

# Local Energy Governance roundtable

28<sup>th</sup> November 2018

Jess Britton

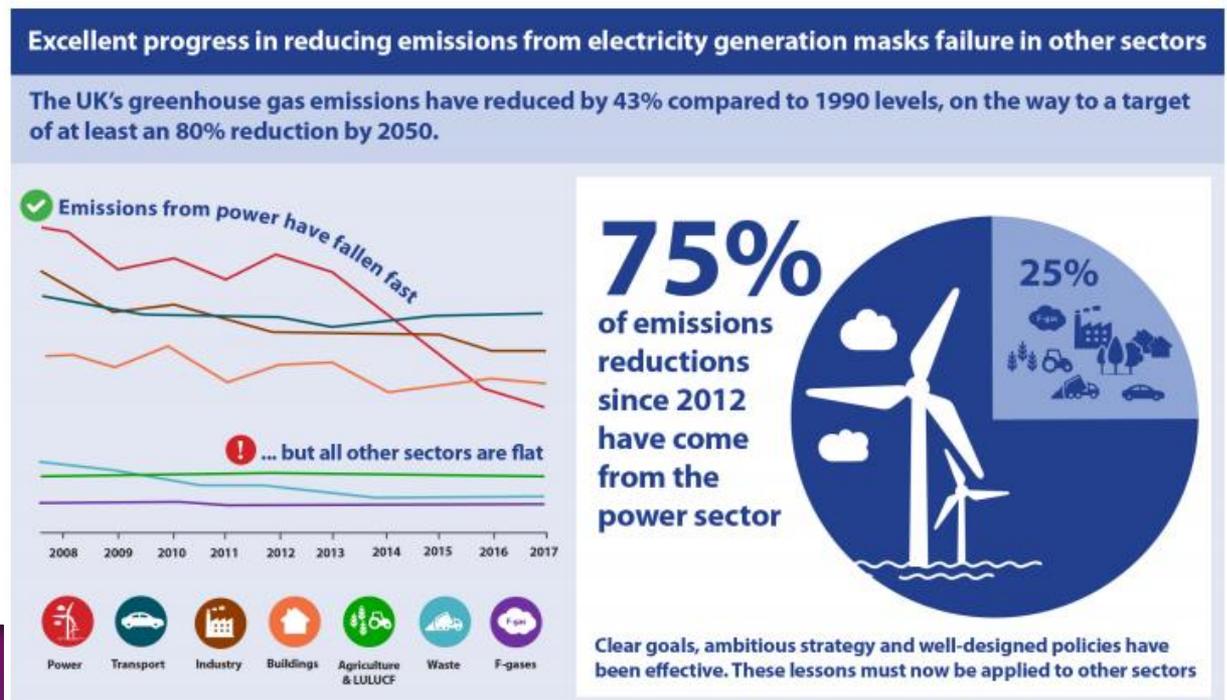


New Thinking For Energy



# Context and introduction

- GB energy system has already undergone significant change but focussed on electricity
- The direction of travel is challenging the current top down and centralised system
- System becoming more distributed and closer to end users
- Also recognition of need for whole system/integrated approaches



