

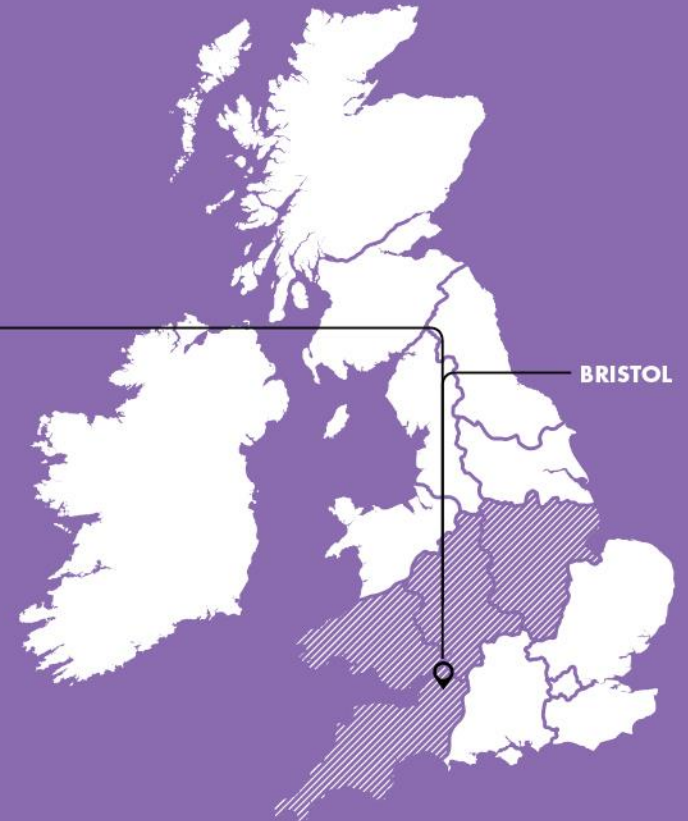
# PROJECT SOLA BRISTOL

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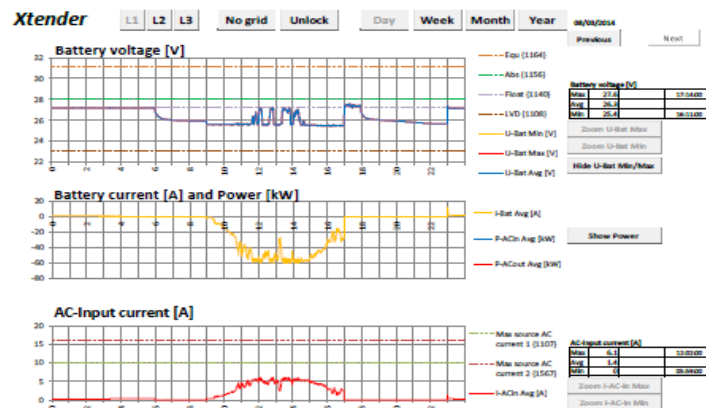
## Project Partners

- **Bristol City Council**
  - Deploying technology at their sites, engaging with schools and offices
- **Knowle West Media Centre**
  - Leading the domestic properties engagement
- **Siemens**
  - Designing and providing technology for the project
- **University of Bath**
  - Academic partner, Knowledge dissemination, tariffs and design



# Project Aims

- To solve the network problems which arise when a number of customers in a local area connect PV solar panels to their house
- Investigate how a battery installed in the home can help customers to manage their energy usage and save money on their bills
- Test how consumers respond when offered different electricity tariffs throughout the day
- Explore the benefits of supplying electricity by direct current (DC), rather than the traditional alternating current (AC) and the impact on power quality.



# Integrating

- Distributed Solar-PV
- DC storage / DC micro-grid

# Enabling

- On-demand export to grid  
(Tariff/Voltage/Thermal/Surplus)
- Load shifting from AC to DC
- DC lighting & computing
- Partial grid independence
- Sub-station monitoring



# Recruiting Customers:

## Challenges:

- Lack of interest – People who don't want to be involved.
- Interested but not applicable – People who want to be involved but do not fit criteria.

## Solutions:

- Use of KWMC provided a trusted partner to negotiate involvement.
- Target those who are already interested in similar projects.
- Have back up options for those who can't be involved.



