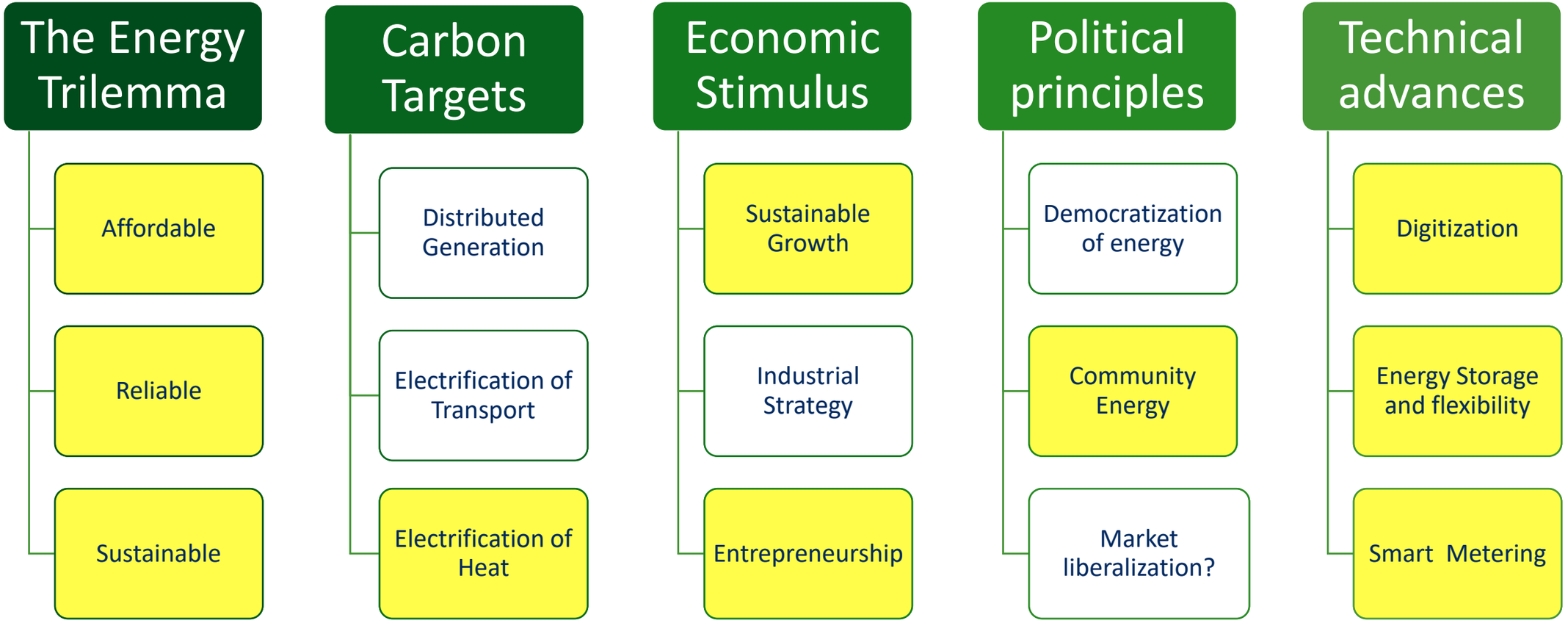
SAVE project

June 2019

Scottish & Southern Electricity Networks

The future of energy



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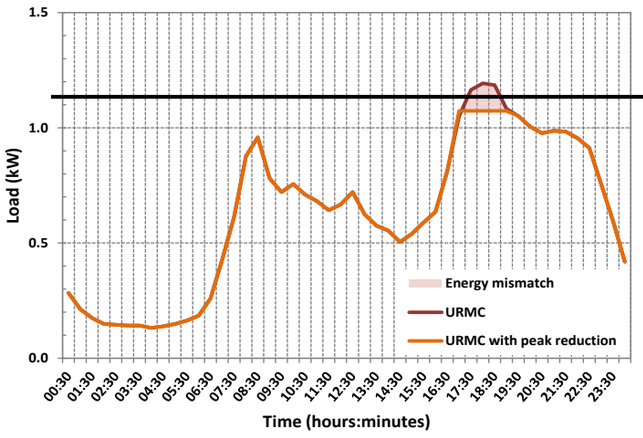
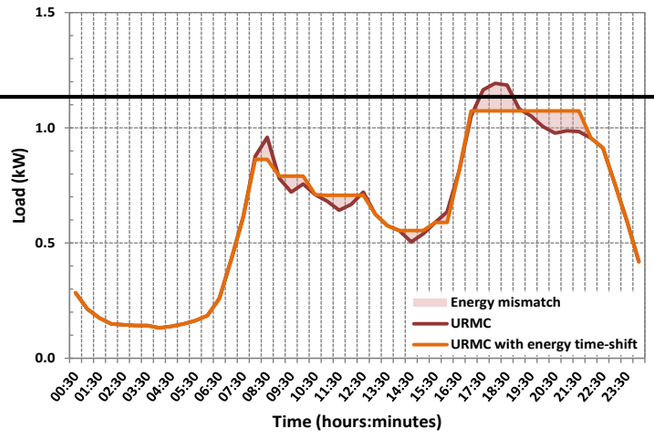
