# The cost of uncertainty

Will Straw

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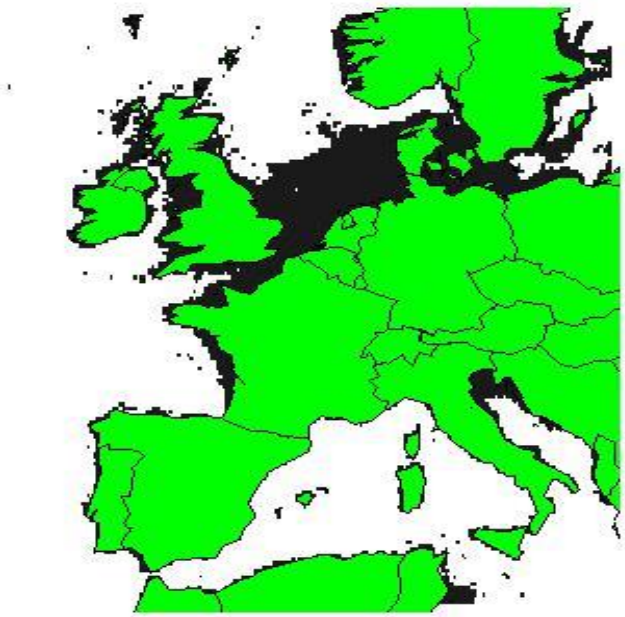
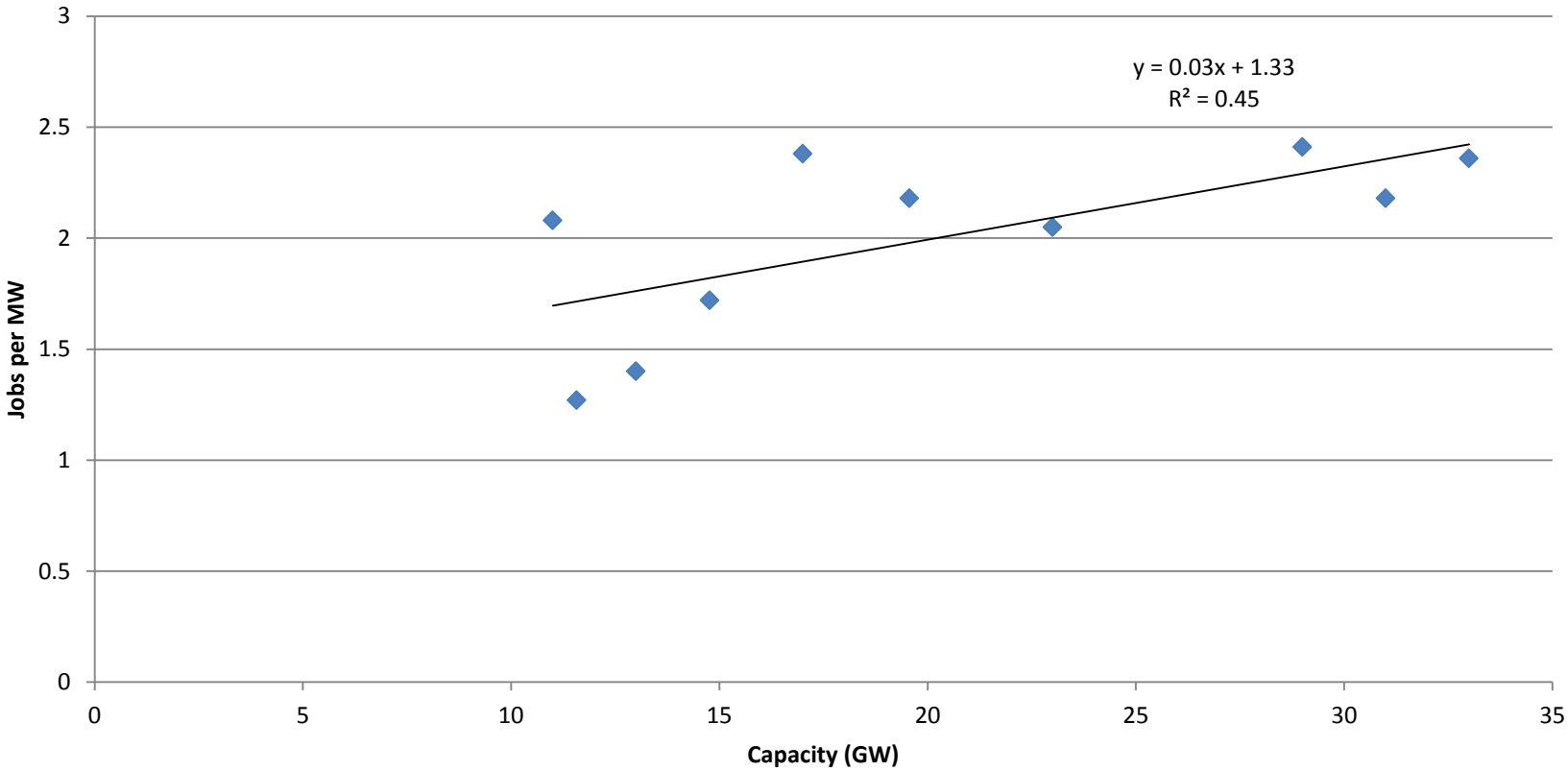
# Benefits of offshore wind 1



