

JRC 2018 Seminar

Welcome



The Changing Energy Context

Dr Peter D. Couch

Agenda

- Supply Side
- Demand Side
- Wrap-up

Supply Side

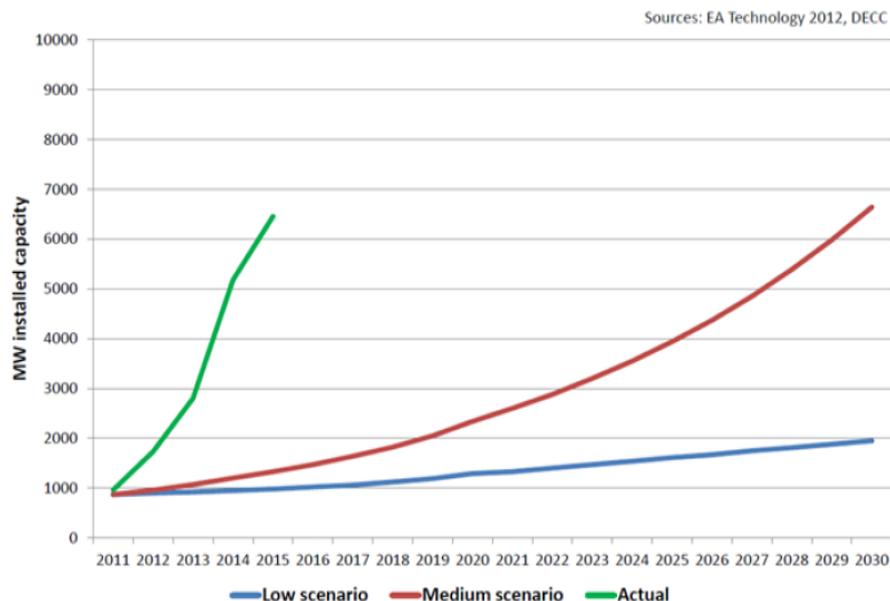
Market Dynamic is Changing Rapidly

Forecasts Underestimate Supply Side Developments



Pace of change: us 'experts' have not always got their predictions right (3)

