



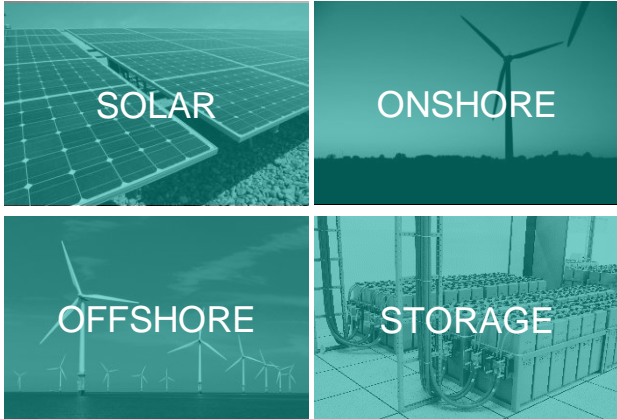
Regulation and Electricity Market Dynamics

Colin Morgan
22nd March 2017

experts | evolving | energy

Everoze

Our technologies



A technical and commercial energy consultancy, specialising in renewables and storage

Our locations

Fife
Bristol
London
Paris
Lyon



Market drivers and regulatory barriers

1 CO₂

4 Security of supply

2 Industrial strategy

5 Consents

3 Electricity system stability

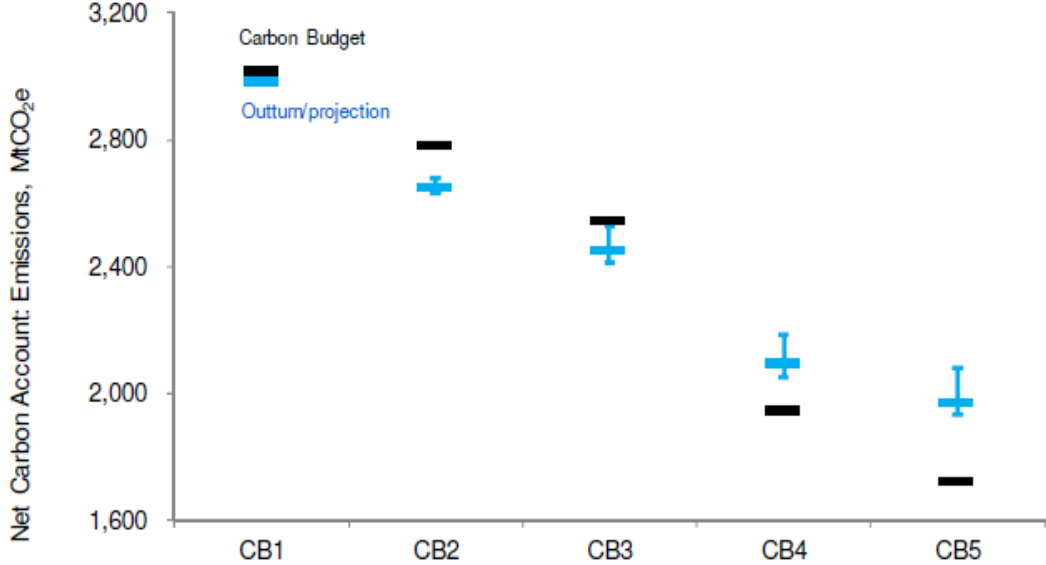
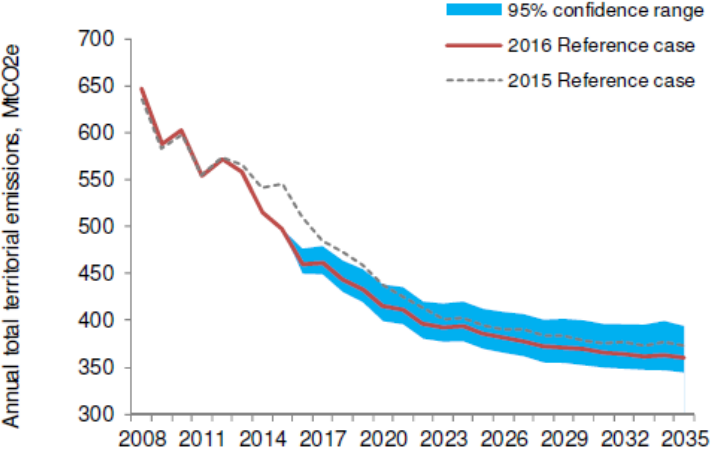
6 Economics

