



**SP ENERGY  
NETWORKS**

# **SPEN Vulnerability map tool User guide**

15<sup>th</sup> February 2019

# Vulnerable source data & output data sets

Below are the sources of our Vulnerable data & the information we utilise from them

## National statistics

- Census
- ONS/National records of Scotland
- Public health England
- Stats Wales
- Scottish Government

### Outputs

- Population
- Number of people of pensionable age (60 years plus)
- Number of children 5 or under
- Number of people with long-term physically limiting health conditions
- Number of people who don't speak English well or at all
- Estimated number of people on dialysis
- Prevalence of dementia
- People with severe mental health issues
- Number of people blind or partially sighted

## Other vulnerable stats

- DWP (Dept. for Working Pensions)
- BEIS (Dept. for Business, Energy & Industrial strategy)
- DCLG (Dept. for Communities & local gov)
- Care inspectorate
- Care commission

### Outputs

- Number of households
- Population
  - over 65 years
  - over 75 years
  - over 85 years
- Under 16 years
- Under 5 years
- Lone pensioners
- Lone parents
- Children in low income households
- Low or no qualifications
- Low income employment
- Long-term unemployed
- People in bad or very bad health
- People whose activities limited a lot
- Disability benefits
- Child disability benefits
- Mental health benefits
- Number of care homes
- Care home residents
- People providing over 20 hrs per week of care
- People who cannot speak English well or at all
- Ethnic minorities
- Dwellings which are private rented
- Fuel poor households (England)
- Dwellings rated in SAP bands EFG
- Households with no car

## Experian MOSAIC profiles

- Public sector view
- 66 profiles (20 vulnerable)
- Vulnerable weighting applied against use cases
- Identification of Low Resilient Communities

### Outputs

- Outlying Seniors
- Families with Needs
- Aided Elderly
- Dependent Greys
- Estate Veterans
- High Rise Residents
- Solo Retirees
- Far-Flung Outposts
- Local Focus
- Disconnected Youth
- Childcare Squeeze
- Pocket Pensions
- Streetwise Singles
- Crowded Kaleidoscope
- Asian Heritage
- Renting a Room
- Seasoned Survivors
- Inner City Stalwarts
- Bungalow Haven
- Low Income Workers

# SPEN Referral services

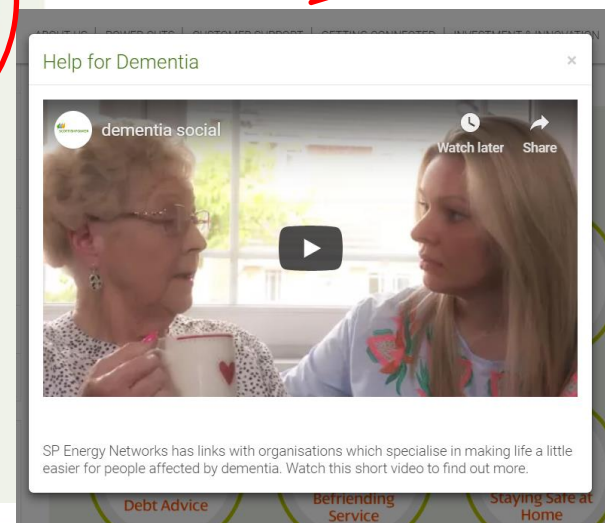
Below is a view of the additional support services we offer. More info available on our webpage



## Support Services:



Each web link button provides a video overview of each service



Web address - [https://www.spenergynetworks.co.uk/pages/additional\\_support.aspx](https://www.spenergynetworks.co.uk/pages/additional_support.aspx)

# Map tool – Access & Initial screen



The Vulnerability map tool is accessible through the SPEN website domain:  
[www.spenergynetworks.co.uk/pages/our\\_vulnerability\\_map.aspx/pages/our\\_vulnerability\\_map.aspx](http://www.spenergynetworks.co.uk/pages/our_vulnerability_map.aspx/pages/our_vulnerability_map.aspx)

There are 2 views within the 'Map tool':

- **Members** – This is for SPEN resources and Contractors which provides vulnerable data views of Substations and our Districts
- **Partners** – This is for other utility companies and 3<sup>rd</sup> parties who work with SPEN to provide geographical views of vulnerable datasets linked to the areas we support