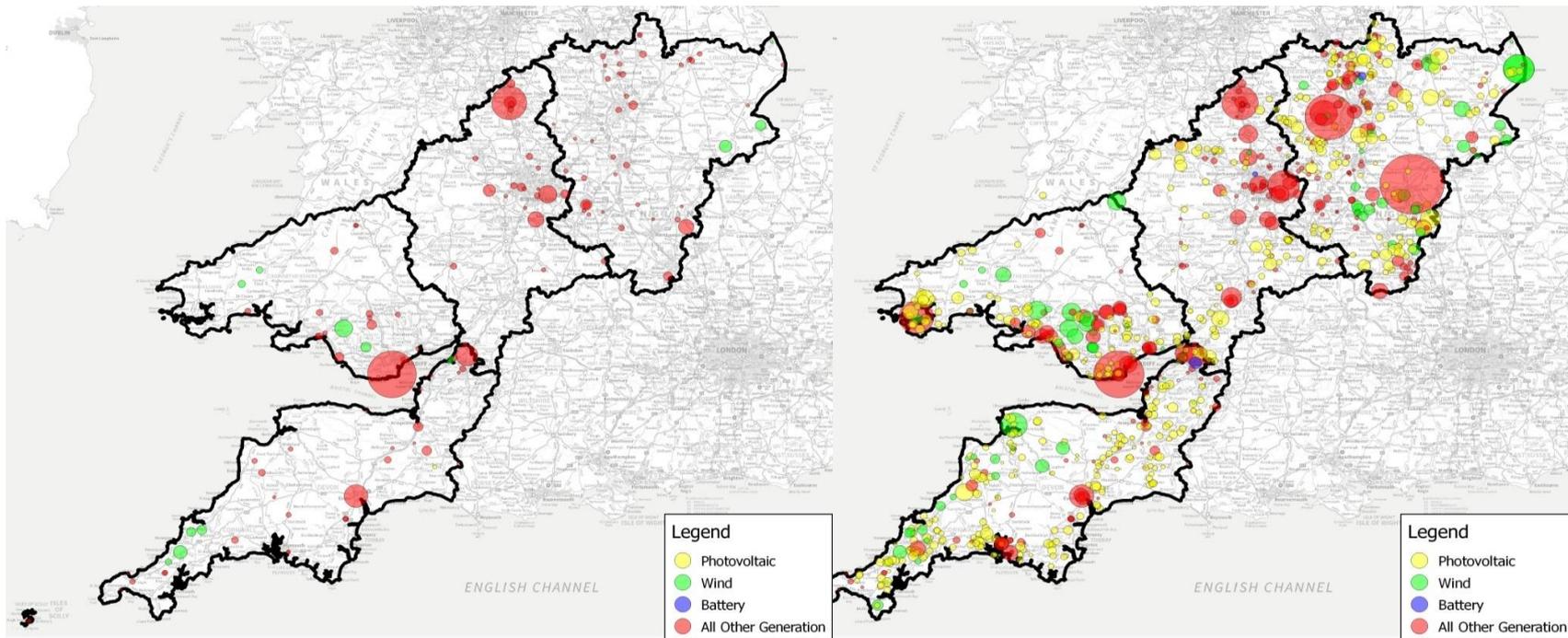
Rise of Solar



Projections of solar photovoltaic uptake made in 2012 estimated that it would take 18 years to reach 6 GW of generation capacity on the system. It took only 4 years to reach 11 GW.

The Challenge of Increased Embedded Generation

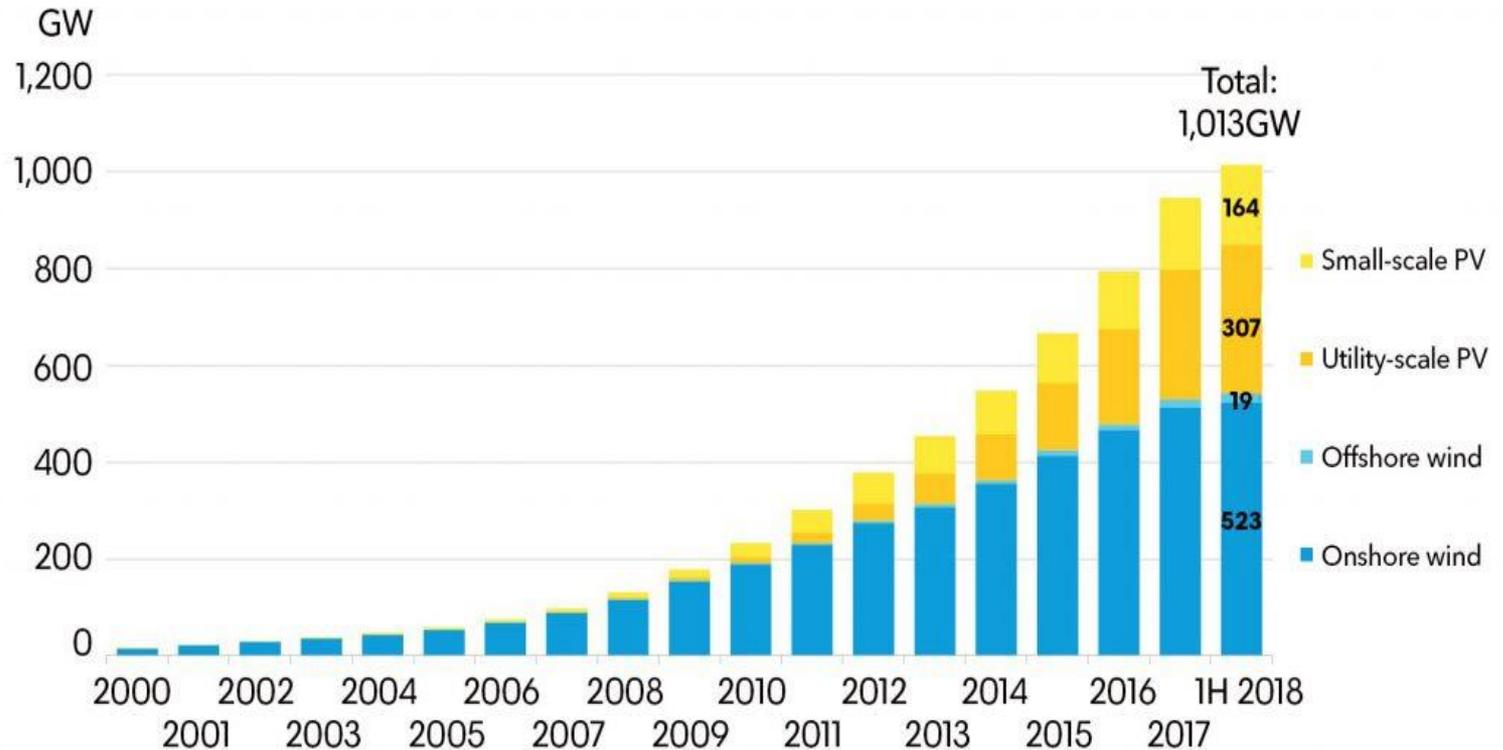
- Distributed generation on WPD's network: 2007 & 2017, Source: WPD DSOF 2017