Career perspective

1987	FGD of coal, Sizewell B	[Acid rain, CEGB]
1997	CCGT's, Life extension of AGR's	[Economics]
2007	Onshore and offshore wind	[CO ₂]
2017	Onshore & offshore wind, PV, Flexibility services	[CO ₂]
2027? mostly]	Onshore & offshore wind, PV, Hinckley, Flexibility services [Economics	

① CO₂

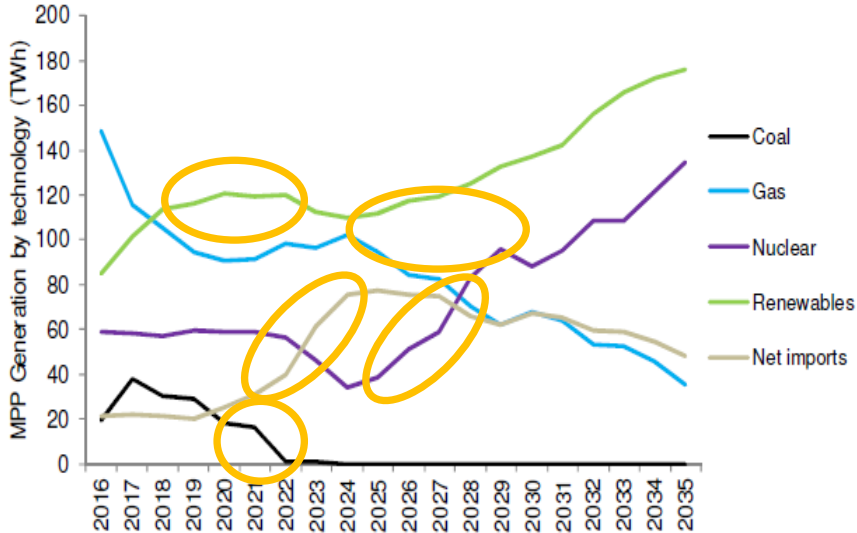
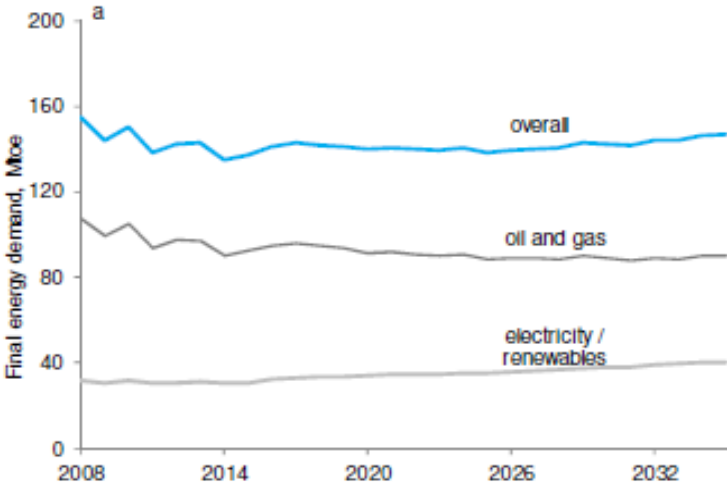
Going very well...



