

SAVE Project

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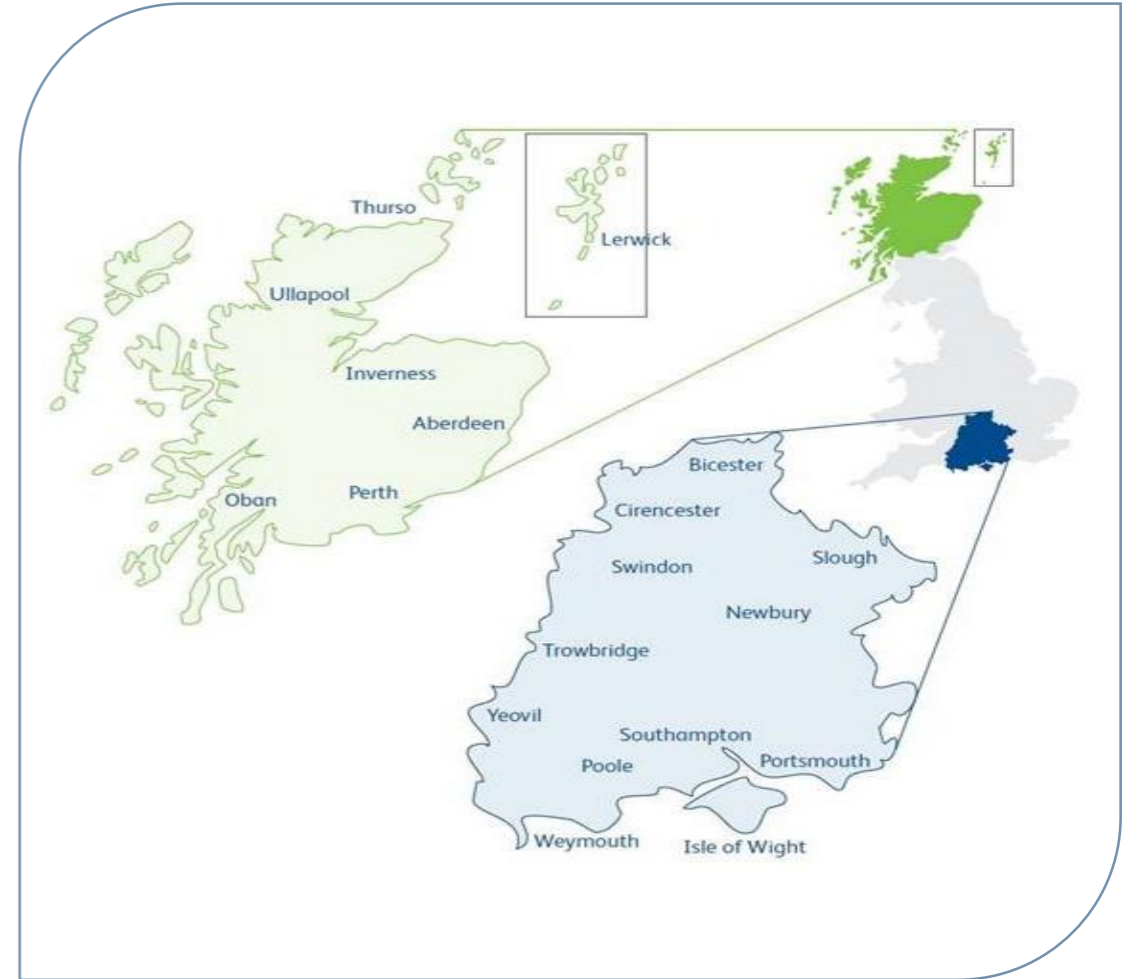
Scottish & Southern
Electricity Networks

SSEN overview

Scottish and Southern Electricity Networks owns:

- two electricity distribution networks
- one electricity transmission network
- +100,000 substations
- +130,000 km of overhead lines and underground cables
- +100 submarine cable links

We serve 3.5 million customers across one third of the UK's landmass.



