Making a positive difference
for energy consumers

Transformation of the energy sector and implications for regulation

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I-SEE Seminar, University of Bath
4 April 2017

Context

> The … power system will keep changing and evolving throughout the coming decade. Nothing that we know from the past might be taken as granted. Technologies, system and market parties' behaviours and strategies, hence business models, will come to change and surprise us.

Florence School of Regulation,
Policy Brief 2015/04

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The changing energy sector

We expect…

- A smarter, more flexible system
- A more decentralised energy sector
- Increasing interdependence
- A more diverse commercial environment
- New innovative services for consumers

Driven by…

- Technological change
- Business models
- Behaviour
- Economic developments
- Decarbonisation agenda
- Policies / incentives

https://www.ofgem.gov.uk/ofgem-s-insights-future-energy-system

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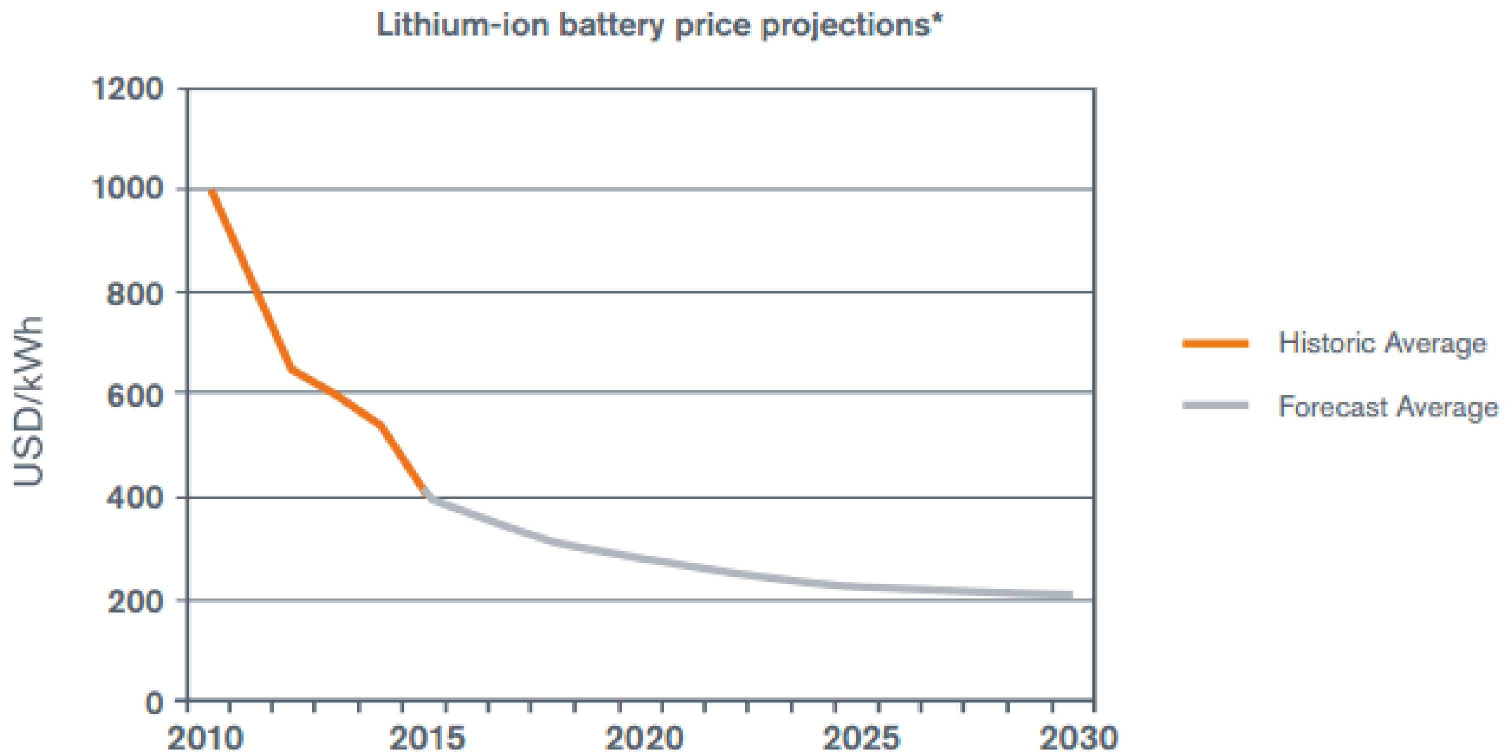
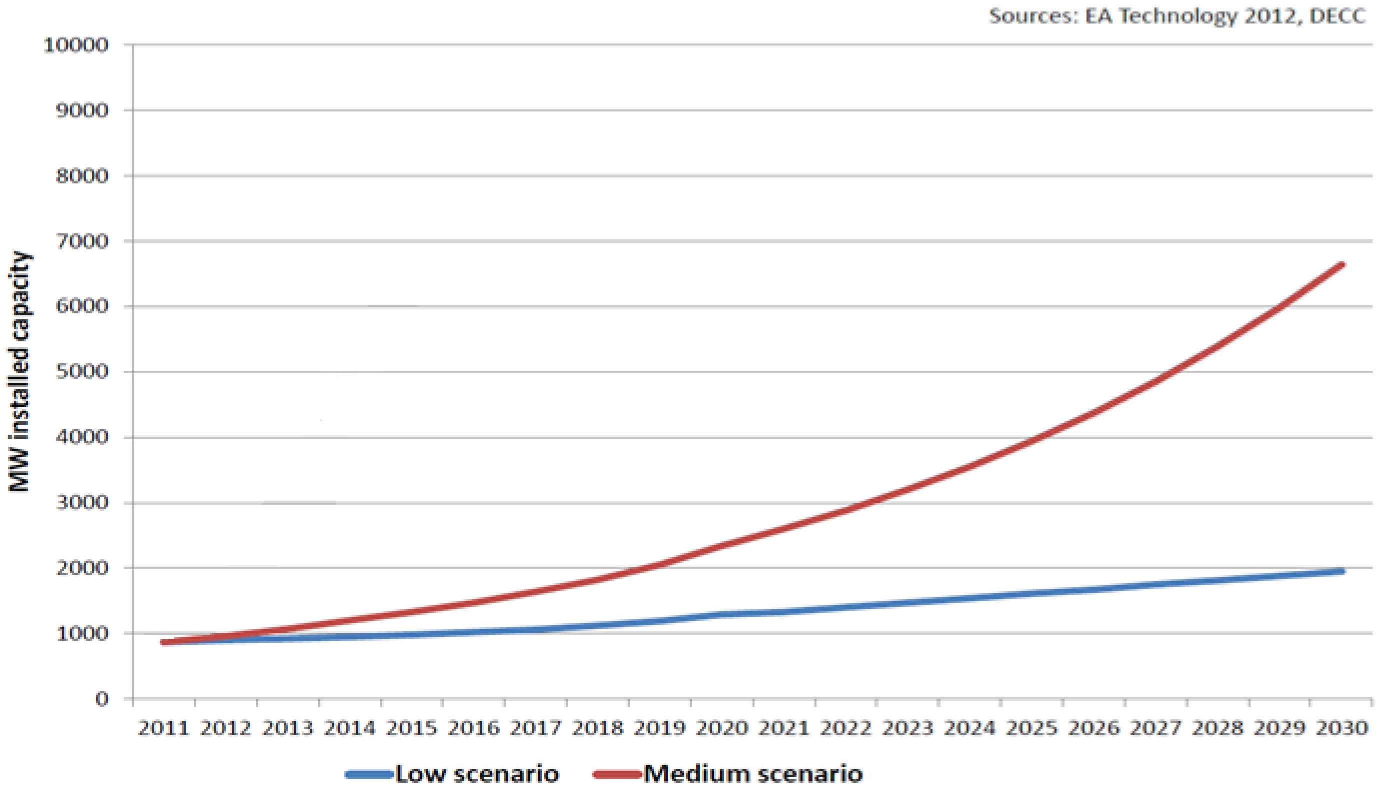
Falling costs of storage



