

Towards a Smarter Future

16 December 2009

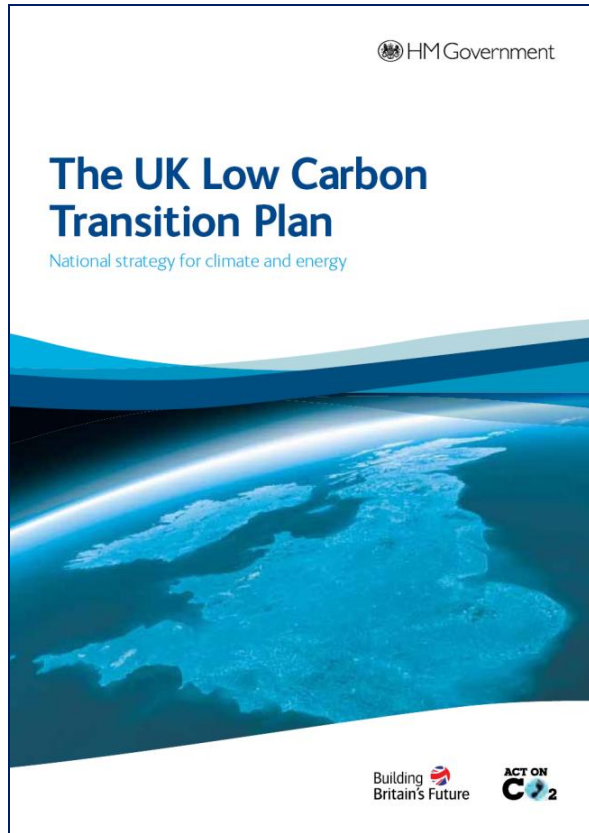
My Focus Today



- **DECC's agenda**
- **Smart Meters and the consumer**
- **Smart Meters and Energy Markets**
- **Response to Consultation**
- **Smart Meter Implementation Programme**

The Department of Energy and Climate Change is responsible for all aspects of UK energy policy, and for tackling global climate change on behalf of the UK.

- **Global climate change and energy:** We are working internationally to tackle the global challenge of climate change, and to achieve international agreement at Copenhagen in December 2009. As the UK imports more energy, we also want to ensure our supplies are secure, reliable and from a wide range of sources.
- **UK energy supply:** We want the UK to enjoy a diverse and low-carbon energy mix, through an appropriate market framework to ensure competitive prices.
- **Supporting consumers:** We want to help you save money and save the environment by, among other things, improving energy efficiency and addressing fuel poverty.
- **A low-carbon UK:** We are working to help the UK move towards a low-carbon economy, using carbon budgets and other mechanisms



