

SAVE project

Trial Design

June 2019



Project methodology

- Household level interventions and monitoring
 - Three trial periods to test multiple interventions
 - TP1: January 2017-March 2017
 - TP2: October 2017-March 2018
 - TP3: October 2018-December 2018
- Community level interventions with substation monitoring
 - January 2016-December 2017

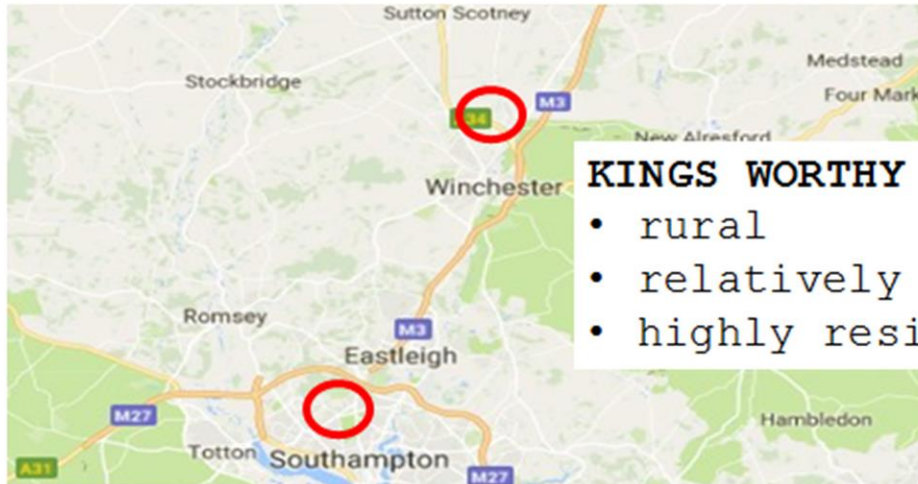


Methods – household level

- Four trial groups (including 1 control, 3 treatment) to test three methods:
 - Energy efficiency
 - Data informed engagement
 - Data informed engagement + price signals
- Electricity consumption monitored at household level for all
- Focussed on customer engagement and energy efficient technology to reduce peak electricity consumption