***Source** – National Grid Future Energy Scenarios 2016

Our powers of prediction



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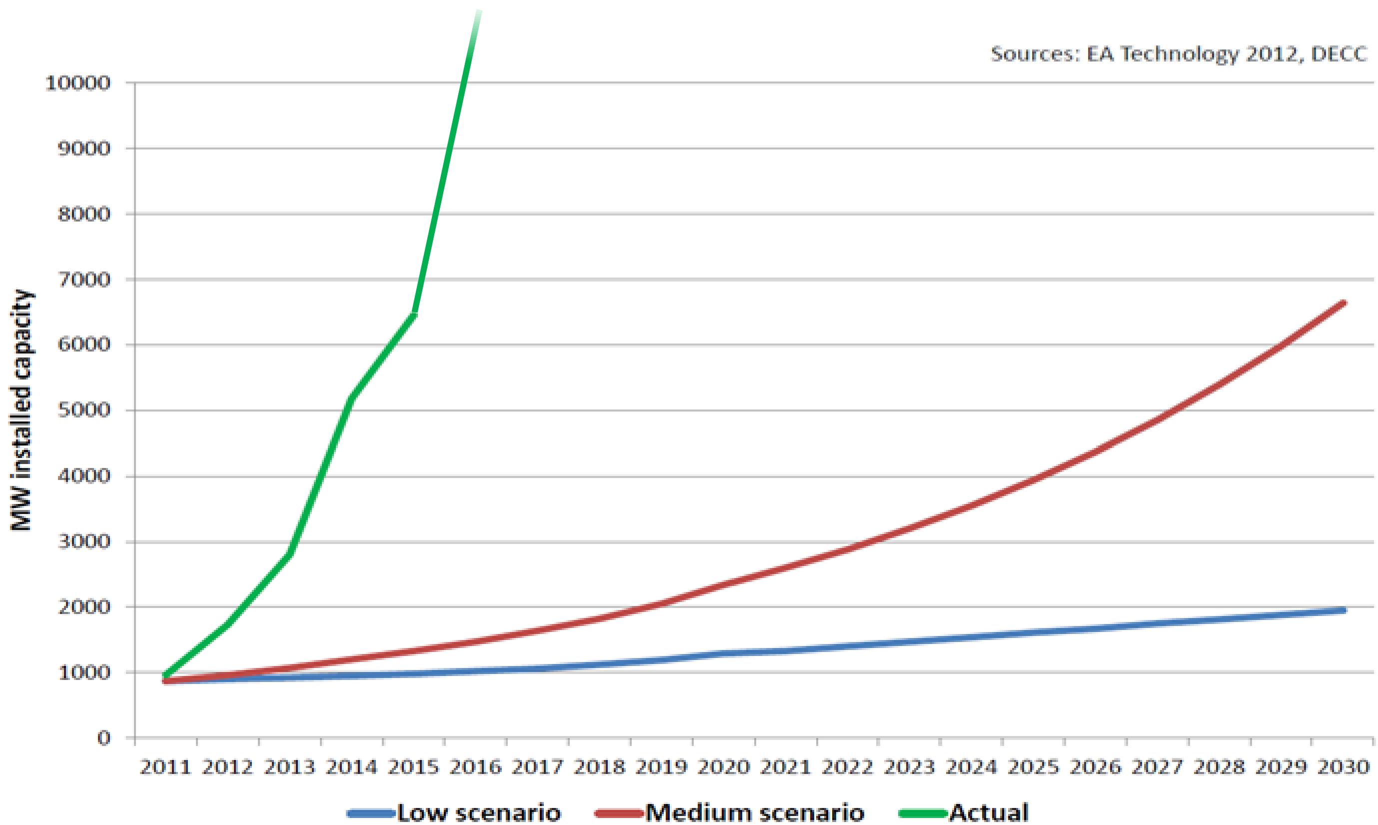
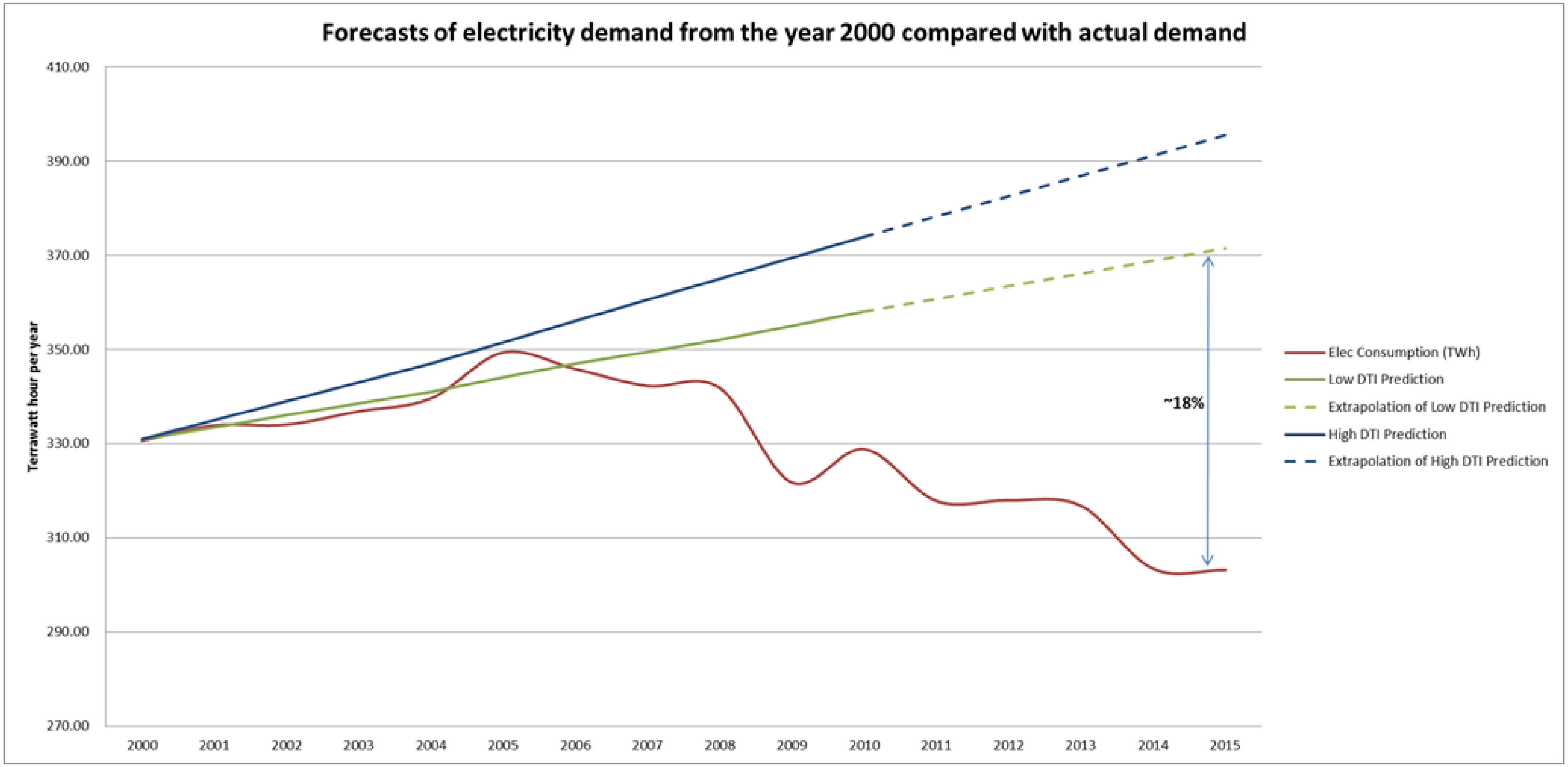
Our powers of prediction

