

# Empowering Sustainable Energy: Exploiting Decentralised Renewable Resources

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**Logica**  
be brilliant together

# Empowering Sustainable Energy | Exploiting Renewable Energy Resources

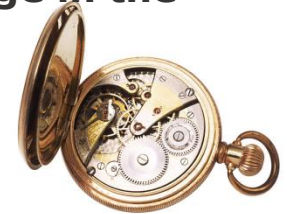
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**1 Why consumers want sustainably derived energy**

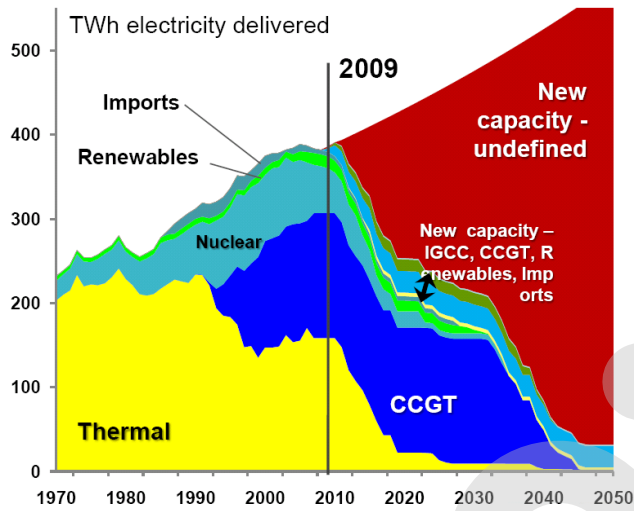
**2 The role of responsive distribution networks and storage in the adoption of renewable energy**