BEIS, "UPDATED ENERGY AND EMISSIONS PROJECTIONS 2016", March 2017

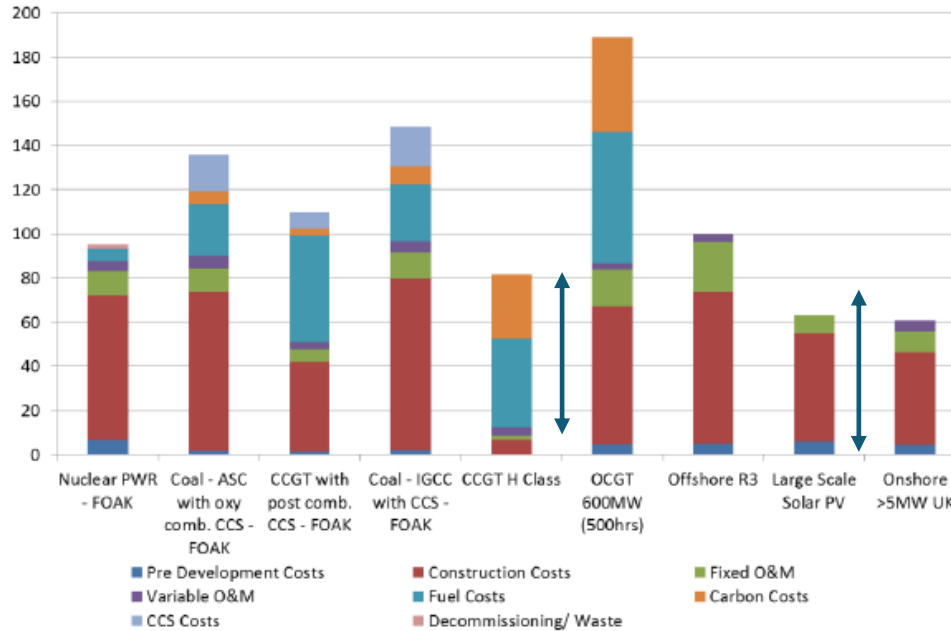


Drilling down...



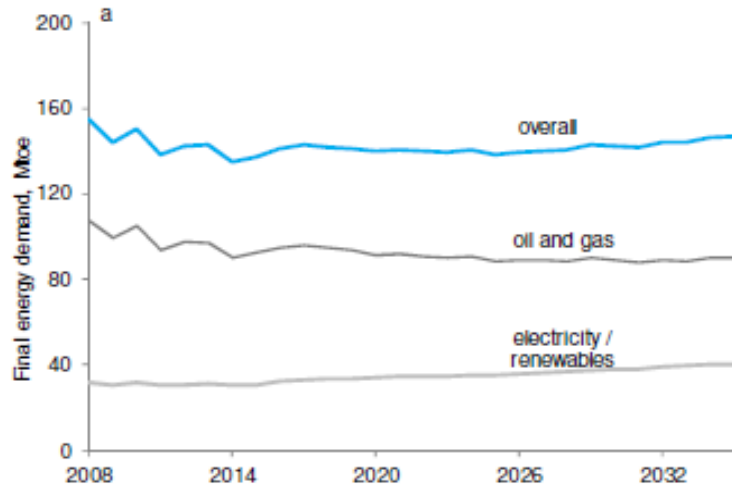
Fuel parity for renewables

Chart 6: Levelised Cost Estimates for Projects Commissioning in 2025, Technology-specific Hurdle Rates, £/MWh