Methods – community level



KINGS WORTHY

- rural
- relatively advantaged
- highly resilient

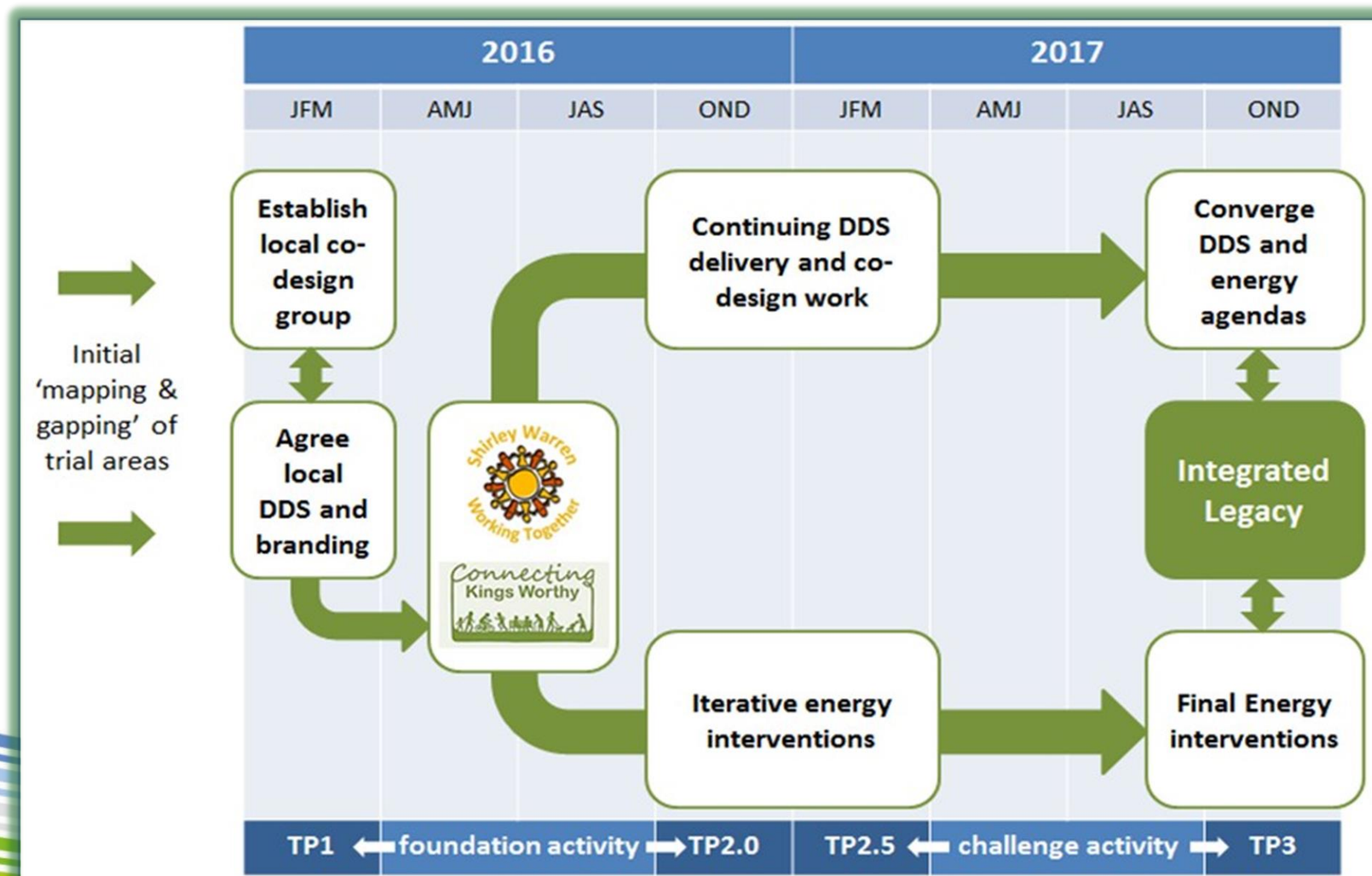
SHIRLEY WARREN

- urban
- relatively disadvantaged
- not so resilient



- 2 communities
- 9 stakeholders

Methods – community level



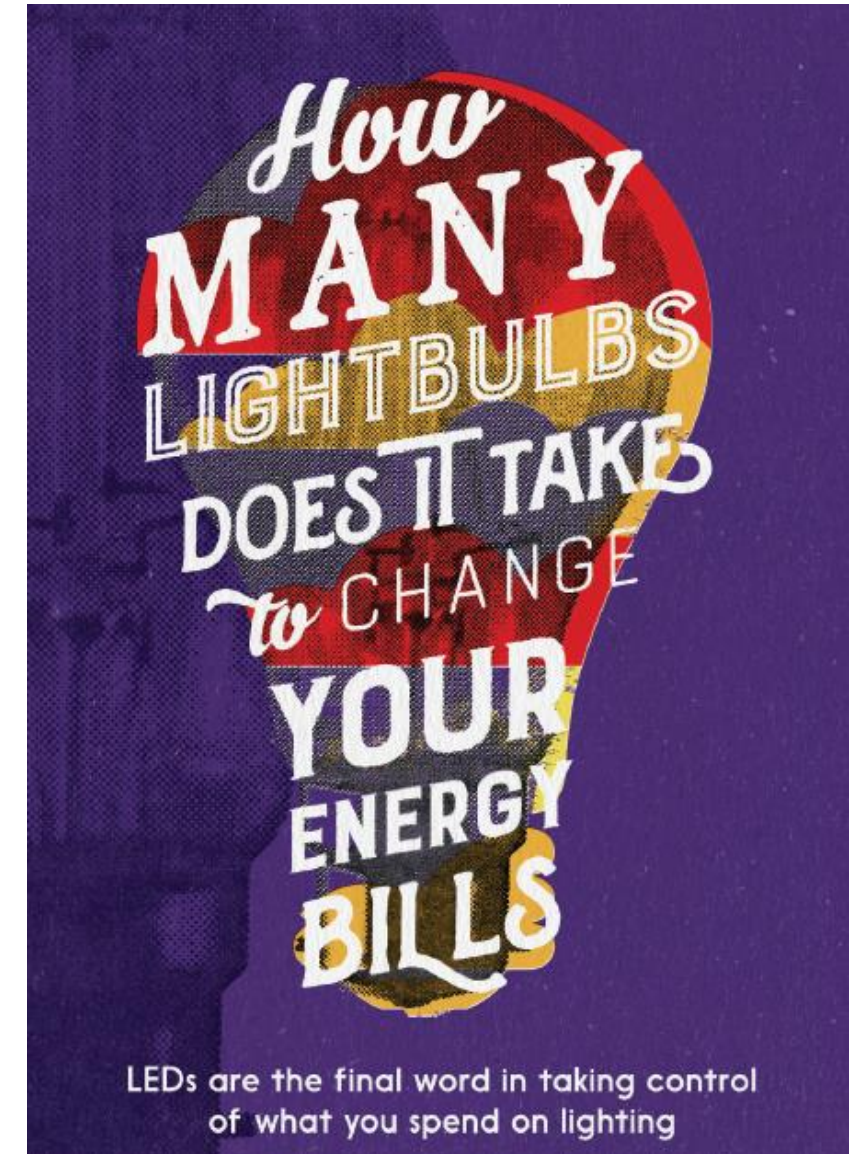
- Direct collaboration with communities
- Seeking more sustainable impacts
- Stackable benefits for stakeholders