# Benefits of offshore wind 2



# Benefits of offshore wind 3

- Economic rebalancing.
- Reduces fuel imports
- Limited opportunities to meet increased global demand for offshore wind:
  - 10% of planning and development;
  - 35% of design and manufacturing;
  - 35% of construction & installation;
  - 5% of operations & maintenance; and
  - 60% of technical, financial & legal services.
  - (Bain 2008)

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# Government's ambition

*"The UK is the global leader for offshore wind energy … [and] is* ***well placed to continue this lead role to 2020 and beyond.***

*"The central range indicates that* ***up to 18 GW could be deployed by 2020.*** *Beyond 2020 there is a very high potential for deployment with over 40 GW possible by 2030."*

DECC (2011), 'UK Renewable Energy Roadmap'

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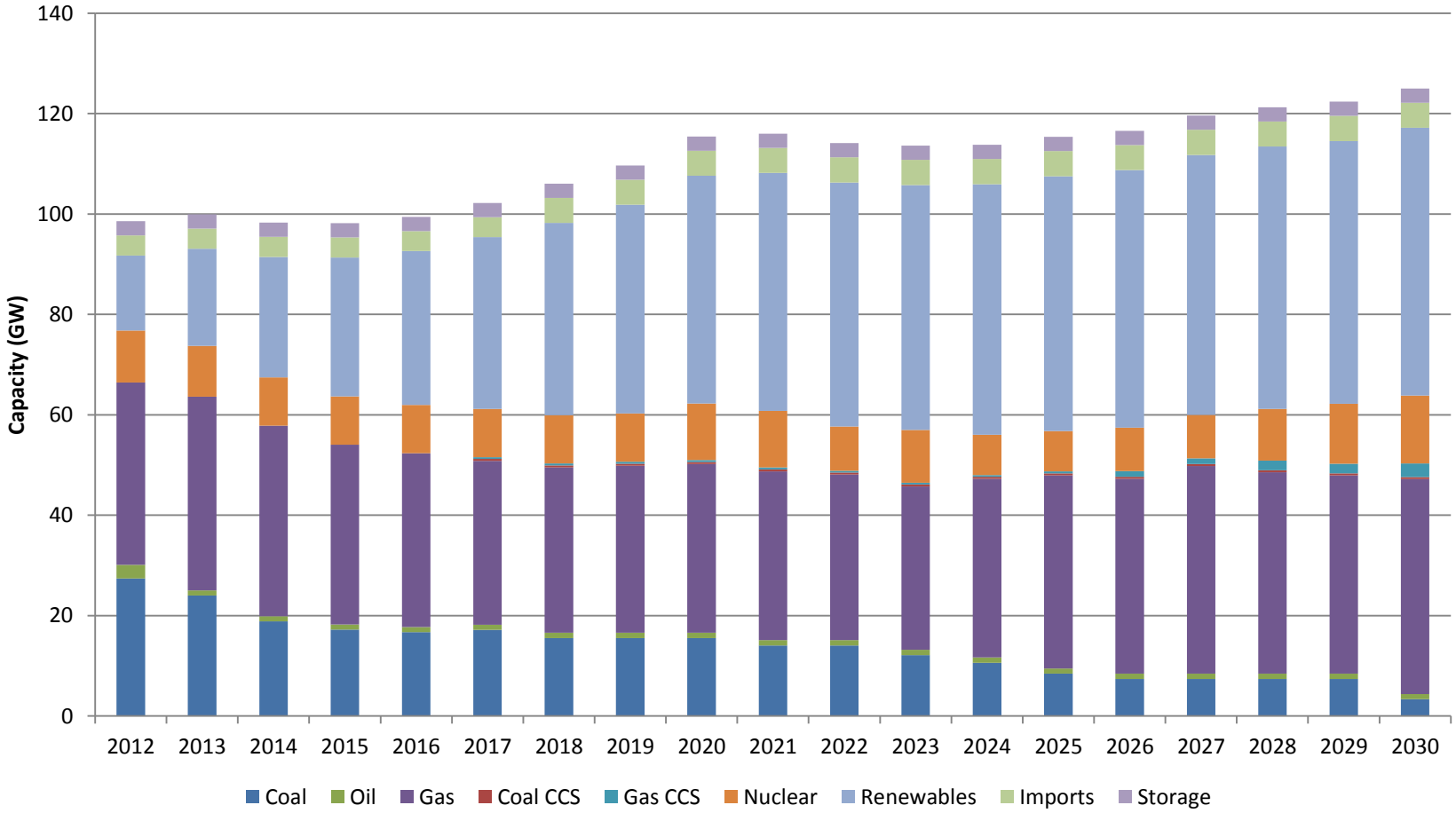
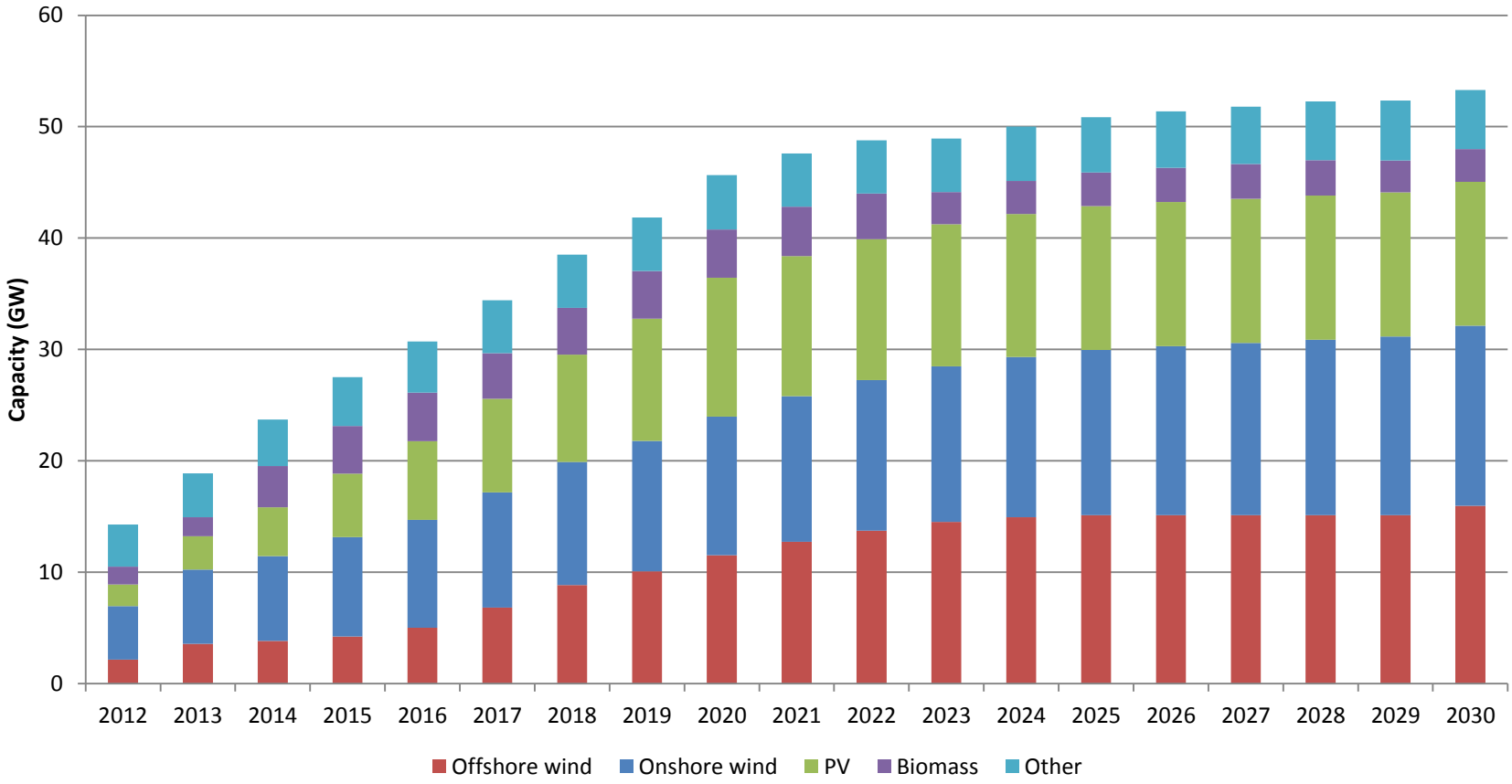
# Oh really?




