

# Metering in support of the UK's Climate Change and Energy ambitions

Eleanor Brooks  
Head of Smart Metering Policy, DECC

February 2010

# My Focus Today



- The challenge
- Smart & advanced meters and Government policy

# What DECC does



**DECC has a vital and leading role to play in the Government's programme to turn the UK into a low-carbon economy. DECC's seven core objectives focus efforts towards a low carbon future:**

1. to secure global commitments that prevent dangerous climate change
2. to reduce greenhouse gas emissions in the UK
3. to ensure secure energy supplies
4. to promote fairness through our climate and energy policies at home and abroad
5. to ensure the UK benefits from the business and employment opportunities of a low carbon future
6. to manage energy liabilities effectively and safely
7. to develop the Department's capability, delivery systems and relationships so that we serve the public effectively

# The UK Low Carbon Transition Plan



The challenge for the UK and the rest of the world is to reduce emissions and build a better, lower carbon future

## Decarbonise the UK

*and in doing so*

Keep our  
energy supplies  
safe and secure

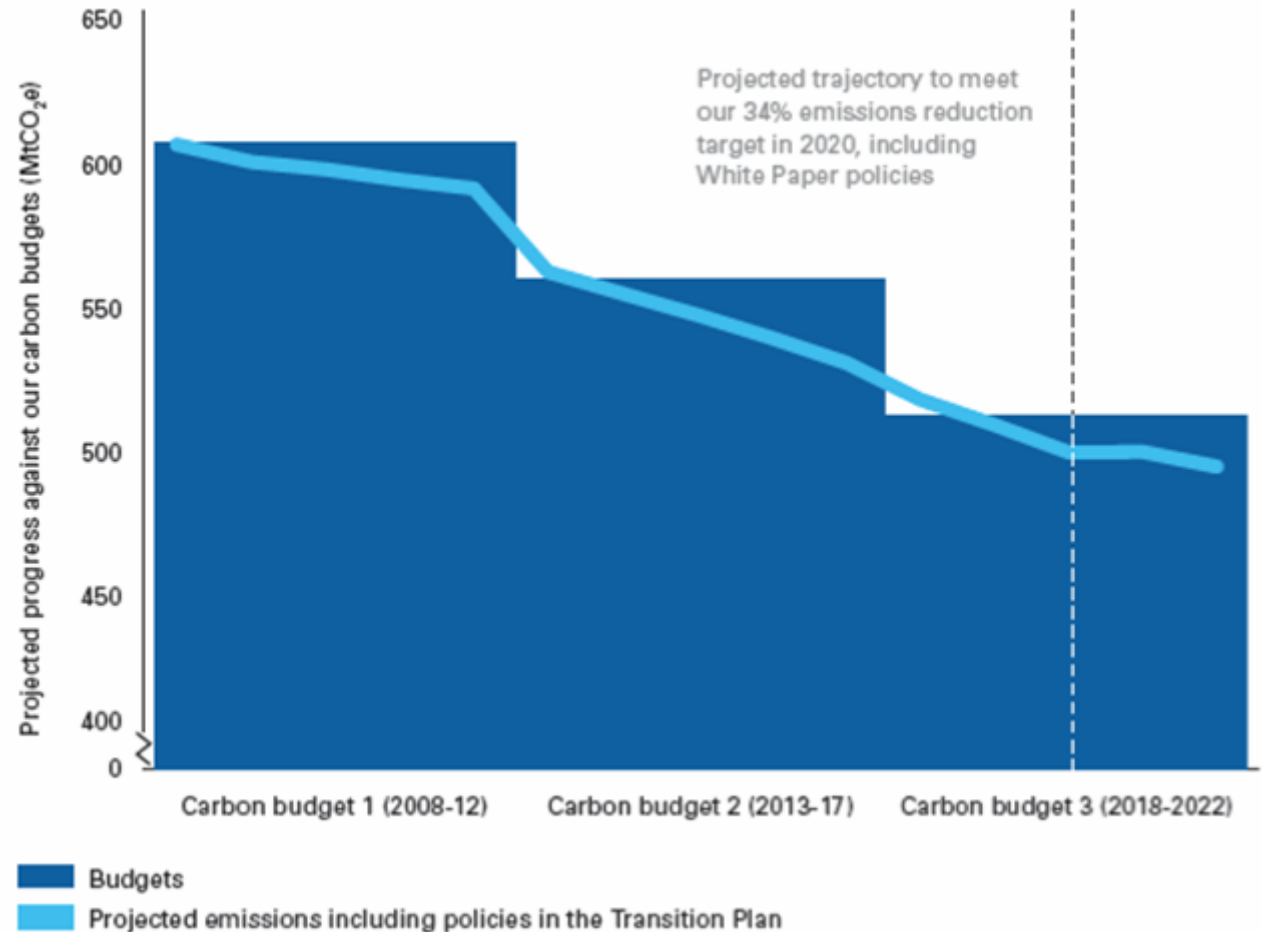