A screenshot of the SP Energy Networks website. The header includes the logo, navigation links (ABOUT US, POWER CUTS, CUSTOMER SUPPORT, GETTING CONNECTED, INVESTMENT &amp; INNOVATION, CORPORATE GOVERNANCE), and a search bar. Below the header is a banner with four images: a woman, a landscape, two women talking, and a van. A red arrow points from the 'Partners' bullet point in the text above to the 'PARTNERS' button in the screenshot. The main content area is titled 'Customer Support' and features a sidebar with links like 'Help &amp; Advice', 'A Caring Network', 'Priority Services Registration Form', 'Home Visits', 'Social Obligations', 'Additional Support Services', and 'Our Commitment to our'. The main content area is titled 'OUR VULNERABILITY MAP' and contains a paragraph about the tool. Below this paragraph are two buttons: 'MEMBERS' and 'PARTNERS', both of which are circled in red. A note at the bottom suggests using Chrome browser.

MEMBERS

PARTNERS

# Map tool – Partners view



The Partner view on the Map tool will offer 4 functions on how to view SPEN Vulnerable data sets:

PARTNERS

Access for industry partners delivering vulnerability services.

AREA ANALYSIS	PARTNER ANALYSIS
SEARCH BY POSTCODE	SEARCH BY SUBSTATION

## Area analysis

An interactive map allowing a user to click their cursor on any location which will display various vulnerable data sets associated with the area

## Partner analysis

A view of SPEN's partnerships within Local Authorities and the services they deliver in that area

## Search by postcode

A simple postcode search function which will link to a local area (LSOA\*\*) view of vulnerable data sets & a comparison of SPEN PSR vs National Statistics

## Search by substation

A simple substation search function which will link to a local area (LSOA\*\*) view of vulnerable data sets & a comparison of SPEN PSR vs National Statistics

**\*\*LSOA = Lower Super Output Area & is used by Census to define a small area with a population average of 1500 people**

# Map tool – Members view



The Members view on the Map tool will offer 6 functions on how to view SPEN Vulnerable data sets:

**MEMBERS**  
Access for internal members and staff of Scottish Power Energy Network.

AREA ANALYSIS	PARTNER ANALYSIS
PSR CATEGORY ANALYSIS	RESILIENCE ANALYSIS (RANKING)
SEARCH BY POSTCODE	SEARCH BY SUBSTATION

## Area analysis

An interactive map allowing a user to click their cursor on any location which will display various vulnerable data sets associated with the area

## Partner analysis

A view of SPEN's partnerships within Local Authorities and the services they deliver in that area

## PSR category analysis

A view of SPEN's PSR customer base and national stats with the ability to filter by our District depot area of coverage

## Resilience analysis (ranking)

A view that ranks substations by their community resilience within a district alongside LSOA\*\* PSR gap analysis

## Search by postcode

A simple postcode search function which will link to a local area (LSOA\*\*) view of vulnerable data sets & a comparison of SPEN PSR vs National Statistics

## Search by substation

A simple substation search function which will link to a local area (LSOA\*\*) view of vulnerable data sets & a comparison of SPEN PSR vs National Statistics

**\*\*LSOA = Lower Super Output Area & is used by Census to define a small area with a population average of 1500 people**



# Area analysis

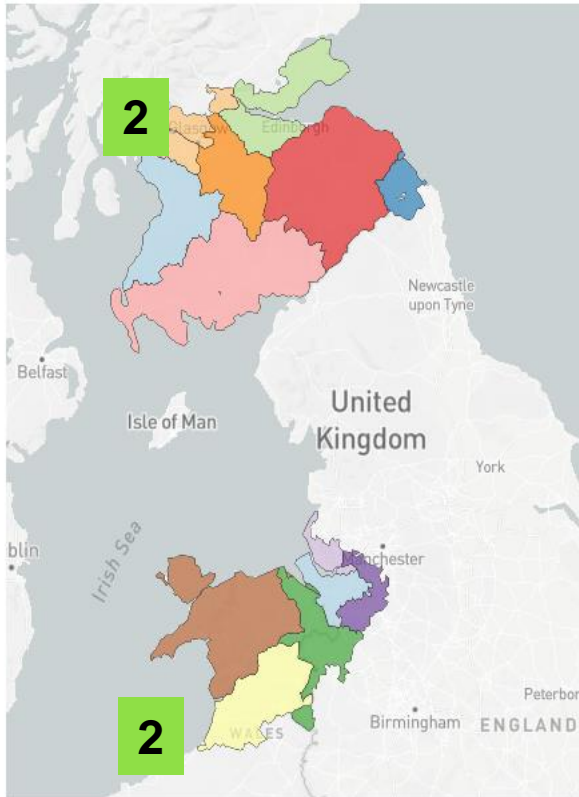
An interactive map allowing a user to click their cursor on any location which will display various vulnerable data sets associated with the area