Our Innovation Portfolio



Demand Side Management



Energy Storage



Active Network Management



Constraint Managed Zone



Low Voltage Strategy

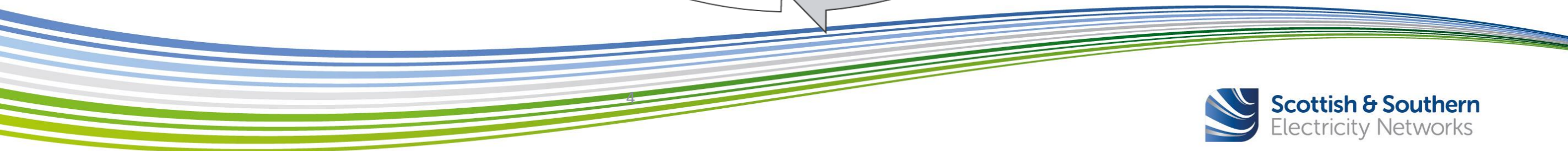
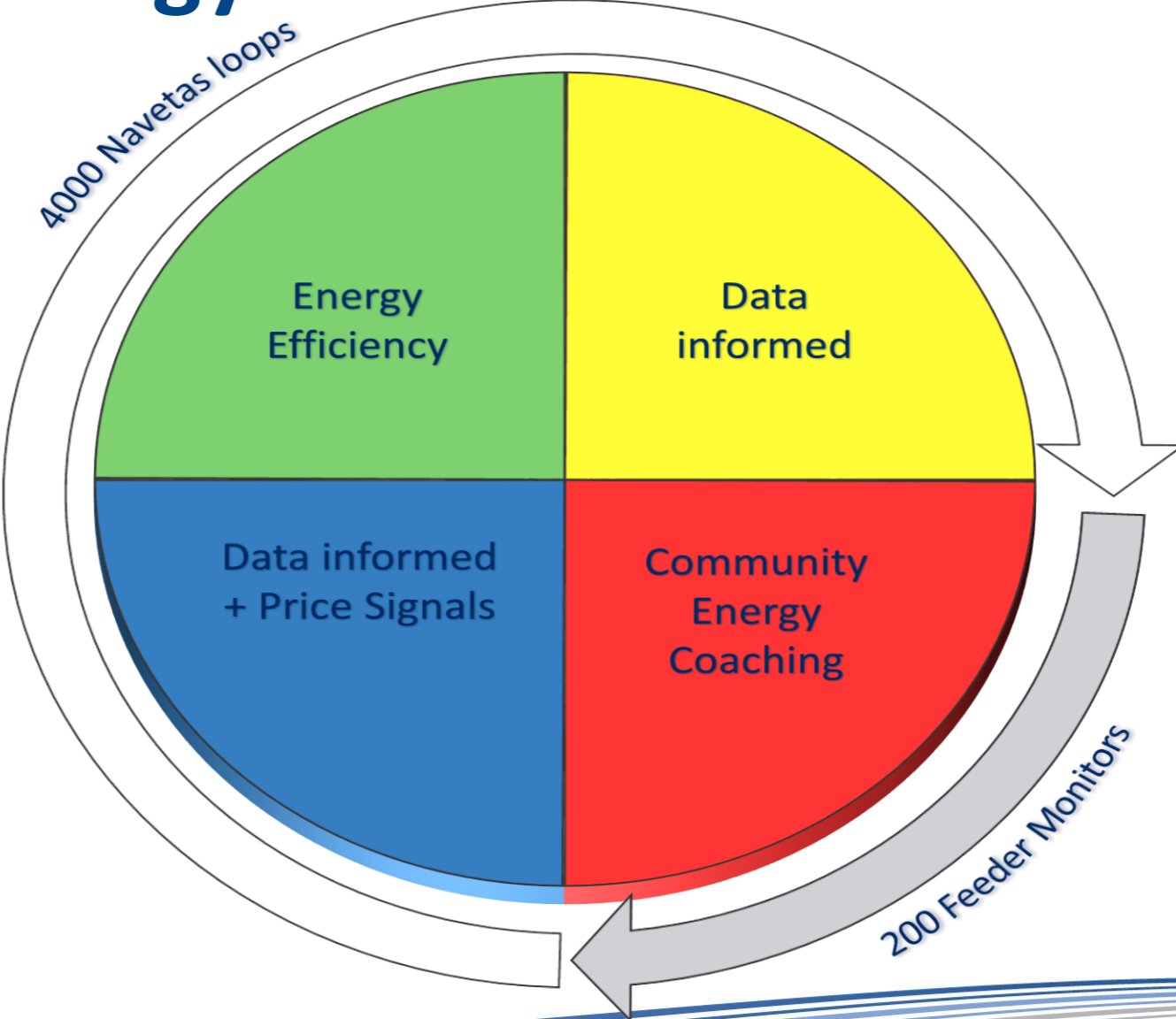


Distribution System Operator



Customer Benefits

SAVE Methodology



Price Signals



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



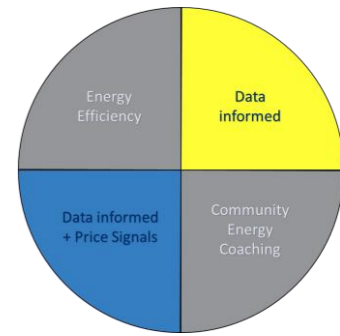
- Representative sample
- CPR 'Event' based
- 3% reduction
- No difference in price and data alone



