

Smart and Advanced Metering in the UK – an overview

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Overview



- **Overview of the UK Electricity Market**
- **Drivers for Smart Metering in the UK**
- **Where we've got to**
- **Energy Demand Research Project**
- **IEA DSM Task XIX – UK work**
- **Expectations for the future**



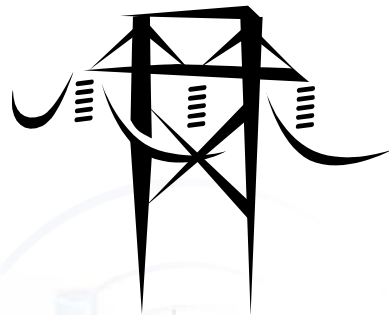
Overview of the UK electricity market



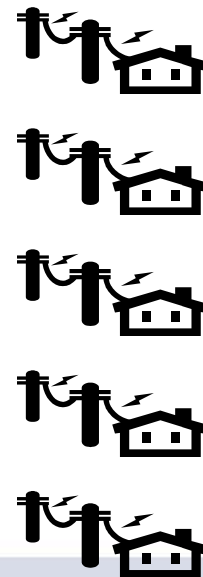
Generators



Transmission System Operator



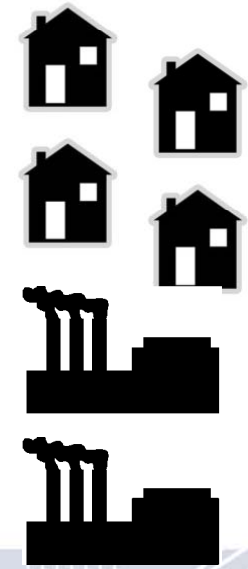
Distribution Network Operators



Suppliers



Consumers



Energy Regulator (OFGEM)



Drivers for Smart Metering in the UK



- **Security of Supply**
- **Accurate Energy Bills**
- **Promote awareness of Energy Consumption**
 - Leading to increased awareness of the cost of energy use
 - Promote energy efficiency behaviours
- **Easier to transition from Prepayment to Credit**
- **Remote Meter Reading**
- **Encourage use of Demand Side Management**
- **Better data for demand/load forecasting**
- **Facilitate wider use of Microgeneration**

Terminology



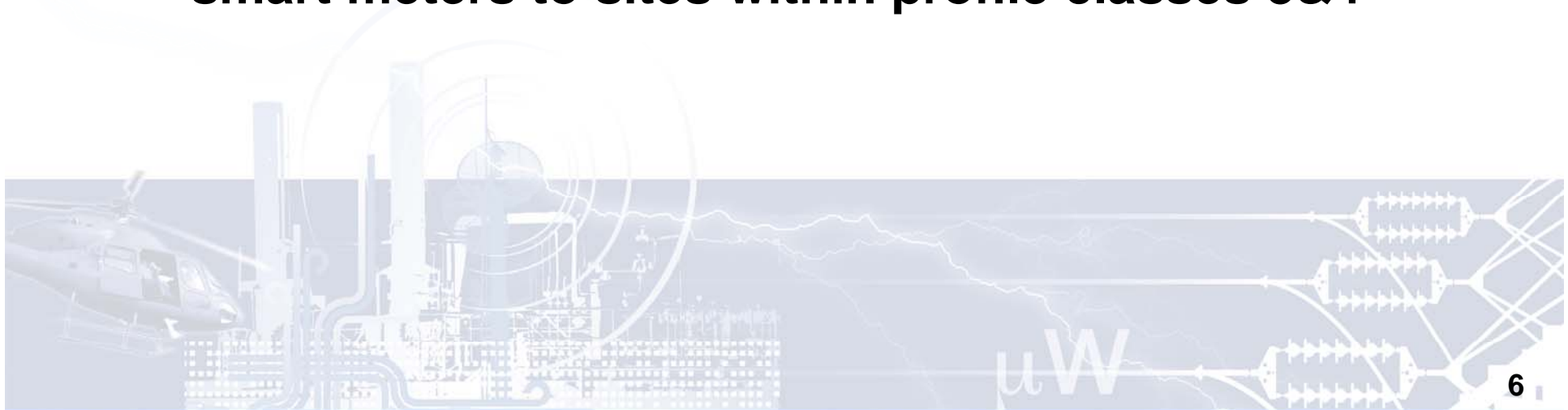
- Differs between types of consumer
 - Advanced Meters for SMEs
 - Smart Meters for Domestic consumers
- Reflects differences in specifications
 - Example:
 - Smart Meters will be required to ‘push’ information to a Display device in the home as well as Suppliers being able to pull information out for billing
 - Data will be pulled from Advanced Meters for billing and for energy management services

Where we've got to



- **SMEs**

- **Change to license conditions from April 2009**
- **All meters for sites within profile classes 5-8 to have an Advanced Meter by 2014**
- **DECC still undecided as to whether to introduce smart meters to sites within profile classes 3&4**



Where we've got to (2)



- **Domestic Consumers**

- Energy Act 2008 introduced the powers to rollout Smart Meters
- Ongoing work by the Energy Retail Association with DECC and Ofgem in determining the specification of Smart Meters
- Number of ongoing trials
 - Largest of which is the Energy Demand Research Project (2008-10)
- First Utility has recently launched as an Energy Supplier, installing Smart Meters for gas and electricity into all its customers' homes

Energy Demand Research Project



- **Largest, public trial of smart meters to date**
- **Budget £20million**
- **Funded by Government and Industry partners**
- **Administered by OFGEM**
- **Number of interventions being assessed**
 - **Billing & Information interventions**
 - **Clip-on Visual Display Units**
 - **Community Schemes and**
 - **Smart Meters**
- **All being assessed against control groups**

EDRP & Smart Meters



- **15,000 homes have had smart meters have been installed**
 - Many of these homes have smart meters for both gas and electric
- **OFGEM has stressed that it is too early to report on the impact on consumption**
- **Number of lessons came out of the installation phase**
 - Installation challenges
 - Immaturity in the integration of communication and metering technologies
 - Mixed customer reactions
 - Some very keen;
 - Others have experienced problems with the displays, additional costs of operating the meter, and price information not being accurate;
 - Concerns about being 'spied-on' are a big factor for some consumers

IEA DSM Task XIX – UK Work



- **UK team has been established**
- **Activities coordinated by Jen Carter, EA Technology as National Expert**
- **Partners**
 - **Government (DECC), TSO, 4 suppliers**
- **Work to date in line with the International Work Programme**
 - **Focus on Subtask 1 and the potential market for Micro Demand Response and Energy Saving products in the UK**

Expectations for the Future



- **UK Work under IEA DSM Task XIX will complete in March 2010 and provide an overview of the Business Case for Micro Demand Response and Energy Saving Products in the UK market.**
- **Completion of the EDRP and its final findings – due 2010.**
- **Most (possibly all) SMEs will see smart meters rolled out over the next 5 years.**
- **Decision from DECC, along with industry partners, on the specification of smart meters for domestic customers and more detailed roll-out plan.**

Any Questions...?



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