A regulatory regime for energy that is fit for purpose

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Plan

• What do we know about network regulation?
• Questions to be addressed
• Themes in Future Regulation
• Role of Regulator/Governments/EU
Lessons from network regulation?

- Incentive regulation +ve (Jamasb and Pollitt, 07)
- Unbundling +ve (Pollitt, 08a)
- Privatisation +ve (Jamasb et al., 04)
- Competition and regulation related (Green et al., 06)
- Quality can improve if incentivised (Ter-Martirosyan, 03)

- Easy to get it wrong, sometimes badly – (e.g. Netherlands, New Zealand) (Nillesen et al., 07; Bertram, 06).
Cost reflectivity vs incentives

• **General economic principles:**
  • Incentives should be stronger the greater the scope for extra effort / innovation
  • Demand/Technology risks/uncertainty best handled by market
  • Given the above market based incentives deliver better price-quality vectors.

• This implies that going forward incentives and prospective returns should rise.
Optimal number of companies?

- *General economic principles:*
  - Competitive market forces should choose scale.
  - More information is better than less.
  - Scales should be flexible up and down.

- This problem is about the value of information but also about failure risk.
Optimal number of companies?

• International data is a must.
• Virtual vs actual comparators. Ease of reversibility an issue.
• Value of small comparators.
• Some national comparison is good but could be small (4 gas distribution network cos vs 7 electricity in UK).

• Costly to maintain comparators for sake of regulation (lazy on part of regulator).
Sufficient capacity?

• **General economic principles:**
  • Markets good at providing short term flexibility – governments (very) bad at this.
  • Markets good at managing known longer term risks supply and demand risks.
  • Markets may be bad at handling low probability catastrophic events.
  • Governments have tendency to ineffectively interfere with market incentives for capacity.
  • Regulatory incentives should be given for risk reduction rather than for particular solutions.
Sufficient capacity?

• Project Discovery looking at this in UK.
• Key role for regulator is providing/auditing market level information to all participants.
• Long run investment facilitated by proper forecasting (like Quarterly Inflation Report).
• Market design failures (particularly between linked markets) may be identified which prevent market operating effectively at times of stress.
• Any new security investments should be competitively tendered.
Who should pay for networks?

• *General economic principles:*
  
  • Charges should be allocated to those best able to respond efficiently to them.
  
  • Charges should be cost reflective and vary by time and location.

• Deep charging penalises small network users and delays entry to networks.

• Given that demand and supply side response is possible, both sides should pay.
How should networks be regulated?

• **General economic principles:**
• Ideally need a supply and demand side for network services.
• An incumbent network / regulator will be biased towards new network investment.
• Incentives to cost minimisation should exist.

• Negotiations and auctions way forward.
• ISO/TO – DISO/DNO splits might help.
Congestion management

• *General economic principles:*  
  Too much congestion is an externality problem.  
  Nodal prices are required to deal with congestion.

• Rising congestion costs increase returns to investment in a nodal pricing model.
Dealing with Innovation

• **General Economic Principles:**
• Incumbent monopolies bad at innovation
• Incentives to innovate low in a regulated industry.
• Incumbents may wish to frustrate (drastic) innovation.

• There is a case for a competitive fund for financing innovation trailing across networks.
• Low carbon networks fund in UK.
Themes in Future Regulation

• Five can clearly be identified:
  • More use of negotiation
  • Extension of auctions
  • Attention to access terms
  • Innovation in/across networks
  • Role of unbundling and ownership
Role of Independent Regulator

• Agent of competition authority
  – Reliance on competition implies closer relationship

• More responsive to market requirements
  – 5 year price control review too inflexible

• Core independent analysis provider
  – More of real-time monitoring role
Role of Government

- Specifies High Level Outputs
- Subsidy and levy setter
- Responsible for security issues
- Standards setter and arbitrator
International Issues

• Cross border investments raise seems issues e.g. international interconnectors

• Collaboration important e.g. on benchmarking companies

• Role of EU in forcing change e.g. via Directives and Competition Policy