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

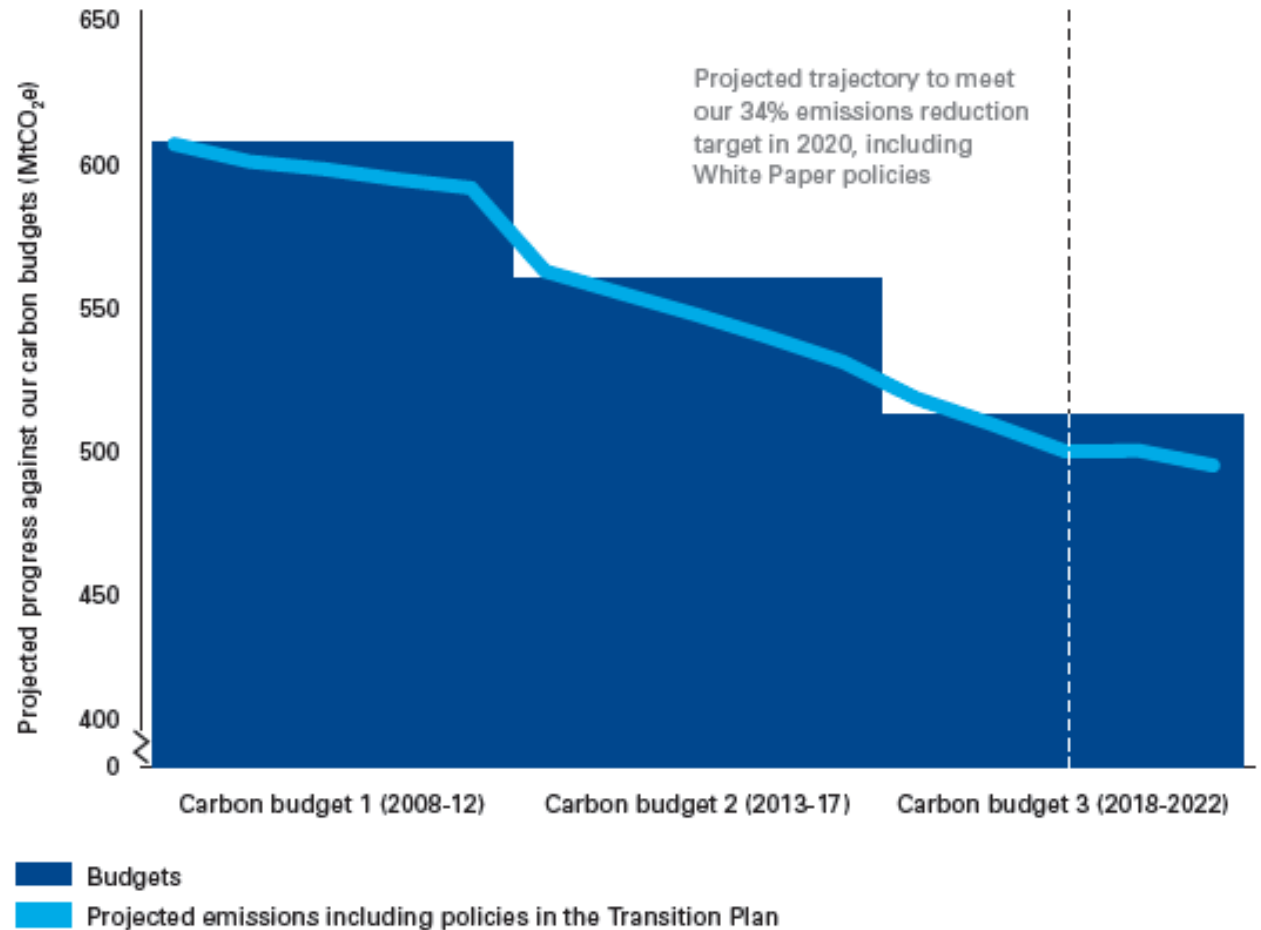
Maximise economic
opportunities

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.**



Transition to a low carbon economy

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

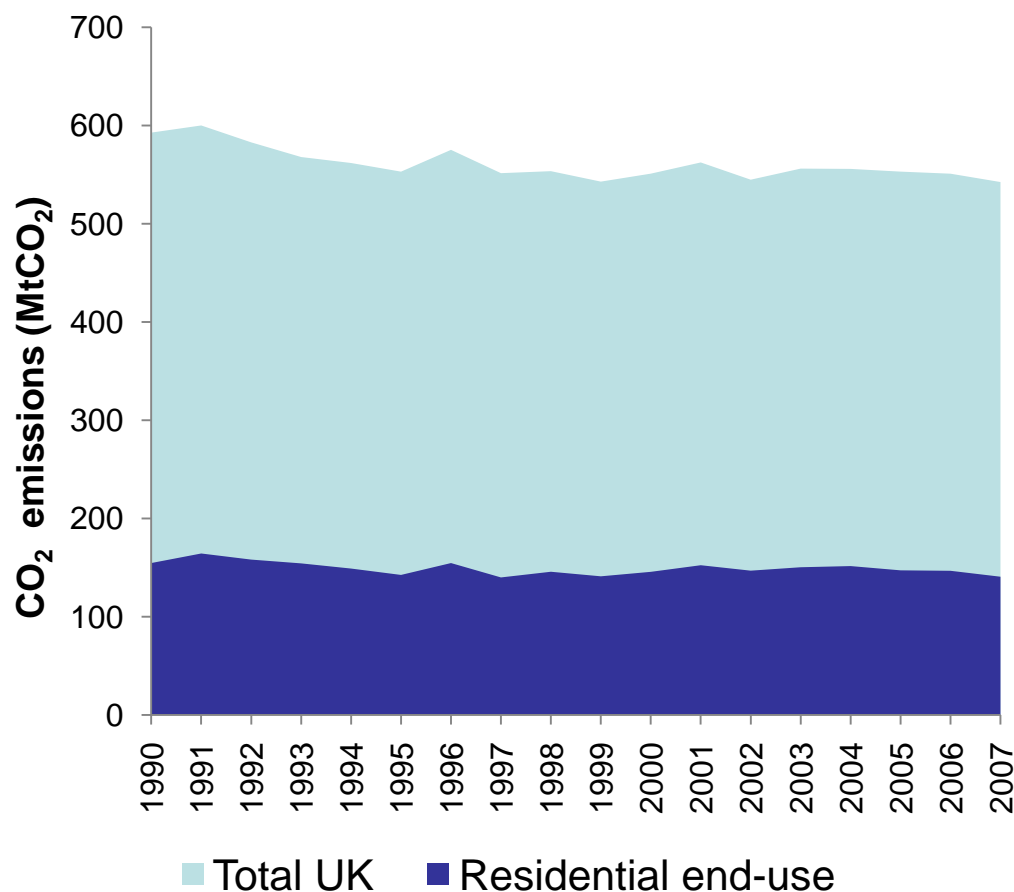
Supporting competition

- 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

Household emissions



- Household emissions relatively static, while total UK emissions falling
- Household emissions now c. 26% of the total
- Committed pre-Copenhagen to reducing non-traded household emissions by 29% by 2020

Targets

Outcome:

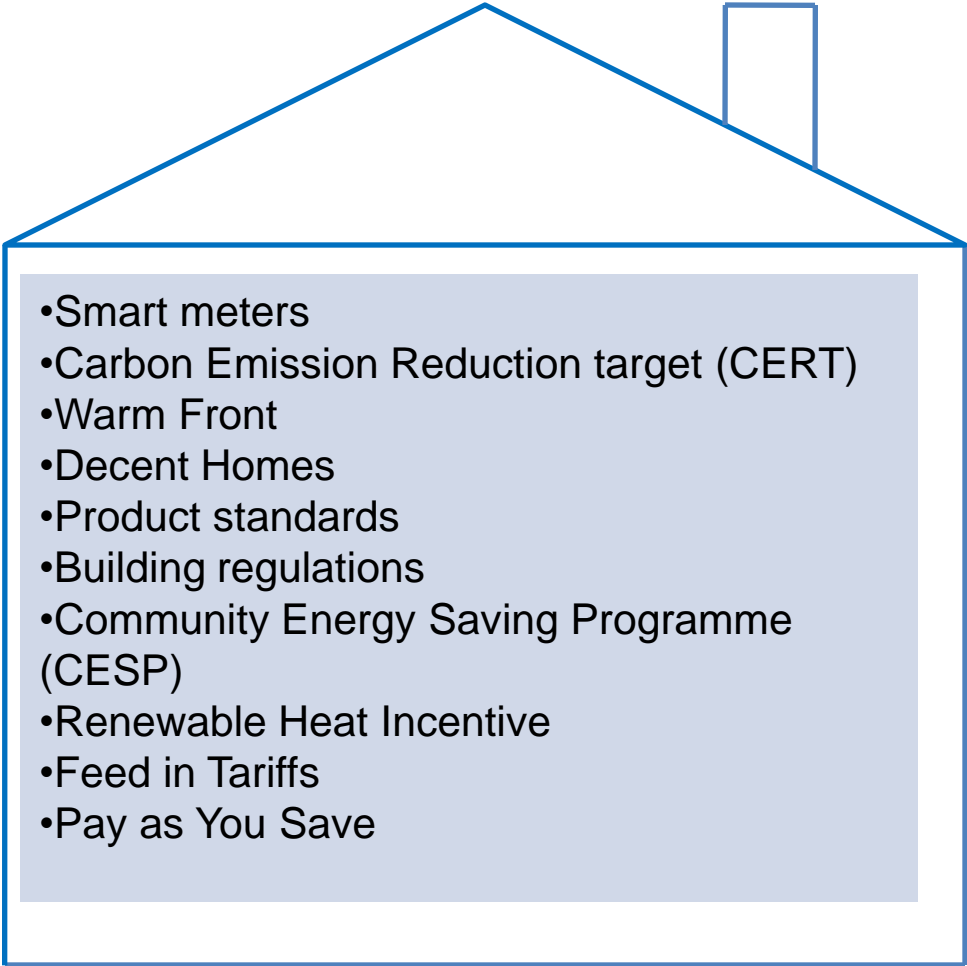
Deadlines

1.	Emissions reduction target	'By 2020 we will cut non-traded emissions from homes to 29% below 2008 levels' (LCTP p.82)	2020
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Outputs:

2.	6 million homes	'6 million homes will have been insulated under the Carbon Emissions Reduction Targets, Decent Homes, the Community Energy Saving Programme and Warm Front' (LCTP p.16)	end 2011
3.	Lofts and cavity walls	'All lofts and cavity walls in Great Britain insulated where practical' and "400,000 homes will benefit from "whole house" treatments' (LCTP p.17)	2015
4.	Heat	'Around 12% of heat [in total across all sectors] is generated from renewable sources...' (LCTP p.17)	2020
5.	7 million homes	'Up to 7 million homes will have had the opportunity to take up more substantial 'whole house' changes. These packages will go beyond the simple loft and cavity wall insulation measures to include things like solid wall insulation or small scale renewable energy ' (HESS p. 17)	2020
6.	Smart meters	'By end of 2020 every home in Great Britain will have a smart meter' (LCTP p.17)	2020

Smart Meters & Households

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- Smart meters
 - Carbon Emission Reduction target (CERT)
 - Warm Front
 - Decent Homes
 - Product standards
 - Building regulations
 - Community Energy Saving Programme (CESP)
 - Renewable Heat Incentive
 - Feed in Tariffs
 - Pay as You Save

Smart Meters is part of the Household Energy Management Meta-Programme managing the full range of interventions aimed at Households.

Building a ‘smarter grid’ is an incremental process of applying information and communications technologies to the electricity system, enabling more dynamic “real-time” flows of information on the network and greater interactivity between suppliers and consumers. These technologies help deliver electricity more efficiently and reliably from a more complex network of generation sources than it does today.