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

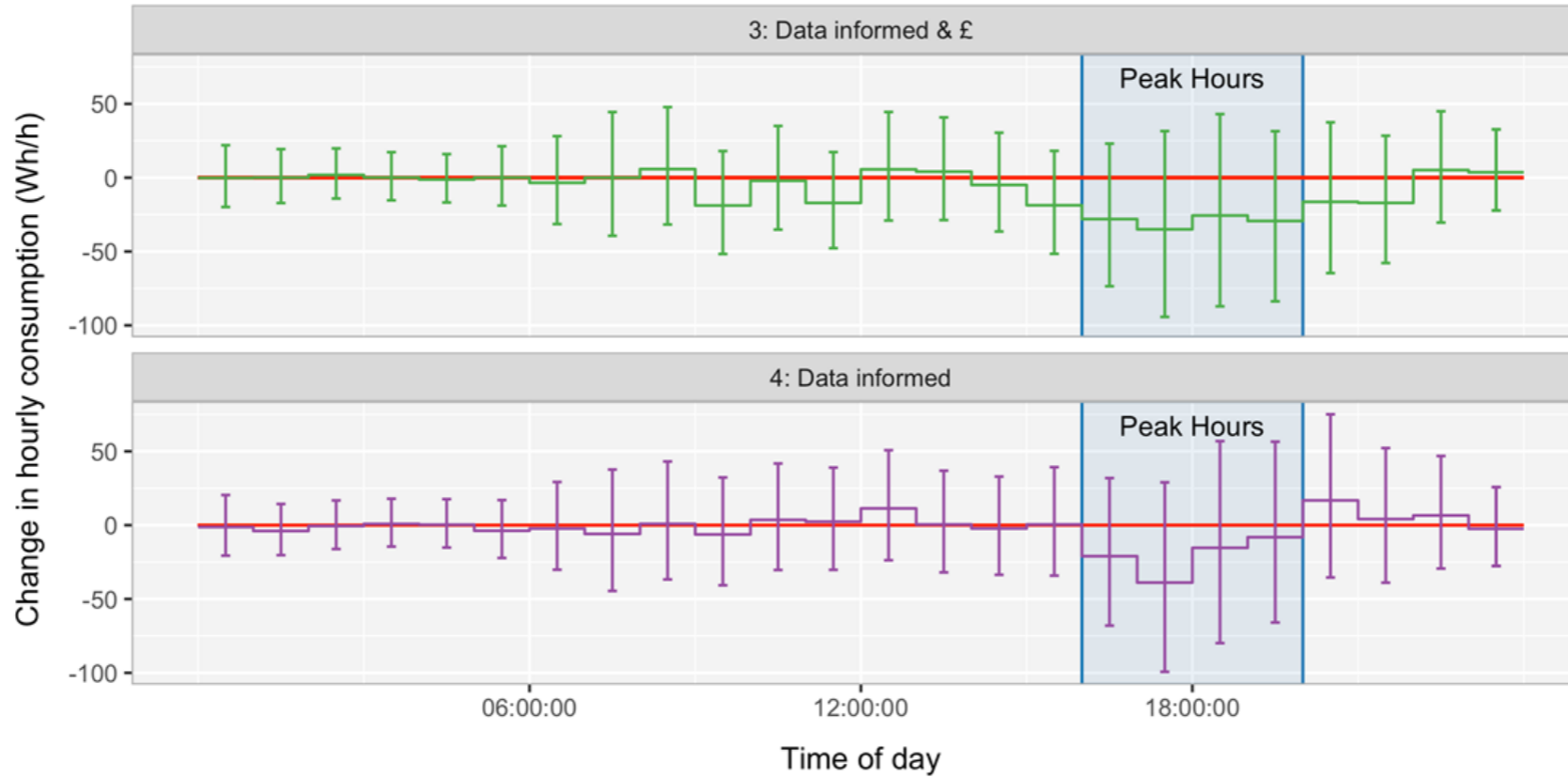
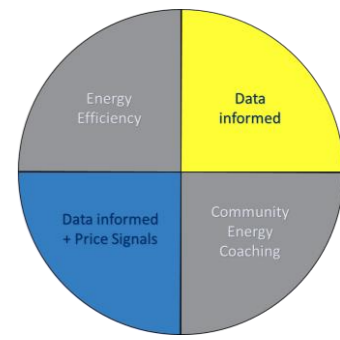