Source: DECC's central scenario

This delivers 100g CO2/KWh by 2030. Expansion in renewables in current decade; nuclear & gas takes over in 2020s.

# Oh really?




Source: DECC's central scenario.

This leads to 11.5GW by 2020 and just 16GW by 2030. Some way from Crown Estate ambition of 18 GW by 2020 or total Round 3 pipeline of c.45GW.

# The CCC are not impressed

*"[DECC's] scenario with high nuclear deployment, but low investment in CCS and offshore wind during the 2020s … could deliver a similar emissions intensity [of 100g CO2 / kWh] but* ***would leave the UK overly reliant on a single low-carbon technology.***

*"This would imply* ***unacceptable costs and risks*** *of achieving the 2050 target and/or of* ***very high electricity prices*** *required to deploy uncommercialised low-carbon options at scale after 2030 … that would not be desirable."*

CCC (2013), Next steps on electricity market reform

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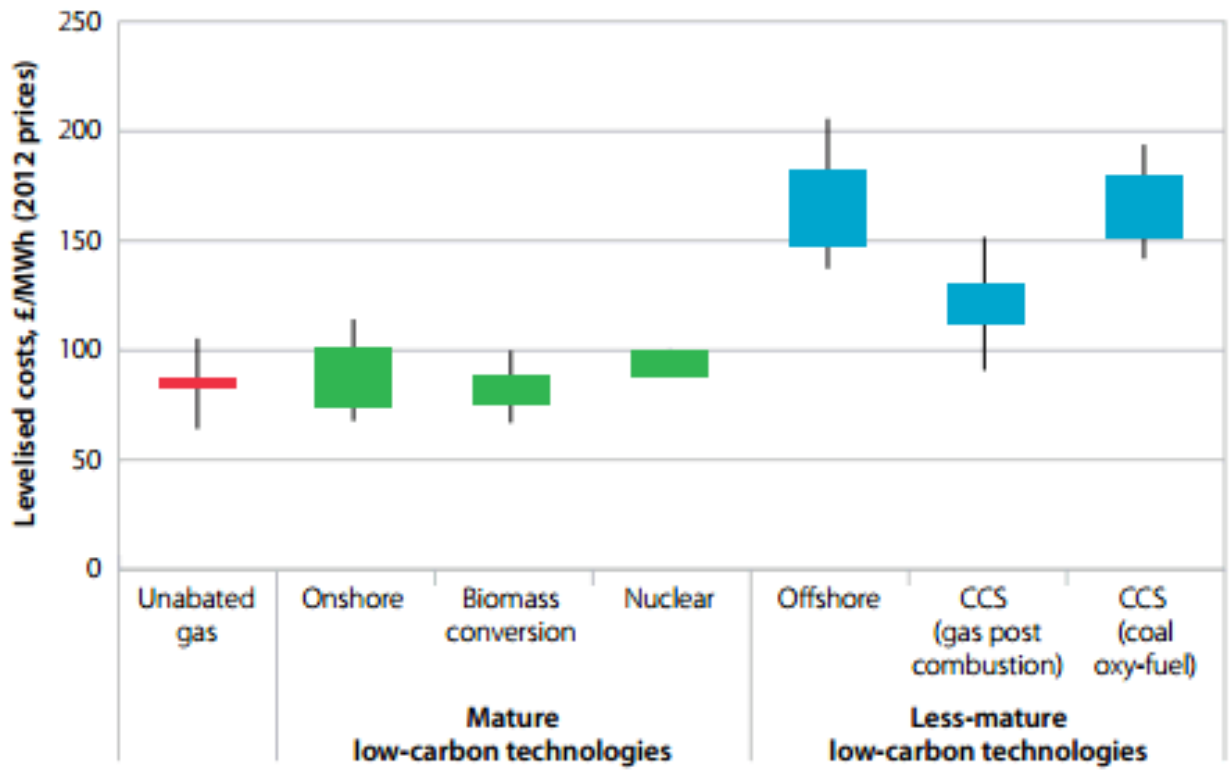
# But offshore is costly…

