

# Rhayader

**Energy Local Opportunities in Powys** 

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# The Rhayader Energy Zone

# 1. Description

The substation in Rhayader distributes energy to the town and a relatively large rural area of dispersed farms and homes. Rhayader is the only settlement of any size within the zone, which also includes significant areas of upland to the north, west and south of Rhayader.

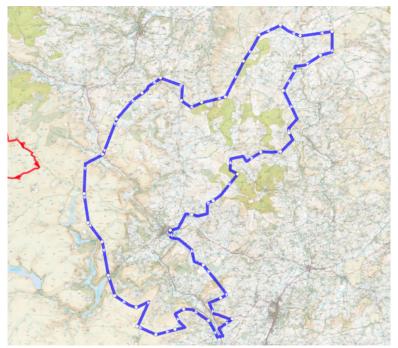


Figure 1 – Rhayader energy zone map

Figure 2 - Powys map

#### Potential viability of an Energy Local Club

There single large Hydro generator and only three small wind turbines in this zone. The wind generators are too small to support and Energy Local Club.

The only potential generator is the large hydro scheme. This could however support a relatively large club of consumers. The majority of the potential consumers are also all in and around Rhayader, which makes recruitment of members more straightforward.

There is potential for an Energy Local Club here, but it entirely relies upon successfully engaging with a single generator. As this has a relatively large output, it is possible that the owners of the scheme will already have a favorable Power Purchase Agreement in place. However, a strong case can be made to consider Energy Local due to the potential club size and ease of reaching significant numbers of potential customers in Rhayader.

Considering the size of this zone it is possible more hydro generators will be installed in the future which may offer additional opportunities.

## Summary of renewable generation in this energy zone

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

|         | Number of<br>Registered<br>Schemes | Total Installed<br>Capacity | Average<br>Capacity<br>(kW) | Estimated<br>kWh Produced<br>p.a | Approx Number of<br>Homes p.a Equivalent |
|---------|------------------------------------|-----------------------------|-----------------------------|----------------------------------|--|
| Hydro   | 2                                  | 206.0                       | 103.0                       | 824,000                          | 206                                      |
| Wind    | 3                                  | 46.0                        | 15.3                        | 92,000                           | 23                                       |
| PV >4kW | 6                                  | 61.2                        | 10.2                        | 48,984                           | 12                                       |
| TOTAL   | 11                                 | 313.2                       | 28.5                        | 964,984                          | 241                                      |

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

- Approach the large hydro generator and promote Energy Local
- If a generator can be found, form a local group in the town to aid recruitment of up to 150 Club members

#### 4. Overall assessment

An Energy Local Club is potentially viable but only if the single large hydro generator in this zone is willing to become involved. Local knowledge and contacts with the generator might be the best way to start a process of engagement.