- Vulnerable Customers
- Time-of-use 'bonus time' tariff
- 1.5% reduction



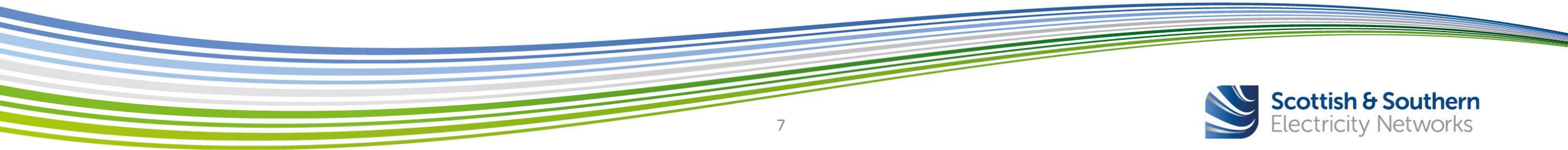
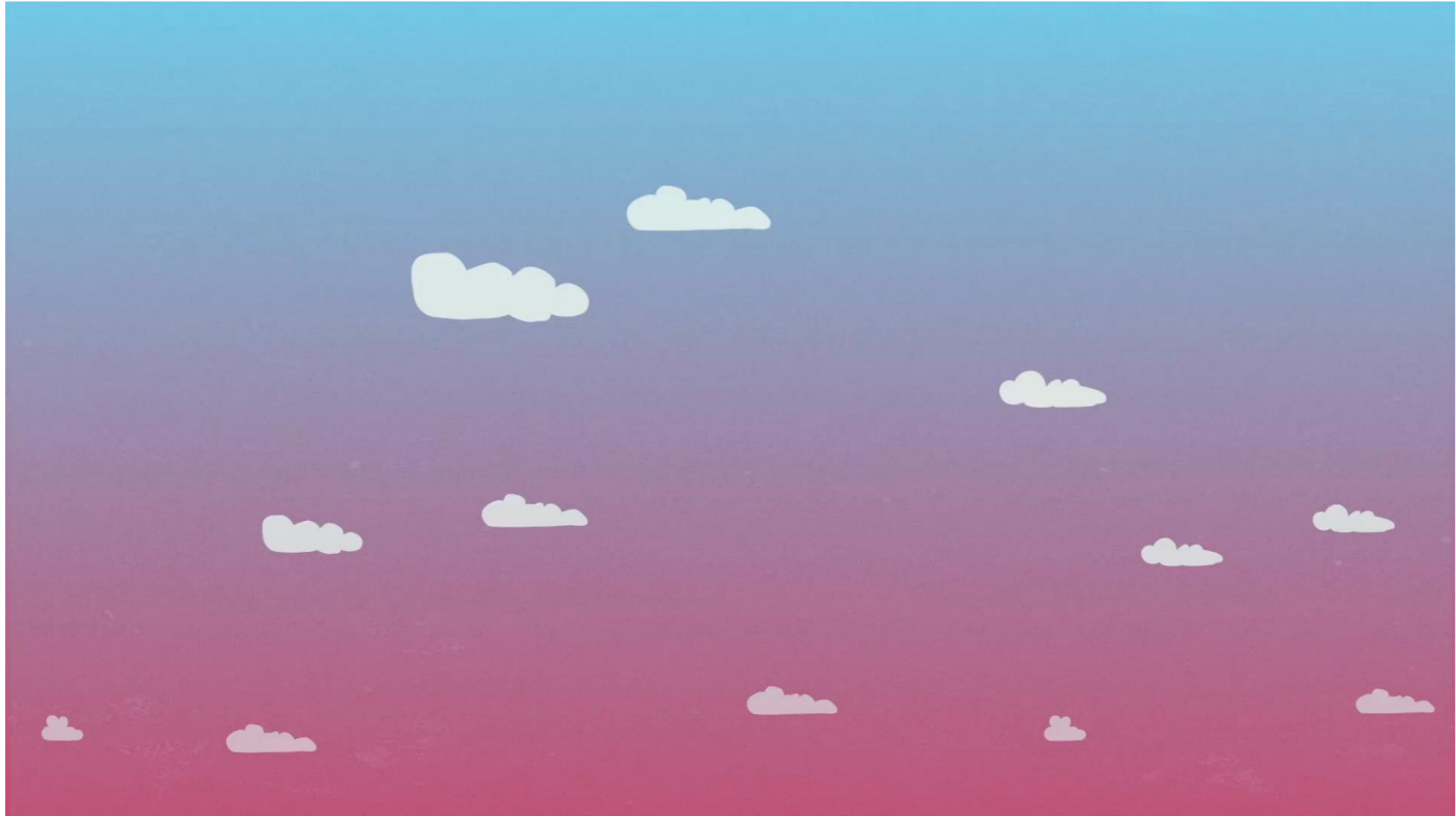
- Gamification
- 11% reduction
- Geographical issues