\* To reset data of selected geographical area, click 'undo' in the bottom left corner of the map.

Segment Level

District



Population vs SPEN PSR records

All District	Number of people	PSR records	Estimated gap	Estimated gap in PSR %
Unable to communicate in English	70737	3368	0.00%	95.24%
Families with children under 5	478474	62747	4.00%	86.89%
Dialysis	14891	2706	0.00%	81.83%
Dementia	90360	20357	0.00%	77.47%
Limiting health conditions	736900	232788	504112	68.41%
Pensionable age	1284232	521429	762803	59.40%
Mental health	68474	29691	38783	56.64%
Blind or partially sighted	46144	31720	14424	31.26%

[Download Table](#)

Vulnerable characteristics by area

Ayrshire & Clyde South	Vulnerable characteristics % against selected area's population
Low or no qualifications	46.01%
Low income employment over 65 years	23.49%
Disability benefits	21.55%
Under 16 years	20.26%
Households with no car	17.84%
People whose activities limited a lot	13.27%
over 75 years	11.19%
People in bad or very bad health	9.36%
Lone pensioners	6.55%
Under 5 years	6.51%
Lone parents	6.18%
	5.44%

[Download Table](#)

Top 5 Vulnerable Mosaic profiles by area

Top 5 vulnerable mosaic profiles	All District
O63 Streetwise Singles	166191
O62 Low Income Workers	124500
K48 Down to Earth Owners	99240
M55 Families with Needs	75526
H30 Affordable Fringe	73554

[Download Table](#)

1

Filter by SPEN District, Local Authority, Council ward or LSOA

2

Use your mouse to click on the desired location on the map

3

SPEN's PSR premise counts compared to national statistics

4

Other Vulnerable datasets related to the selected area (LSOA level)

5

Top 5 Experian 'Vulnerable' MOSAIC profiles linked to the selected area

6

Ability to download the dataset

AREA ANALYSIS

# Partner analysis

A view of SPEN's partnerships within Local Authorities and the services they deliver in that area



## PARTNER ANALYSIS

This page covers SPEN's partnerships within Local Authorities and the services they deliver in the area. As well, the table on the right displays the coverage and gaps of overall services for the selected Local Authority.

Select Local Authority and service:

Local Authority

Glasgow City

1

Service

Debt Advice

2

The table on the top right hand corner of the screen shows which services are delivered and which aren't for the selected local authority - this table is not filtered by services.

The table below provides an overview services delivered by partners, filtered by local authority and type of support.

Services Gap per Local Authority

Local Authority	Glasgow City		
Service	Count	Coverage	Gap
Best tariff	1	1	0
Careers support	1	1	0
Debt advice	1	1	0
Finding a friend	5	1	4
Good food & good friends	1	1	0
Help & advice about benefits	3	1	2
Help for those with Dementia	1	1	0
Help with your weekly shop	1	1	0
Keeping warm	1	1	0
Staying safe at home	1	1	0
Total	16	10	6

Overview of Services per Local Authority

Local Authority	Service	Age band	Ex Coalfield employee	Ex Military Only	Partner
Glasgow City	Debt Advice	Unknown	Unknown	Unknown	Home Energy Scotland

- 1 Filter by Local authority
- 2 Filter by Referral Service
- 3 View of selected Local Authority & Service with related Partner(s) info
- 4 Local authority overview on partner coverage



# PSR category analysis

**PSR category analysis**  
A view of SPEN's PSR customer base and national statistics with the ability to filter by our District depot area of coverage



## PSR CATEGORY ANALYSIS

The tables on this page break down the estimated number of individuals in each PSR category compared to the number of PSR records that SPEN has. This allows for the assessment of SPEN's vulnerability coverage and estimated gap.

