

Decarbonisation and Ofgem's role



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Chief Engineer

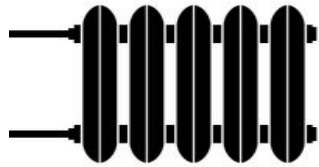
October 2018



- **Around 15GW of Power Stations closed since 2011**
- **Renewable generation has increased from 5% to around 30% in 10 years**
- **Over 25% of generation capacity now connected to distribution networks**
- **Wind and solar generation increasingly cost competitive**
- **Possible 6GW of electric storage by 2020**



60,000 EVs currently on UK roads. Forecast to increase to 36 million by 2040



Decarbonising heat – Govt Clean Growth Strategy
‘Meeting our target of reducing emissions by at least 80% by 2050 implies decarbonising nearly all heat in building and most industrial processes’



Decentralised Generation – BEIS
‘By 2050 we anticipate that emissions from the power sector could need to be close to zero’



Essential to have transparent data available to help new business models. Data sharing helps greater co-ordination between parties



Ensuring the right price control framework through RIIO2



Reforming access and forward looking charging arrangements



Ensuring a retail market fit for the future



Development of intelligent energy systems

RIIO-2 Framework

- Giving consumers a stronger voice
- Simplifying the price controls
- Responding to changes in how networks operate
- Ensuring fairer returns
- Driving innovation and efficiency

- **Innovation will be critical for networks to manage the changes expected over next decade**
- **Network companies need to adapt, embracing more innovation into business as usual**
- **Need to see better value for money on innovation spending, and greater alignment with strategic industry challenges**

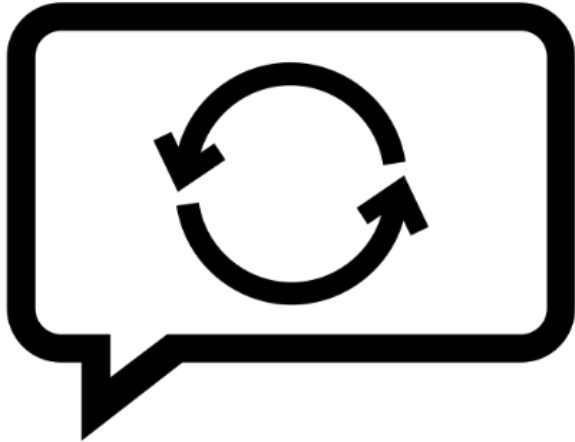
We want innovation funding to support network companies in facilitating the transition to a low carbon economy

But reform needed to ensure value for money for consumers

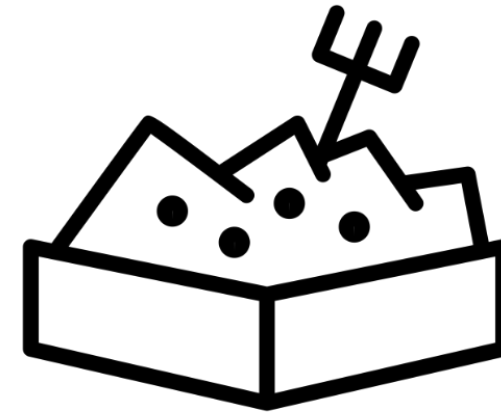
Greater
coordination with
wider public sector
innovation funding
and support where
this is in the interest
of GB network
consumers

Increased alignment of
funds to support
critical issues
associated with the
energy transition

Enabling increased
3rd party engagement
and exploring direct
access in light of
disruptive innovation



