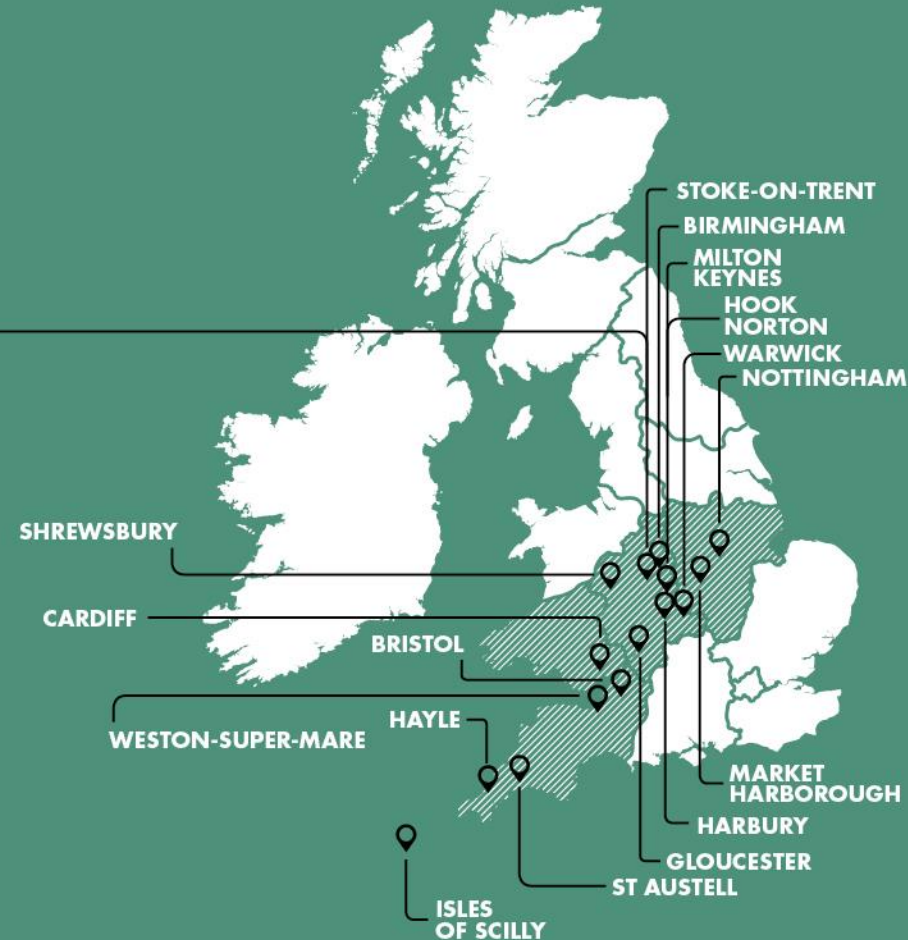


## NEXT GENERATION NETWORKS

COMMUNITY ENERGY ACTION  
LCNF WS6 16<sup>th</sup> Oct 2014

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## Background

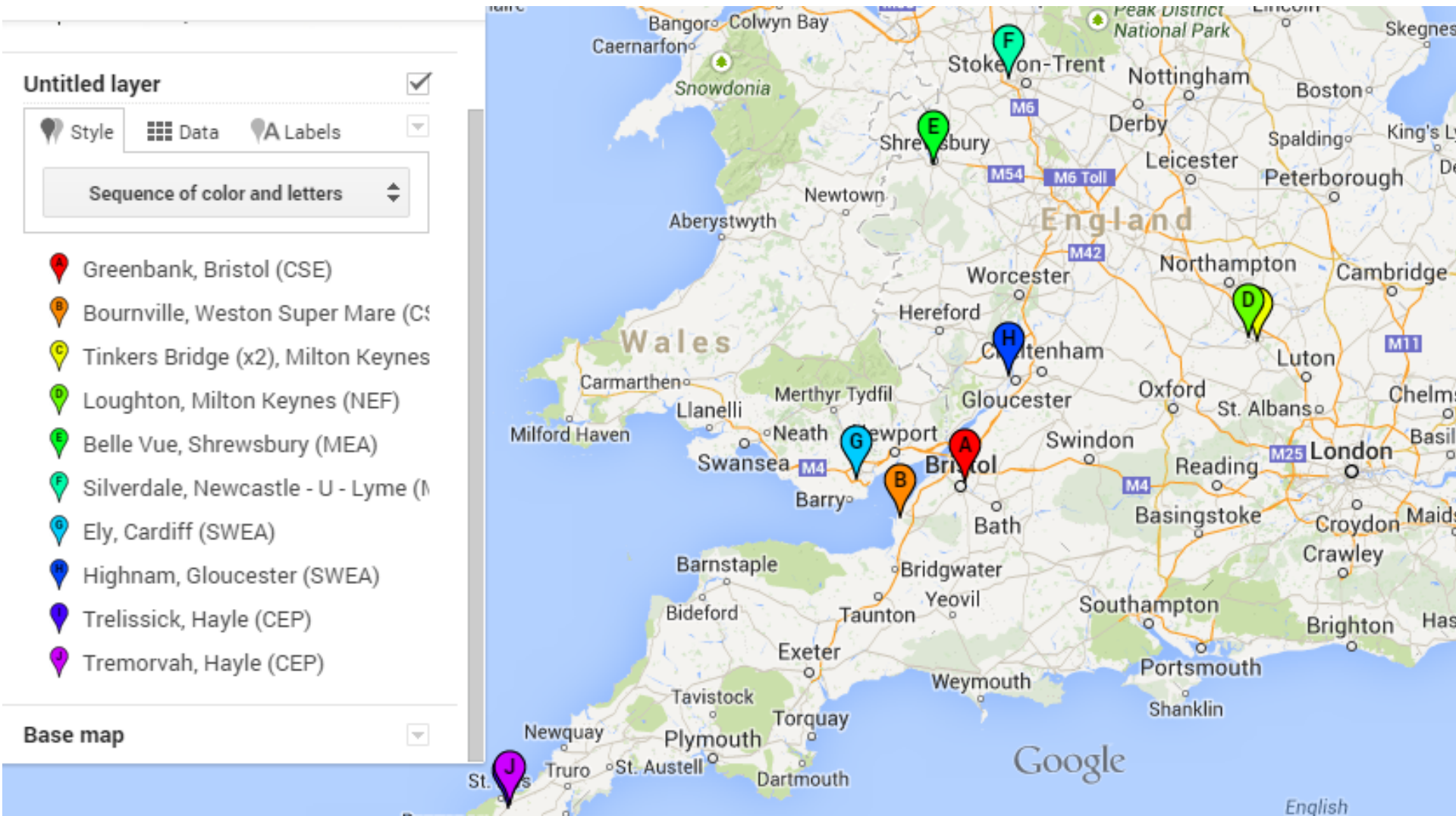
- Community level demand side response
- Working with 5 energy charities who engaged with 10 communities
- Measuring the demand at the distribution substation at 1 minute resolution with Gridkey LV monitors
- This is uploaded live to the web for each community to view
- Incentives were set high to try and encourage engagement