Select district:

DISTRICT

Merseyside

1

The table below indicates the estimated number of people in each PSR category, the number of PSR records that SPEN holds and the estimated gap between the two measures.

The number of individual PSR records that SPEN holds in each category are broken-down in the table on the right.

PSR Gap Analysis

DISTRICT	PSR Category	Number of people	PSR records	PSR Coverage %	Estimated gap %
Merseyside	Other	-	45855		
Merseyside	Dementia	13475	3931	29%	71%
Merseyside	Limiting health condition	136934	86646	63%	37%
Merseyside	Mental health	14174	6558	46%	54%
Merseyside	Pensionable Age	187198	83044	44%	56%
Merseyside	Dialysis	2707	479	18%	82%
Merseyside	Blind or partially sighted	5606	5693	102%	-2%
Merseyside	Families with young children 5 or under	78743	11683	15%	85%
Merseyside	Unable to communicate in English	7909	723	9%	91%

Number of PSR records per Category

PSR Category	Count of PSR
<b>Blind or partially sighted</b>	<b>5693</b>
Blind	1199
Partially sighted	4494
<b>Dementia</b>	<b>3931</b>
Dementia(s)	3931
<b>Dialysis</b>	<b>479</b>
Dialysis, feeding pump and automated medication	479
<b>Families with young children 5 or under</b>	<b>11683</b>
Families with young children 5 or under	11683
<b>Limiting health condition</b>	<b>86646</b>
Chronic/serious illness	18008
Developmental condition	3483
Hearing/speech difficulties (inc. Deaf)	8412
Heart, lung & ventilator	2127
Nebuliser and apnoea monitor	2455
Oxygen concentrator	2254
Physical impairment	27698
Poor sense of smell	127
Restricted hand movement	986
Stair lift, hoist, electric bed	2775
Unable to answer door/restricted movement	18321
<b>Mental health</b>	<b>6558</b>
Mental health	6558
<b>Other</b>	<b>45855</b>
Additional presence preferred	344
Careline/telecare system	475
Cust Password	44
MDE electric showering	332
Medicine refrigeration	1797
<b>Total</b>	<b>244612</b>

1 Filter by SPEN District depots area of coverage

2 View of PSR premise base vs National stats aligned to filtered District

3 View of all PSR category counts aligned to filtered District

# Resilience analysis

**Resilience analysis (ranking)**  
A view that ranks substations by their community resilience rating within a district alongside LSOA\*\* PSR gap analysis



## RESILIENCE ANALYSIS (RANKING)

This page provides a table that ranks substations by their community resilience. A view of top 100 ranked substations within a district can be seen alongside a selected substation's LSOA PSR gap analysis.

Select district and preference of viewing top 100 substations by LCR rank:

DISTRICT **1** ▼  
Dumfries

Top 100 Rank **2** ▼  
All

1. Select 'LCR Rank' column to sort substations by ascending or descending ranking.
2. Select any value along the row of preferred substation and rank to view its PSR gap analysis in the table below.

### Community Resilience Analysis and Ranking

Substation Name	Substation UDB	POSTCODE	Substation Ward	DISTRICT	LCR Rank	Top 100 Rank
ABBEYBANK	10196626U	DG2 8BY	Castle Douglas and Crocketford	Dumfries	274	No
ACADEMY	10191281U	ML3 6UQ	Hamilton South	Dumfries	526	No
ACADEMY MOFFAT	10190925U	DG10 9HS	Annandale North	Dumfries	226	No
ACADEMY SP8	10191108U	DG6 4JE	Dee and Glenkens	Dumfries	152	No
AE VILLAGE	10196789U	DG1 1RH	Lochar	Dumfries	288	No
AE VILLAGE NORTH	10196770U	DG1 1RJ	Lochar	Dumfries	262	No
AFRICANDA RD	10191527U	DG16 5LD	Annandale East and Eskdale	Dumfries	526	No
AIRD CRES	10191020U	DG9 8RY	Stranraer and the Rhins	Dumfries	97	Yes
AIRD DONALD PARK	10191008U	DG9 8RP	Stranraer and the Rhins	Dumfries	526	No
ALLIIONS BANK	10198467U	DG16 5EP	Annandale East and Eskdale	Dumfries	526	No
ANDERSON ST	10192353U	DG4 6QN	Mid and Upper Nithsdale	Dumfries	115	No
ANNAN RD	10191339U	DG1 3EY	Lochar	Dumfries	40	Yes
ANNAN RD	10197017U	DG1 3EY	Lochar	Dumfries	438	No
ANNAN RD GRETN A NEW	14255989U	DG16 5LN	Annandale East and Eskdale	Dumfries	276	No

