Road map 1: Using smart energy data to curb energy waste and peak demand

The five conditions

Energy | Social/cultural | Regulatory/policy | Commercial | IT/data

DOING

Things to do now for impact now

2016

- Secure mass take up of Demand Logic style diagnostic services to enhance energy data analytics in commercial and public buildings
- Commission public art to reveal city's daily demand peaks
- LED lighting swap initiative (reducing demand and peak in domestic sector)
- Trials of approaches to engaging households with energy advice during and after smart meter installation
- Establish portal within Bristol data commons initiative for people to share and visualise their energy data

2018

- Test commercial and public users demand response aggregation potential across city
- Peak alert apps to encourage load shedding (linked to 'use now' app function to make most of local renewable generation – in Roadmap 2)
- Deliver Bristol smart meter roll-out support service, co-ordinated with all suppliers and with data capture and engagement driver
- Smart-enabled household demand response – trial aggregation on small scale
- Tests of domestic DSR automation & ToU tariffs
- Actively promote take-up of key smart energy technologies within the city, tying technology suppliers and service providers into Smart Energy City plans

2020

Bristol Smart Energy City up and running

PREPARING

Things to do now to prepare for action and impact in 1–2 years

2016

- Engage with suppliers and Smart Energy GB on what would constitute an irresistible offer from Bristol to justify 'all in one year' smart meter rollout
- Enlist larger local loads (e.g. universities, hospitals etc) to create group sharing data and exploring opportunities for aggregated demand response
- Engage with National Grid on how city-scale demand response can feature in their planning
- Develop community-scale household demand reduction trial
- Put funding bid together for local experiments and market innovation
- Spec out framework for data capture and analysis for city-scale initiative, including consent and access requirements
- Understand market readiness/penetration of different technology and services plan integration with Smart Energy City initiatives and explore with developers and suppliers their interest in Bristol as pilot city-scale initiative

2018

- Establish governance and commercial model for Bristol Smart Energy City
- Map out compliance requirements
- Commercial viability modelling for 2020 operation
- Local policies to require smart enabled technology in new build

EXPLORING

Creating conditions which make impact possible in future

- Engage with Ofgem and DECC on market rules and governance and opportunity to carve out 'space to experiment' for Bristol
- Articulate a clear purpose for Bristol Smart Energy City
- Consider how to embed Smart Energy City aspirations into new build in Bristol
- Knowledge tracking and R&D opportunities – both with academics and market innovators

Background against which events on this timeline are taking place

- DCC goes live and domestic smart meter mass roll-out starts
- ToU tariff trials
- CADs widely available
- Smart Energy GB engages with local partners
- New Supplier Obligations in place
- 'Next day' supplier switching goes live
- Energy Settlement to half-hourly
- Plans for RIIO-ED2 emerging
- Rollout complete