## Aims

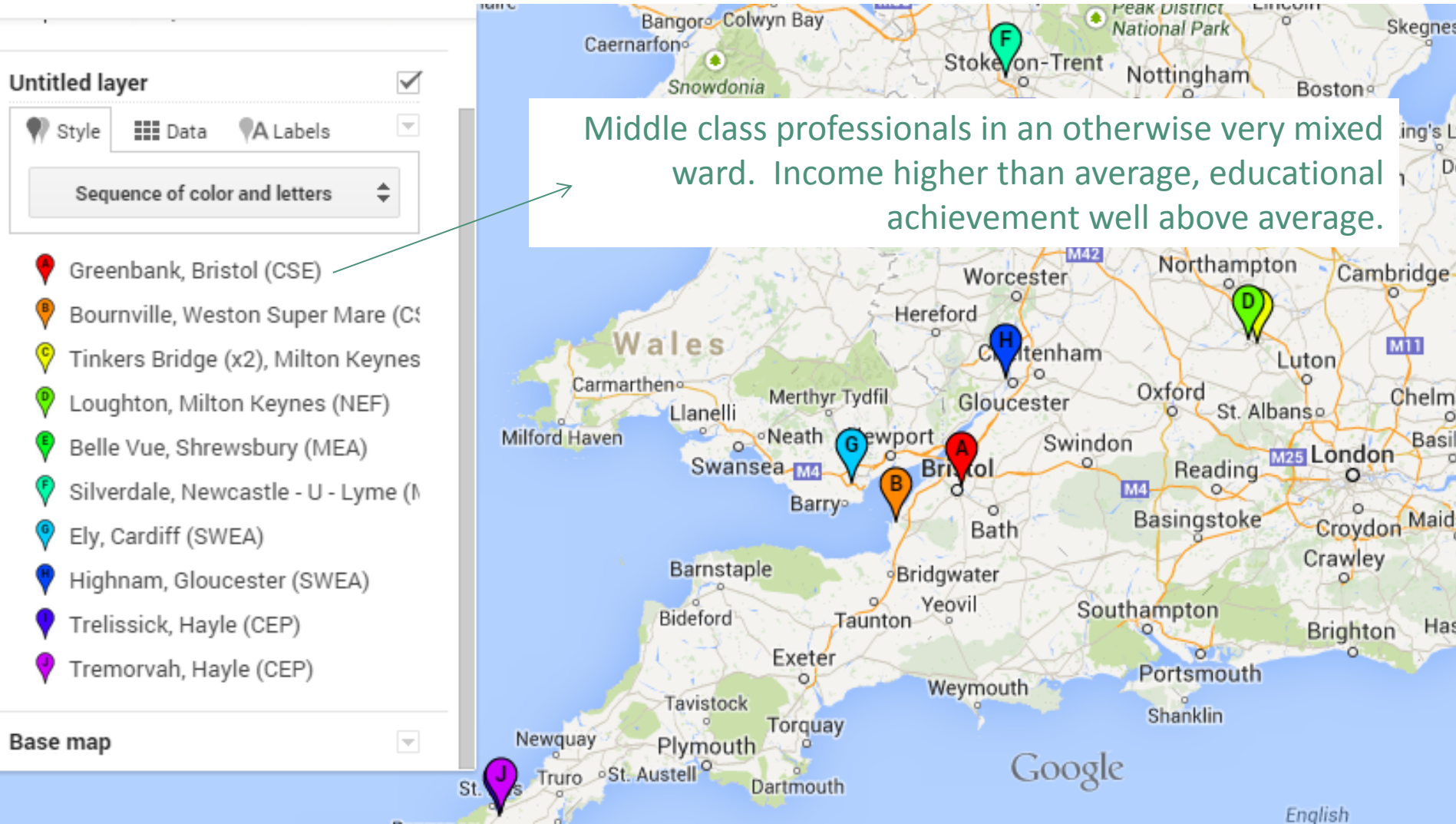
- Less technical interventions and a community focus
  - Effective engagement on a variety of communities
  - Aim is to demonstrate a statistically significant reduction in both peak demand and overall electricity consumption, compared with a baseline period.
  - Each 'community' could have earned up to £5,000 each over the 11 month intervention period.
  - Peak reduction and shifting to defer reinforcement was the primary objective. General energy reduction was also encouraged
  - 'Less is More' branding is used to engage with the communities
-