Price Signals – latest findings



Treatment — 3: Data informed & £ — 4: Data informed

SAVE sample households: 2017-11-13 to 2017-11-26
 Sample size: Control = 861, Treatment = 794 & 791
 Error bars indicate 95 percent confidence interval for estimates

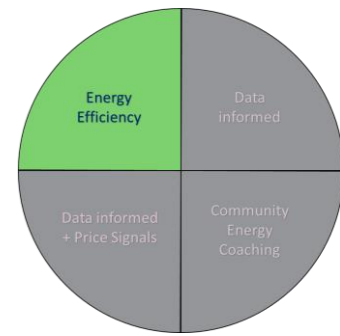


Energy Efficiency



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Starting with the end in mind

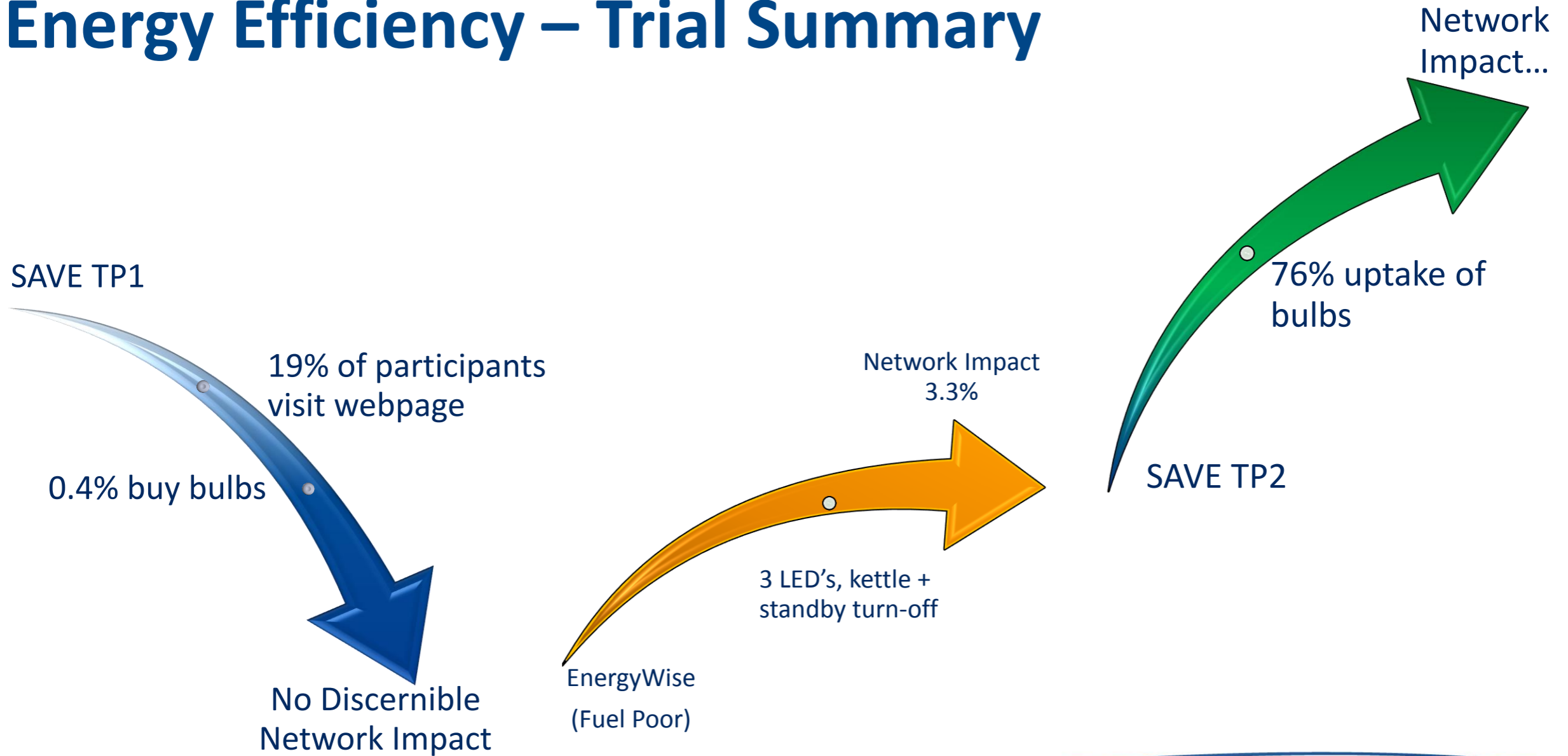


Imagine a world where...