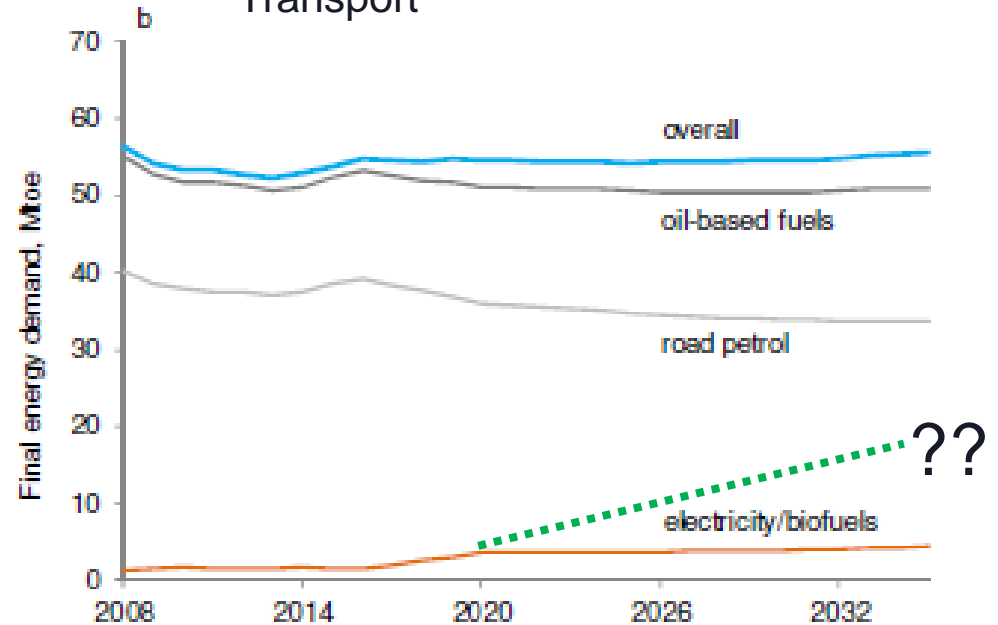


And EV shifting the goalposts...