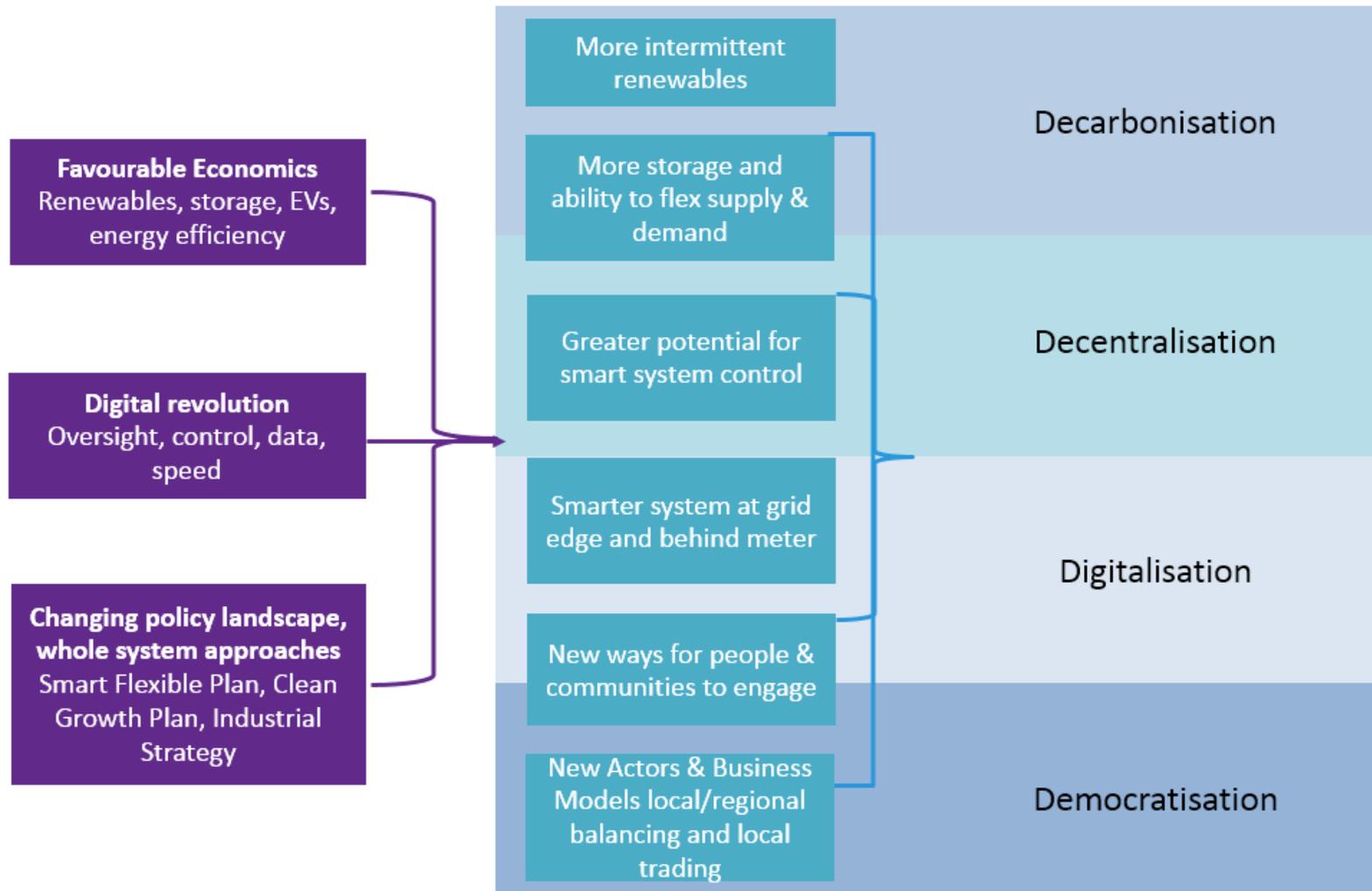
# But significant shift in pace and scale of change needed

## CCC Expected progress indicators

	2017/18	2030
Low carbon generation as share of total	52%	>75%
ULEVs as share of new cars	<2.5%	60%
Heat pumps in homes	<200,000	2.5 million
Electrical storage	2.7 GW	8-38 GW
Demand side response	1 GW	4-18 GW
Carbon intensity of electricity generation	265 gCO <sub>2</sub> /kWh	<100 gCO <sub>2</sub> /kWh

Sources: CCC (2018) *Reducing UK emissions: 2018 Progress report to Parliament*, Poyry/Imperial College (2017) *Roadmap for flexibility services to 2030*, National Grid (2017) *Future Energy Scenarios*, DfT (2018) *Road to Zero*, BEIS (2017) *Digest of UK Energy Statistics*

# Future changes more locally based, engage consumers in different ways and involve a crucial role for distribution



# Increasing focus on ‘local energy’

- What is local energy? – sub-national coordination and delivery of energy system change (beyond but including community energy)
- 4D drivers but also parallel changes in local authorities and wider governance structures (devolution). Refocussing on industrial policy.
- Challenging period for LAs and CE. Continuing action and experimentation in some areas but largely those with existing capacity, established climate/energy teams etc.
- Future energy system likely to look different in different places (existing infrastructure, heat networks, generation techs, flexibility assets, hydrogen?) and the speed may vary across and between locations (cherry-picking customers)

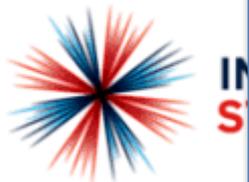


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UNEP Emissions Gap report, 27<sup>th</sup> November 2018

'Non-state and subnational action plays an important role in delivering national pledges. Emission reduction potential from non-state and subnational action could ultimately be significant, allowing countries to raise ambition, but the current impacts are extremely limited and poorly documented'.