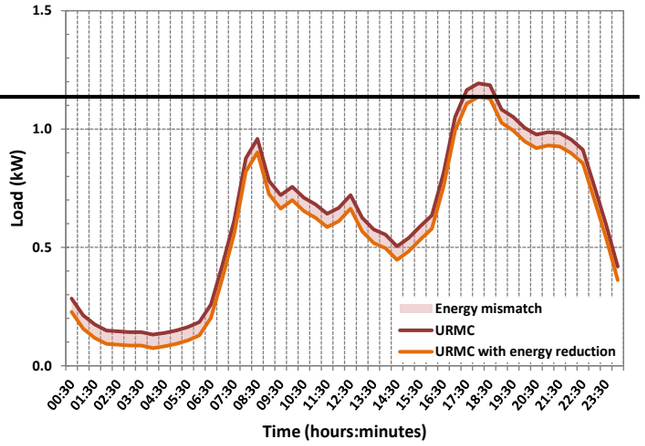
The Challenge



(a) Peak reduction



(b) Electricity time-shifting



(c) Electricity reduction

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January 2014-June 2019

Network Investment Tool

£10 million Ofgem funding

SAVE Project

Domestic DSR and Customer Engagement

8000 domestic Solent region customers

Largest collection of field data in UK

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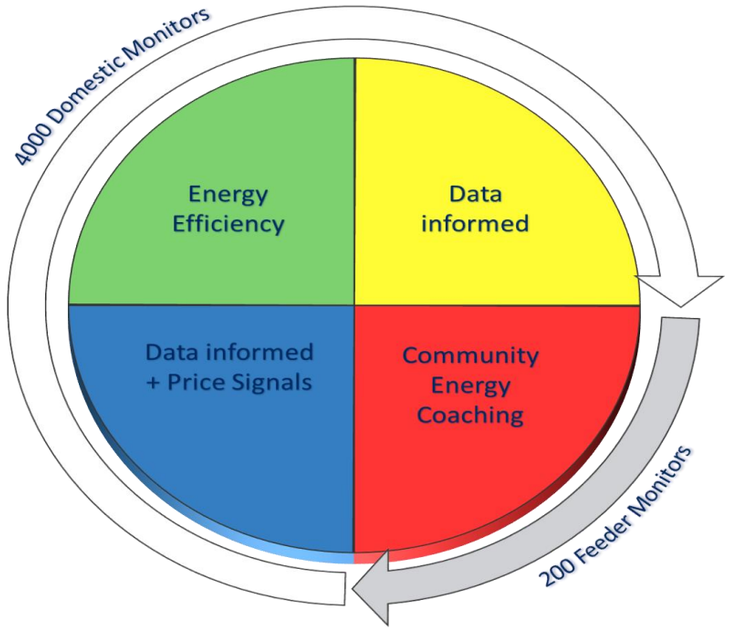
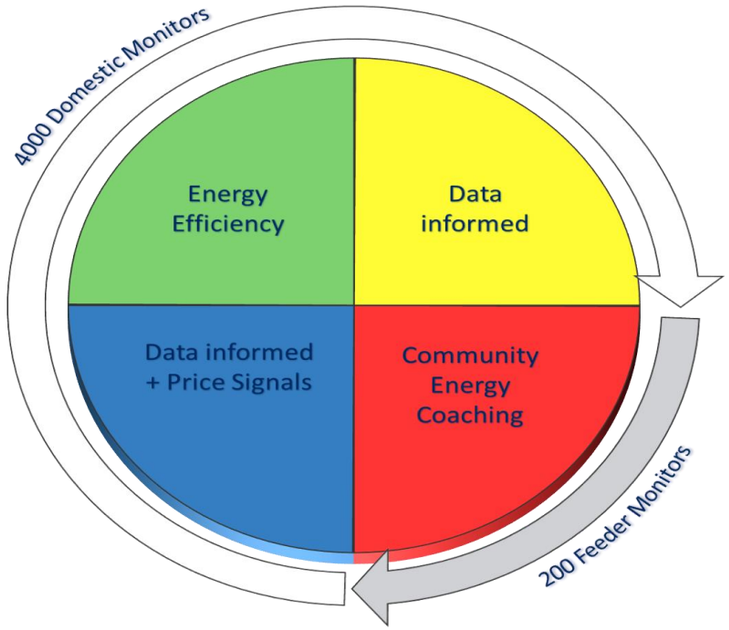
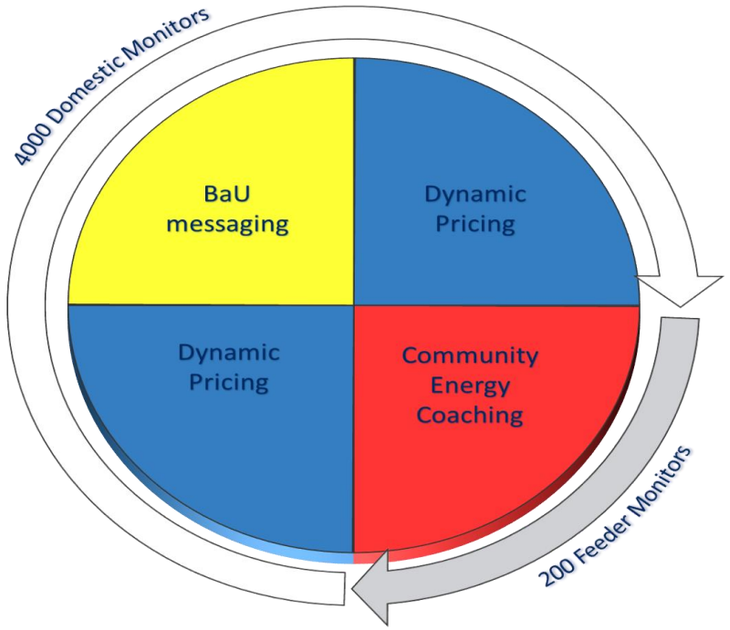
Methodology