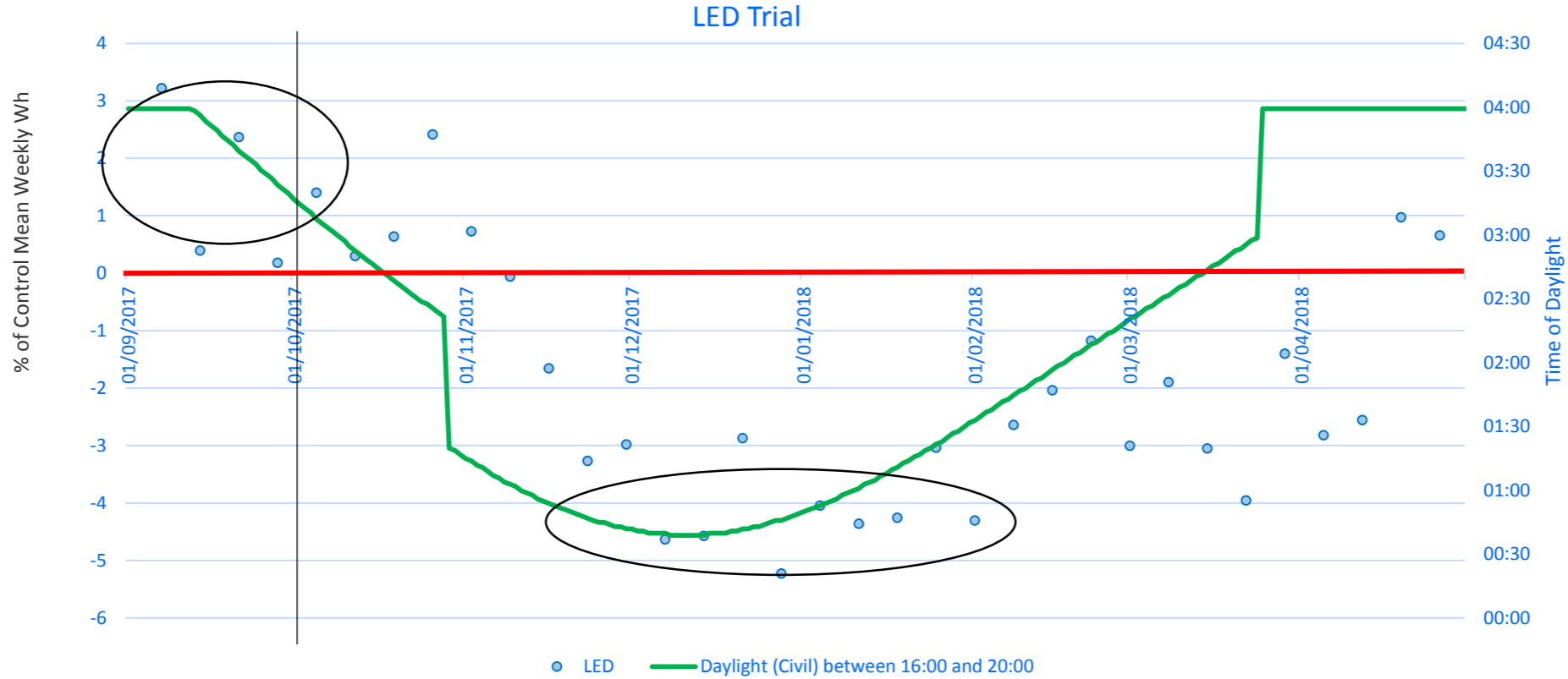
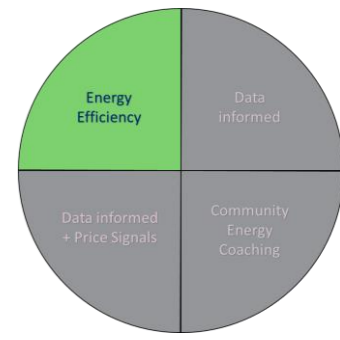
- Customers don't just know who their utilities are but have a positive relationship with them
- DNO's top broader measures scores and customer satisfaction scores
- Worst served circuits are minimised and addressed with wider engineering and social benefits
- DNO's work closely with stakeholders to deliver load reduction on our networks
- Instead of reinforcing we use current assets smarter saving money and carbon
- DNO's are the facilitators of domestic energy efficiency supporting the governments transition to a low carbon economy and zero carbon buildings
- DNO's have perfect records of vulnerable customers and can readily engage and support those most in need



