BIEE 8th Academic Conference
Energy In A Low Carbon Economy: New Roles for Governments and Markets
Oxford, 22/23 September 2010

Energy efficiency in liberalised markets – implications for a low carbon future

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Objectives of the paper

- Review the outcomes for energy efficiency of ‘the 1998 process’, i.e. retail energy market liberalisation
- Speculate about the lessons for the next ‘energy market reform’

Retail energy market liberalisation - the ex-ante assessment

Driver	Risks	Opportunities
Market	Downward pressure on energy prices reduces market investment in energy efficiency	Liberalisation leads to new, free market opportunities in energy services
Regulation	Deregulation of supply leads to the loss of existing public energy supplier programmes	Transparent regulation of monopoly networks creates new opportunities for energy efficiency

Energy market liberalisation - an ex-post assessment

Driver	Risks	Opportunities
Market	Impact on prices limited, and Implications for energy efficiency investment small	Retail markets **have not delivered** significant energy efficiency through 'energy services'
Regulation	Liberalisation accompanied by **huge increases** in energy supplier regulated programmes	Regulation of network companies has not been used as an energy efficiency driver

Energy market liberalisation and energy efficiency - conclusions

- Since 1998, energy efficiency improvement has been significant
- This has been driven by regulation of energy suppliers, not deregulation
- Existing supplier obligations do not delivered the type and complexity of changes needed in future housing refurbishment

Future context - energy markets

- Priority of energy security and climate change goals is leading to greater willingness to intervene in energy markets
- The need for wholesale market reform is agreed and options are under discussion
- There minimal attention to retail markets, despite the problems of vertically integrated oligopoly with limited innovation

Future context – energy in housing

- Goals for carbon emissions reduction via housing refurbishment imply
  - Massive improvements in energy efficiency
  - Very large scale electrification of home heating
- The total investment required is ≥ £10k per house, i.e. > £250 bn by 2050.
- The changes implied in supply chain practice and consumer attitudes are also large

Applying lessons to the new context

- There is a need to large sources of finance
- Supplier obligations at this scale are implausible
  - They fund capital from revenue, and
  - Have not engaged mainstream actor in refurbishment
- Current financing “plans” are certainly necessary
- Finance is certainly not the only (or main) barrier
- ‘Voluntarism’ will not suffice; regulation of some appropriate actor will be needed
- Who? - DNOs?, housing finance?

Speculative thoughts on energy efficiency and market reform

- The existing retail market structure is neither popular nor likely to help deliver new policy goals
- But there is little attention to reforming it
- Innovation in retail is likely to require new actors, which implies disrupting the existing system
- The ‘single buyer model’ might do that
- ‘Demand side participation’ may well be necessary to assist with load balancing in a low carbon system, but
- Other changes are needed to reduce and electrify demand

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Questions

- Why is GB policy so attached to retail competition?
- How might we get to viable alternatives?
- What is the role of energy markets and their regulation in investment on the customer side of the meter?
- Is there a bigger role (than ‘smart grids’) for distribution networks?