TP1: Jan – Mar 17



TP2: Oct 17 – Mar 18



TP3: Oct 18 – Dec 18

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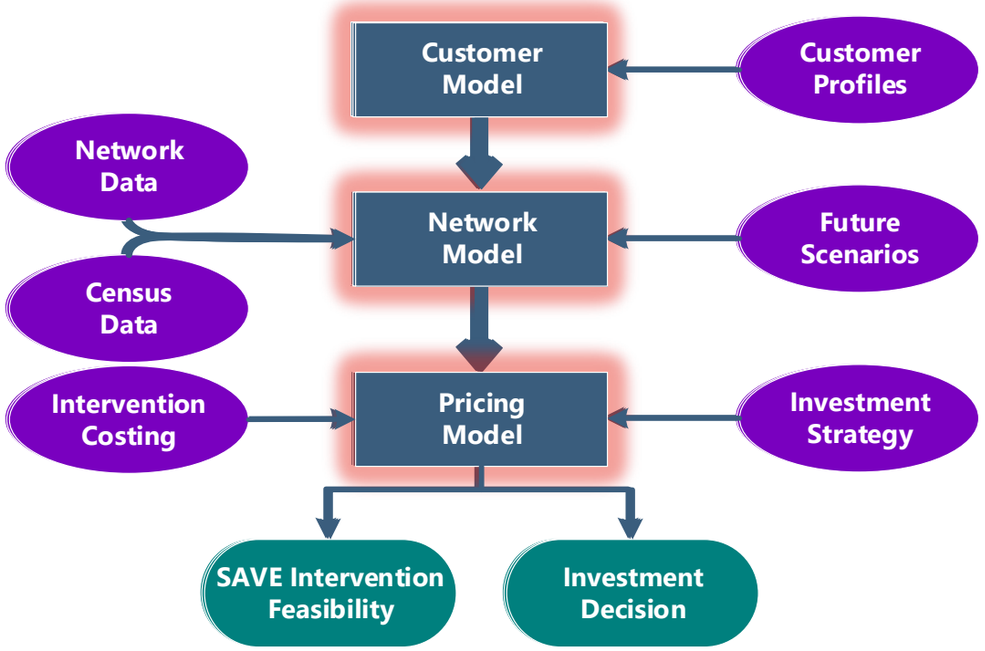
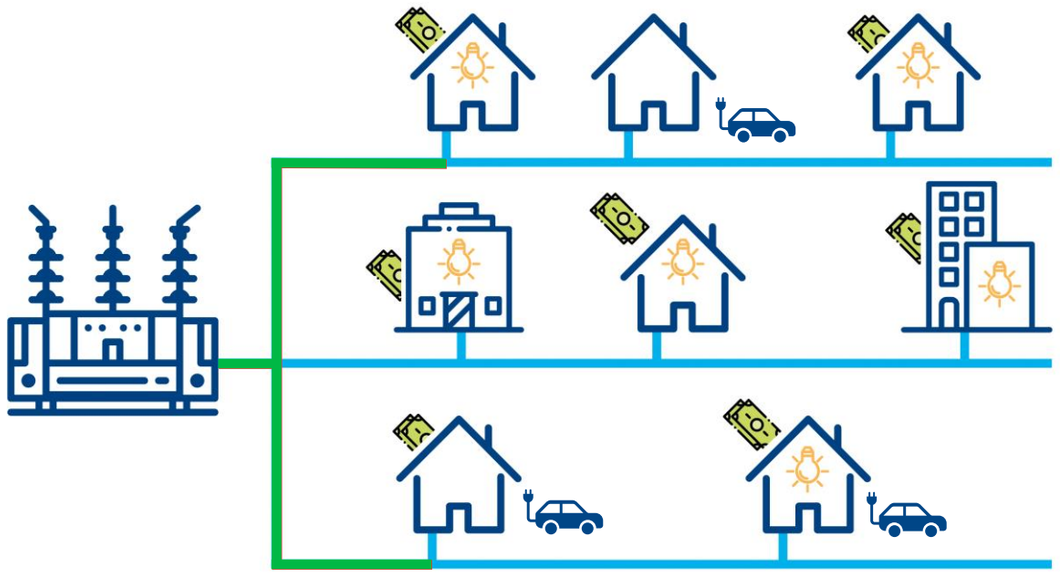
Network Investment Tool