Fast, frank, feedback

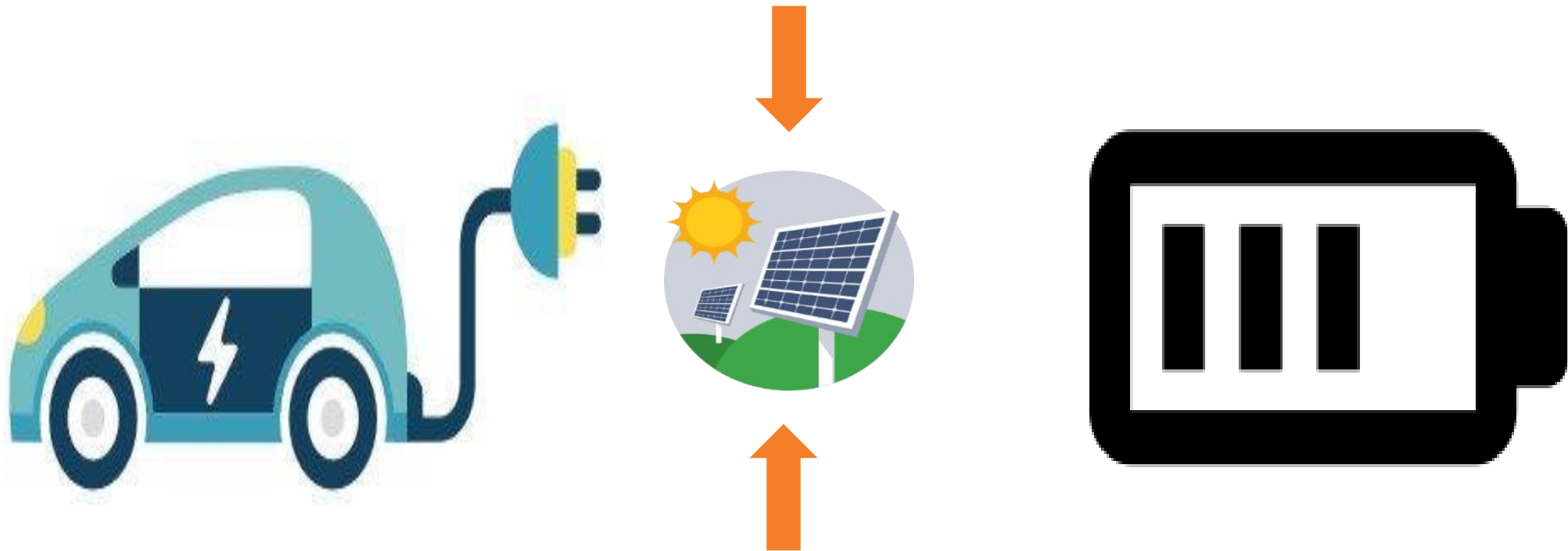


Regulatory sandbox

**+ Using learnings to
shape future Ofgem
decisions**

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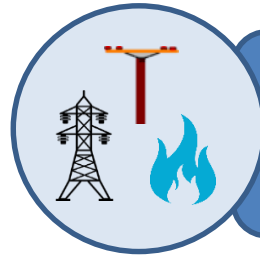
Targeted charging review: Need a level playing for all users. Fixed costs for network infrastructure must be spread fairly among all consumers



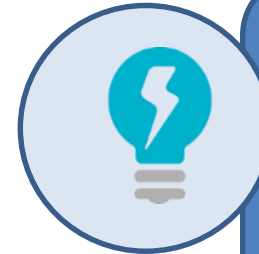
Access reform: Freeing up existing grid capacity and driving down costs for connecting EVs, decentralised generation and storage. Scope for networks and other companies to develop innovative solutions

We need system and network operators to:

- Respond to and facilitate the energy system transition and meet consumers' needs
- Work together to plan the future of the system and drive down costs for consumers