**Figure 1.1:** Current costs of low-carbon technologies, relative to unabated gas

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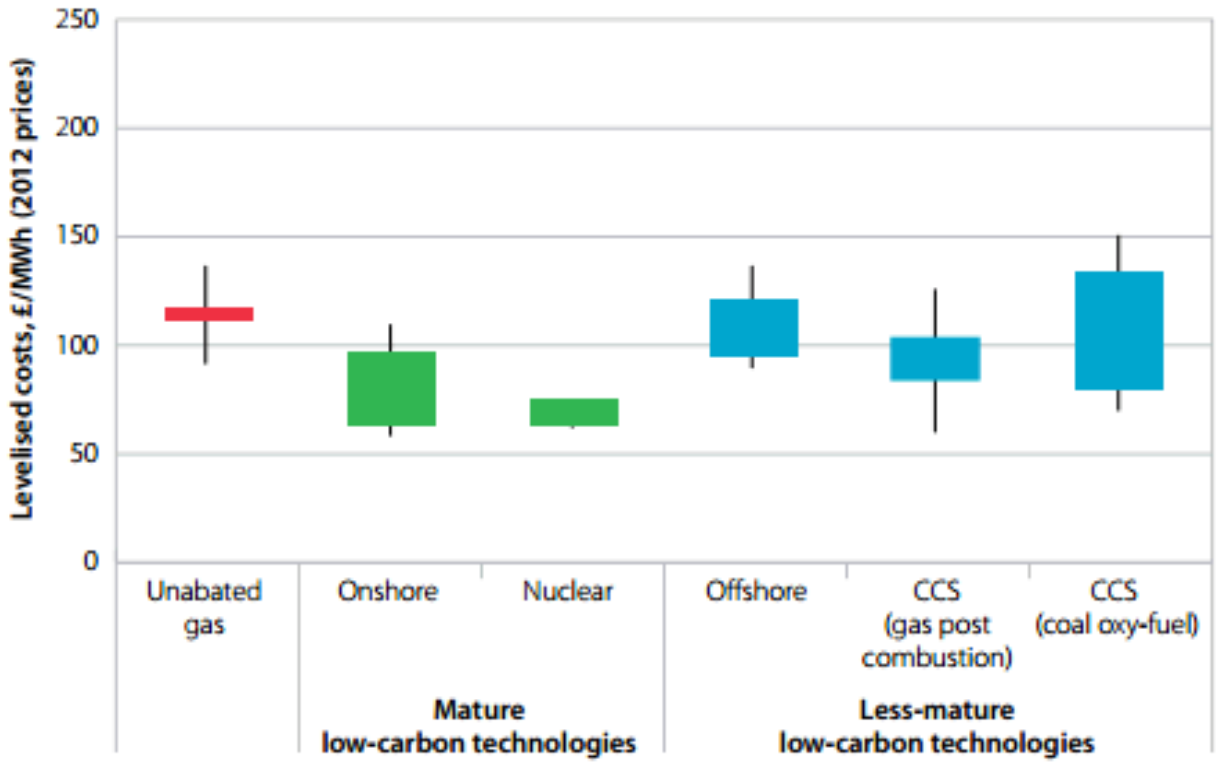
# …even in the 2030s