**3 The role of intelligent metering**

**4 Logica Experience**

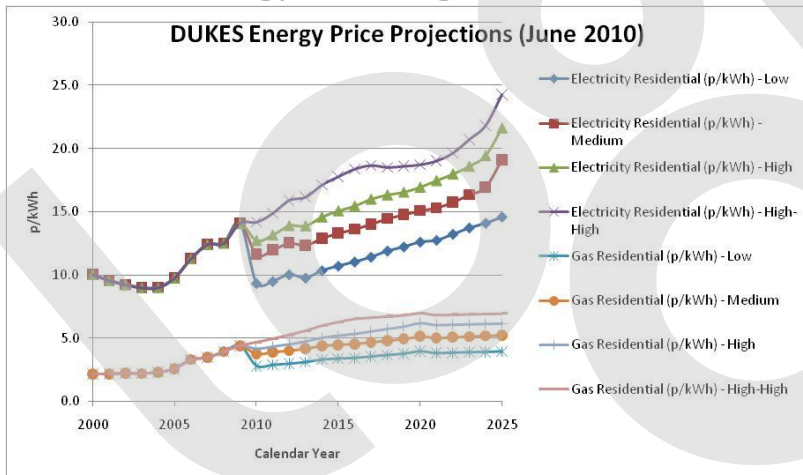


# Energy Security and Affordability



Source: Energy Technologies Institute, Dr David Clarke

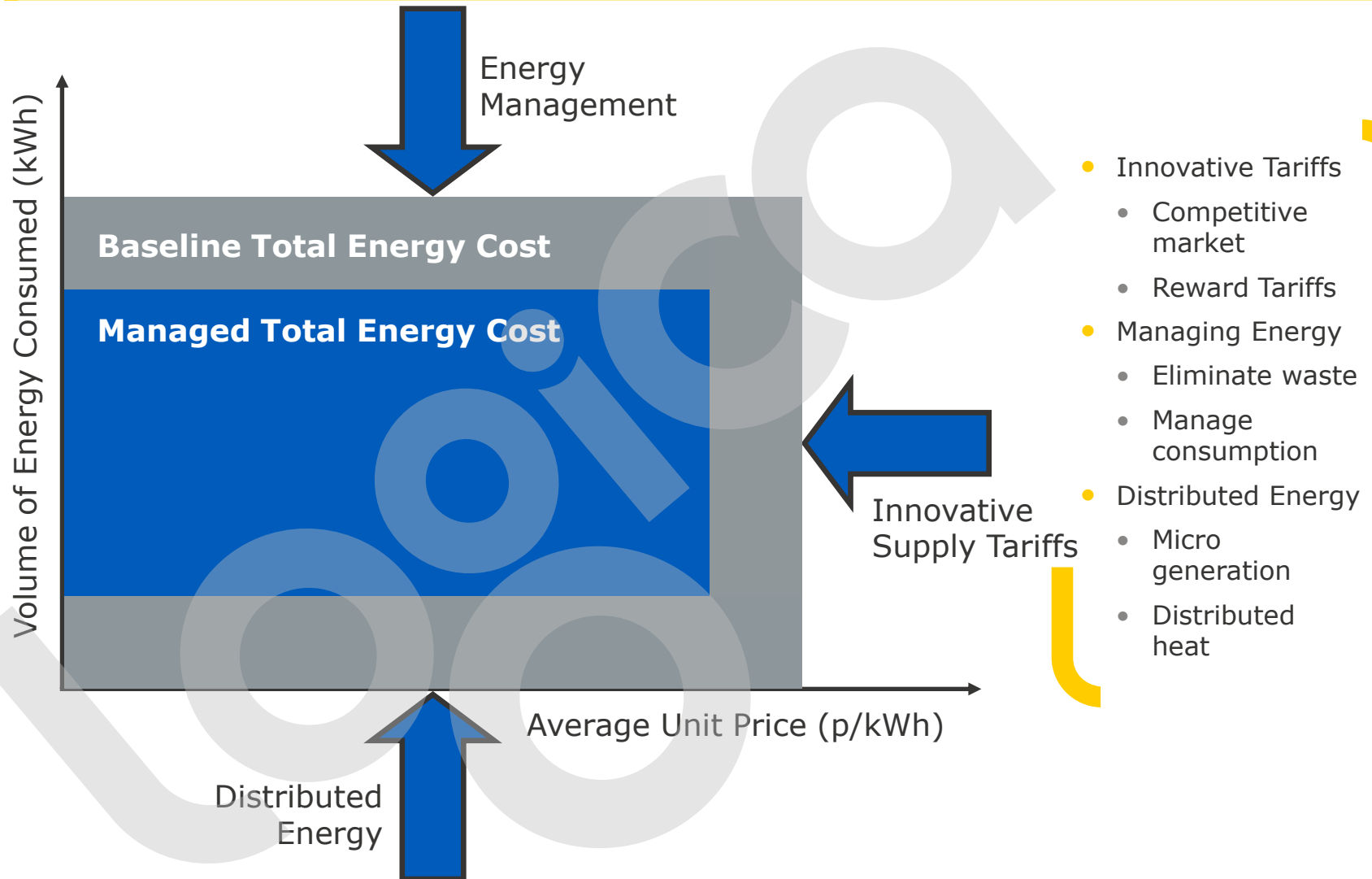
- “Energy Gap” projected 2016-2018
  - Increase risk of interruptions to supply
  - Implications for achieving climate change objectives



Source: DUKES

- Britain increasingly reliant on imported primary fuels
- Global demand growing for finite resource
- Sustained upward pressure on energy costs

