

Smart Meters Do Not a Smart Grid Make...

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ENERGY
RETAIL
Association

The logo for the Energy Retail Association, featuring a stylized yellow and orange graphic element below the text.

Energy Retail Association

- The **Energy Retail Association** (ERA), formed in 2003, represents the major electricity and gas suppliers in the domestic market in Great Britain.

www.energy-retail.org.uk

- Preparation and execution of policy on a wide range of key issues for the sector



- Starting from September 2006, the SRSM project at the ERA has been at the heart of smart metering developments within Great Britain.
- Working alongside the ERA members and industry experts, the project has:
 - Consulted on and delivered a series of core products.
 - Developed policy to support the smart meter mandate
 - Provided input to Government work
- ERA work has given the industry a head-start for the work to come

www.energy-retail.org.uk/smartmeters.html

Very Smart Meters

- The smart meters defined by the ERA will be among the smartest in the world
 - Support for flexible and dynamic tariffs
 - Connectivity to Home Area Networks, Displays and Appliances
 - Support for Prepayment and Pay As You Go
 - Remote Enable and Disable Functionality
- This feature rich function set is the first step towards a smart grid, but is only a step



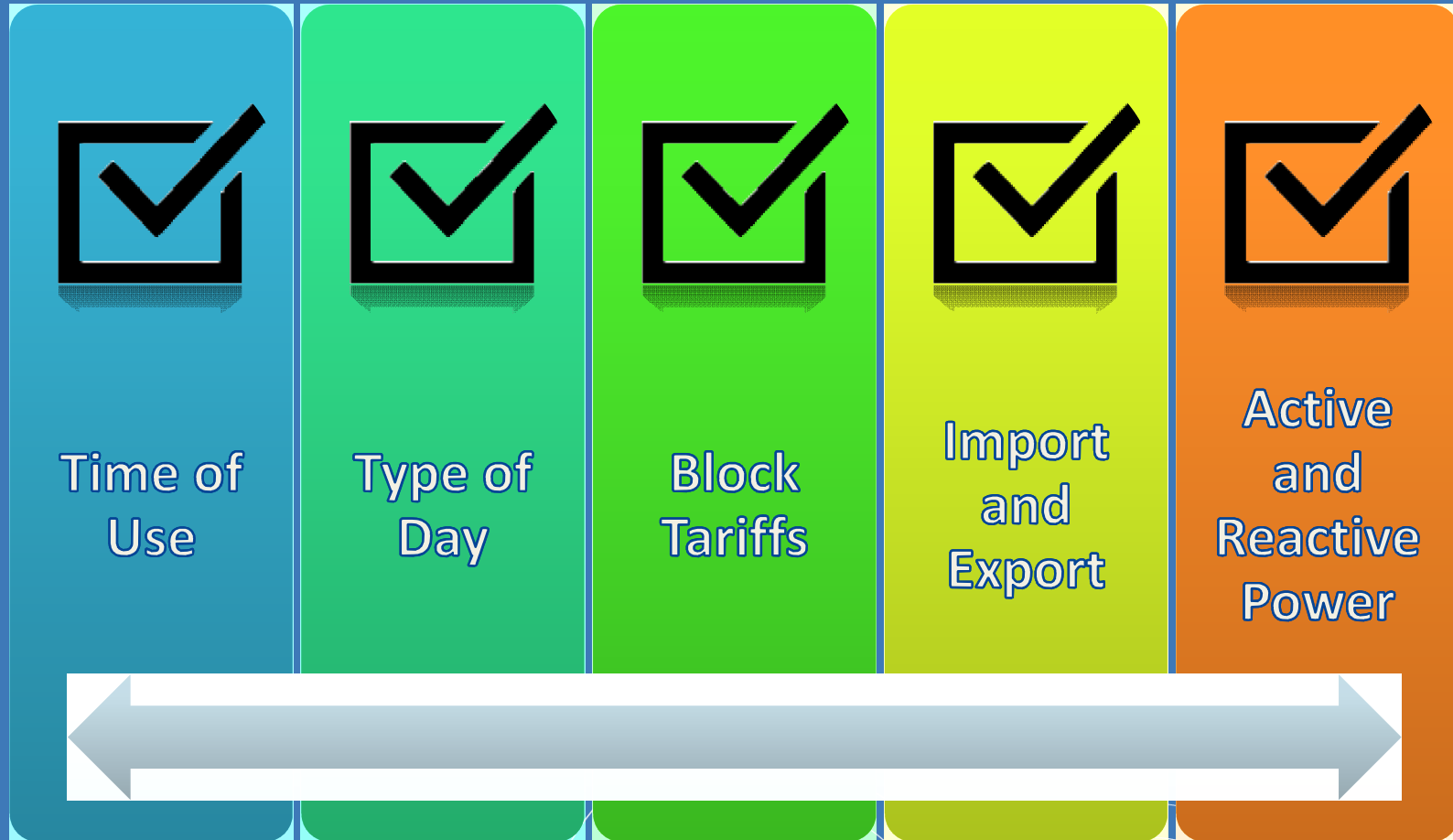
What is a Grid? What makes it Smart?

