



THE OXFORD  
INSTITUTE  
FOR ENERGY  
STUDIES

A RECOGNIZED INDEPENDENT CENTRE OF THE UNIVERSITY OF OXFORD



# POLICY INSTRUMENTS.

*From why to how. An introduction.*

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# THE DEATH OF ENERGY POLICY ?

## PRIMACY OF THE MARKET ?

- Privatisation/ liberalisation/ markets (1990) “take energy out of arena of public policy”. Energy policy confined to ensuring markets are competitive – ie just competition policy.
- Successful in era of cheap gas and surplus capacity. Even so, residual concerns over investment incentives in power sector (paying for capacity).
- Issues of how to “manage” markets remain at core of energy policy ... **everywhere**. ... Electricity market reform (EMR) ... the EU internal market ... US gas exports.
- Climate issues present new policy imperatives. A game changer .... ? De facto energy policy and climate issues inseparably linked.



# WHY NOT “PURE” MARKET SOLUTIONS ?

CO<sub>2</sub> priced to reflect emissions objective via taxes or cap and trade? Under sufficiently robust conditions, markets deliver. But there is collateral damage.

- Large increases in consumer prices.
- Windfall profits to existing and intra-marginal producers ...
- ...and especially in absence of effective international carbon markets
- “competitiveness” and carbon leakage

Discriminate along the “supply curve of measures to reduce CO<sub>2</sub>”  
“Gain without pain”.

“Policy instruments”. Targets, market interventions, incentives, finance, regulations, taxes, import/export quotas, information campaigns etc.



	A TAXONOMY OF POLICY	INSTRUMENTS	By main CO <sub>2</sub> intensive sectors
	Power Sector	Transport	Heating
Markets	***** Fuel prices drive short term substitution. EU ETS. EMR central to UK policy. Direct interventions.	*** Road fuel already highly taxed. But aviation?	*** Price matters ! Tariffs and smart meters
Regulation	** Significance mainly with consumers, eg light bulbs.	*** Vehicle standards. Congestion +speed.	** Building standards
Innovation	**** CCS ? Photovoltaics ? Fusion ?	***** Major technology change to EV	**** Heat pumps. Materials science.

Can we rate relative importance? A range of instruments may be necessary but greatest weight on markets and innovation.



# POLICIES AND POLICY INSTRUMENTS. QUESTIONS.

- Balance of and interaction between market and interventionist/regulatory approaches.
- Supply-side/ centralised versus demand-side/ decentralised.
- Discount rates, financing arrangements and the cost of capital. Role of government. (cf PFI ??)
- CO<sub>2</sub> valuation and discount rates for evaluation of public sector policies in general. The importance of consistency.
- “Nudge theory”. The ultimate conceit in second guessing the market and consumer behaviour? Or perhaps it has a role?
- The problem for **national** policies. Setting in a wider context of EU and WTO.



# INVESTMENT QUESTIONS

- Many of the biggest choices remain supply side questions – especially power generation. Demand side vital, but may reinforce importance of grid.
- Regulatory (and government) commitment critical to securing investment . Governments or their agents inevitably sucked into technology choices.
- Cost of capital should not be an issue, but financing arrangements will be critical policy instrument.

## SOME GENERALITIES

- Energy efficiency ***without*** corresponding price increases (to reflect cost/ value) will deliver only limited results. (the well-known Jevons paradox)
- Market linkages (internationally) matter a great deal in promoting innovation.
- Increasingly hard to divorce energy/emissions issues from other “political” questions such as inequality and lifestyle ( shipping, aviation, agriculture etc)...
- ... a role for nudge theory ?

# ELEPHANT TRAPS AND RED HERRINGS

TRAPS. “large holes that are hard to get out of, and which should have been spotted in the first place”

- Don't underestimate the effect of incentives.
- Bounds to irrationality.

HERRINGS. Irrelevant ideology and bad economics.

- The competitiveness issue. (Remember the “Dutch disease”)
- Recession and the public finances.



## ELEPHANT TRAPS CAN TURN INTO TRAIN WRECKS

Montparnasse 1895

Oh \*\*\*\* !