All energy

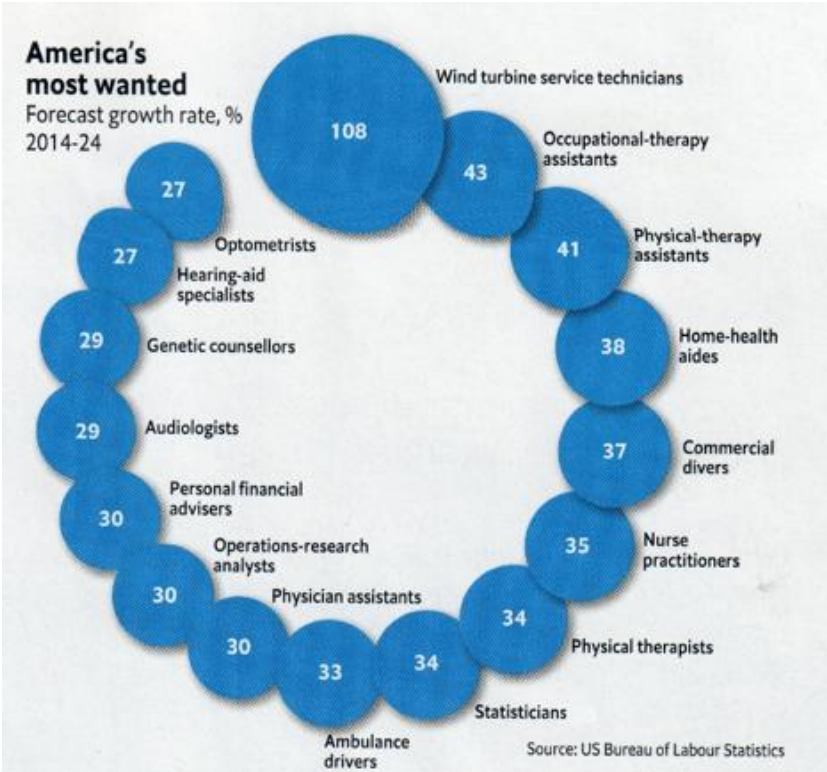


Transport



2 Industrial strategy

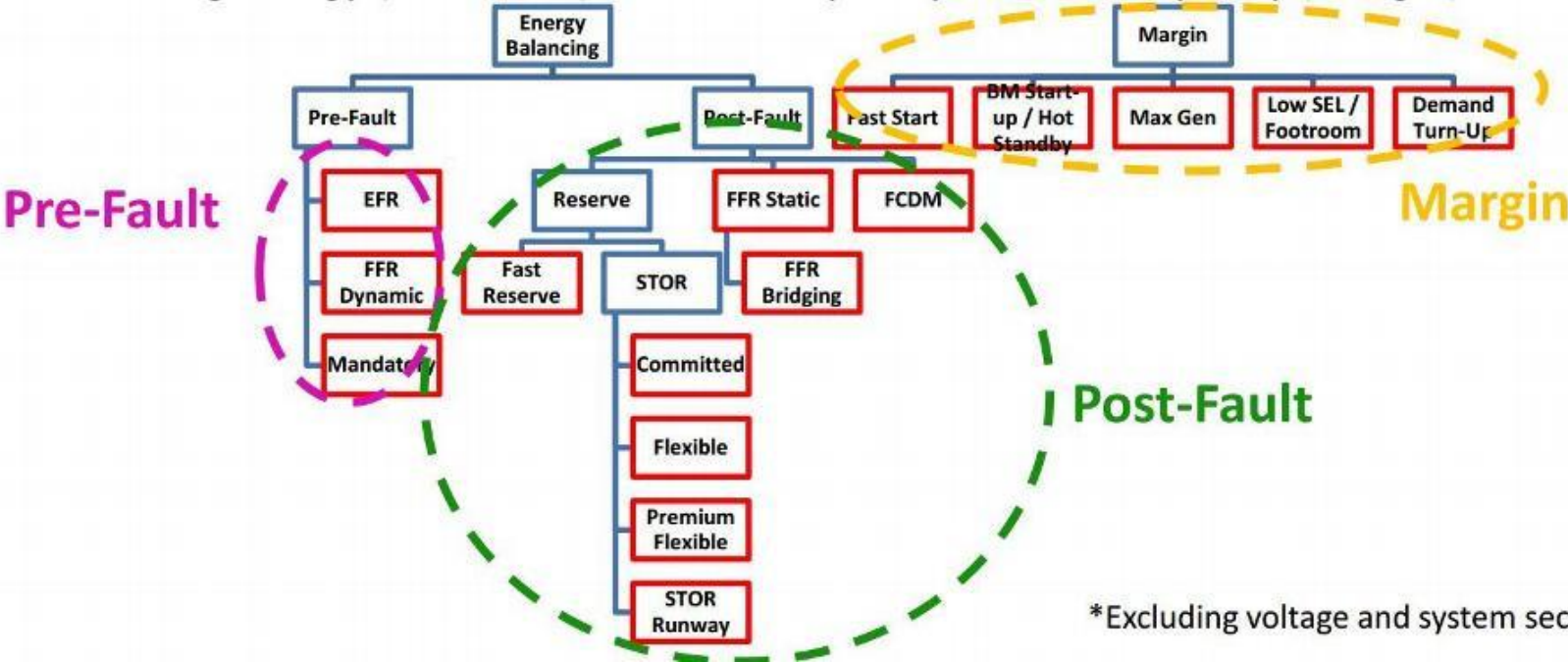
Hot Jobs



The Economist, "The World in 2017", Mar 2017

3 Electricity system stability

Keeping the lights on (Part 1)