# Communicating with Customers:

- Know your audience – Vitally important to consider the language, and level of understanding.
  - Work with trusted partners to gauge the style of documents appropriate for the consumers.
  - Provide a wide range of methods for getting in touch.
  - Provide adequate details about who is who, and inform in advance if there will be changes.
  - Treat consumers as partners, involve them in the process so it becomes a collaboration, rather than something that is being done to them.
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# Who Leads?

- Dependent upon the audience.
  - Always a try to use a familiar and trusted partner.
  - In our experience domestic customers responded well to KWMC, but were less enthused by BCC.
  - In contrast the schools were familiar with BCC so they were better placed to take the lead here.
  - Always respond to the customer, if the relationship isn't working look for alternatives.
  - Whoever you chose, make sure everybody is clear about the chain of communication.
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# Learning: Customer Uptake

- Customers have different motivations for getting involved, consider these and work out how to tap into these.
- Incentives may help, but could bias the range of participants involved.
- Do not recruit until you are ready, maintaining interest in a research project can be hard when there are delays.
- Honesty is vital, be upfront about the Research and Development nature of the project.

**Be Green**

**Save Money**

**Gain PV**

**Community**



# Learning: Customer Reaction

## Reactions vary:

Some care, some are interested, and some forget about the project – some are only involved for freebies and then they stop being interested.

## Dealing with unhappy customers:

Importance of letting them express their opinions, and then exploring solutions together. As ever ***customer is always right.***

Keeping engaged, providing info, and opportunities to contribute will lead to better reactions, especially if there are delays or issues.

## Community:

In community projects participants often talk to each other so it is important that responses to situations are consistent.

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# Learning: Behaviour

**Customers are individuals – some changed, some have not.**

A number of customers report changes in behaviour towards energy;  
e.g. Switching lights off, doing laundry when it's sunny to gain the benefit of PV.

Some customers have learnt a lot about their systems and have become advocates for the project.

## **However**

A number of customers continued as normal, have not shown behaviour change and are often uninterested in their energy solution.

## **Customer Risks**

Component Failure/ Excess costs

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# Learning: Attitude

Project attitudes have fluctuated during the project, negative attitudes were more frequent when there are delays or unexpected disruptions.

Attitudes towards energy have changed for some customers with some commenting on changing their energy supplier now that they are more aware of their use.

## **Solutions:**

- Honesty is important
  - Offer temporary solutions
  - Often just a chance to have a chat about the project and being reminded of their monetary savings was enough to change a customers attitude.
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# Effective Incentives:

## **Early Stages:**

Incentives were not used as a method for recruiting – recommendation by KWMC to ensure people took part because they were interested in the project, not the reward.

## **Maintaining Interest:**

The promise of the tablet has proved to be useful for engaging some of the customers. Reinforcing the money saved by Solar PV and potential saving due to batteries has also acted as an incentive.

## **Disruption:**

Providing compensation to unanticipated disruption has helped.

## **Media:**

For some, contributing to official reports and media has provided an additional incentive.

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# Complaints: Delays & Disruptions

## **Delays:**

Project delays have emphasised the importance of honesty and communication with the customers.

***Solution:*** *Be honest about the delay, where possible provide details about next stages.*

## **Disruption:**

Repeated access to homes could have caused complaint.

***Solution:*** *KWMC worked hard to provide up to date details to customers, working with them to find suitable dates and providing contact methods.*

## **Unexpected Changes:**

In some cases adaptations were made to the customers homes – e.g. light fittings.

***Solution:*** *Vouchers were provided to the customers to enable them to purchase new light fittings.*

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## Participant Feedback

- “I haven’t used the tablet for months as it has never worked properly... but since May I’ve been saving at least £5 a week on electric. I used to put on £60 a month and now put on £40.” House 18
  - “I look at the tablet almost every day now and it’s quite useful,” House 06
  - “When they disconnected the solar panels to put the box in I noticed our energy use went right up – so it’s definitely saving us.” House 10
  - “ I’ve never managed to see anything on the tablet. It only worked for a short time. I’ve always been a low user, so haven’t seen much difference.” House 21
  - “Our power went off as the meter had run down but we didn’t realise as the lights were still on... It shows the panels are saving us.” House 30
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# SoLa Bristol



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Bristol  
Solar energy when you need it  
**Any Questions?**

