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Can energy markets replace planning?
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Can energy markets replace planning?

- John Wakeham (UK energy minister 1992): 'People criticise us for not having an energy policy. We do, it is markets.'
- Can markets really provide reliable, affordable and clean energy supplies?

What was wrong with monopolies?

- Not careful enough with public money: if investments went wrong, consumers always paid
- Often had their own technology agendas
- Vulnerable to political interference: prices set too low, insufficient investment capability

What was privatisation meant to achieve for developing countries

- Provide access to greater investment capital through foreign takeovers
- Provide access to skills from developed country utilities
- Allow tariffs to be raised to economic levels
- Reduce scope for political interference and corruption

What was the experience?

- Western companies came only to make money. They lost money because they did not understand the risks
- They have now mostly left and will not return
- Did they bring new skills? Did they bring new investment?
- If prices had to increase to economic levels anyway, why did not governments increase prices and see if the existing utilities would do better?

Natural gas is essential

- In a market, if gas is available, the market will only build combined cycle gas unless subsidies are offered
- But gas produces greenhouse gas emissions
- How much gas is there?
- Should we give up renewables, nuclear and large hydro just because they do not fit?
- If non-gas plant protected from market or built with subsidies, market will be irrelevant

Can markets allow environmental objectives to be met?

- Markets will build what is cheap and low risk: until renewables or other low-carbon sources achieve this, they will not be chosen
- Feed-in tariffs, target percentages and bidding contests all have their faults
- Energy efficiency measures are the cheapest way to reduce GHG emissions. Liberalisation makes their exploitation more difficult because utilities are more difficult to involve

Will markets ensure security of supply?

Electricity is different to other commodities

- Inability to store power. Peaks in price & demand cannot be smoothed by use of stores
- Need for supply & demand to match at all times
- Lack of substitutes. Threat of switching to substitutes can't act as a market discipline
- Vital role in modern society
- Electricity is a standard product. Switching supplier cannot produce better electricity

Will markets ensure security of supply?

- A free market has free entry and exit: capacity payments are a distortion
- Market prices will be volatile because demand is inelastic: a surplus will mean prices collapse, a shortage will send prices sky-high
- Imbalance between market signals (short-term and difficult to isolate) and power plant lead times (6 years or more)
- Producers make money from shortages, so if entry barriers high, no incentive to invest

Will markets be equitable?

- Industry will be better at negotiating low prices than small consumers but can it cope with the price volatility?
- If there is full retail competition, small consumers will have to compete with large consumers for cheap supply
- In free market for small consumers companies target most profitable and the lowest risk consumers. The poor pay more!

What about nuclear power?

- The 'nuclear renaissance' is not happening yet – 2 orders in West in France & Finland
- Both are going badly wrong
- If economic risk is not borne by consumers or taxpayers, banks will not lend
- Estimated costs grew 5-fold in last decade
- Nuclear is a costly diversion of resources and effort away from more cost-effective measures

Conclusions

Liberalisation seemed to work initially by several pieces of good luck:

- Fossil fuel prices were low and fuel markets were buyers' markets
- Lots of gas & new efficient, cheap technology (combined cycle) were available for generation
- Western utilities were able and keen to invest outside their home territories
- Environmental objectives were not so important

Conclusions

- Now environmental and security of supply issues mean markets have to be over-ridden
- New investment cannot be guaranteed
- Foreign utilities proved unreliable partners. New foreign investors will be worse
- If old utility structures are maintained, they must be improved