# Project communities

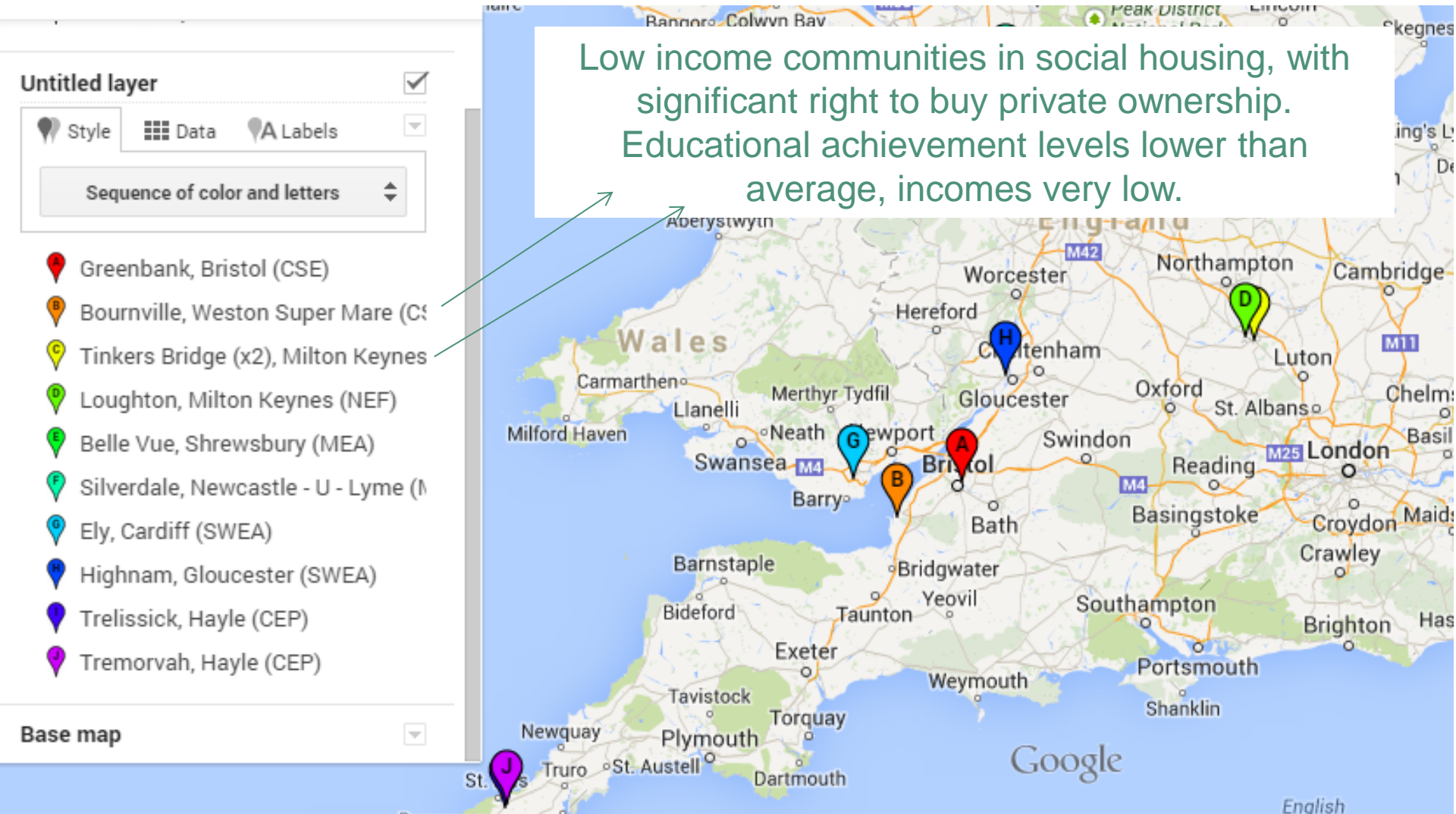




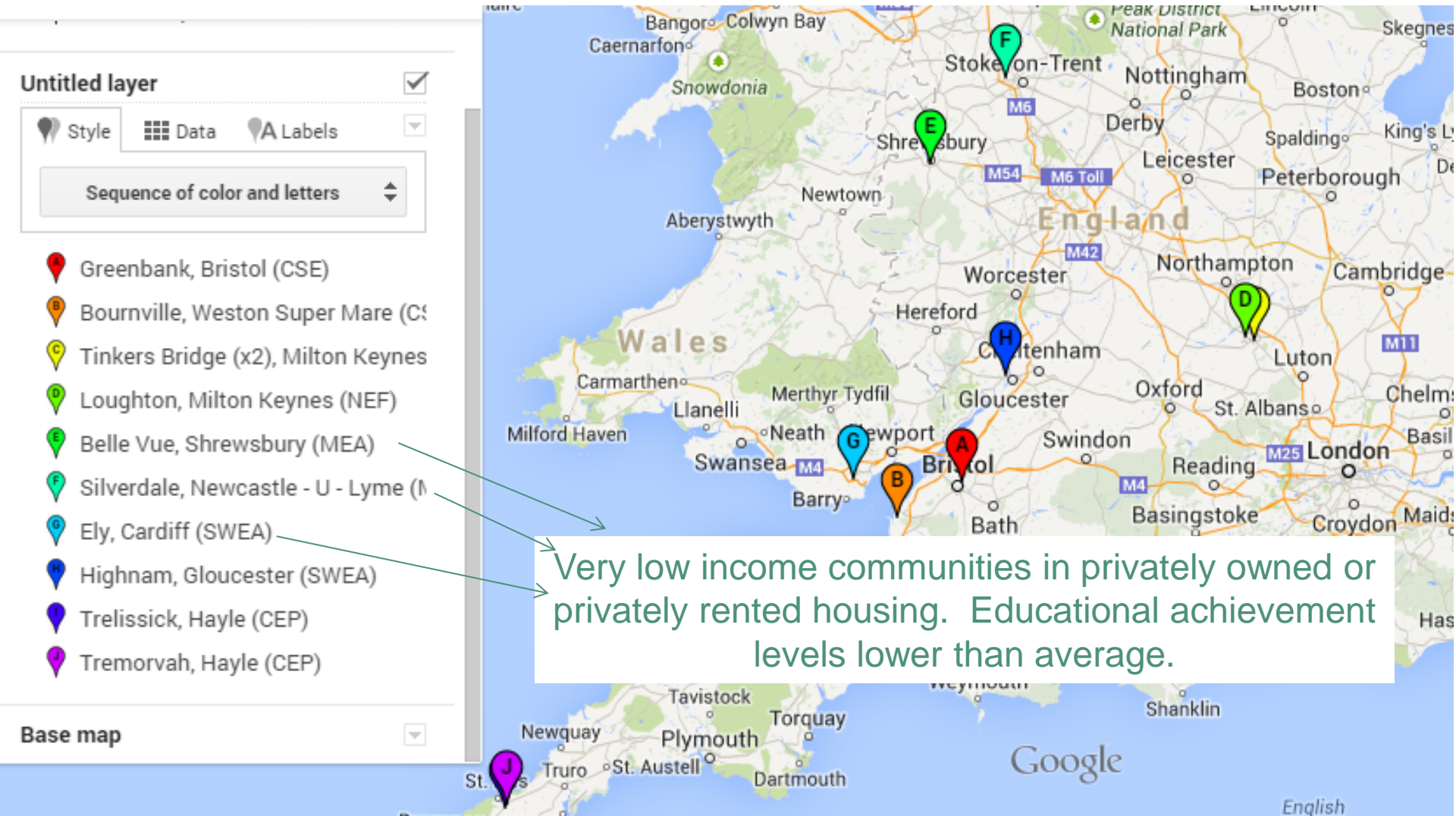
# Project communities



# Project communities

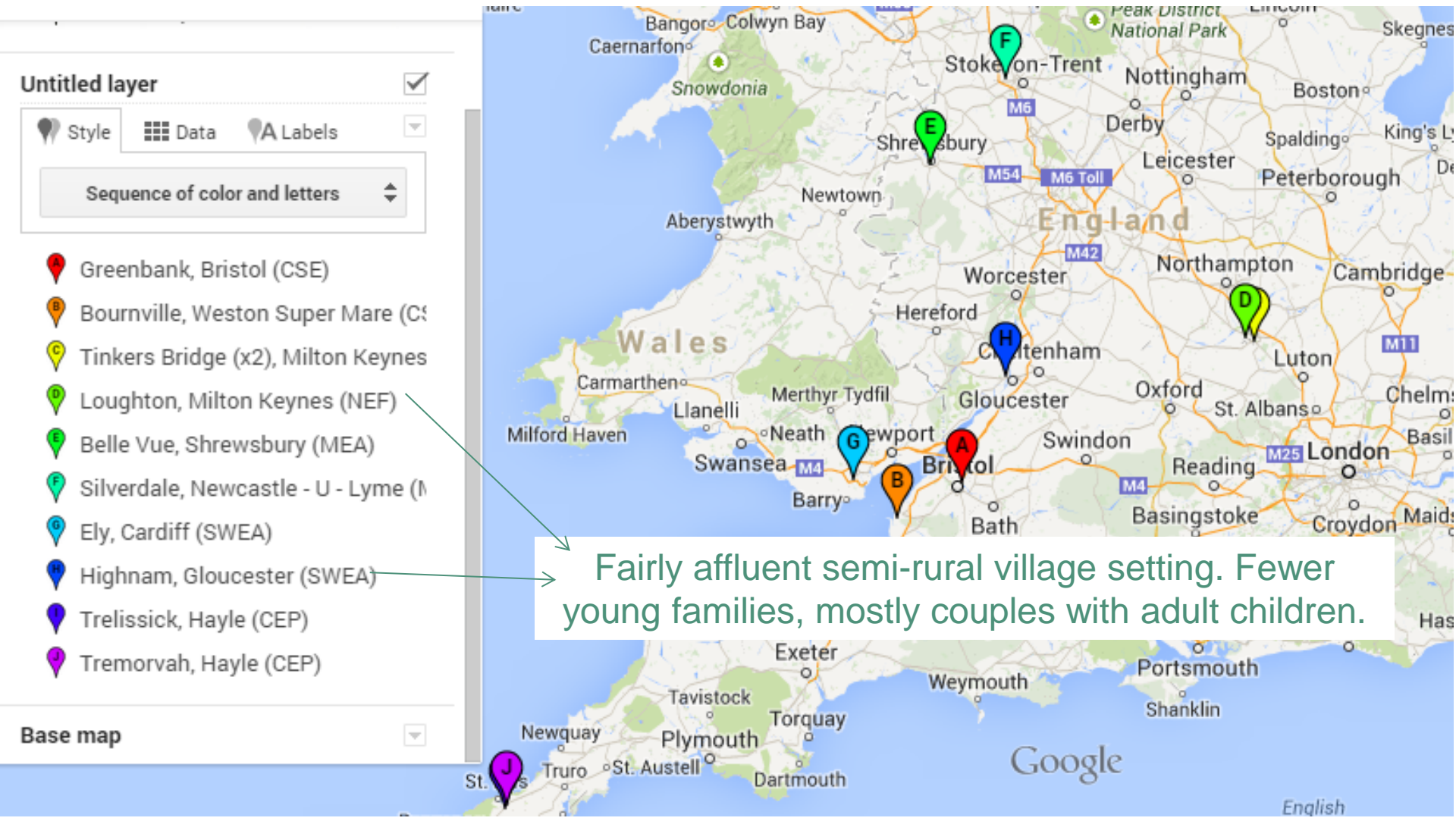


# Project communities



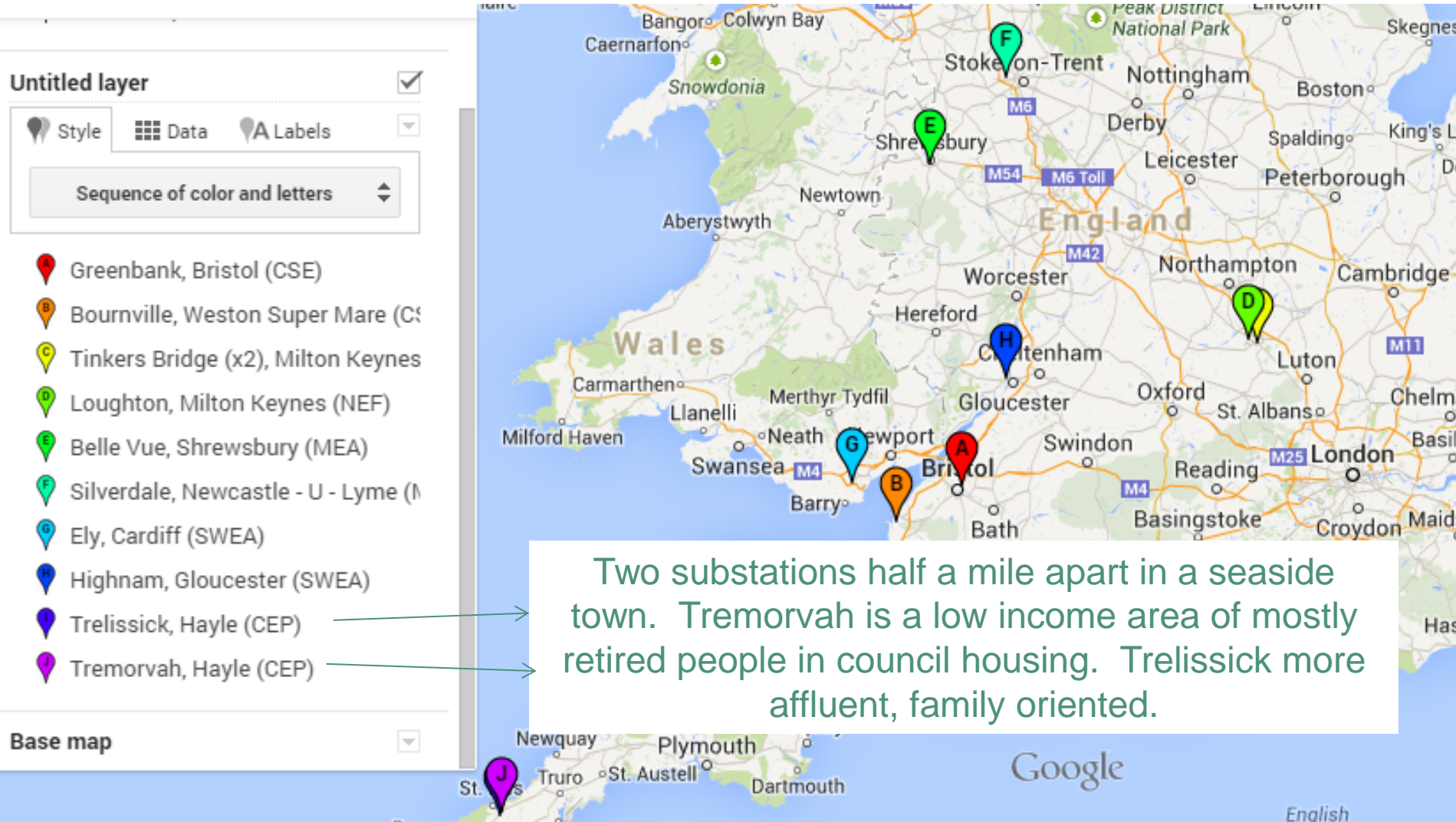


# Project communities





# Project communities



# Project website

## Less is more

23:25:32

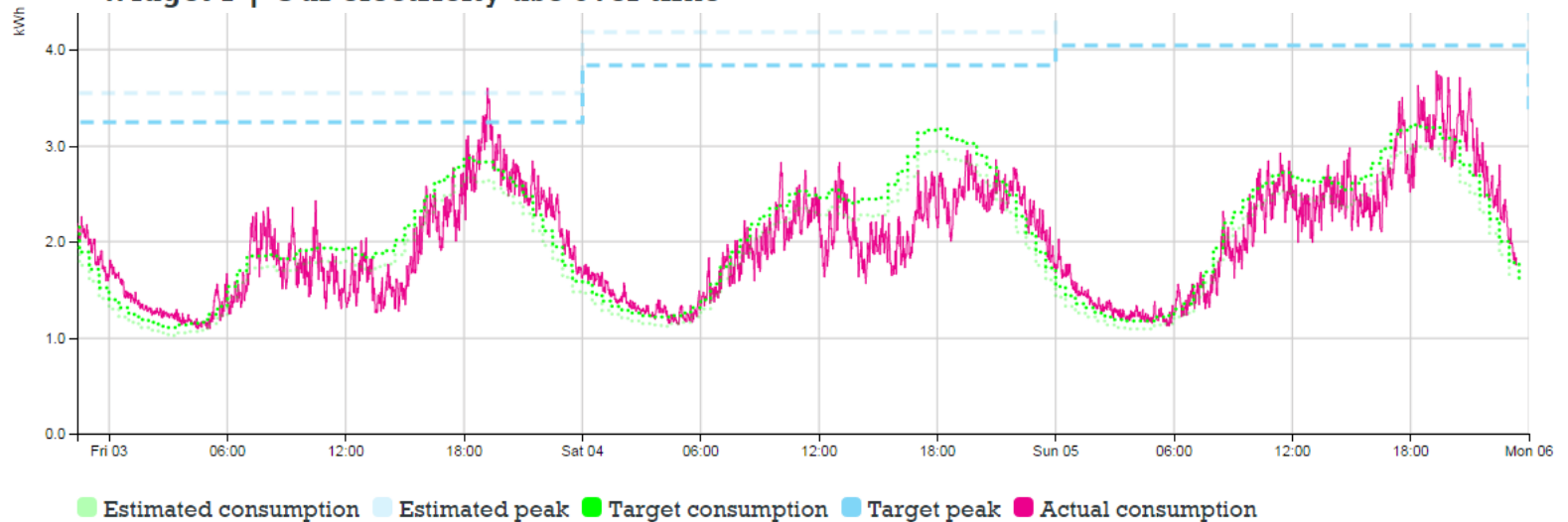