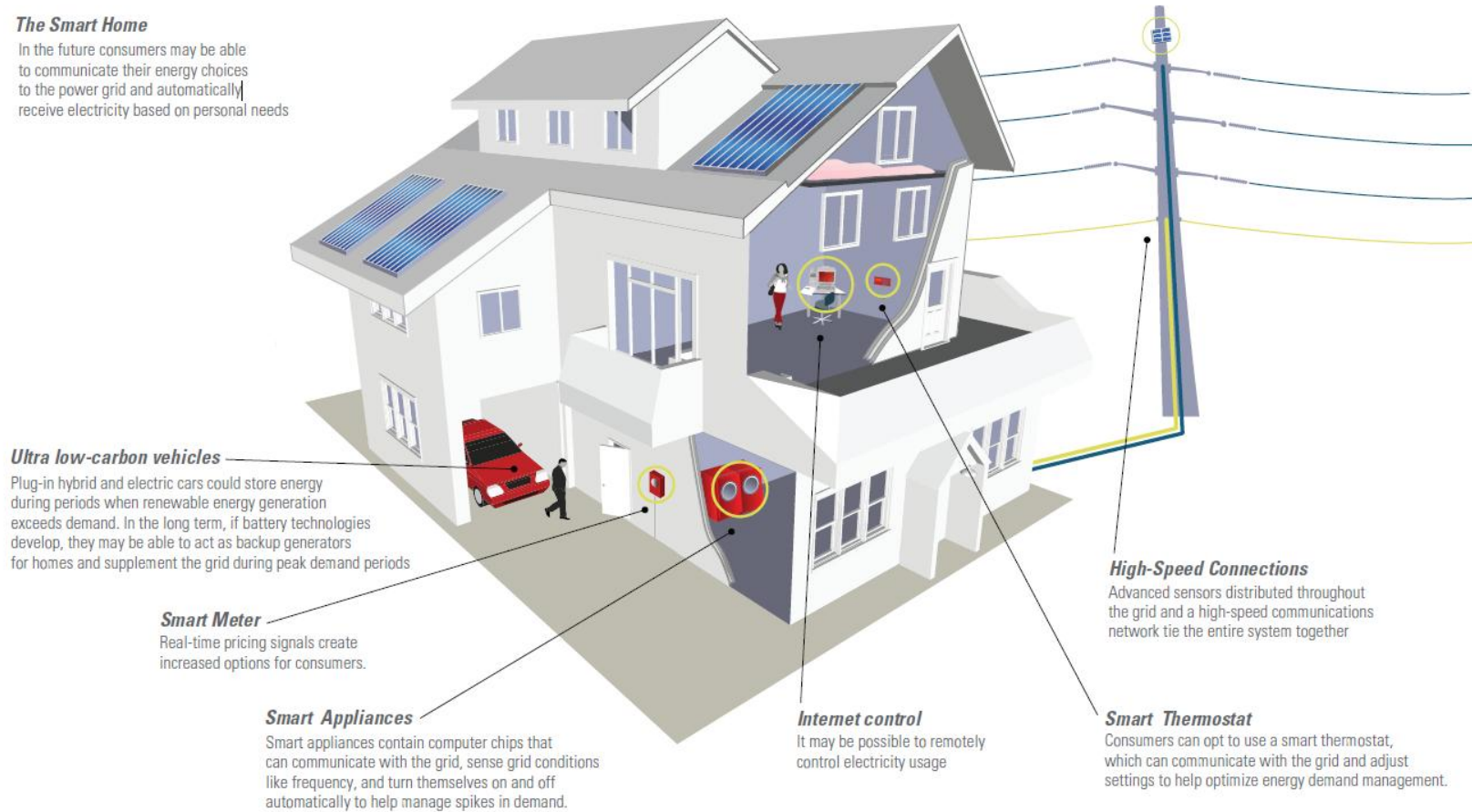
Principles of a
smarter grid

- observable
- controllable
- automated
- fully integrated

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



Smart metering decision to mandate



“I am pleased to announce that the Government have taken the decision to mandate smart meters for all households.”

Lord Hunt of Kings Heath
Proceedings on the Energy Bill
28 October 2008

History

No.	Milestone	Date
1.	Government Announcement	28 Oct 08
2.	Consultation Document Issued	11 May 09
3.	Consultation Closed	3 Aug 09
4.	OGC Starting Gate Review (Programme Assurance)	1 Oct 09
5.	Government Response Issued	2 Dec 09

Business Case

- Net benefit of £28 to dual fuel consumers per annum

Delivery model

- Supplier-led central communications delivery model confirmed
 - Incentivises suppliers to deliver high quality services and offers scope to simplify industry processes
 - Minimises time and risk involved in preparation for roll out

Functionality

- Confirmed high level functional requirements for meters
- But further work to be done on gas valve
- Confirmed approach to delivery of customer information
- Detailed smart grid requirements to be assessed under Programme

Non-domestic sector

- Expectation is that smart meters will be the default for this sector
- But non-smart up to 2014 and some limited exceptions beyond then