Maximise economic  
opportunities

Protect the most  
vulnerable

# Legally binding carbon budgets

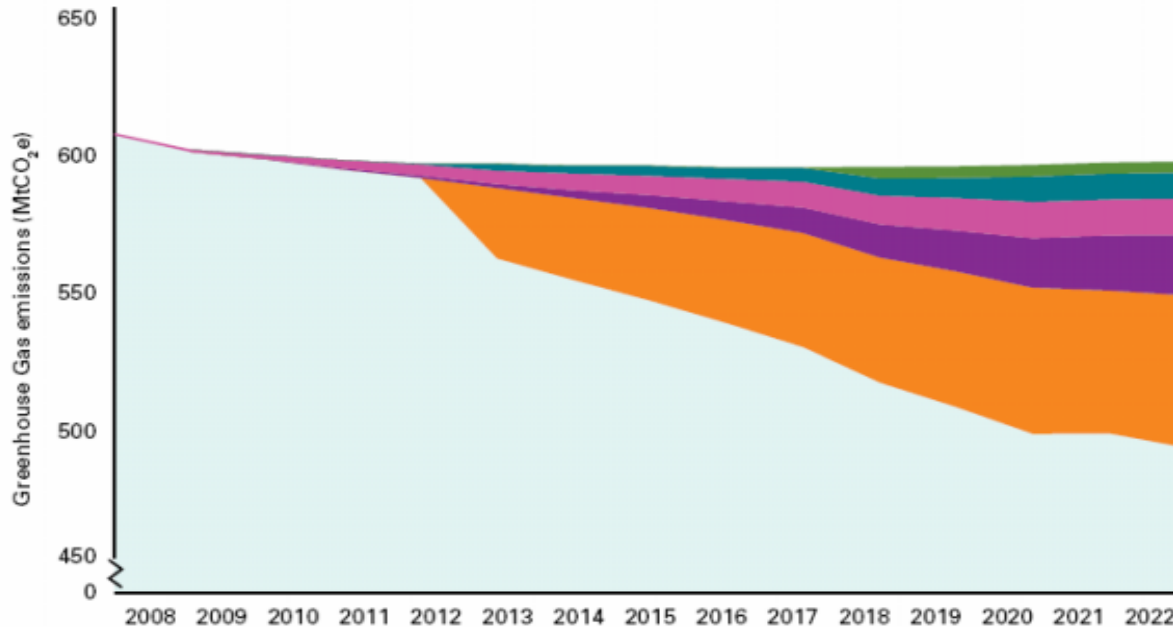
Carbon budgets are equivalent to a **34% cut in greenhouse gas emissions in 2020.**

The UK will also cut emissions by **80% by 2050.**



# How we plan to get there

## All sectors will contribute emission savings



Source: Department of Energy and Climate Change

Note: The impact of policies prior to the 2007 Energy White Paper is included in the baseline; without these policies, UK emissions would be higher.

- Homes and communities will contribute 13% of emission cuts in 2018-22
- The plan will ensure our workplaces contribute 9% of emission savings in 2018-22

# The plan will ensure our workplaces contribute 9% of emission savings in 2018-22

Government helps reduce emissions from workplaces by:

- **The EU Emissions Trading System** which covers heavy industry
- **Incentivising industry to save energy** through measures the Climate Change Agreements
- **Incentivising workplaces to save energy** through measures the Carbon Reduction Commitment, DEC's and EPC's
- **Providing advice** for all workplaces on how to cut their carbon emissions e.g. via Carbon Trust.