# Empowering Consumers to Manage Their Energy Bills



# From Sustainable Homes to Responsive Distribution Grids

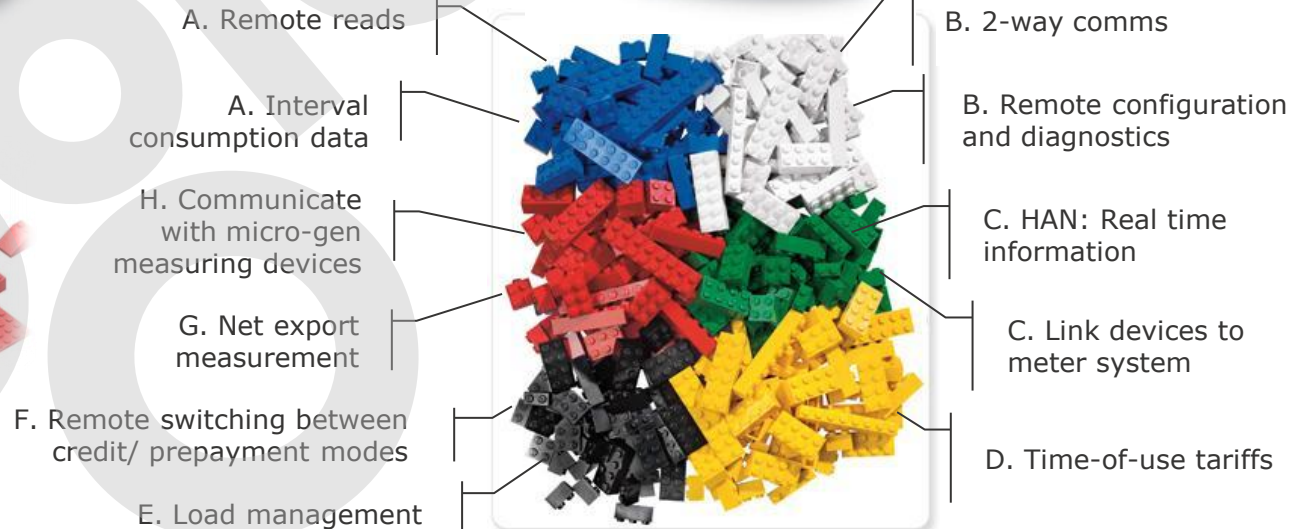
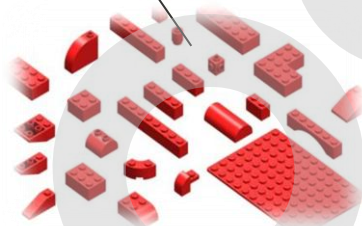
- Renewable generation associated with intermittency of supply
  - Increase risk of interruptions to supply
  - Capacity margin would need to increase from 20% today to 60%
  - Plant utilisation would reduce from 55% to 30% by 2020 and to <20% beyond 2030
- Renewable generation associated with intermittency of supply
  - ...but the ability to control demand to match available supply could push capacity utilisation back above 50%
  - That drives the need for responsive, intelligent distribution systems



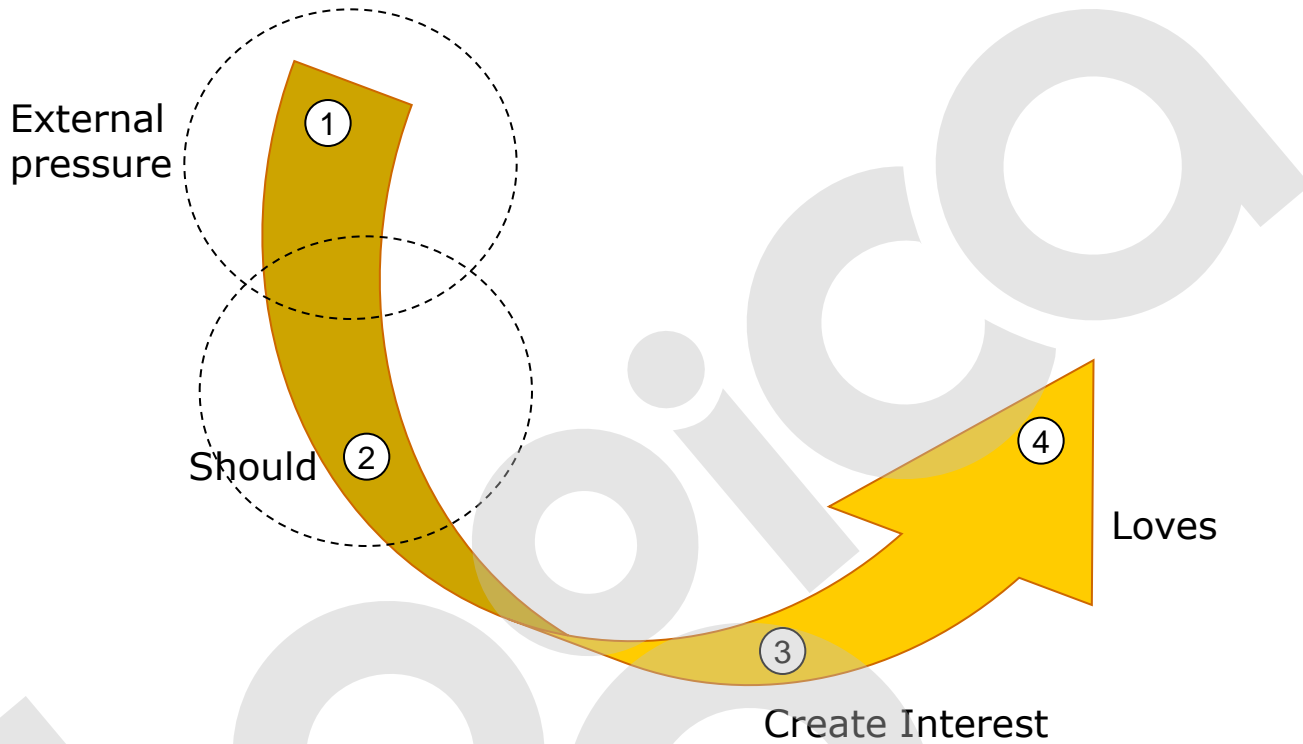
# Smart Metering Deployment | Creating the Information and Communication Infrastructure for Low Carbon Energy