Next steps

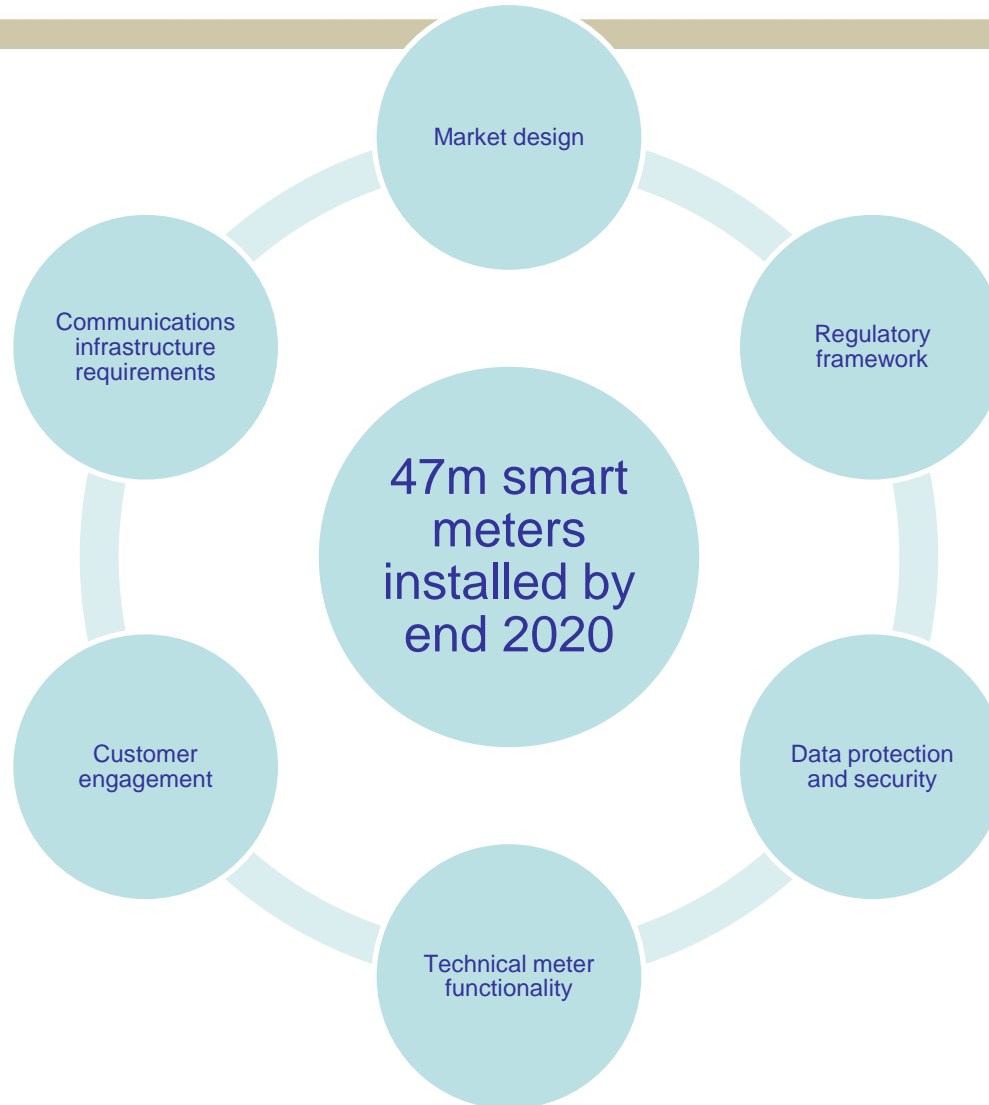
- Launch Smart Meter Implementation Programme

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
- Range of risks to be managed
- Will visit every home in the country, and affect the lives of millions

The Implementation Programme



Strategic Programme Board (in place)

- Chaired by DECC
- Providing Strategic Programme direction
- Will ensure the programme is aligned with Government policy objectives for smart metering and Ofgem's statutory duties
- Meets Monthly

Programme Board

- To be Chaired by the Ofgem Programme Lead

Programme Assurance

- Reviewed under OGC gateway procedures
- First OGC review completed 1 October 2009

Thanks to all stakeholders for your support to date

Thanks in advance for your continued support in the next Phases

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