

RPI-X@20

Regulating Energy Networks for the Future

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‘How can we encourage networks efficiently to facilitate delivery of a sustainable energy sector?’

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My attempt at triangulation

Telecoms

- technologically dynamic
- expanding fast
- capacity expanding- spectrum, fibre
- mixture of competitive modes
- potential sustainability solution

Water

- not vibrant
- limited scope for growth
- no competition to date (save comparative)
- major sustainability challenges

The role of competition

Telecoms

- mixture of end-to-end and common carriage competition, expected by end users
- retail fully deregulated
- single fixed network in major areas (50% of UK, 80% of EU)

Water

- no serious competition to date in any segment of the value chain
- 2003 attempt 'seen off' by firms
- business customers enthusiastic for choice.

Regulating Monopoly Investment

Telecom

- Basic copper network sunk decades ago
- Declining costs mean regulator has been able to 'afford' high cost of capital on new investment; effect enhanced by unanticipated output growth
- New challenge of replacing copper network with fibre causes difficulties in monopoly areas.

Water

- Probable bias in favour of capital-intensive methods, supported by Averch-Johnson effect
- Recent introduction of elicitation scheme
- Regulator finds it difficult to escape from 5 year plan cycle, which is inefficient

Innovation and the absorptive capacity of firms

Telecoms

- Substantial R&D by operators (£1.5 bn pa. by BT), as well as by suppliers (Cisco, Nokia)
- Lack of network competition still inhibits fibre upgrades (see *Digital Britain's* 'copper tax')
- Regulated solution to raise allowed rate of return by c. 2%

Water

- Weak performance, low skills, limited absorptive capacity
- Alter risk/ reward ratio for innovation
- Central but contestable subsidies for R&D
- Maximise 'prudent' introduction of competition.

Lessons for Energy

- ⌘ Presumption in favour of competition, even if it is circumscribed and for the market
- ⌘ Tendering by the monopolist (Glas Cymru style) is not an adequate alternative
- ⌘ In monopolies, the demand side for innovation has to be managed
- ⌘ The price of innovation to deal with sustainability is thus likely to be high