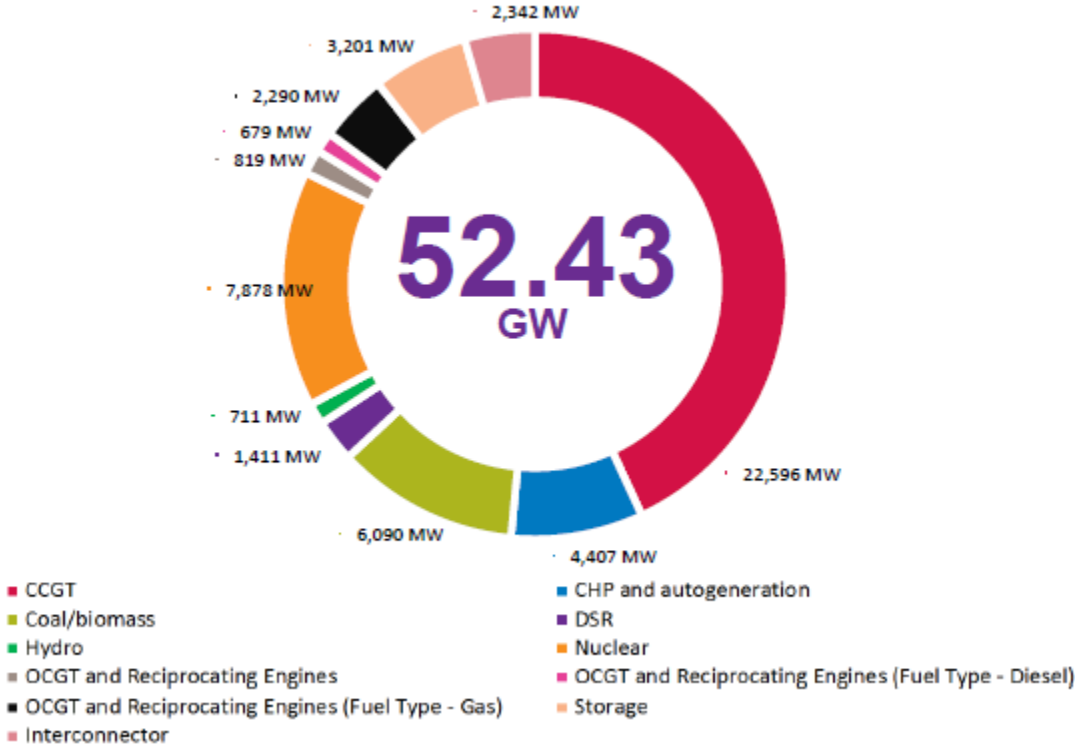


*Excluding voltage and system security at present

4 Security of supply

Keeping the lights on (Part 2)

Figure 4: Capacity Awarded by Technology Type



5 Consents

Onshore wind - the first victim of Brexit

England	Effectively blocked (possibly except community schemes)
Scotland	Scottish Energy Strategy
Wales & NI	Somewhere in between
Offshore wind	Progressing – temporarily impeded in Scotland

6 Economics

Objective #1

- Potentially 2 more 'less-established' CFD rounds by 2020 securing projects out to 2025
- Subsidy-free 'established' CFD, agnostic to technology - silence recently
- Does policy reflect the interactive nature of industry's response to policy (scale and competition)?

7 Time for a new approach

Driven by ...

RIIO

- DSO's emerging
- Defer network spend
- Procure reactive power, synthetic inertia and voltage support

Stacked revenue

Unconventional offtake

- Private wires
- Sleeving
- CSR play – long-term price certainty
- Fuel play

Multiple offtakers

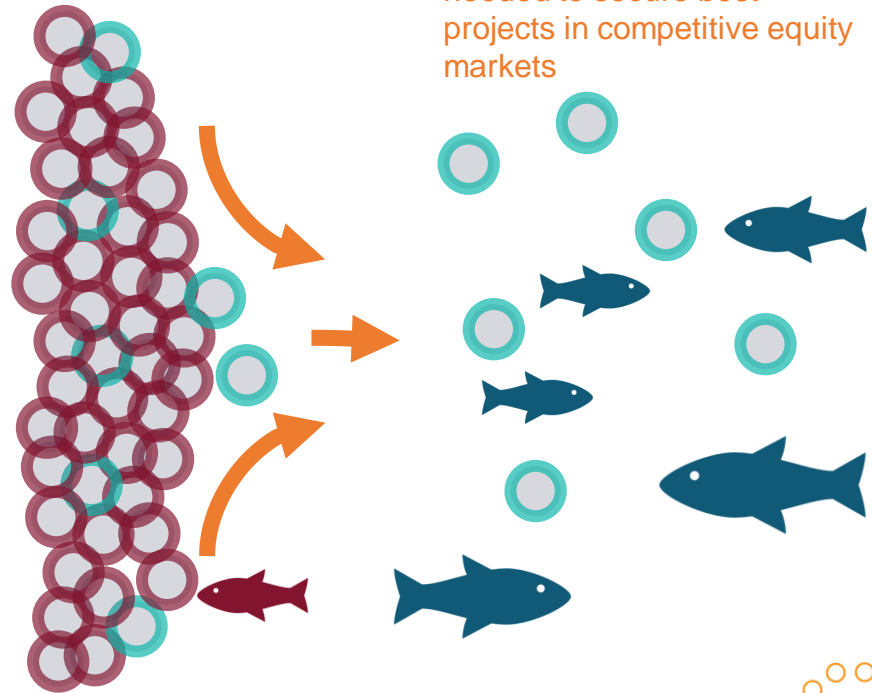
Crashing costs

- Falling CAPEX and OPEX / MWh
- (but competing with solar PV)

Price setting

FILTER

Wheat from chaff



COMPETE

New financing models needed to secure best projects in competitive equity markets

Thanks for listening

Talk to us

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 [@everozepartners](https://twitter.com/everozepartners)



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