Wind and Solar Keep Going

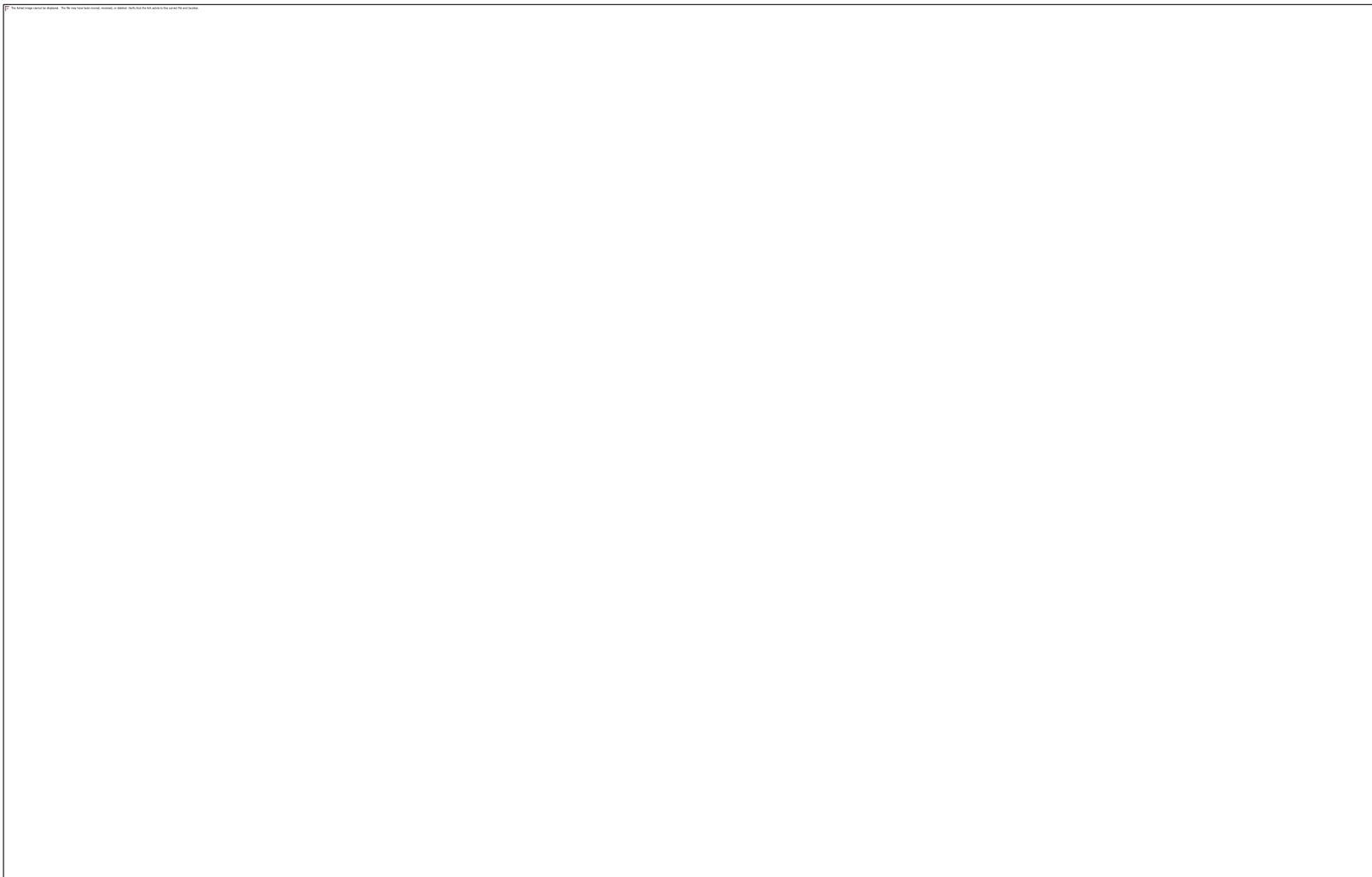
World Reaches 1,000GW

Global wind and solar installations, cumulative to June 30, 2018

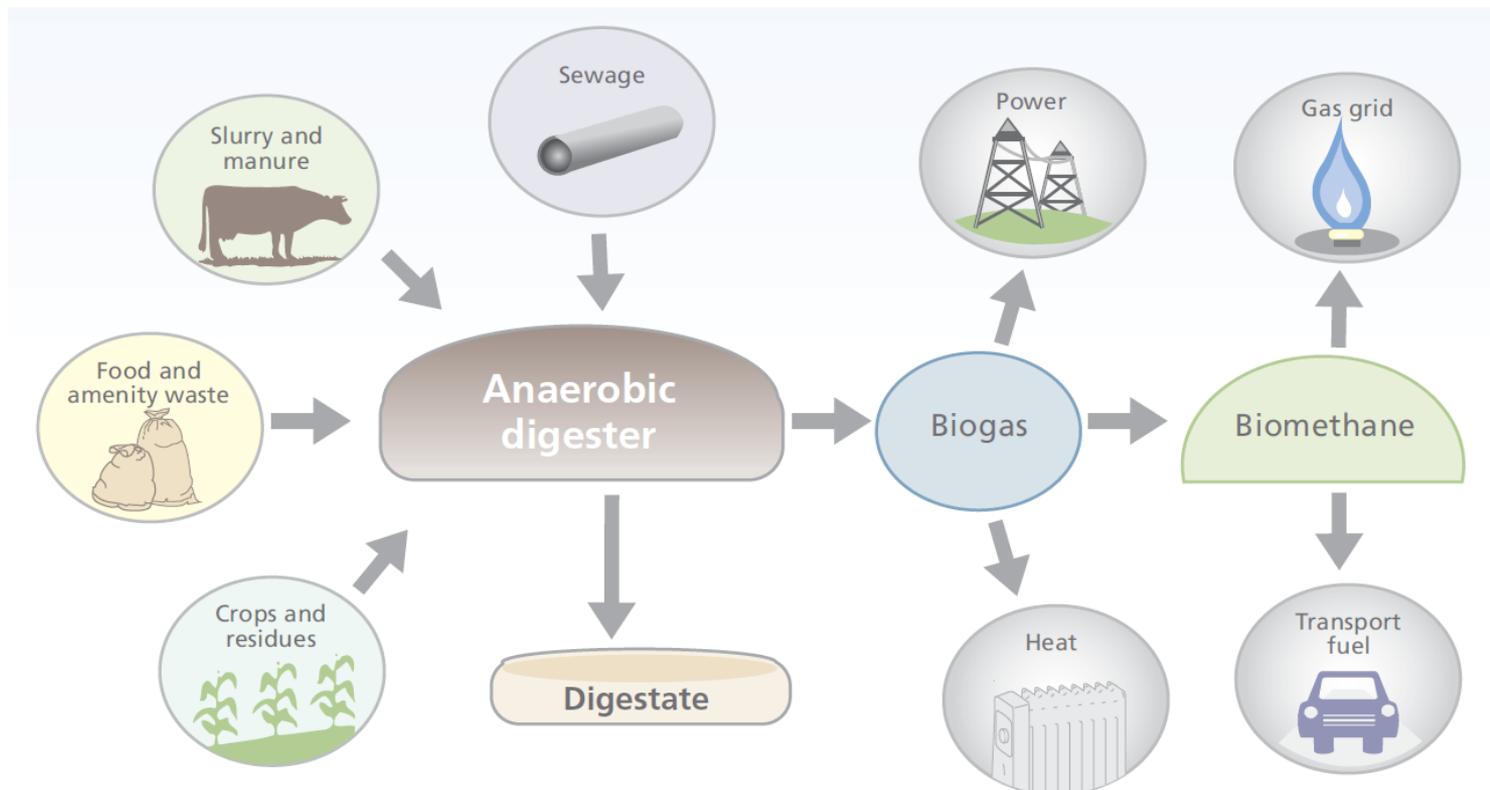


Source: Bloomberg NEF. Note: 1H 2018 figures for onshore wind are based on a conservative estimate; the true figure will be higher. BNEF typically does not publish mid-year installation numbers.

