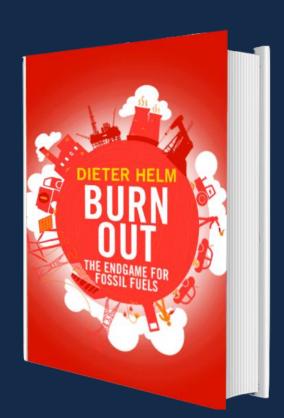
RETAIL PRICES & REGULATION

2nd Central and South East Europe Commission in Hungary and the REKK Foundation

Budapest, 30th May 2017

Dieter Helm



AGENDA

- Prices should follow costs
- The future structure of costs
- The coming of capacity markets
- An electricity future with the economics of broadband
- Regulation and ensuring prices = costs

PRICES & COSTS

Costs to customers =



THE FUTURE STRUCTURE OF COSTS

- Digitalisation of economy
- Zero marginal cost generation
- New technologies for electricity generation

Digital = Electric = Capacity

Decline of wholesale markets

THE COMING OF CAPACITY MARKETS

- Renewables
 - Intermittency
 - Undermine economics of gas & coal
 - Drive down wholesale prices
- · Un-investible against wholesale price
- Reserve markets
- Flexibility markets
- Capacity markets

THE ELECTRICITY FUTURE AND THE ECONOMICS OF BROADBAND

- The broadband hub
- Multiple household serviced
- A new corporate landscape

NEW CORPORATE LANDSCAPE

- New companies in supply (Amazon et al)
- New data-focussed businesses (Google, Apple, Facebook)
- New entrants for transport (BMW, Toyota, Nissan, Ford)
- New infrastructure decentralised businesses (Pension Funds)

REGULATION & ENSURING PRICES = COSTS

- The need for a default tariff, whether or not regulated
- The default tariff = cost -pass-through

Default tariff

Wholesale price index

Capacity constraints

FiTs

Network Costs

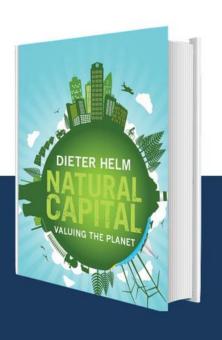
Margins

REGULATION & MARGINS

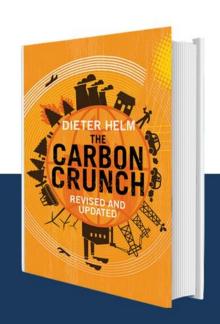
- Default tariff & unregulated margins
- Published margins
- Regulated margins

CONCLUSIONS

- Changing costs points to changing tariffs & changing regulation
- Digitalisation is radical
- Future is about fixed costs
- Default tariff required

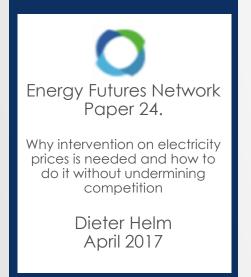


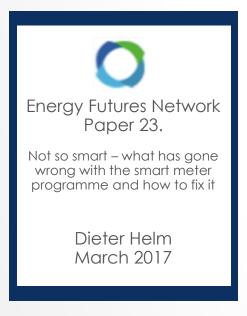


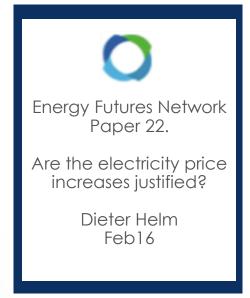


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- Greg Clark's energy agenda, Paper 20, Sep 16
- Flawed in almost all its parts the final CMA report on electricity markets, Paper 19, Jul 16
- After Hinkley how to contract for the rest of the nuclear programme, Paper 18, Apr 16
- The CMA Energy Market investigation: Companies 5-0 CMA?
 Paper 17, Mar 16
- The new normal oil prices after the crash, Paper 16, Feb 16
- Stranded Assets a deceptively simple and flawed idea, Paper 15, Oct 15
- Reforming the FiTs and capacity mechanisms, Paper 14, Sep 15

- The first 100 days of Conservative energy policy, Paper 13, Aug 15
- Penalty tariffs, open ended regulation and embedding overcharging. Paper 12, Jul 15
- British energy policy- what happens next? Paper 11, Jun 15
- 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