**Figure 1.3:** Projected costs of low-carbon technologies (2030), relative to unabated gas

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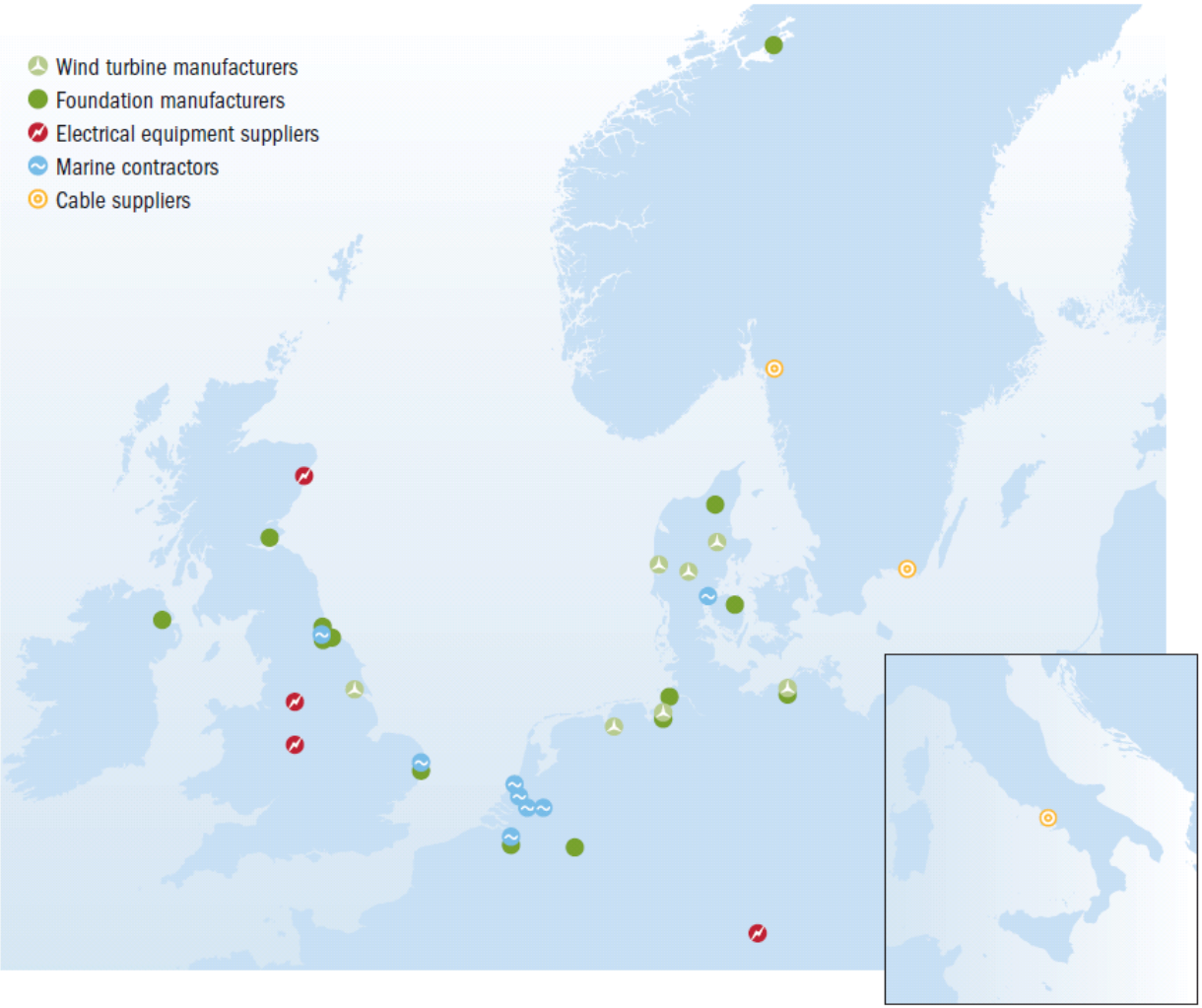
# And we don’t build much of our own

FIGURE 2.4 AN EXAMPLE OF KEY SUPPLIERS AND MANUFACTURING INFRASTRUCTURE

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# Can we deliver a turbine manufacturer?