# Role of smarter metering & Government policy



## Requirements

### Large – licence obligations

- Requirement for 160,000 profile class 5-8 electricity sites and 40,000 732 MWh+ gas sites to receive advanced meters by 2014

### Small and medium sites

- Response to electricity and gas smart metering consultation

### Building regulations Part L

- Buildings over 1,000m<sup>2</sup> are required to have automatic meter reading and data collection facilities

## Incentives

### Carbon Reduction Commitment Energy Efficiency Scheme (CRCEES)

- Smart meters are an 'early adopter advantage'

### Smart meters can be used as a high granularity data tool to monitor progress against and comply with energy saving initiatives

- EU Emissions Trading Scheme (EUETS)
- Climate change agreements (CCA)
- EPC and DEC

# Benefits from Smarter Metering



## **Energy savings and related carbon savings**

- Consumers informed of energy usage and can take action to manage usage
- Time of use tariffs to target reduction of peak energy use
- Facilitating higher levels of renewable generation

## **Improving the consumer experience**

- Accurate bills
- Greater range of tariff packages
- Reducing costs of pre-payment meters

## **Supporting competition**

- Smoother, faster switching (days not weeks)

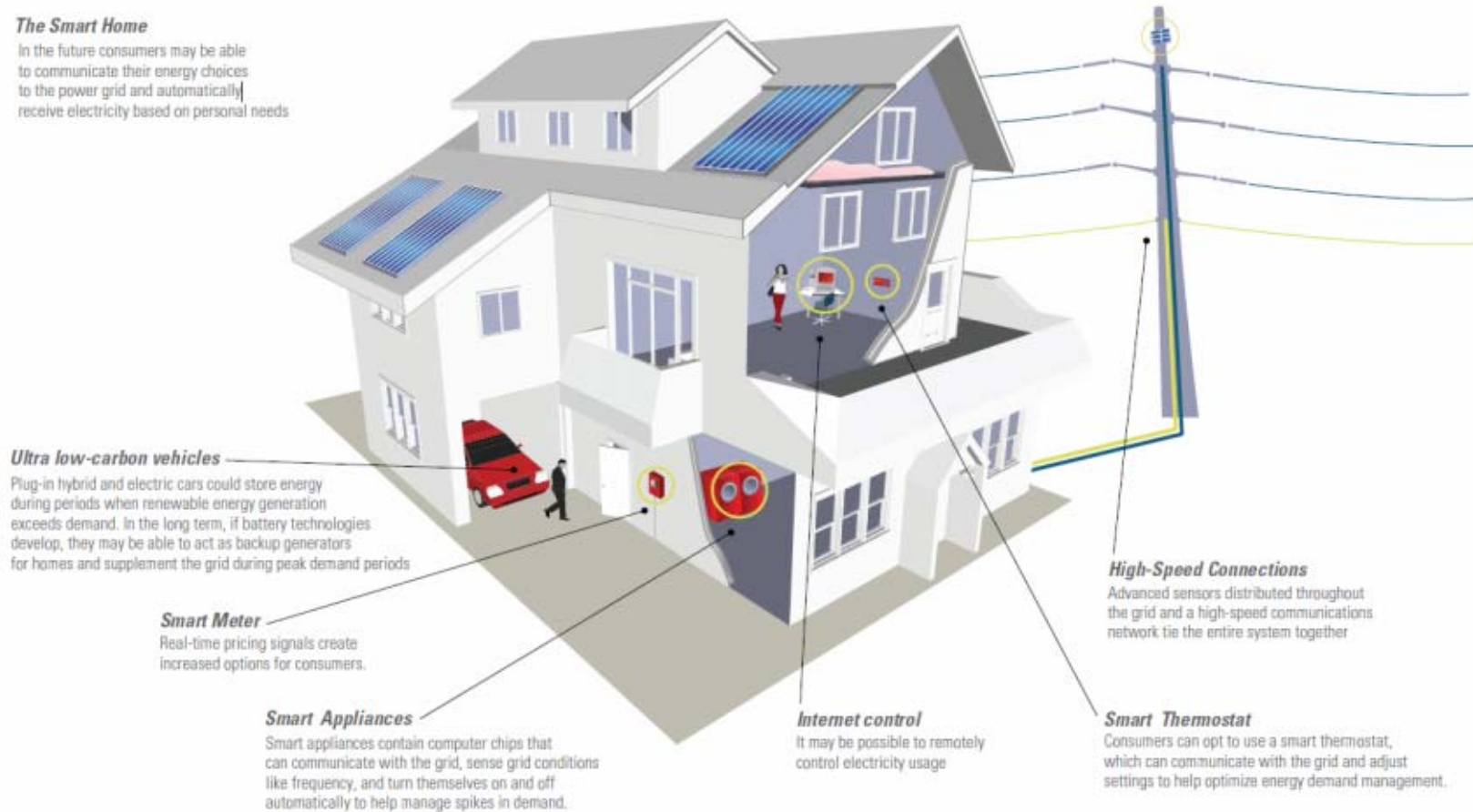
## **Enable low carbon initiatives**

- Support development of 'smart grids'
  - Facilitate load demand management
  - distributed generation
  - better informed network investments
- Electric vehicle usage

# The Smart Home

## **The Smart Home**

In the future consumers may be able to communicate their energy choices to the power grid and automatically receive electricity based on personal needs



# History of the programme



Milestone	Date
Consultation on smart and advanced metering for SMEs, and other non-domestic customers issued	July 2008
Government announcement on the domestic rollout	28 Oct 08
Consultation on smart metering for electricity and gas issued	3 May 09
Consultation closed	3 Aug 09
Government Response issued	2 Dec 09

# The Government's Response to May 2009 Consultation



## Non-Domestic small and medium sites IA:

- Net benefit of £92 consumers with both gas and electricity

## Decisions taken

- Expectation is that smart meters will be the default for this sector
- But non-smart flexibility up to 2014 and some limited exceptions beyond then
- No requirement for the remote enabling and disabling of gas supply
- No requirement for a real time display

