ENERGY POLICY AFTER THE ELECTION

11 May 2015

Dieter Helm
Professor of Energy Policy
University of Oxford
Agenda

- Understanding the past
- Focusing on fundamentals
- Identifying the key challenges
- Priorities now
Understanding the Past

Brent crude oil price

Notes: The real prices are calculated from adjusting the nominal prices for CPI (including all items) in United States, with January 2014 as base month.

Source: Thomson Reuters
The Radicalism of EMR

• Fixed-price Feed-in-Tariffs
• Fixed-price capacity contracts
• Renewables banding and separate technology FiTs
• Capacity banding and separate capacity auctions
Fundamental Shift in the Economic and Financial Model

- From liberalisation + competition ➔ single buyer model
- From the wholesale market ➔ fixed revenues
- From variable prices ➔ long-term contracts
With Fundamental Changes in Technology

- Zero marginal cost renewables
- Zero marginal cost nuclear
- Storage and batteries
- Smart meters and grids

→ Economics of the Internet
The FiT Outcomes

CfD Auction outcomes – cost of subsidy

- Capacity Auction outcomes
- FiT Auction outcomes
- Bilaterally-negotiated strike price

Subsidy cost (£/MWh, 2012)

- Tidal lagoon: 168
- Advanced Conversion Technologies: 118
- Offshore Wind: 118
- Hinkley Point C: 93
- Onshore Wind: 82
- Energy from Waste with CHP: 80
- Solar PV: 79
- CCGT: 5

Note:
1. Implied subsidy per MWh for Trafford through the Capacity Market, assuming 50% load factor
2. The lower value is provided by the project developer, the higher value is an estimate from DECC

Sources: AER; DECC
The Capacity Auction outcomes

Capacity price, £/kW

Source: Aurora Energy Research
The Key Challenges for the Single Buyer

• How to manage the new fixed-price world?
• How to design the carbon profiles?
• What to do about coal?
• Deciding the fate of the CCGTs?
• What nuclear programme to support?
This needs…

- Institutions
- Modelling and analytical capacity
- Integration of carbon, energy and competition policies
- Contract credibility and financing

rather like the Department of Energy and the CEGB capabilities…
So What Will Happen?

- On EMR, not much…
  ➜ Muddle through lots of lobbying + capture?

- On competition, follow the CMA…
  ➜ structural changes follow the cost structures, not the CMA/DECC?

- On carbon, follow the CCC + floor price
  ➜ more high cost “solutions”?
The Choice Now

• Think again: an immediate, serious and expert review
• Make some decisions: including on nuclear
• Simplify: a merger of FiTs + capacity markets → single unified competitive auctions

OR...

• The CEGB model done properly
For Information

Online EFN publications

- Energy Policy and the Coalition, Paper 10 March 15
- What should oil companies do about climate change? Paper 9, Feb 15
- Competition in the British electricity sector: a set or practical measures, Paper 8, Feb 15
- The road to re-regulation, Paper 7, Jan 2015
- What future for vertically integrated companies? EFN Paper 5, September 2014
- The return of the CEGB? EFN Paper 4, June 2014
- Electricity and energy prices EFN Paper 2, April 2014
- The Ukraine crisis and energy policy EFN Paper 1, March 2014

Energy publications

- Special report on energy. How do we get out of this mess? – Prospect Magazine October 2014
- Breaking the Bear Hug – Prospect Magazine May 2014
- The Carbon Crunch – how we are getting climate change wrong and how to fix it, 2013, London, Yale University Press.