Policy will effect EE, EV and LCT uptake and hence forecasting planning forecasts

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TRIAL DESIGN

Opt-out approach (in-person visits door-to-door)

Installed by project staff

Up to 10 bulbs per household available

Free of charge

HOUSEHOLD UPTAKE

76%

AVERAGE NUMBER OF BULBS REPLACED

7

AVERAGE ANNUAL SAVING PER HOUSEHOLD:

90 kWh

ANNUAL EFFECT SIZE ACROSS VARIOUS METRICS

Household	SAVE project	SSEN customers	UK households
£15.82	37 tonnes CO_2	28,000 cars	1 nuclear power station

- Cost of national LED rollout £1 billion max
- New nuclear plant £5 billion

VULNERABLE CUSTOMERS

TREATMENT EFFECT

5%

GREATER FOR VULNERABLE CUSTOMERS THAN FOR THE AVERAGE CUSTOMER

CONCLUSION: if deployed in adequate quantities, and offered free and installed, LED bulbs can effectively reduce peak network load, save customers money on bills and reduce carbon emissions.

SAVE
Solent Achieving Value from Efficiency

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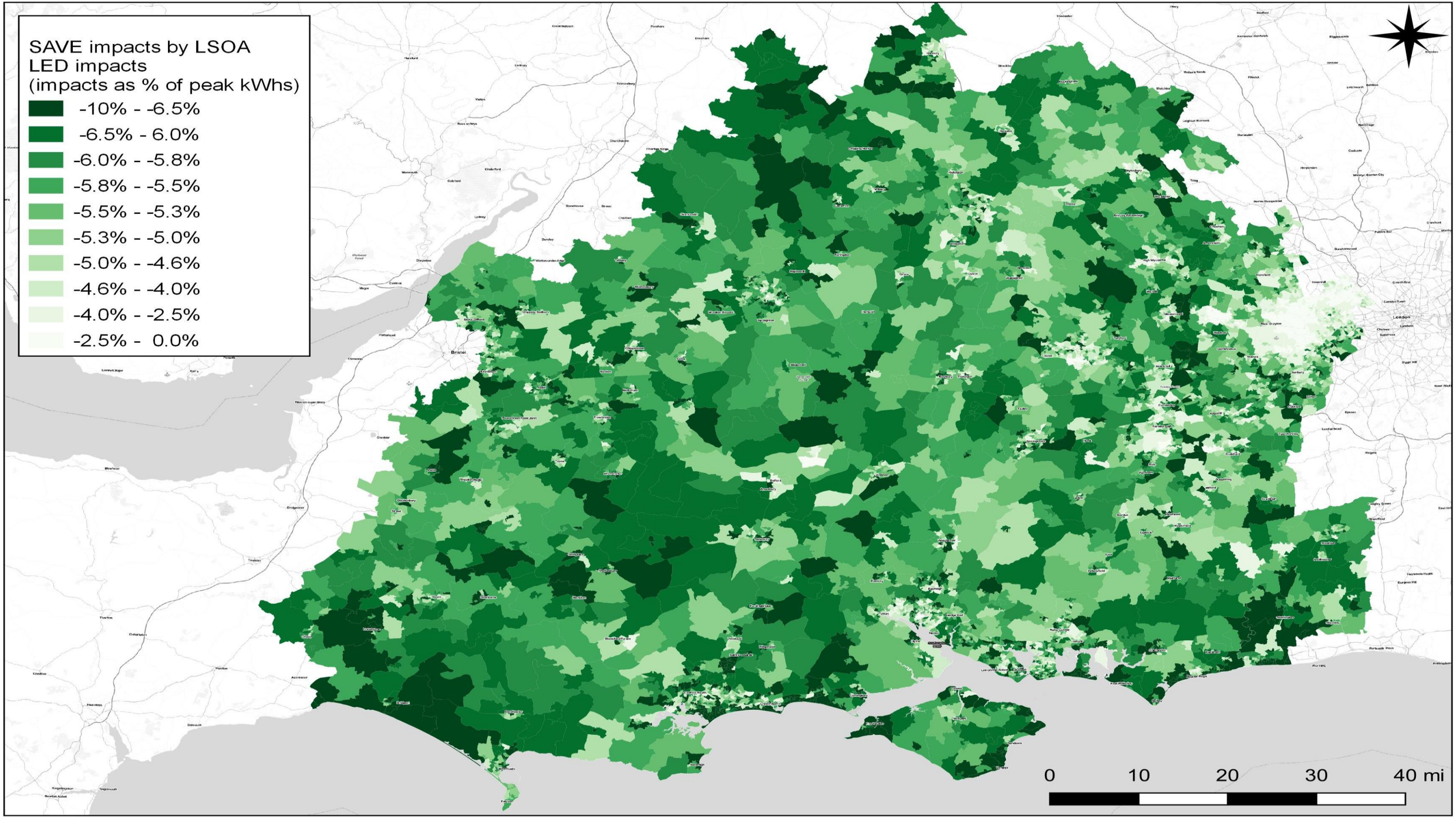
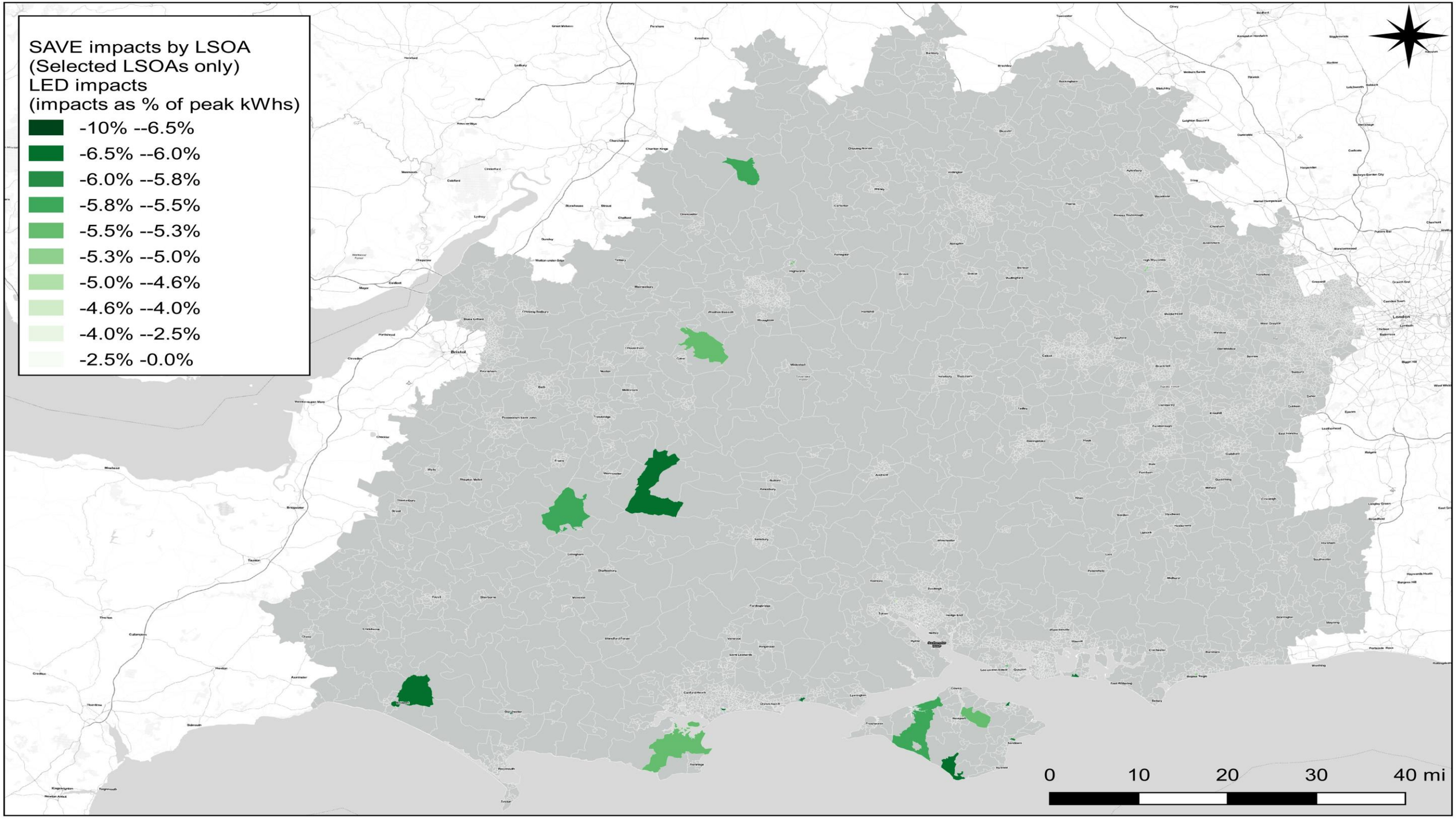
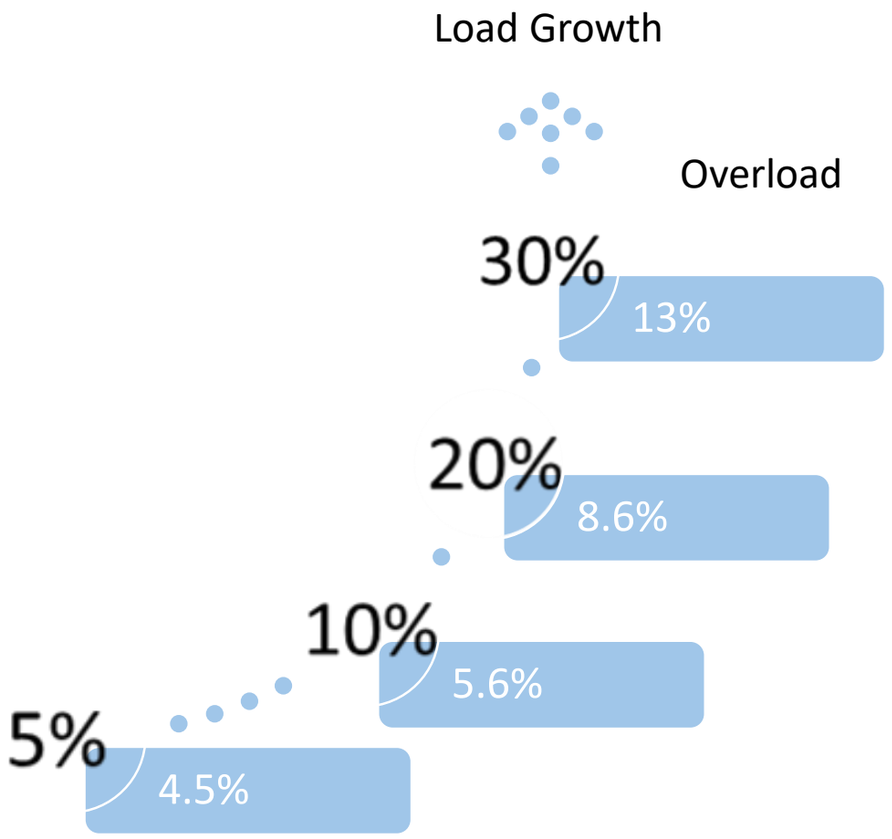
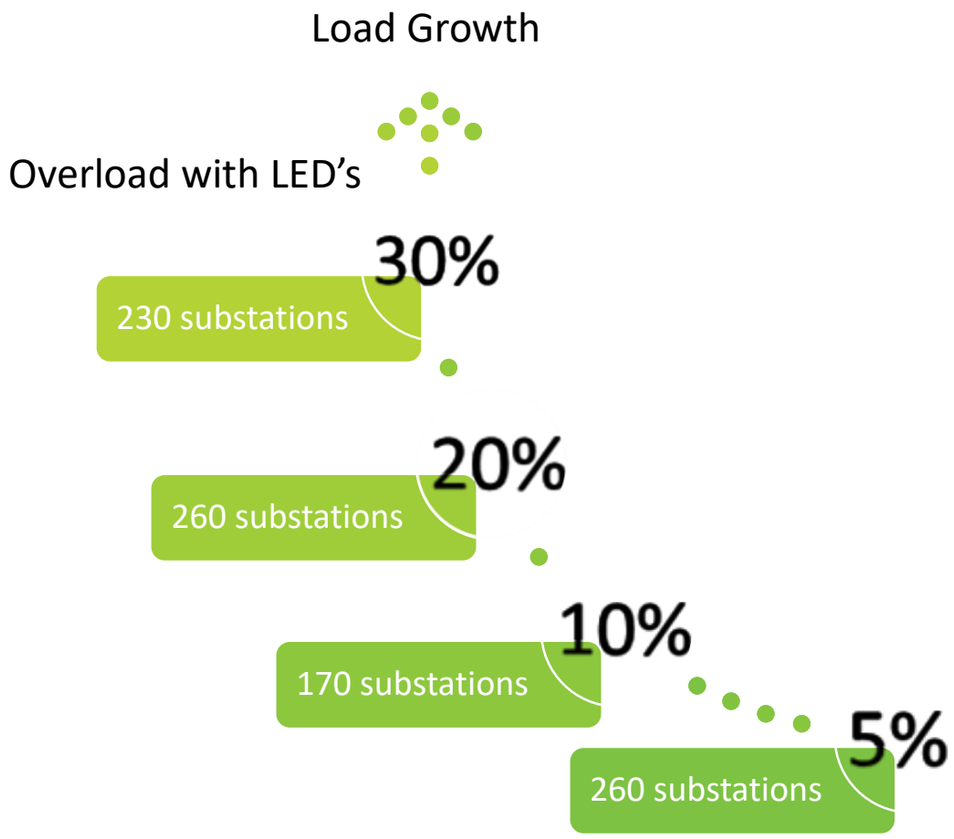