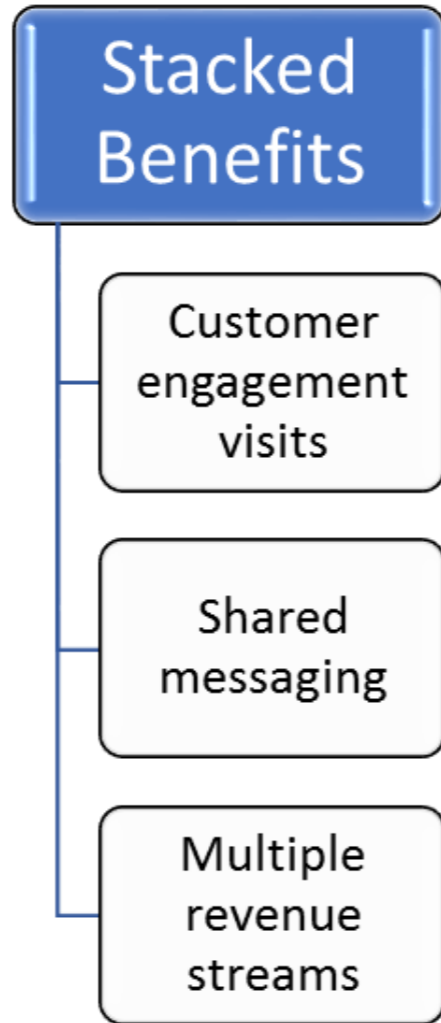
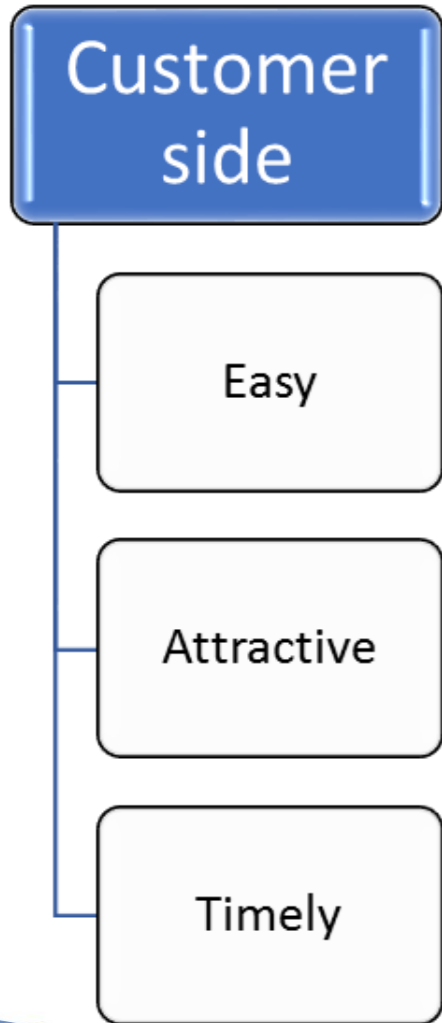
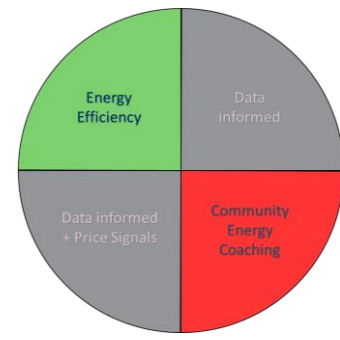
Energy Efficiency – Trial Summary



