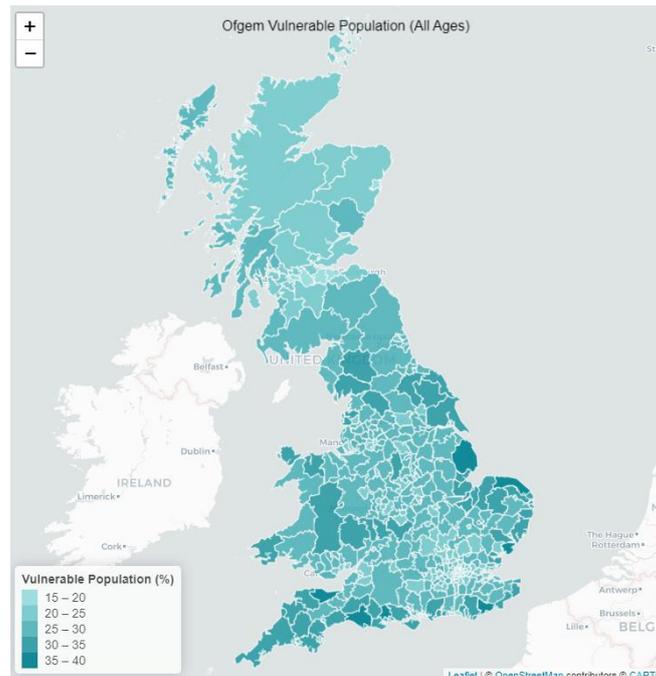
<sup>6</sup> The very small share in Scotland in particular is possibly due to missing data on dependent families and proficiency in English.

**Figure 1 Share of vulnerable population within each region in Britain, 2018**



In Figure 2, we break down the share of vulnerable individuals to the LAD level. At a glance, it is apparent that they are dispersed throughout Britain with certain coastal regions (shaded dark teal) in England indicating a much higher level than others. The five LADs in England with the highest share of vulnerable people are from a mix of regions – the South West, South East and the East of England – as shown in Table 1. Unsurprisingly, London has a much lower share. Indeed, the five LADs in England with the lowest proportion of vulnerable people are all in the capital. In Islington, the share is less than 17%, while at the other extreme, in West Somerset, it is 37.6%.

**Figure 2 Vulnerable Population by LAD in Great Britain, 2018**



**Table 1 Top 5 LADs by share of vulnerable individuals in England, 2018**

LADs with the lowest share	LADs with the highest share
Islington, London (16.8%)	West Somerset, South West (37.6%)
Southwark, London (17.3%)	North Norfolk, East of England (37.6%)
Tower Hamlets, London (17.5%)	Rother, South East (37.0%)
Wandsworth, London (17.5%)	Christchurch, South West (36.1%)
Lambeth, London (17.6%)	Tendring, East of England (35.7%)

Source: Frontier Analysis, ONS Nomis

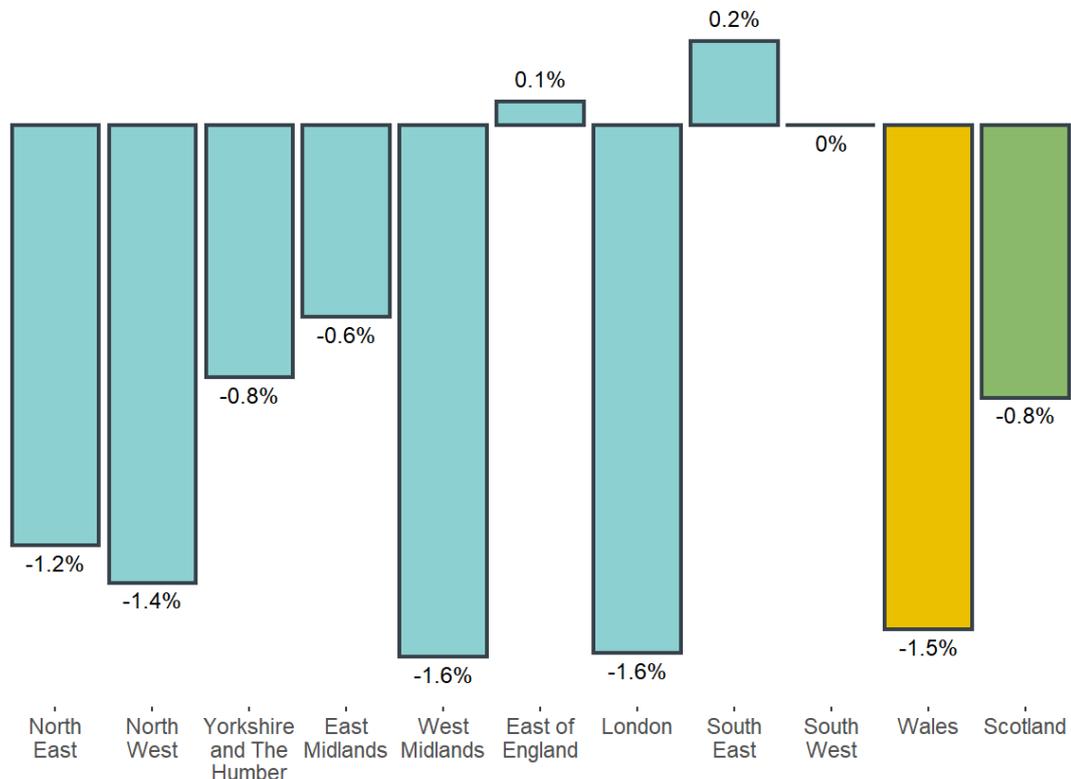
Interestingly, both Wales and Scotland are more homogenous than England. In Wales the vulnerable population share ranges from 22.2% in Cardiff to 32.5% in Conwy; in Scotland, it ranges from 16.3% in Glasgow to 27.5% in Dumfries and Galloway.