Literature review

- Reviewed and analysed previous energy efficiency projects using the Cabinet Office's 'MINDSPACE' framework
 - Customer education required
 - Trusted messengers
 - Financial incentives generally need to be large and impacts are generally not sustainable over time
 - Comparisons
 - Opt-out vs. opt-in
 - Novel techniques to capture attention
 - Balance between negative ('waste' or 'loss') and making customers feel good about themselves

Trial period 1 – LED lighting

- Offered discounted LED bulbs via postal voucher
 - Reminder postcard sent 3 weeks later
- Participants could purchase from a SAVE-specific web-store
- 20% discount
- Tested an 'opt-in' approach



Trial period 1 – Engagement

- Tested if customer education and engagement could be used to *shift* electrical consumption to outside the peak period
- Materials focused on educating customers about the role of a DNO and why electricity use peaks in the evening
- Asked customers, “can it wait ‘till after eight?”
- Offered specific ideas, such as:
 - Waiting until after 8 to run the dishwasher or washing machine
 - Using the timer function to run appliances at non-peak times
- All materials delivered by both post and email
- One ‘event day’ where customers were asked to reduce load by 10%



**IT WOULD REALLY HELP TAWANDA
IF YOU COULD USE LESS ELECTRICITY
BETWEEN 4PM AND 8PM**

Trial period 2 – LED lighting

- Direct install of LED bulbs in customers' homes at no cost
- Project installed up to 10 bulbs per household
- Targeted fixtures in the most used areas and with the least efficient bulbs
- Removed old bulbs
- Initially offered via post
- SAVE staff followed up with phone calls and site visits to schedule an installation appointment



Trial period 2 – Engagement



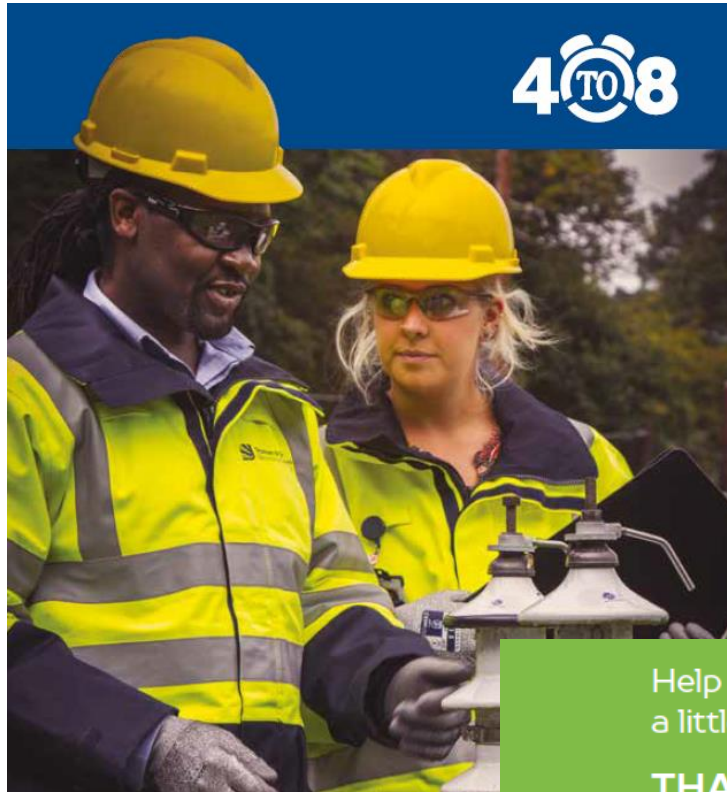
- Tested if customer education and engagement could be used to *cut* electrical consumption during the peak period
- Initially sent a 'welcome pack' with a booklet, pencil, notebook and pack of sticky notes
- Notebook provided ideas on how to cut electricity use
- First half of trial only used postal communication
- Second half used email and online messaging