Helping communities win more by using less – minute by minute

### This is the data for **Ely, Cardiff**

Ely was once said to be among the largest council estates in Europe and is still one of the most deprived parts of Cardiff. It is characterised by interwar semis with a large proportion of single adult households. Around 350 homes are attached to the substation being monitored here.

Where is this substation? [Click to open a map.](#)

### Widget 1 | Our electricity use over time



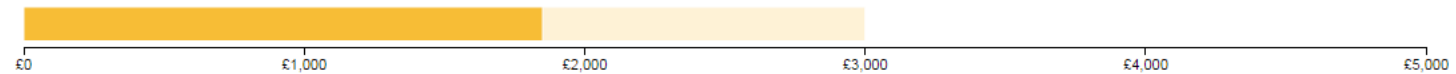
# Project website

## Widget 3 | How much money have we earned?

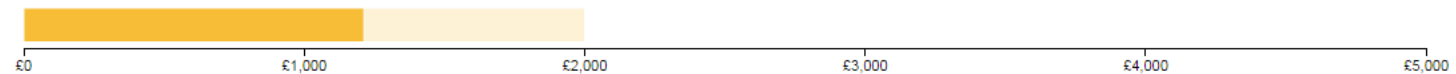
By reducing their electricity use and/or shifting it to off-peak times, the householders attached to this substation can earn up to £5,000 to improve the neighbourhood; the better they do, the more they earn. For more about how we calculate rewards, [click here](#).

The three yellow horizontal bars below show the rewards earned so far by this community for each of the two targets (reducing the demand peak and reducing overall consumption) plus the grand total.

Every time the peak of our daily energy use falls below the target level we earn **£9.32**. So far we've earned **£1850.32** from reducing our peak-time energy use.