*"Industry leaders regard the delivery of **3GW of new capacity per annum** as sufficient for securing an industrial base for offshore wind. We use the assumption that this rate of delivery provides a sustainable demand base for the industry."*

Cambridge Econometrics (2012), 'Working for a Green Britain vol 2'

Other industry players and observers told IPPR:

- **2 GW per annum** for one factory, 3 GW for two.
- **1.5 GW per annum** could be enough

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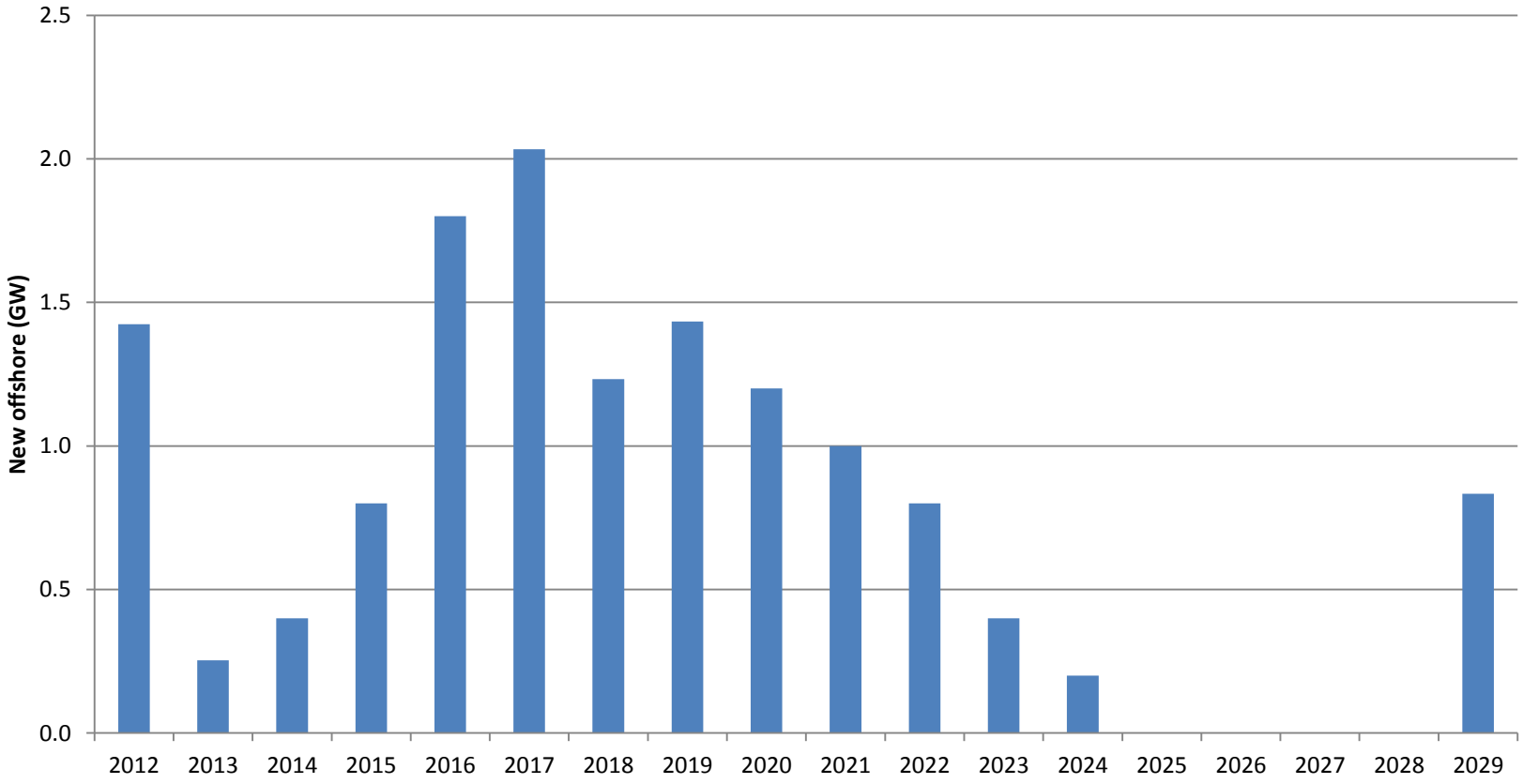
# DECC's scenario fails




DECC's central scenario delivers <2GW per year of new offshore wind and tails off in 2020s.

Manufacturers say 2-3 GW per annum needed to attract turbine manufacturers. Crown Estate say 1.5GW.