### PSR Gap Analysis

LSOA	S01007566			
PSR category	Number of people	PSR records	Coverag	Estimated gap %
Families with young children 5 or under	36	3	33	92%
Limiting health conditions	44	17	27	61%
Pensionable age	175	69	106	61%
Unable to communicate in English	8	0	8	100%

**What is a Low Community Resilience (LCR) ranking?**  
Using MOSAIC public sector profiling to indicate low levels of resilience, a Low Community Resilience ranking (LCR) per substation was created by summing the proportions of people linked to each substation in the different vulnerable situations

**1** Filter by SPEN District depot area of coverage

**2** Filter by view of the Top 100 LCR\* ranked substations

**3** View of all filtered substations  
Ability to select a substation for PSR gap analysis view below

**4** View of PSR premise base vs National stats aligned to selected Substation

**\*LCR = Low Community Resilience – lower value means communities with greater vulnerabilities**

RESILIENCE ANALYSIS (RANKING)

# Search by Postcode

## Search by postcode

A simple postcode search function which will link to a local area (LSOA\*\*) view of vulnerable data sets & a comparison of SPEN PSR vs National Statistics



### SEARCH BY POSTCODE

This page enables the analysis of vulnerability mosaic profiles, estimated PSR gaps and proportion of vulnerability profiles in the LSOA to which a postcode is linked.

Enter postcode:

POSTCODE

g53 5tl

1

LSOA

S01009803

Population in LSOA

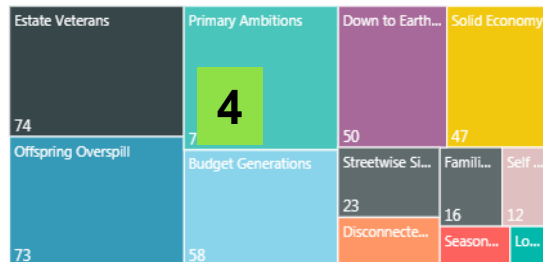
736

2

#### PSR Gap Analysis

PSR category	Number of people	PSR records	Estimated gap	Estimated gap %
Unable to communicate in English	19	1	18	95%
Families with young children 5 or under	54	7	47	87%
Limiting health conditions	127	37	90	71%
Pensionable age	145	57	88	61%

#### Classification and Count of Vulnerable Profiles



\* An empty chart area indicates that the selected postcode does not contain mosaic profile data.

\*\* Further information on profiling can be found here: <https://www.experian.co.uk/assets/marketing-services/brochures/mosaic-co-brochure.pdf>

To **sort** vulnerability proportion from highest to lowest (or vice versa) select 'Value' column in the table below.

#### Proportion of Vulnerabilities in LSOA

LSOA	Vulnerability	Value
S01009803	Care home residents	0%
S01009803	Child disability benefits	4%
S01009803	Children in low income households	9%
S01009803	Disability benefits	80%
S01009803	Dwellings rated in SAP bands EFG	13%
S01009803	Dwellings which are private rented	21%
S01009803	Ethnic minorities	13%
S01009803	Fuel poor households (England)	21%
S01009803	Households with no car	55%
S01009803	Lone parents	17%
S01009803	Lone pensioners	18%
S01009803	Long-term unemployed	16%
S01009803	Low income employment	65%
S01009803	Low or no qualifications	91%
S01009803	Mental health benefits	15%
S01009803	Number of care homes	0%
S01009803	over 65 years	38%
S01009803	over 75 years	21%
S01009803	over 85 years	4%
S01009803	People in bad or very bad health	24%
S01009803	People providing over 20 hrs per week of care	14%
S01009803	People who cannot speak English well or at all	1%
S01009803	People whose activities limited a lot	31%
S01009803	Under 16 years	42%
S01009803	Under 5 years	19%