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# Local energy as more than an economic opportunity...

- Role in navigating a more complex and interconnected energy system (a system of systems)
- Coordinating action in areas which may otherwise miss out e.g. rural areas where smart, flexible solutions and IT connectivity may be more challenging
- Managing equity issues e.g. take up and benefits dominated by able to pay segment.
- Does patchy/experimental nature of local energy activity matter? Will current BEIS approach address this?

# Next 2-4 years a key period?

- LEP Energy Strategies
- BEIS Hubs / project pipeline development
- PFER projects and learning
- Heat Network Investment Project
- Development of local industrial strategies
- Rapid change in wider energy governance and regulation (network charging, RII02, DSO/DSP transition, supplier hub model/reforming regulation, multiple trials etc)
- Current focus on local energy largely based on pipelines of investable projects and experimentation – not on how wider governance structures need to change?

# GB – not a lack of activity!

Half hourly settlement

Supplier hub consultation

Unlocking the capacity of electricity networks

Access and forward charging review

Smart charging standards (AEV Act 2018)

Smart Flexible Energy reforms (storage, DSR aggregation)

RIO2 (inc. ED2)

Open Networks project (TDI, DSO...)

Targeted Charging Review

Sandbox, Innovation Link, NIA/NIC etc.

Next day switching

NG Power Responsive

NG System Needs and Product Strategy

ESO reforms

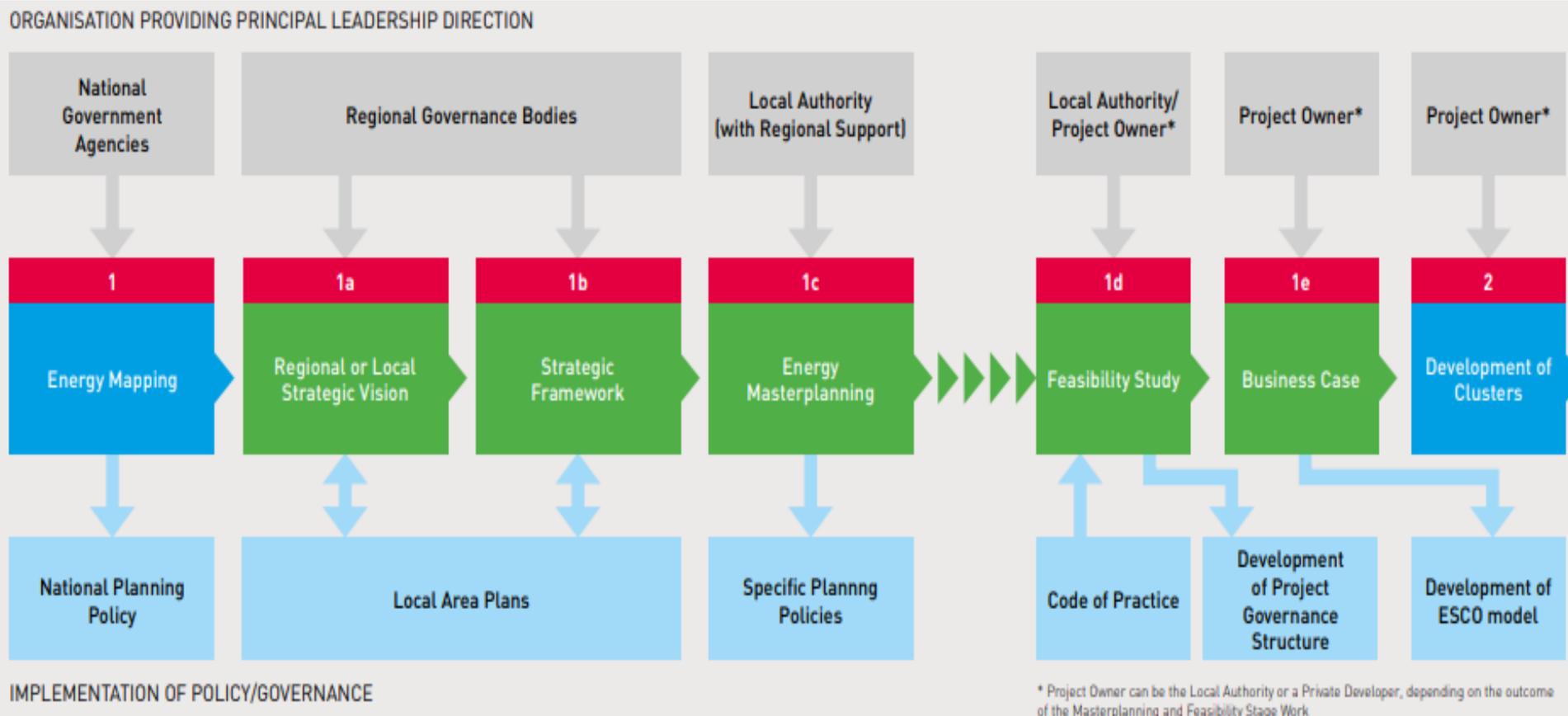
# Key themes

- System planning and optimisation
- Energy efficiency and heat
- Local Flexibility
- Transport integration

## Recurring challenges

- Finance
- Data
- Skills and capacity
- Engagement in shaping wider energy system

# Energy Masterplanning

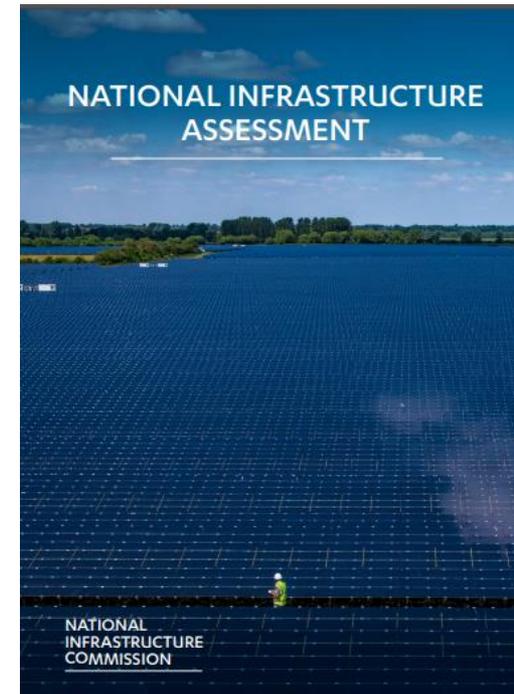


Scottish Guide to Energy Masterplanning

**Requires:** Data, skills, understanding of local priorities, long-term approach, relationship building

# Energy efficiency and heat

- Heat decarbonisation and EE – uncoordinated uptake risks for heat pumps, hydrogen, heat networks
- NIC: allocate £300m/year to social housing energy efficiency; increase spending on low income household EE, rapid increase in installations rate by 2020.
- Green Finance Taskforce recommendations to support the market for residential EE finance