Energy Efficiency – Results



Bringing it all together - BaU



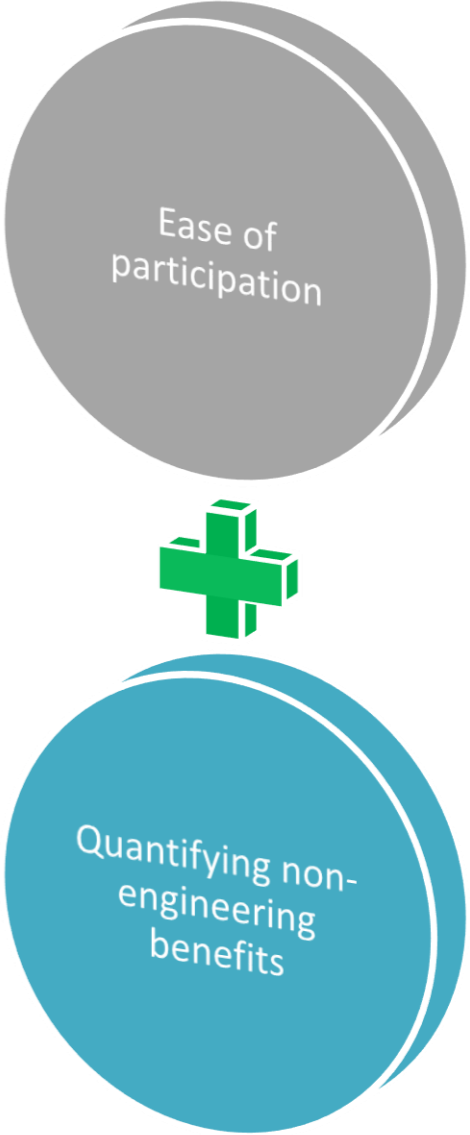
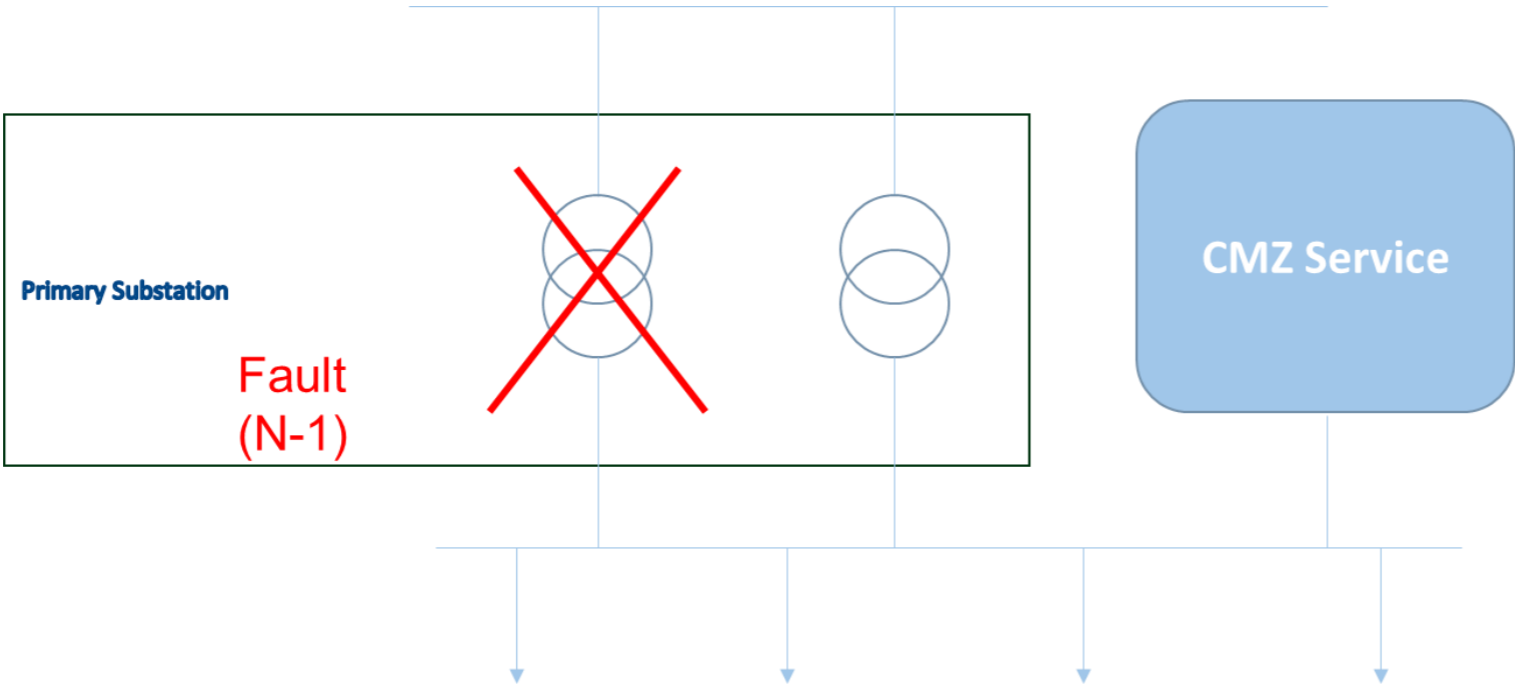
Cost: £X
Divided by utilities: £X/3

Energy Efficiency
Priority Service Register
Trusted Messenger

Internal
Reinforcement costs
Worst served circuits
Stakeholder engagement/broader measures

External
Customer Savings (£42 pa)
Citizens Advice/local council
Carbon Credits (£9 pa)

Social CMZ



SAVE



Solent Achieving Value from Efficiency

Starting with the end in mind...

- Customers don't just know who their utilities are but have a positive relationship with them
- Your DNO tops broader measures and customer satisfaction scores
- Worst served circuits are minimised and addressed with wider engineering and social benefits
- DNO's work closely with stakeholders to deliver load reduction on our networks
- Instead of reinforcing we use current assets smarter saving money and carbon
- DNO's are the facilitators of domestic energy efficiency supporting the governments transition to a low carbon economy and zero carbon buildings
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