Whole system thinking



Driving efficiencies through smart and innovative solutions



Promoting competition

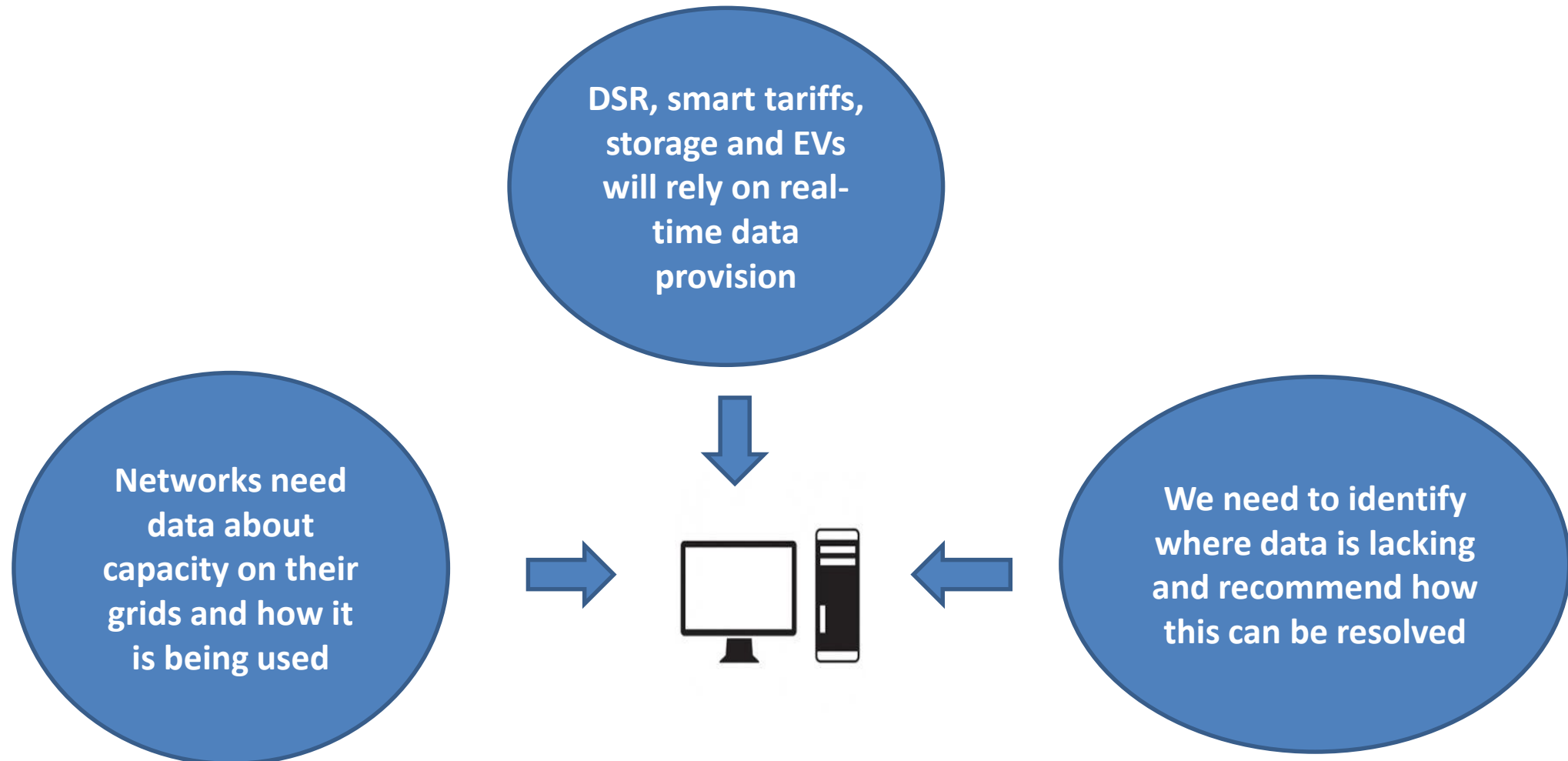


Leadership in delivering change



Better use of data

Data is essential for a smart energy system with smarter electricity networks



We need a market model that **encourages new business models and propositions**, in a way that **protects consumers** while also providing for **better default arrangements** for the disengaged.

Evidence from stakeholders and our own activities demonstrates that...

whilst too many consumers on existing default arrangements are not seeing the full benefits of competition

the current design of the retail market can constrain competition and innovation

Meanwhile, the role of unregulated intermediaries has grown significantly



We consider that the current supplier hub model may not be fit for purpose for energy consumers over the longer term

Dec 2018: RII02: Consultations on methodologies for setting the gas distribution and transmission price controls

Autumn/Winter 2018:

- **Consultation on recommended approach for targeted charging review**
- **Decision on access reform**

Future Retail Market Design:

- **Over the coming months we will engage stakeholders to develop thinking on reform options**