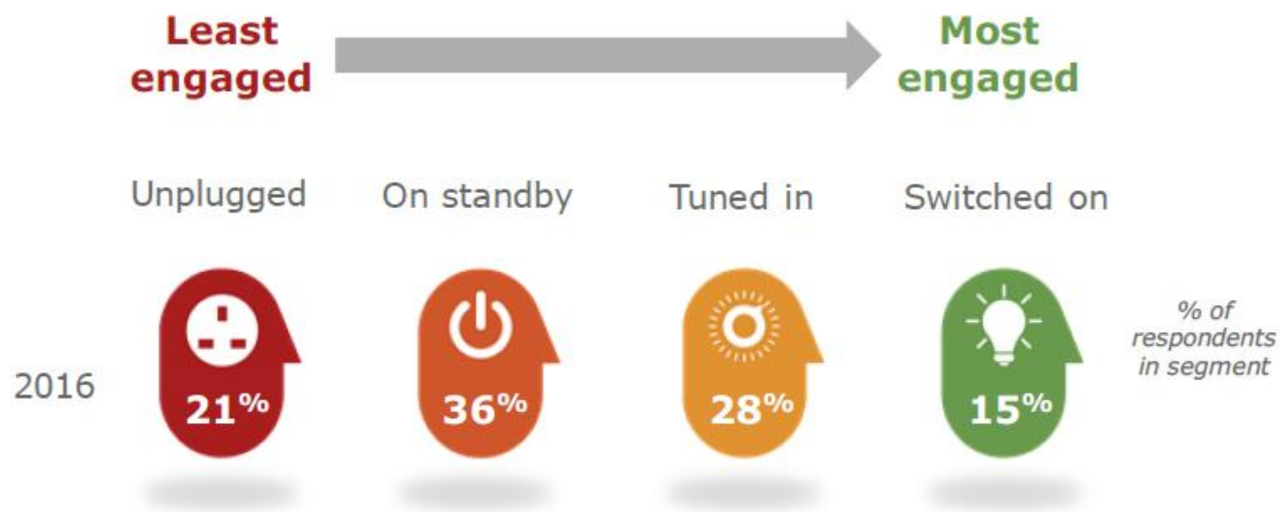


Outturn vs expectations. Cumulative capacity now stands at 11.4GW (at Nov 16)