- There are several types or levels of energy grid
 - National (and International)
 - High / Medium Voltage – to the substation
 - Low Voltage – to the home
 - Hyper Local - within a home
- What do we want a smart grid to do?
 - Safeguard security of supply
 - Maximise efficiencies and save money
 - Reduce carbon
 - Facilitate technological development and changes in lifestyle?
- Possible that all of these are applicable



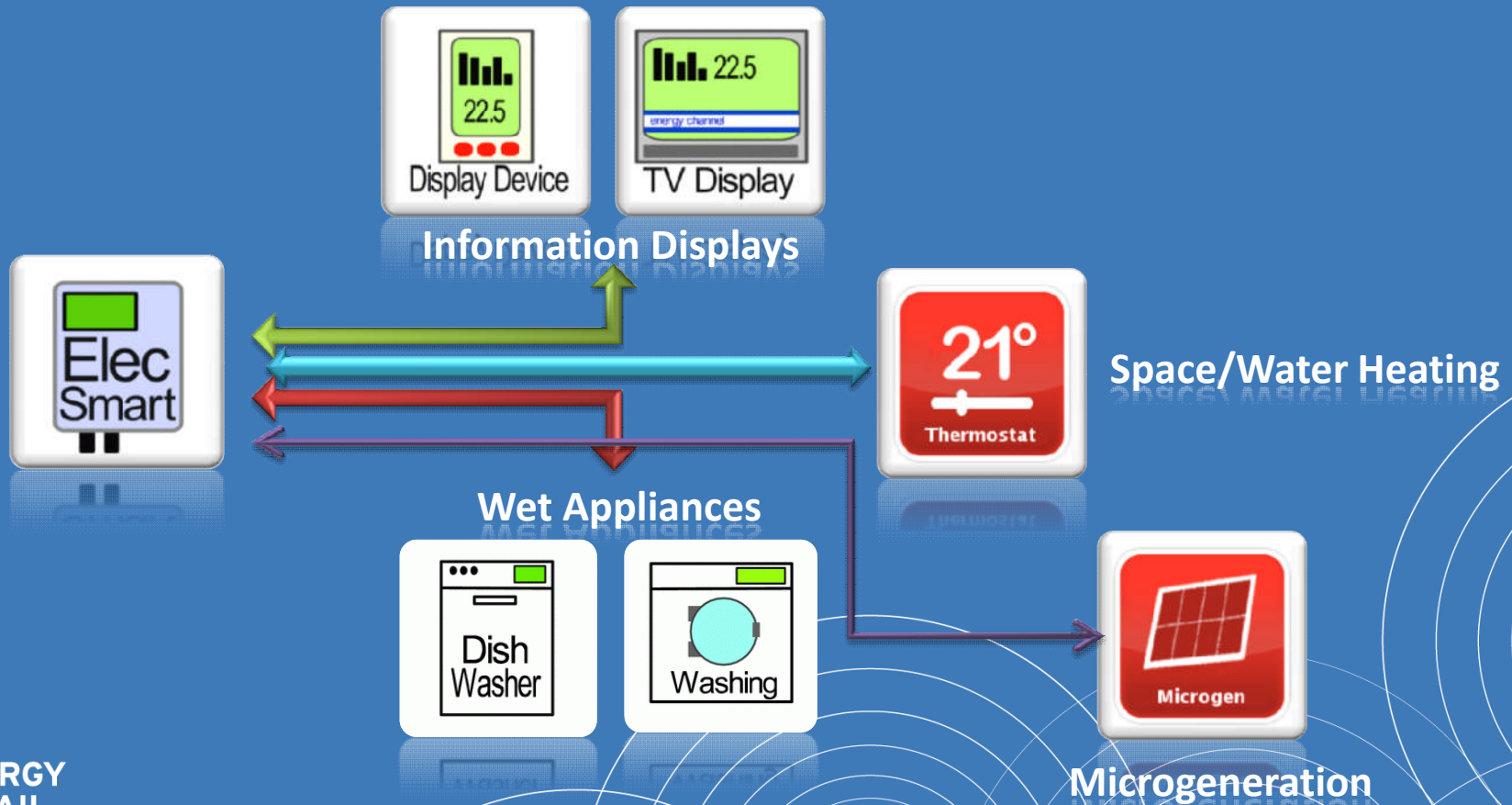
Smart Meters Can...