Trial period 2 – Engagement

- Asked customers to reduce their consumption by a set percent on specific 'event days'
- One group was offered a monetary reward to do so
- Events were advertised by postal mailers in the first half and emails and online notifications in the second half



Trial period 3 – Events



- Tested if 'event days' could be run as standalone events
- A possible BAU approach: low cost and quickly deployable
- Tested postal, email, online notification and text notifications

Help us keep the power flowing and try to use a little less electricity from 4 to 8 this week.

**THANK YOU, FROM YOUR LOCAL
ELECTRICITY NETWORK.**



Past ToU projects



- Supplier led time of use
- Increase solar consumption
- 10% shift from 10:00-16:00
- Low participation



- Supplier led ToU and CPR.
- 8-10% reductions
- Early-adopters

2015

2016



- Representative sample
- CPR 'Event' based
- 0-6% reduction
- Banded price signals...

2019

2018

2017



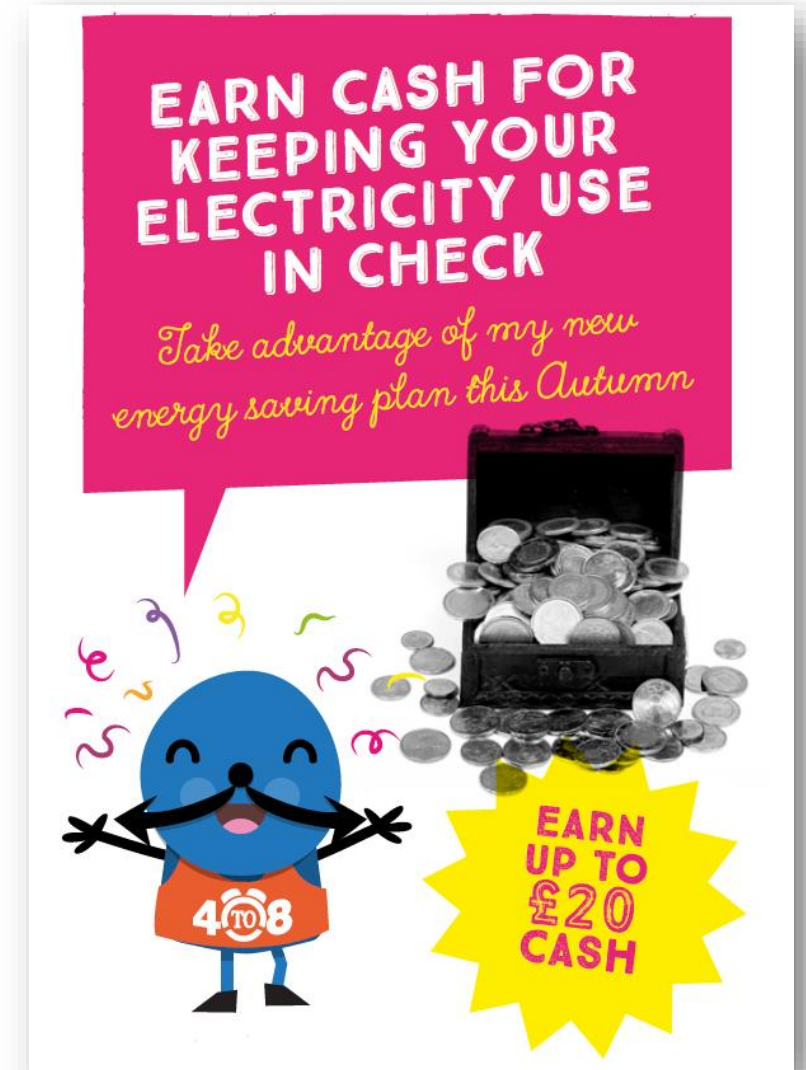
- Gamification
- 11% reduction
- Geographical issues