Dramatic Cost Reductions in Battery Technology



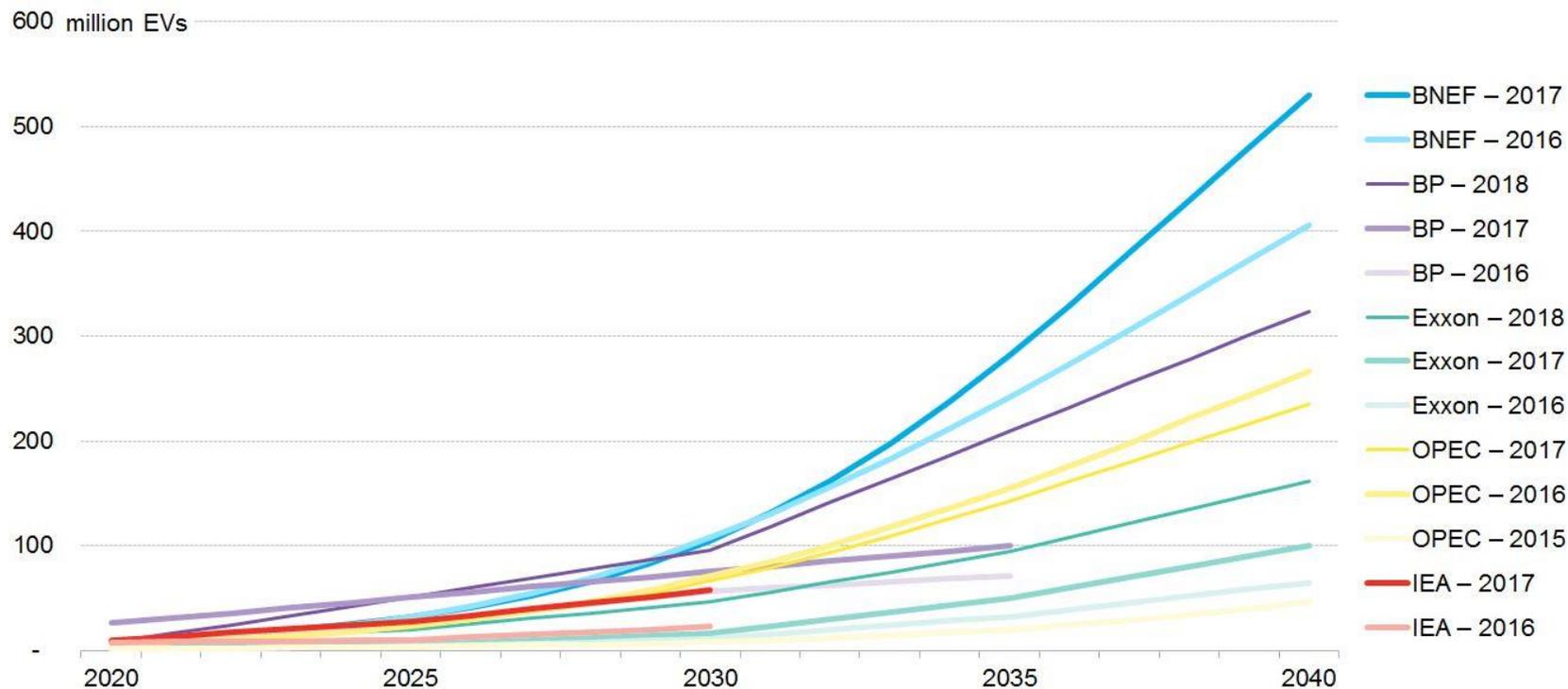
Alternative Sources of Gas



Demand Side

Transport

How Electric Vehicle Fleet Size Forecasts Have Changed Over Time



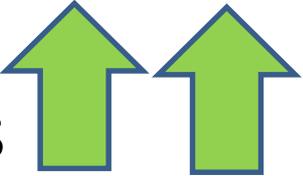
Global EV Sales Accelerate



Transport of the Future



Wrap-up

- Market Developments 
- Networks 