History of prediction



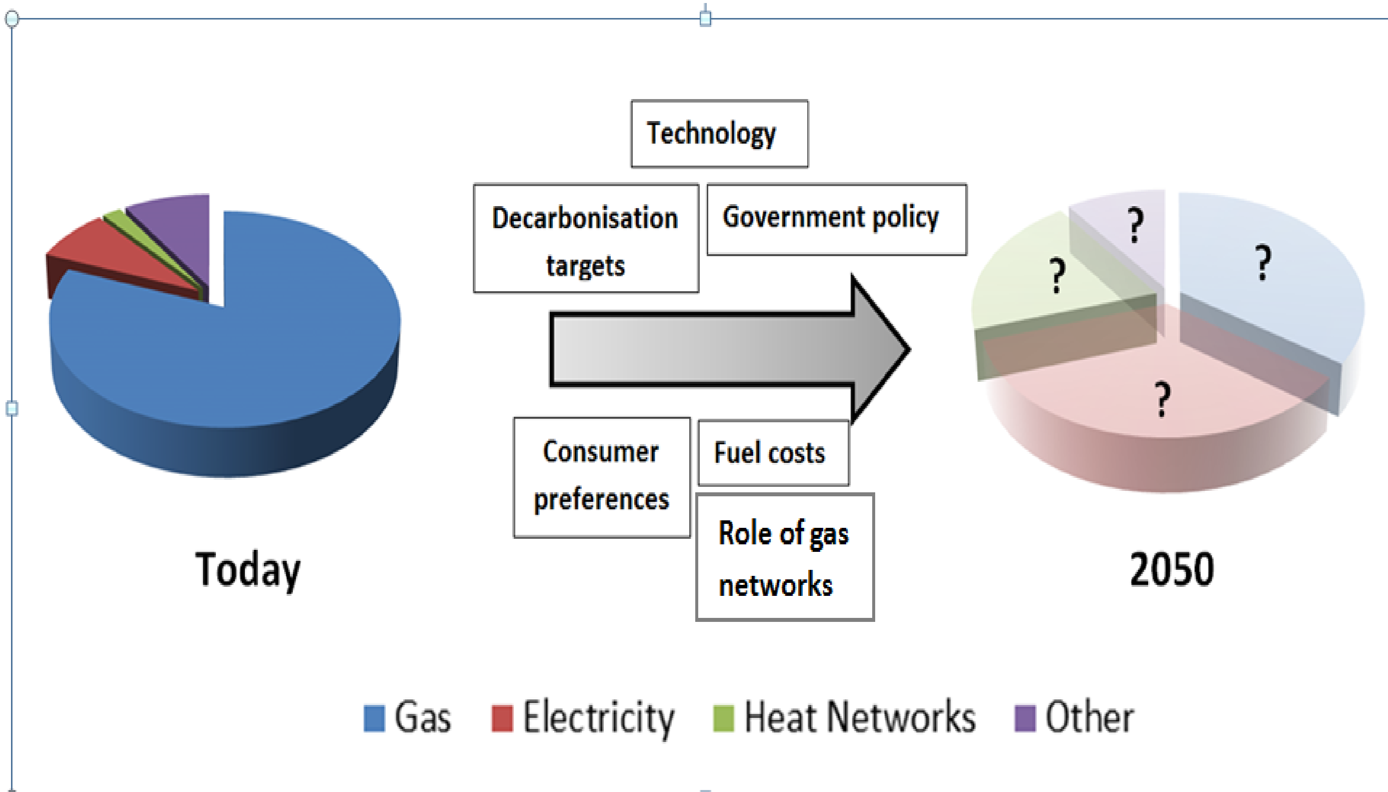
Energy consumers



Social Grade	Unplugged	On Standby	Tuned In	Switched On
AB	14%	22%	27%	39%
C1	27%	32%	34%	33%
C2	23%	21%	20%	17%
DE	35%	25%	19%	12%

Source: Consumer engagement in the energy market since the Retail Market Review - 2016 survey findings, August 2016

Future of heat



BEIS Energy Trends March 2017: UK energy consumption per dwelling adjusted to EU climate is 2% above EU average having fallen 26% from 2004-14 (vs EU average fall of 17%) Source: ODYSSEE

Future of transport

- Approaching 40% of new cars in Norway are plug-in electric
- Rocky Mountain Institute: peak car ownership in 2020