- Vulnerable Customers
- Time-of-use 'bonus time' tariff
- 1.5% reduction

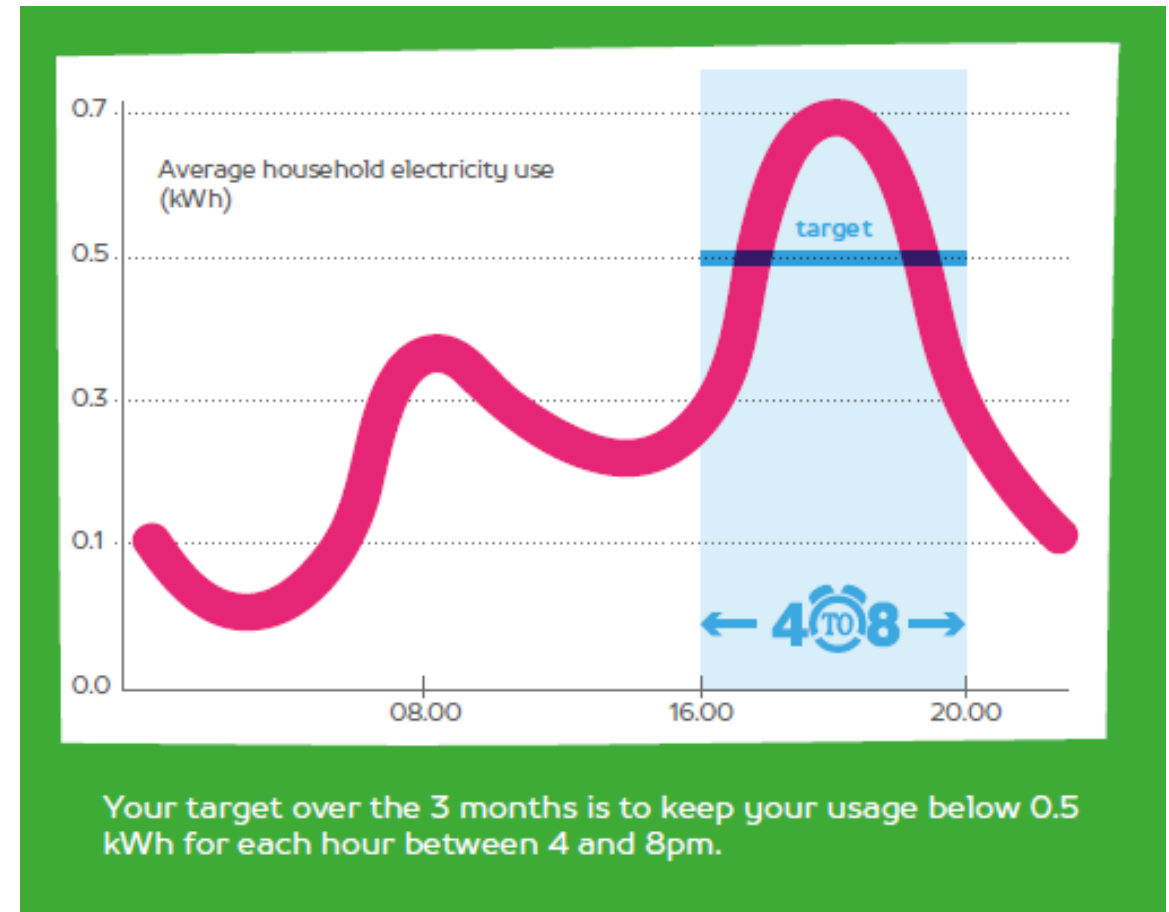
Trial period 3 – Banded pricing

- Tested a dynamic tariff strategy that paid participants for every hour they could keep their consumption below a custom threshold
- Paid customers £0.10 for every hour they could keep their consumption below a customised threshold, up to £20
- Halfway through the trial this increased to £0.30 per hour and a maximum of £50
- Two groups: one opt-in and one opt-out
- The approach was set up to replicate what a DNO or third party (not an energy supplier) could do outside of charging mechanisms, for example in a Constraint Managed Zone

