Newtown

Energy Local Opportunities in Powys

The Green Valleys CIC

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The Newtown Energy Zone

1. Description

The Newtown Zone consists of three substation areas. The central area is a compact supply network to Newtown itself. Another relatively small zone to the south includes the industrial areas between Newtown and the new bypass road to the south, the settlement of Stepaside and the catchment of the Mochdre Brook. The final area is a large expanse to the east to the Welsh border, north to Abermule and south to beyond Dolfor.

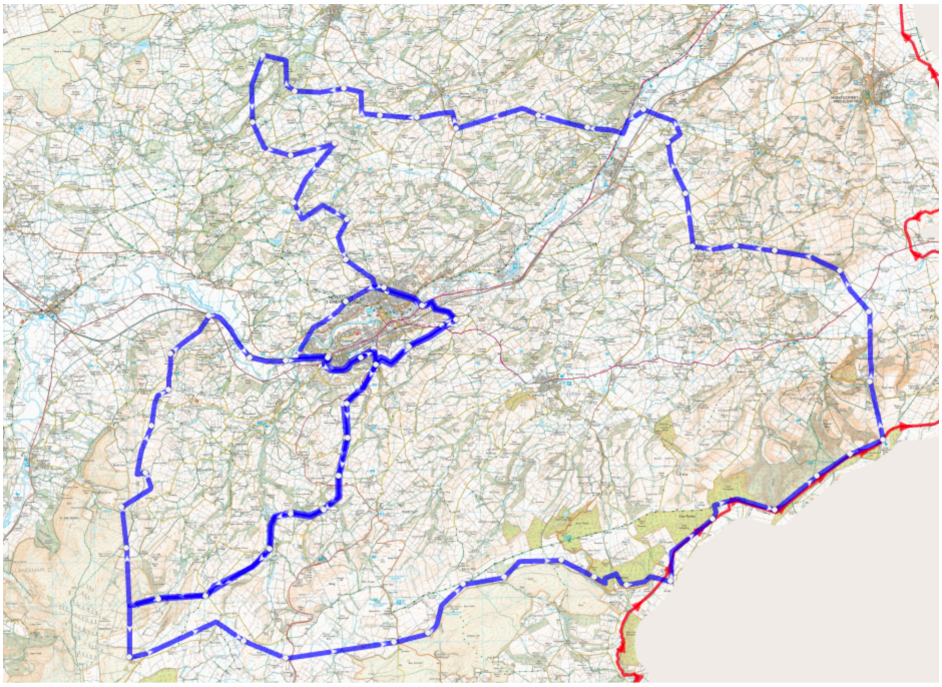

Figure 1 – Newtown energy zone map

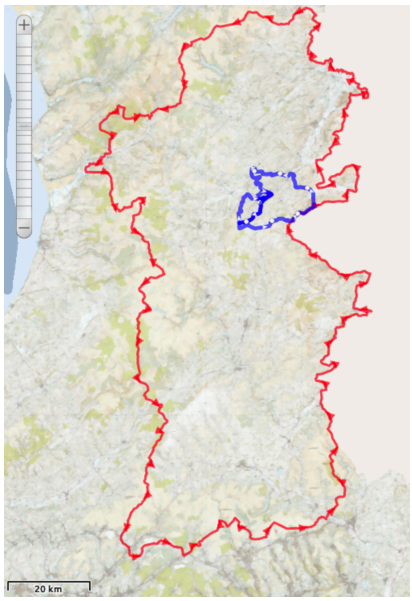

Figure 2 - Powys map

2. Potential viability of an Energy Local Club

The distribution network supplying electricity to Newtown is very compact and excludes all of the rural areas where either wind or hydro turbines are likely to be located. This effectively excludes the core part of the town from forming an Energy Local Club. There does not appear to be any large solar PV systems in Newtown, but if larger roof mounting systems are installed in future this might create an opportunity.

The zone to the south is also small, but it is possible that some wind is located here but more likely are some of the larger PV systems. There is quite a limited population in this zone as much of the electricity network here is supplying power to industrial units. Energy Local can work with a generator supplying to non-domestic customers but this has not yet been developed. It would however be something to consider in future.

The greatest potential lies within the large eastern area of this zone. It is likely that the wind generators are located here. The settlements of Kerry and Abermule would be potential locations with a large enough density of consumers to target for member recruitment.

Summary of renewable generation in this energy zone

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

	Number of Registered Schemes	Total Installed Capacity	Average Capacity (kW)	Estimated kWh Produced p.a	Approx Number of Homes p.a Equivalent
Hydro	1	90.0	90.0	360,000	90
Wind	6	122.0	20.3	244,000	61
PV >10kW	28	682.3	24.4	545,856	136
TOTAL	35	894.3	25.6	1,149,856	287

3. Actions to create a successful Energy Local Club

- Approach a wind or hydro generator and determine exact location
- If a generator can be found, form a local group in Kerry and/or Abermule to aid recruitment of Club members. There is some variability in the size of wind turbine and it is possible that some turbines might be too small to service the Club members.
- Any proposed large solar PV developments in the town should be engaged to promote Energy Local as a possible option to provide energy to the residents of Newtown.
- It would also be useful to locate any of the large PV systems to determine if any have enough export capacity to service an Energy Local Club. This might not be possible for solar PV on dairy units or chicken sheds, as typically much of the generation is used on site.

4. Overall assessment

An Energy Local Club is potentially viable but is likely limited to the large area to the east of Newtown. This would likely use a wind turbine and this can create some challenges in recruiting consumer members. Consumer membership would also be quite small due to the limited output of the small wind turbines.

If a solar PV system with enough export can be located, this is also a potential option but solar does not match well with the energy demands of consumers.

Overall the Newtown zone has quite limited potential for Energy Local.