**How have the shares changed over time?**

Figure 3 shows that the proportion of vulnerable individuals was lower in 2018 than in 2011 across much of Britain. The exceptions are the South East, South West and the East of England, where there was little change. The biggest declines, of more than 1.5 percentage points, were in London and the West Midlands, followed by Wales. On balance, however, the changes were rather small.

Our estimates for 2018 come with two caveats. First, we do not have updated data on two categories – individuals with dependent children and proficiency in English – which we have assumed to have been constant over time. Second, we rely on disability benefit data. The system for claiming disability benefit has been gradually redesigned since 2013<sup>7</sup>. If this modification has had any effect on the number of claimants, it will not be reflected in our estimates.

**Figure 3 Share of vulnerable individuals by LAD in 2011 and 2018**



<sup>7</sup> <https://www.theguardian.com/society/2019/jan/15/disability-benefits-reform-costs-government-4bn-in-extra-welfare-payments>

### The driving forces of vulnerability

We now turn to the causes of vulnerability. A sounder grasp of the root causes of the phenomenon would allow Ofgem and energy companies to better prepare the services required in response. For this analysis, we aggregated Ofgem’s vulnerability categories into seven groups: four types of medical needs, customers with dependent children, lack of proficiency in English and pensioners.

We have good data on Britain’s swelling ranks of retirees, but only a lower bound for the other categories. This means that the pensionable age group has a large impact on our estimate of the share of vulnerable individuals across LADs, accounting for more than 70% of the total (shown in red in Figure 4). Note that this factor is even more important in Scotland because we have no data from north of the border on the number of families who have dependent children or lack proficiency in English.

**Figure 4** Types of vulnerable individuals by region, 2018



London again stands in stark contrast to the rest of Britain, with far fewer pensioners but a lot more households with dependent children or poor English. This suggests that the energy networks will likely have to make different provisions in the capital than in the rest of the country: the help a pensioner needs is not the same as a customer who cannot communicate fluently in English.

**Figure 5** The two faces of London – vulnerability including and excluding pensioners

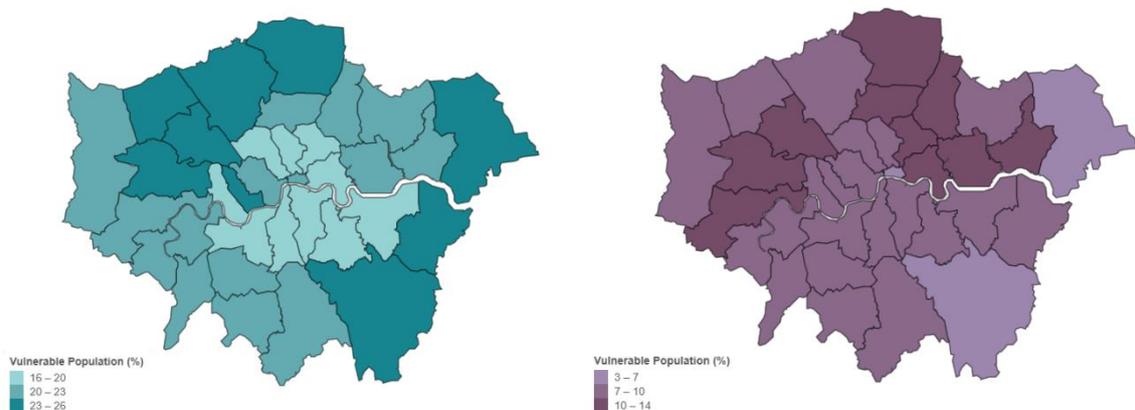


Figure 5 presents the two faces of London. The map on the left shows the capital’s LADs according to the overall share of vulnerable individuals, while the one on the right excludes people of pensionable age. Bromley (the large area in the South East) highlights the difference: fully a quarter of its population

is classified as vulnerable, but, if pensioners are excluded, it is one of the most resilient LADs in London. By contrast, Ealing and Brent LADs have high degrees of vulnerability on both counts and will thus need to provide a broader range of priority services.