SAVE impacts by LSOA
LED impacts
(impacts as % of peak kWhs)
-10% - -6.5%
-6.5% - 6.0%
-6.0% - -5.8%
-5.8% - -5.5%
-5.5% - -5.3%
-5.3% - -5.0%
-5.0% - -4.6%
-4.6% - -4.0%
-4.0% - -2.5%
-2.5% - 0.0%
Bristol
London
0
10
20
30
40 mi


SAVE impacts by LSOA
(Selected LSOAs only)
LED impacts
(impacts as % of peak kWhs)
-10% --6.5%
-6.5% --6.0%
-6.0% --5.8%
-5.8% --5.5%
-5.5% --5.3%
-5.3% --5.0%
-5.0% --4.6%
-4.6% --4.0%
-4.0% --2.5%
-2.5% -0.0%
0
10
20
30
40 mi

SAVE Methods and Future Networks





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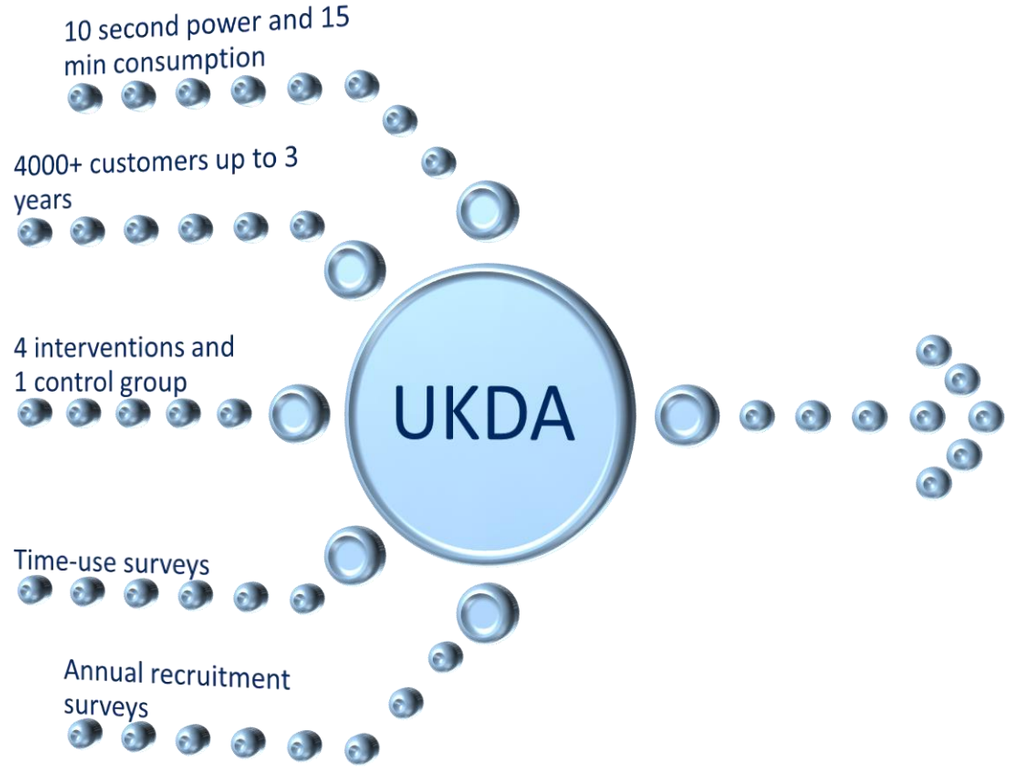
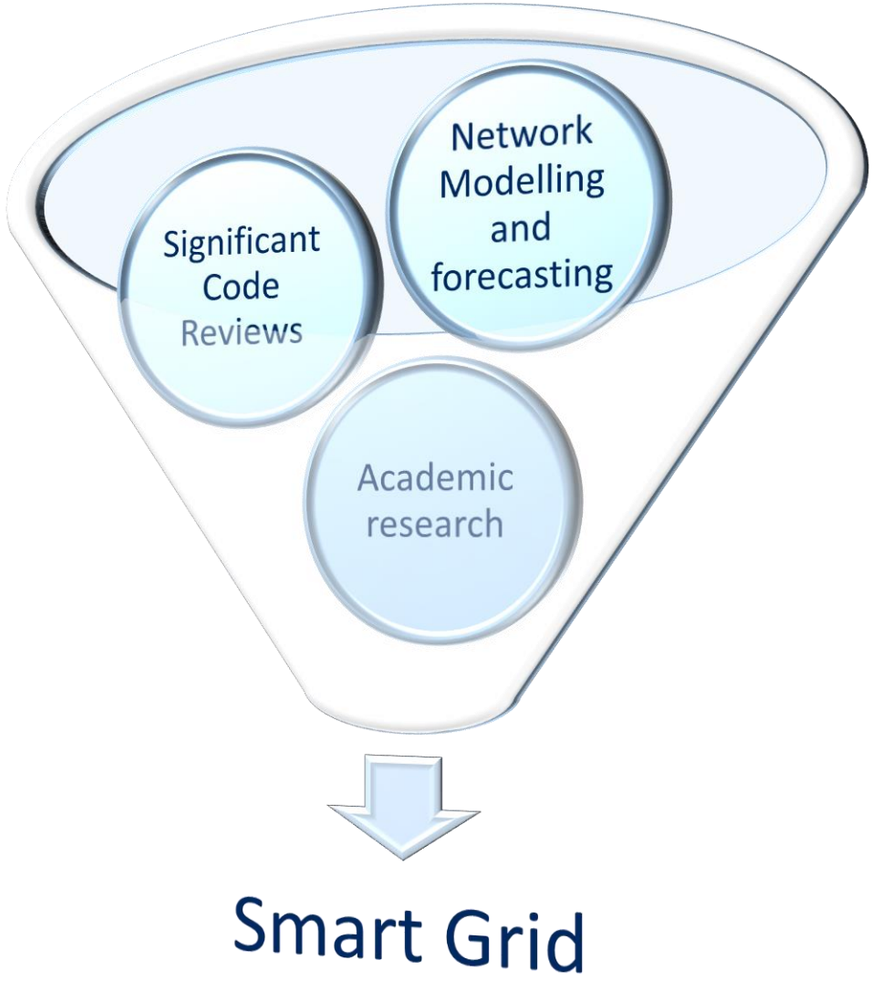
SAVE dataset





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