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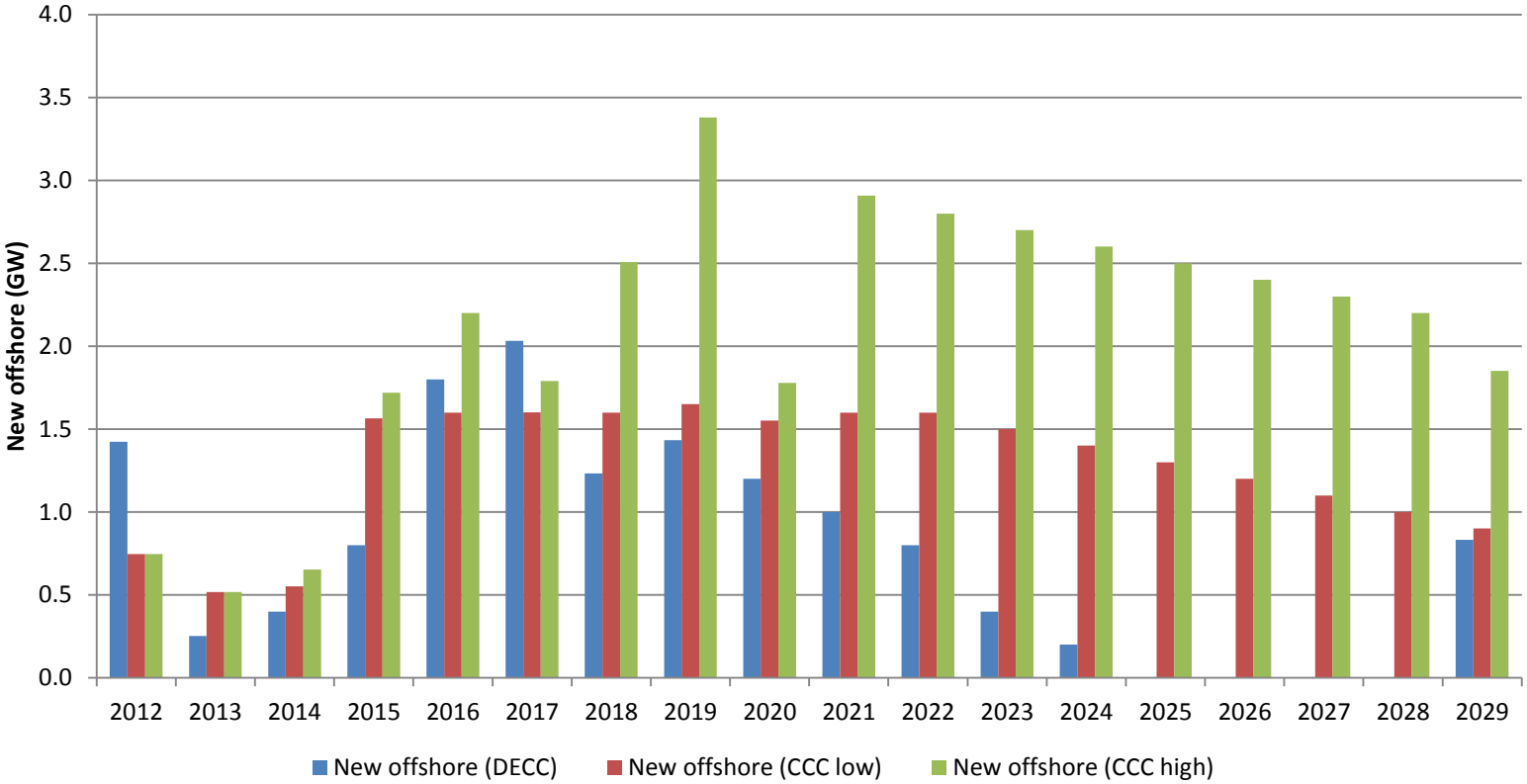
# …but CCC's scenarios succeed




CCC believe 26 to 40 GW of renewable capacity by 2030 will be necessary to deliver 50g target.

"CCC low" delivers 1.5GW+ for eight years.

"CCC high" delivers <2GW for 11 out of 13 years.

# Policies

- Policy certainty – 2030 target
- Twenty-fold increase in resources for Offshore Renewable Energy Catapult

- CFDs tied to cost reduction
- Social value test for CFD procurement
- Ministerial activism on turbine manufacturers & ports

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