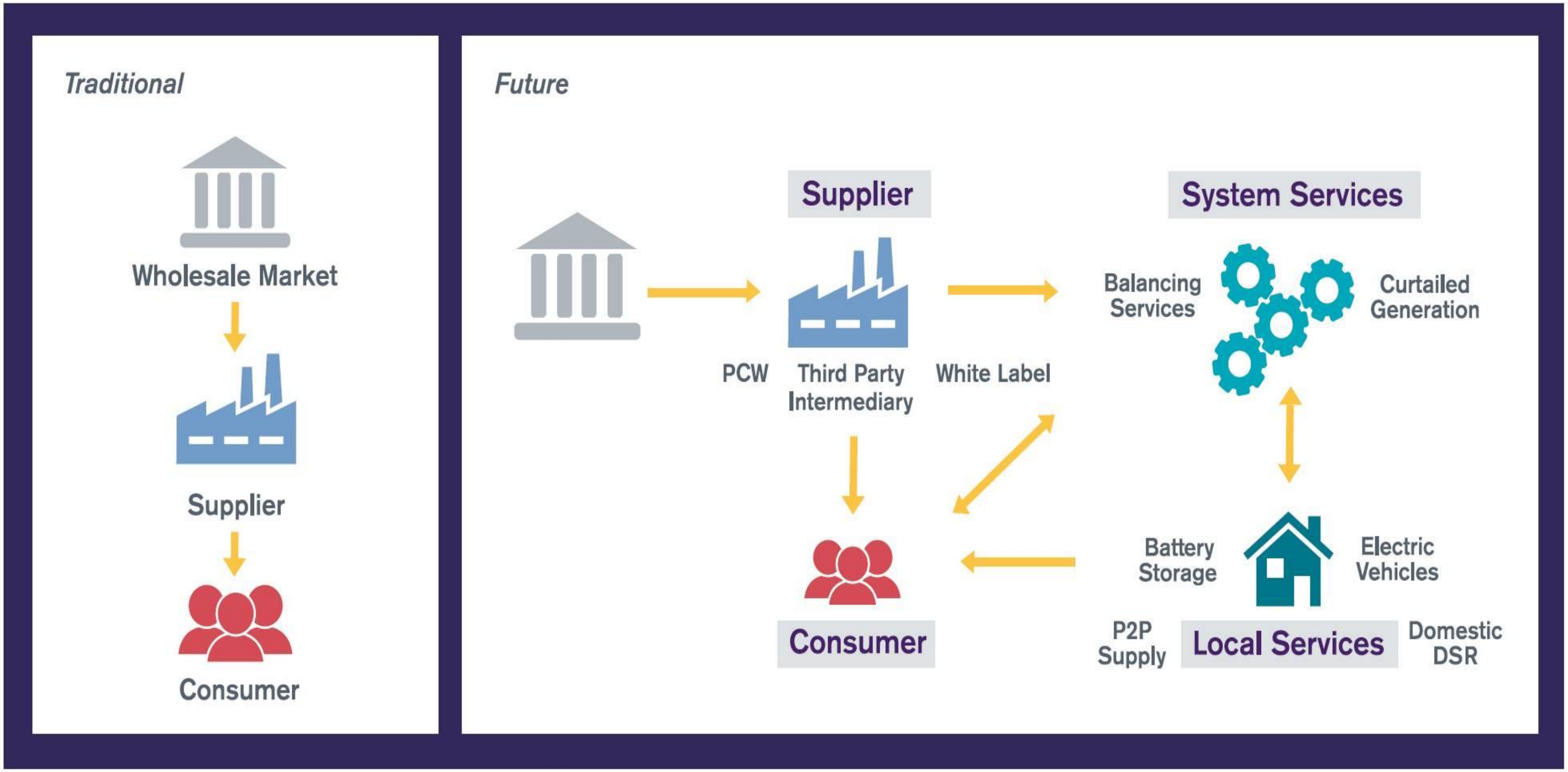
Ownership of Electric Cars

- Increased electric demand
- Local constraints
- Charging infrastructure
- Some V2G

Using Electric CAVs

- Increased electric demand
- Fleet charging
- Enhanced grid services
- Stranding infrastructure?

The end of supplier hub?



How should regulation respond?

- Not “fit and forget”, not 4-year-long projects to design the perfect regulation
- Balancing principles and predictability with agility – set direction, learn, adapt
- Less “consultation”, more engaging with new ideas
- Further improving the role of economics and analysis

1) Providing a clear stance on how we regulate

Stance 1
Promoting effective competition to deliver for consumers

Stance 2
Driving value in monopoly activities through competition and incentive regulation

→ Core activities reflecting the areas we regulate

Stance 3
Supporting innovation in technologies, systems and business models

Stance 4
Managing risk for efficient and sustainable energy

Stance 5
Protecting the interests of consumers in vulnerable situations

→ Key cross-cutting themes reflecting the transforming energy system and our duty relating to consumers in vulnerable situations

2) Flexibility in our thinking and decision-making

For example:

- Future Retail Regulation
- Future Insights Series
- Innovation Link and Regulatory Sandbox

Innovation Link

The **Innovation Link** is:

1. Fast, frank **feedback** on the regulatory implications of disruptive, new business propositions

2. A **"regulatory sandbox"** to enable innovators to trial new products or services without all of the normal regulation

What's happened so far?

100 people attended the launch event on December 8th

50+ projects being given feedback
Wide range: retail-related, smart grid, local energy, storage etc

29 sandbox applications by March
Approx half are local energy models

Contact the Link at: innovationlink@ofgem.gov.uk
Website: www.ofgem.gov.uk/about-us/how-we-engage/innovation-link

3) Further improving our evidence base

- Thinking out loud
- Monitoring and reporting clearly on market developments (State of the Market Report)
- Testing policy options in advance
- Developing heuristics to guide behaviour

Key messages

- Energy sector is undergoing transformative changes and we can't predict the future accurately

- Regulation must respond to facilitate change in the best interests of consumers

- We have already made positive changes to our regulatory approach, and we plan to go further

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We work effectively with, but independently of, government, the energy industry and other stakeholders. We do so within a legal framework determined by the UK government and the European Union.

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