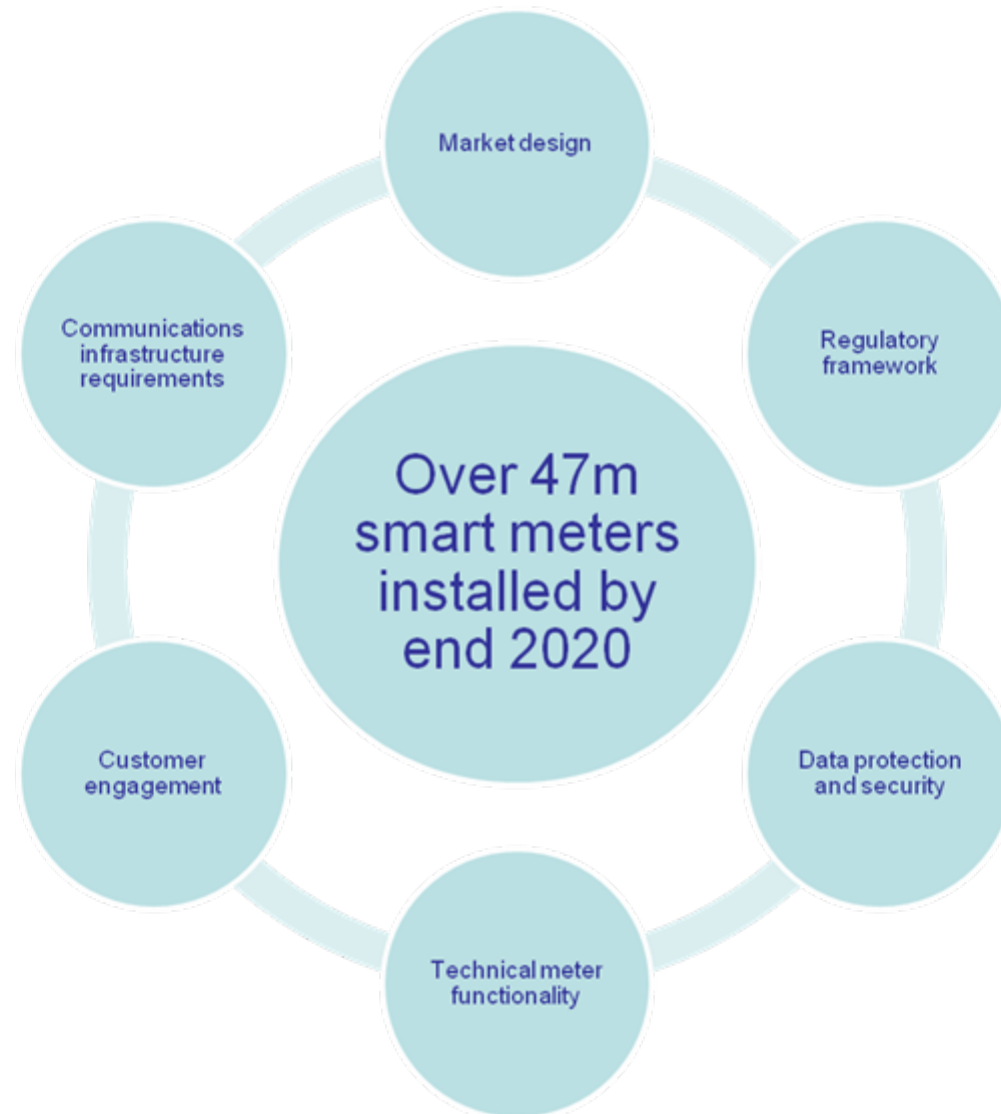
## Delivery model

- Supplier-led central communications delivery model confirmed for the domestic sector
- Work still ongoing to determine the relationship of this model to meters in the non-domestic sector