- Free text search by postcode function
- Searched Postcode LSOA reference ID and population count
- View of PSR premise base vs National stats aligned to searched Postcode LSOA\*\*
- Experian 'Vulnerable' MOSAIC profiles linked to the searched Postcode LSOA\*\*
- Other Vulnerable datasets related to the selected Postcode LSOA
- 'Sort' function (high to low / low to high)

SEARCH BY POSTCODE

**\*\*LSOA = Lower Super Output Area & is used by Census to define a small area with a population average of 1500 people**

# Search by Substation

## Search by substation

A simple substation search function which will link to a local area (LSOA\*\*) view of vulnerable data sets & a comparison of SPEN PSR vs National Statistics



### SEARCH BY SUBSTATION

This page enables the analysis of vulnerable mosaic profiles, PSR gaps, prevalent vulnerabilities and low community resilience ranking based on selected substations.

To view sorted vulnerability values in LSOAs connected to a substation, select 'Value' column in the bottom right table.

Select or enter substation name:

SUBSTATION NAME

ABBERLEY ROAD 02/4385/005

#### LCR Rank

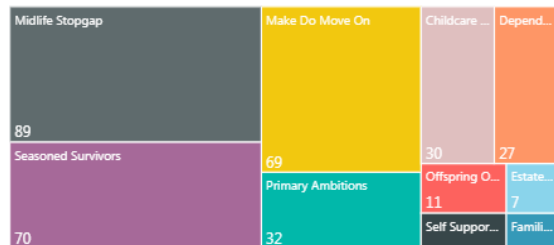
SUBSTATION NAME	SUBSTATION UDB	DISTRICT	Number of addresses	LCR Rank
ABBERLEY ROAD 02/4385/005	10235504U	Merseyside	392	572.00

LSOA	Population in LSOA
E01006431	1672

#### PSR Gap Analysis

PSR category	Number of people	PSR records	Estimated gap	Estimated gap %
Families with young children 5 or under	119	17	102	86%
Limiting health conditions	211	46	165	78%
Pensionable age	265	108	157	59%
Unable to communicate in English	0	0	0	0%

#### Classification and Count of Vulnerable Profiles



\* An empty chart area indicates that the selected postcode does not contain mosaic profile data.

\*\* Further info on profiling can be found here: <http://www.experian.co.uk/assets/marketingservices/brochures/mosaic-cg-brochure.pdf>

#### Proportion of Vulnerabilities in LSOA

LSOA	Vulnerability	Value
E01006431	Care home residents	0%
E01006431	Child disability benefits	1%
E01006431	Children in low income households	4%
E01006431	Disability benefits	35%
E01006431	Dwellings rated in SAP bands EFG	6%
E01006431	Dwellings which are private rented	9%
E01006431	Ethnic minorities	6%
E01006431	Fuel poor households (England)	9%
E01006431	Households with no car	24%
E01006431	Lone parents	7%
E01006431	Lone pensioners	8%
E01006431	Long-term unemployed	7%
E01006431	Low income employment	29%
E01006431	Low or no qualifications	40%
E01006431	Mental health benefits	7%
E01006431	Number of care homes	0%
E01006431	over 65 years	17%
E01006431	over 75 years	9%
E01006431	over 85 years	2%
E01006431	People in bad or very bad health	10%
E01006431	People providing over 20 hrs per week of care	6%
E01006431	People who cannot speak English well or at all	1%
E01006431	People whose activities limited a lot	14%
E01006431	Under 16 years	18%

1

Free text search on Substation name function

2

Searched Substation LSOA reference ID and population count

3

View of PSR premise base vs National stats aligned to searched Substation LSOA\*\*

4

Experian 'Vulnerable' MOSAIC profiles linked to the searched Substation LSOA\*\*

5

Substation information including linked premise count & LCR\* ranking out of SPEN's licence areas

6

Other Vulnerable datasets related to the selected Substation LSOA

7

'Sort' function (high to low / low to high)

SEARCH BY SUBSTATION

**\*\*LSOA = Lower Super Output Area & is used by Census to define a small area with a population average of 1500 people**

**\*LCR = Low Community Resilience – lower value means communities with greater vulnerabilities**