- Northern Ireland, Scotland and Wales all have more ambitious and better funded approaches to EE with local authorities at the heart of implementation.



# Distribution level coordination

- DNOs
  - Network charging and connections
  - several developing flexibility market platforms (some collaboration with local government e.g. GLA).
  - Managing processes for investment ahead of need?
  - Managing impact of EV roll out
- Future DSO/DSP role
  - Neutral provider of flexibility platforms/markets

Coordination of activity/engagement

Roles, requirements and resources for energy planning

Finance

Structuring of local relationships e.g. EIZs

## **Governing local energy systems**

Skills and knowledge sharing across agencies/areas

Data – access and formats

Formalisation of relationships with other actors – DNOs

Engagement in shaping energy system changes

Energy devolution and carbon budgeting

# Session 1: How is the role of local actors and institutions changing and where do they play a key role?

- Questions to consider:
  - When and where is local action important in energy system change
  - Where do local actors add value as the most appropriate locus for action?
  - Who are the most appropriate actors and how will these change from area to area?
  - To what extent do current policies, governance and regulatory arrangements support local coordination of energy system change?

# Session 2: What could a new or amended framework for local energy look like?

- Questions to consider:
  - Is there a need to develop new or amended institutional relationships between national, regional and local energy system actors?
  - What might a future framework for governing energy systems at a local scale look like?
  - What are the gaps in knowledge and research needs in order to better understand energy system integration across scales?

- **Session 1: How is the role of local actors and institutions changing and where do they play a key role?**
  - Jonathan Mullard, Local Energy Planning & Programme Manager, BEIS
  - Sheryl French, Cambridgeshire County Council
  - Ben Godfrey, Western Power Distribution
  - Richard Halsey, Energy Systems Catapult

- **Session 2: How might governance structures and relationships need to change?**
  - Jan Webb, University of Edinburgh
  - Michael Jenkins, Bridgend City Council
  - Matthew Rhodes, Energy Capital, Birmingham & Solihull LEP