Non-interval consumption



# Creating Engagement – Making it Fun



Move people from feeling they ought to do something...

...to wanting to act!

# Transforming Data into Information and Action

## ENERGIKOLLEN

- Smart metering enables the **feedback** system and **interactive** communication.
- The art is to make it **easy** for consumers to **understand** their consumption, and how their **actions** are reflected in **consumption** patterns.



# But what about the consumer?

- More than half (52%) of consumers believe renewable energy is at the heart of a sustainable future
- 7 out of 8 people haven't received information on smart grids
  - Yet, more than 1 in 3 (35%) anticipate will help them manage energy consumption
  - And almost 1 in 5 (19%) believe being connected to a smart grid will help them to lower energy consumption
- But there's contra-indications that tell us we need to engage people
  - 1 in 6 (17%) of respondents said they wouldn't use low carbon technologies connected to a smart grid
    - And the percentage grows in the over 55s
  - 34% always opt out of allowing use of their data



Source: Logica Eco Environment and consumer attitudes surveys

## Take aways...

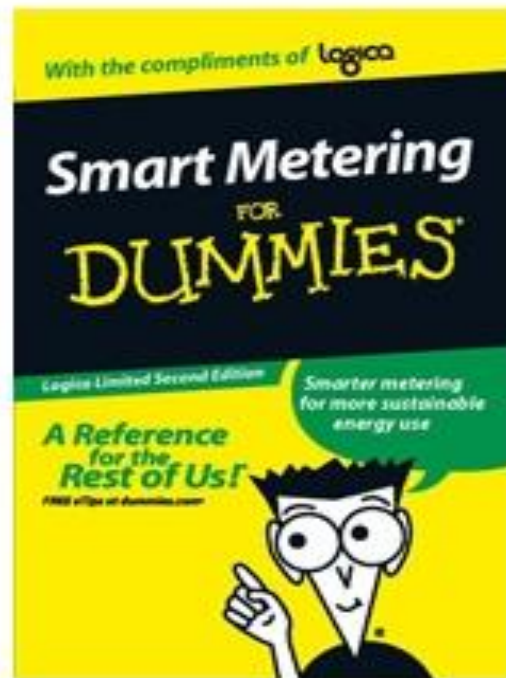
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- Consumers do see renewable energy at the heart of satisfying energy needs
- Intermittency creates challenges for the design and operation of our energy distribution systems
- The ability to control demand and match to available generation is vital to maintaining reliability and affordability of energy supply
- The interconnectivity and insights created through the deployment of smart meters is essential to achieving these goals
- Consumers need to be engaged
  - Our collective challenge is to provide them with meaningful choices to satisfy their energy needs
  - It's more about when you use it than, how much you use
- Delivering a sustainable energy future relies on engaging consumers, incentives and technology