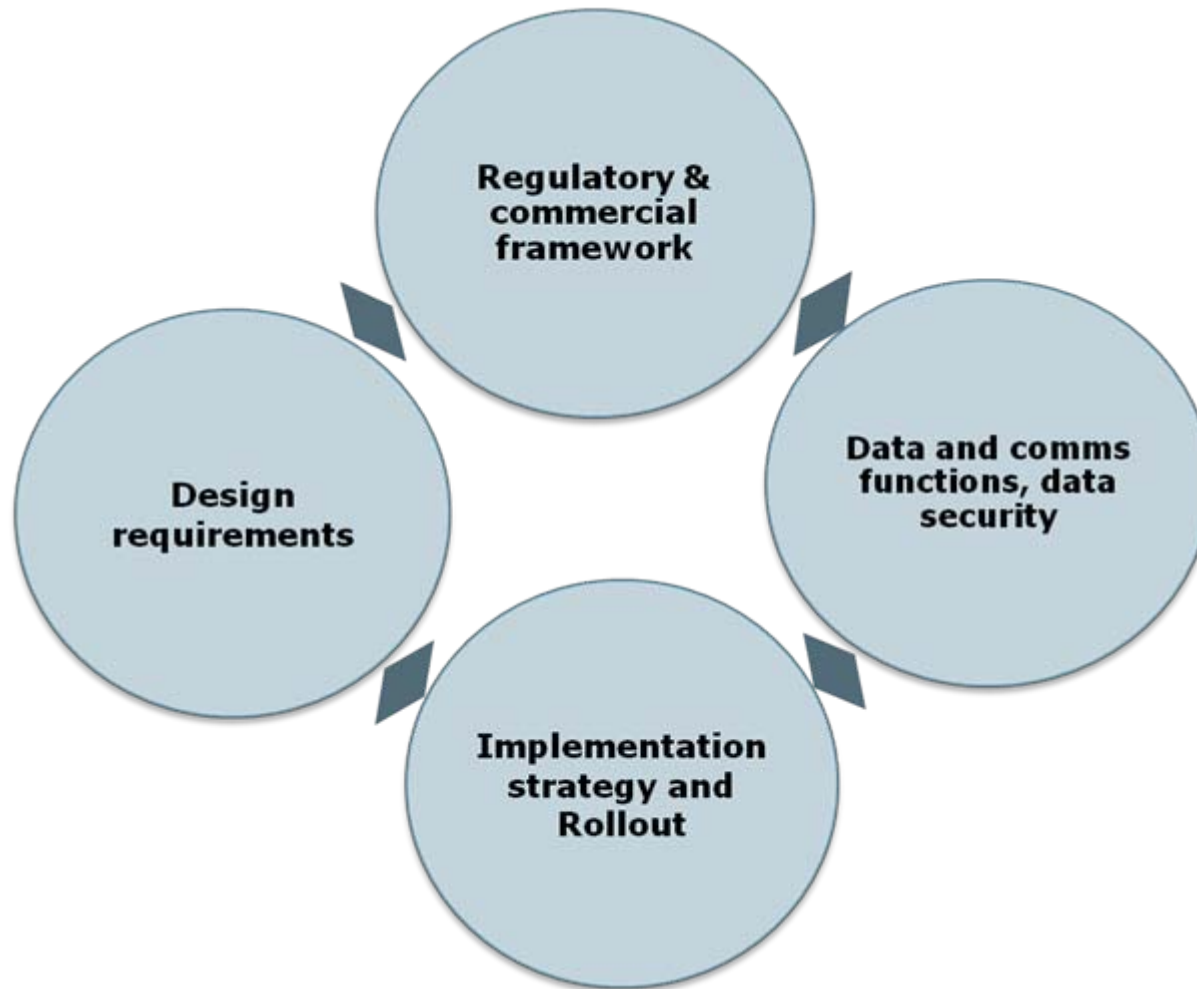
## Next steps

- Delivering the Smart Meter Implementation Programme

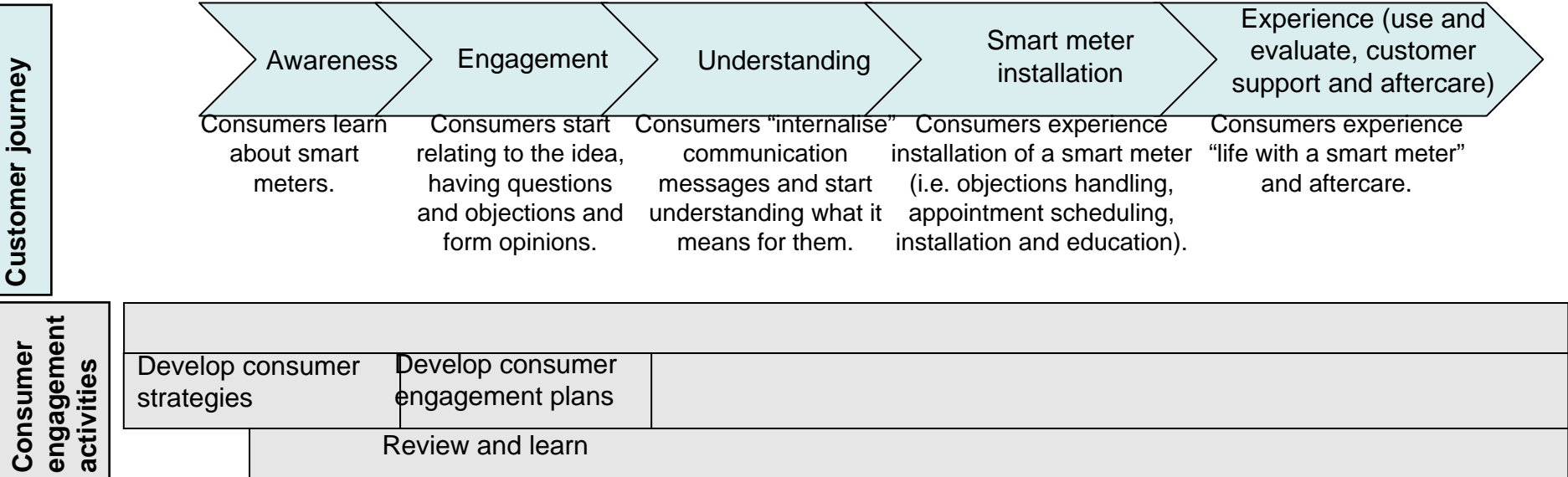
# The Smart metering implementation challenge



# Post 2014 Smart Metering Implementation Programme – some key issues



# Stages of Consumer Engagement



# Energy market & competition

Smart metering is a key enabling technology



# A Complex & Challenging Programme



- Arguably biggest energy industry change programme since the changeover to North Sea Gas
- Ambitious policy goals
- Complex policy and operational issues for Government and Industry
- Links to other policy areas
- Wide range of stakeholder interests
- By installing around 50 million meters by the end of 2020 – the programme will visit every home in the country and around 2m small and medium non-domestic sites, and affect the lives of millions

Thanks to all stakeholders for your  
support to date

Thanks in advance for your continued  
support in the next Phases

# Towards a Smarter Future

22 February 2010