We also earn **£0.00** for every unit of electricity (kWh) that we save. So far we've earned **£1213.38** by saving our energy.



So far we've earned a total of **£3063.69**.



If we keep this up throughout 'Less is more' we'll earn about **£3823.68** which we can spend on community facilities.



# Interventions

## Ely, Cardiff (SWEA)

- Pop-up stalls for 2-3 months. Large substation (350+) and useful pedestrian habits made this successful.
  - Door-knocking as part of wider community project funded by Welsh Govt.
  - Wash at 30 degrees campaign trialled here.
  - Ongoing use of newsletters and local volunteer 'conversations'
-

# Interventions

## Highnam, Gloucester (SWEA)

- Small substation, no central hall, no children at local school, strong 'anti-doorstepping' culture.
  - Initial doorknocking and leafleting coolly received, Neighbourhood Watch newsletter finally co-opted to get some traction. Wasted several months.
  - Pop-up stall and presence at wider village fete raised profile, helping gain acceptance.
  - Home visits now underway, results mixed.
-

# Interventions

## Silverdale and Belle Vue (MEA)

- Neither area has a central hub of any sort.
  - Attempted pop-up stalls and information trailers but no success at all.
  - Competition offering 5 homes a full LED makeover at approx £500 value attracted only 2 applicants
  - Peer to peer learning through coffee mornings is successful but slow
  - Home visits now being offered
-



# Interventions

## Loughton, Milton Keynes (NEF)

- Parish Council keen and supportive. NEF staff able to attend various village meetings and events.
  - Slow cooker event a success (emulated by some other communities).
  - Newsletter and doorknocking rather patchy, some local volunteers keener than others.
  - Wash at 30 degrees and home visits all trialled.
-

# Interventions

## Tinkers' Bridge, Milton Keynes (NEF)

- Recent history of poorly delivered solid wall insulation by housing provider has marred understanding and intention to participate.
  - '7 minutes at 7' switch off campaign being trialled here.
  - Tesco on substation very unhelpful – not participating and not taking leaflets etc.
  - Almost all intervention is on the doorstep and via newsletter.
  - Home visits now being offered.
-

# Interventions

## Trelissick and Tremorva, Hayle (CEP)

- Incredibly slow start here due to staffing changes at CEP.
  - Slow start not necessarily an issue – tourist town where 90% of activity seems to happen between June and September!
  - Unfortunately, a large tourist attraction is on this substation – impossible to really measure domestic changes against this.
  - Flurry of activity June-Sept has included slow cooker giveaways, door-knocking, several fairs and promoting autumn home visits.
-



# Interventions

## Bournville, Weston Super Mare (CSE)

- Smallest substation – 92 homes out of a broadly homogenous and bounded estate of 2,000+
  - Alliance Homes very supportive and central ‘Healthy Living Centre’ is very useful hub.
  - Doorknocking and leafleting hard work at first (intervention overload).
  - Support has concentrated on ‘barrier-busting’ – not “dry your washing outdoors” but “can we get you a washing line?”
  - Slow cookers and home visits – no focus on electricity.
-

# Interventions

## Greenbank, Bristol (CSE)

- Only community with an active residents' energy group (which hasn't proved all that helpful....)
  - Almost everyone out at work all day!
  - Helpfully located school provided good place for pop-up stall helping collate lots of baseline data on appliance use
  - Doorknocking, newsletters, email contacts
  - Slow cooker intervention here not at all successful.
  - Home visits beginning in October. Easton Energy Group to be trained and equipped to continue these.
-

## Lessons

The intervention period is not yet finished and there are a series of detailed interviews to be undertaken between December and February to gain qualitative data to add to what we learn from the substation monitoring.

However, we can already say that:



## Lessons

- The project was not long enough.
  - Intervention-overload can compromise speed of response in some areas.
  - The green deal, ECO, and solar salesmen can compromise responses in affluent areas.
  - Nobody knows what a DNO is, and they are likely to tar them with the same brush as an energy supplier - reputations need to be built first.
  - It's not beneficial to make the DNO's needs central to the support on offer.
  - The idea of the financial incentive has not been as much of a driver as we thought it would.
  - A substation does not make community.
-

## Conclusions

- Community interventions take a lot of time and effort
  - They are often more expensive than the traditional reinforcement options
  - The impact can be unpredictable and not necessarily reliable
  - It is difficult to gain the level of engagement to have a visible impact on demand
  - Engagement approach needs to be tailored to the community
  - However there are obvious benefits to the customers engaged with better understanding about energy
-

# Community Energy Action

Any Questions?

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