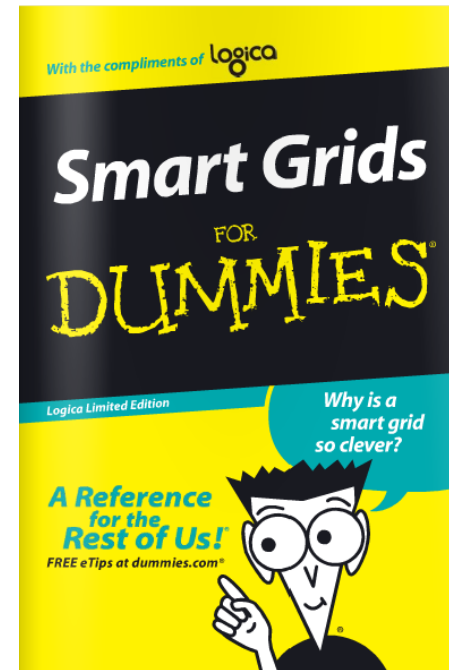


## More Information on Smart

More information about Smart Grids and Smart Metering can be found in Logica's "Smart Metering for Dummies" and "Smart Grids for Dummies"



<http://www.logica.co.uk/we-are-logica/media-centre/articles/smart-metering-for-dummies/>



<http://www.logica.co.uk/we-are-logica/media-centre/articles/smart-grid-for-dummies/>

# Logica

- Logica is a business and technology service company delivering to clients around the world, including many of Europe's largest businesses
  - Our services span
    - business consulting
    - systems integration
    - outsourcing
- Logica creates value for clients by successfully integrating people, business and technology.
- We are committed to long term collaboration, applying insight to create innovative answers to clients' business needs.
  - We have top positions in growing European geographies and sectors that underpin around 75% of our revenue
  - We have around 41,000 employees
  - a strong base of customer-facing employees in UK and across Europe
  - a strong multinational blended delivery model
  - We operating in 36 countries
  - Around £3 billion in revenues
  - A worldwide client base of blue-chip organisations
  - More than 40 years of experience in Business and Technology services



Australia	Malaysia
Austria	Mexico
Belgium	Morocco
Brazil	Netherlands
Canada	Norway
China	Philippines
Czech Republic	Poland
Denmark	Portugal
Egypt	Russia
Estonia	Saudi Arabia
Finland	Singapore
France	Slovakia
Germany	Spain
Hungary	Sweden
India	Switzerland
Indonesia	Taiwan
Ireland	United Arab Emirates
Italy	United Kingdom
Japan	United States of
Kuwait	America
Luxembourg	Venezuela

# Logica in Utilities and Telecoms

- Logica's systems have been fundamental to the regulatory transformation of energy markets around the world.
- Logica implemented the first integration of smart metering into a SAP architecture
- Logica has led on innovation in smart metering in the deregulated markets with its award winning Instant Energy solution in the UK and EnergiKollen in Sweden
- Logica developed the 'Market Data Clearing House' to ensure data integrity for high transaction volumes across multiple jurisdictions and regulatory regimes
- Logica designed, built, financed, operates and maintains the central services supporting the New Electricity Trading Arrangements (NETA), for England and Wales
- Logica is the leading provider of work management systems to utilities in the USA
- Logica built the central IT systems for 75 per cent of the deregulated gas market in Australia
- Logica has deployed more than 70 billing and settlement systems worldwide with telecoms customers

## Some of our clients:



# Maintaining the dialogue...

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Logica is a business and technology service company, employing 39,000 people. It provides business consulting, systems integration and outsourcing to clients around the world, including many of Europe's largest businesses. Logica creates value for clients by successfully integrating people, business and technology. It is committed to long term collaboration, applying insight to create innovative answers to clients' business needs.

Logica is listed on both the London Stock Exchange and Euronext (Amsterdam) (LSE: LOG; Euronext: LOG). More information is available at [www.logica.com](http://www.logica.com).

The company is a public company incorporated and domiciled in the UK.  
The address of its registered office is 250 Brook Drive, Green Park, Reading RG2 6UA, United Kingdom.