## Conclusions

Caring for vulnerable customers has to be more than a box-ticking exercise for Britain's energy providers. A quarter of the population meets Ofgem's definition of vulnerable, a figure that is consistent across all regions of the country. The start of a new price control period in 2021 makes this a good time for energy companies to ensure they have the systems in place to collect accurate, up-to-date data on vulnerable customers eligible for priority services. Firms need to know where those consumers are clustered so they can plan accordingly for any supply disruptions. They must also make sure they are providing the appropriate services – the needs of pensioners, who make up the bulk of Britain's vulnerable population, are quite different from those of a single mother with a poor grasp of English who is bringing up young children. For energy firms, there might even be a silver lining to the Covid-19 pandemic. With politicians and regulators anxious that the weakest members of society do not suffer unduly during the crisis, the virus is an opportunity for all utilities to make sure their arrangements for helping vulnerable customers are beyond reproach.

## Annex

Table 2 Grouping Ofgem vulnerability categories

Code	Ofgem vulnerability categories	Frontier groups	
8	Blind	Communication impairment (only including those that are physical in nature)	
9	Partially sighted		
35	Hearing impairment (inc. Deaf)		
36	Speech impairment		
29	Families with young children 5 or under	Dependent families	
17	Unable to communicate in English	English skills	
1	Nebuliser and apnoea monitor	Medical condition	
2	Heart, lung & ventilator		
3	Dialysis, feeding pump and automated medication		
4	Oxygen concentrator		
22	Chronic/serious illness		
24	Careline/telecare system		
25	Medicine refrigeration		
26	Oxygen Use		
18	Developmental condition		Mental health & neurological conditions
20	Dementia(s)/Cognitive impairment		
27	Poor sense of smell/taste		
30	Mental health		
31	Additional presence preferred	Movement restriction	
12	Stair lift, hoist, electric bed		
15	Physical impairment		
19	Unable to answer door		
23	Medically dependent showering/bathing		
28	Restricted hand movement		
14	Pensionable age	Pensionable age	
32	Temporary - Life changes	Temporary support	
33	Temporary - Post hospital recovery		
34	Temporary - Young adult householder (<18)		
37	Water dependent	Unknown	
10	Do Not Use		

Source: Ofgem website, Frontier analysis

**Table 3: Data sources for vulnerable individuals**

<b>Frontier groups</b>	<b>Data sources</b>
<b>Communication impairment</b> (only including those that are physical in nature)	Annual Population Survey (2011-2018)
<b>Medical condition</b>	<i>Benefit claimants – disability living allowance by disabling condition (Population)</i>
<b>Mental health</b> (and neurological conditions)	
<b>Movement restriction</b>	
<b>Dependent families</b>	Census 2011 DC1114EW - Dependent children by family type (Population)
<b>English skills</b>	DC2105EW - Proficiency in English by sex by age (All usual residents aged 3 and over)
<b>Pensionable age</b>	ONS (2011-2018) MYEB1 - Annual mid-year population estimates for the United Kingdom, local authority prior to April 2019, by sex and single year of age
<i>Temporary Support</i>	Unavailable
<i>Unknown</i>	Unavailable

Source: ONS Nomis

To calculate how many vulnerable people there are in each local area district (LAD), we add together the numbers in each of the above categories. We can then estimate what proportion of an LAD's total population this group constitutes in the year in question.

(Note, Ofgem's vulnerability categories include 'Temporary Support' and 'Unknown', as shown in **Table 2**. We have excluded these from our analysis owing to a lack of available data.)

There are some important data limitations to our analysis.

Since an individual can have more than one vulnerability, we need to guard against double counting. We have done so by excluding people below the age of 65 when calculating the number of vulnerable individuals who might suffer from communication impairment, movement restriction, medical conditions, mental health or poor English skills.

However, it is not possible to fully eliminate double counting. This is likely lead to an **overestimation** of the number of vulnerable individuals. For example,

- Someone of working age who is claiming disability living allowance for, say, communication impairment may have dependent children and poor English skills. In such an example, we would be triple counting
- A pensioner may have dependent children. As we cannot disaggregate the data on dependents by age, we would be including such individuals twice in our analysis.

On the other hand, there are factors that result in an **underestimation** of the total number of vulnerable people.

- As explained above, we have no estimate of how many people fall into Ofgem's categories of 'Temporary Support' and 'Unknown'.
- Not all vulnerable customers are eligible for disability living allowance, so we will have not counted everyone with one of the four classes of medical needs.
- The data on dependent families and English language skills are outdated. The numbers are likely to have risen.
- **Scotland** does not publish vulnerability data on dependent families and English language skills.

This lack of data leads us to suspect, on balance, that our estimates are likely to be systematically underestimating the extent of vulnerability in Britain.