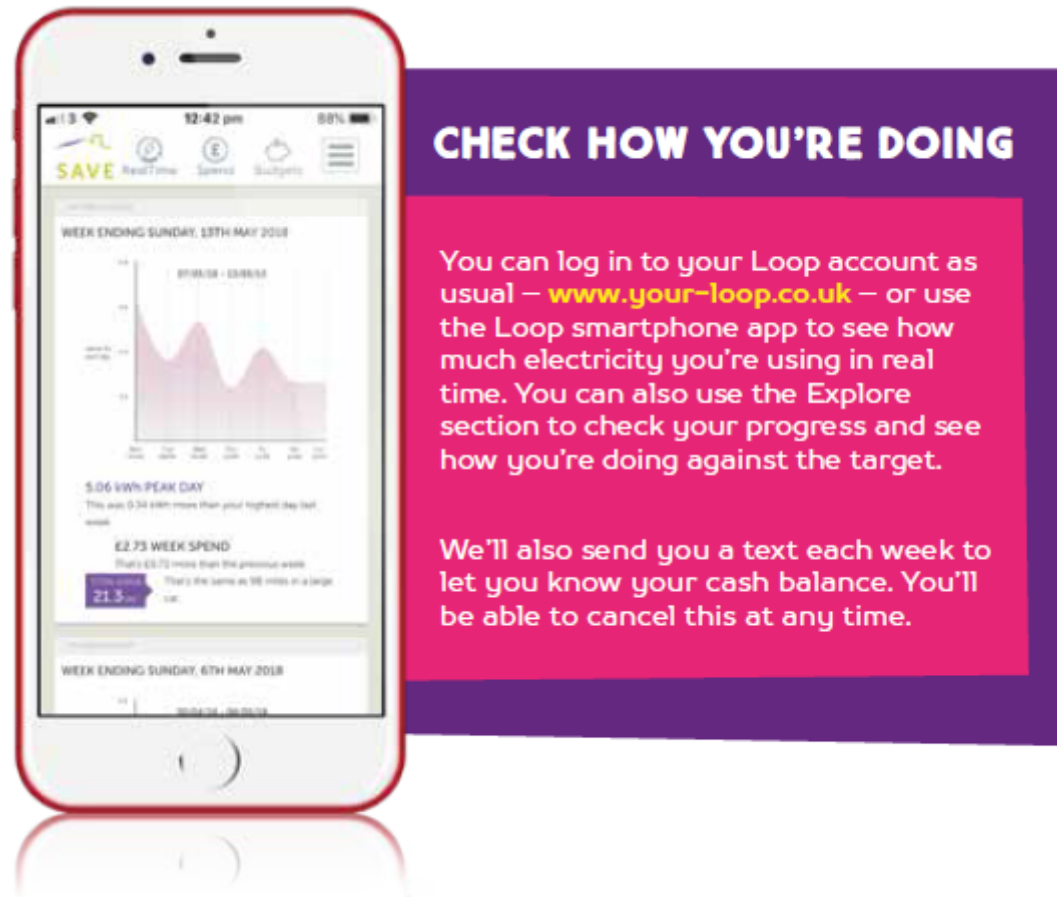


Trial period 3 – Banded pricing

- Each participating household was assigned a custom threshold based on past consumption
- Motivating but reasonable
- Peak hours only



Trial period 3 – Banded pricing



- Participants could track their energy consumption online or through an app
- Balance updates were sent weekly via text message
- At the end of the trial period, participants were sent a cheque for their total balance

Key take-aways

- Greater take-up from opt-out approaches
- 'Shift' received as a new and novel message
- Postal engagement reached the largest audience
 - Distinguish from junk mail or bills (pink envelopes)
- Avoid sending the same materials through multiple channels (email, post, app)
- Balance between reminders and messaging fatigue
- Stakeholder enthusiasm to participate at community level

Thank you

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