Support flexible and dynamic tariff structures



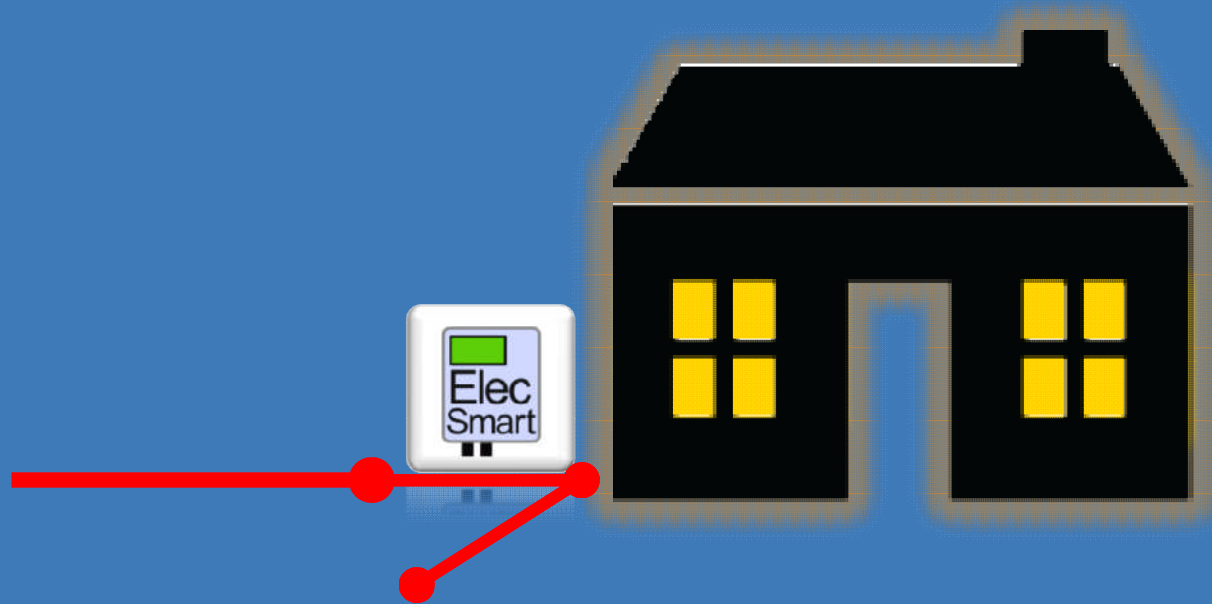
Smart Meters Can...

- Support local communications



Smart Meters Can...

- Act as a binary 'load control' tool



Smart Meters Will Not...

- Reduce demand
- Automatically switch appliances on or off
- Know what is using or generating energy
- Meters will ‘just’ measure and communicate – other things need to make use of that functionality to deliver smart grid activities

Smart Meters Will...

- Be ubiquitous
- Provide customers with more information on their energy use than ever before
- Operate on defined national and international standards-based platforms to support:
 - Interoperability
 - Innovation
 - Integration
- These will all be key to implementing an effective smart grid



Timings

- We have a mandate for GB smart metering for gas and electricity for all by 2020
- Policy on smart grids is less clear, but is evidently a high priority
- We are specifying 50 million smart meters now – have to try and accommodate:
 - Potential technology advances in smart metering
 - Potential future use cases for smart grids
 - Avoiding stranded or obsolescent equipment

Enabling Innovation

- Key questions about smart metering need to be resolved to enable the market to develop smart grid applications:
 - Physical connections and communications interfaces and protocols (interoperability)
 - Access and security provisions (security)
 - Privacy and control (consumer concerns)
- Should reference standards wherever possible
- Will not be answered easily or quickly



First Steps to...?

- Rolling out smart meters and displays to every home is a massive undertaking
- People will have more energy information than ever before, tariffs will get more sophisticated, end of estimated bills etc.
- BUT, even smart meters are just meters – the interesting (and critical) part will be what people can do with them

Thanks

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