



## Welshpool

Energy Local Opportunities in Powys

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# The Welshpool Energy Zone

## 1. Description

The Welshpool consists of three separate substation area, which have been combined as search data does not accurately place generators in a particular zone. The zone extends across the entire width of Powys (just). The southern and western zone includes Llanfair Caerenion and the extensive rural catchment of the River Banwy. The central area is relatively small and includes much of Welshpool and areas to the west of the town. The northern section includes the north of Welshpool and smaller settlements in this area

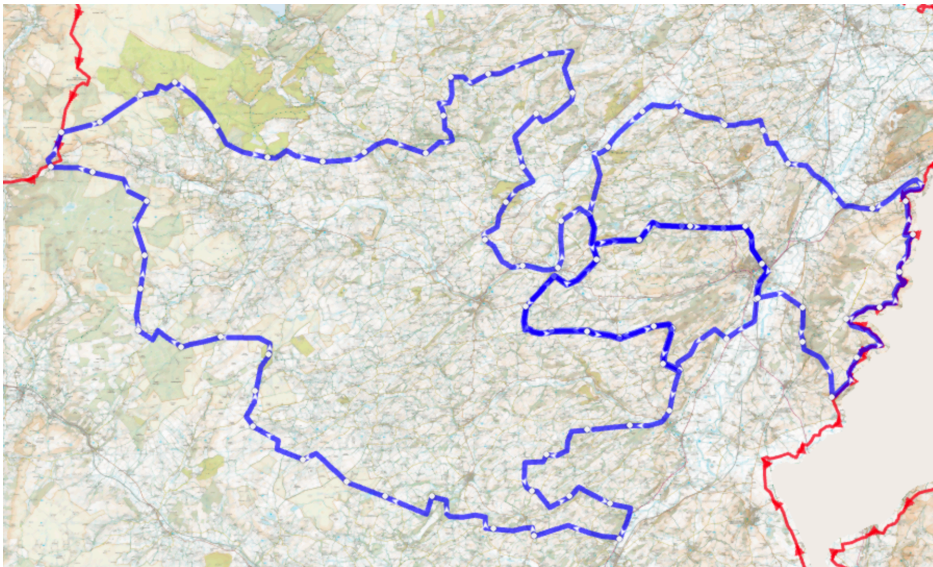


Figure 1 – Welshpool energy zone map

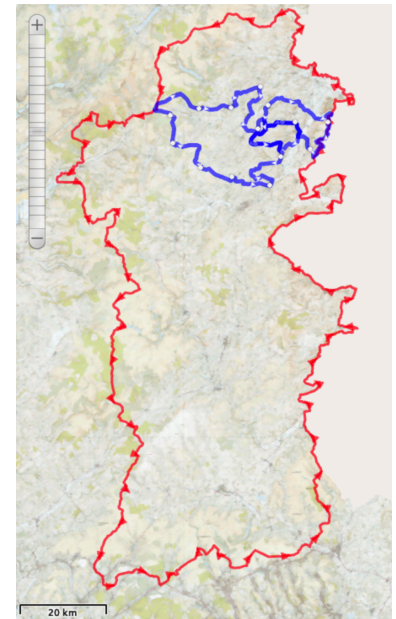


Figure 2 - Powys map

## 2. Potential viability of an Energy Local Club

This is quite a challenging zone to interpret due to the layout of the grid and the extensive area the zone covers. Much of the generation cannot be precisely located to a particular substation area, but it is expected that the large section to south and west contain most of the generation. Conversely the two smaller areas that collectively include Welshpool contain most of the potential consumers.

There are a high number of generators within this zone but the vast majority of these are solar PV systems. Solar PV is possible, but not ideal for Energy Local as the periods of highest generation is summer are also the periods of lowest demand.

For generators located within the more rural area, the local settlements could be targeted for consumer recruitment, but this might require a larger proportion of the local residents to join. This has proven to be challenging.

## Summary of renewable generation in this energy zone

Table 1 - Summary of larger renewable generators in the Welshpool Zone

	Number of Registered Schemes	Total Installed Capacity	Average Capacity (kW)	Estimated kWh Produced p.a	Approx Number of Homes p.a Equivalent
Hydro	3	210.5	70.2	842,000	211
Wind	10	683.4	68.3	1,366,800	342
PV >4kW	55	1266.4	23.0	1,013,128	253
<b>TOTAL</b>	<b>68</b>	<b>2160.3</b>	<b>31.8</b>	<b>3,221,928</b>	<b>805</b>

### 3. Actions to create a successful Energy Local Club

- Approach a wind or hydro generator in the Llanfair Caereinion part of this zone
- If a generator can be found, form a local group in the town to aid recruitment of approximately 50 Club members. The larger generators should be able to support a Club of at least this size
- Recruitment should target Llanfair Caerenion, but also not exclude the dispersed smaller settlements. However, experience has shown that it can be labour intensive to undertake the necessary promotion and recruitment across large, sparsely populated areas.
- A Club in Welshpool itself is likely to use solar PV as a generator and this generator would need to be large enough to have a suitable amount of export energy to serve the Club.

### 4. Overall assessment

An Energy Local Club is potentially viable but would likely be most viable in the Llanfair Caerenion area.

For Welshpool, a local group is potentially easier to form due to the higher population density. This would hopefully draw in local knowledge to identify if there are potential generators in this area. However, large solar PV would need significant export to make a Club viable and this might exclude any solar PV on dairy units, chicken sheds or industrial buildings as there is likely to be significant in site consumption reducing available export.

Overall this is quite a challenging zone to match the limited hydro and wind generators with the potential consumers. It can be done but would require significant effort directed toward consumer member recruitment.