



Power Failure?

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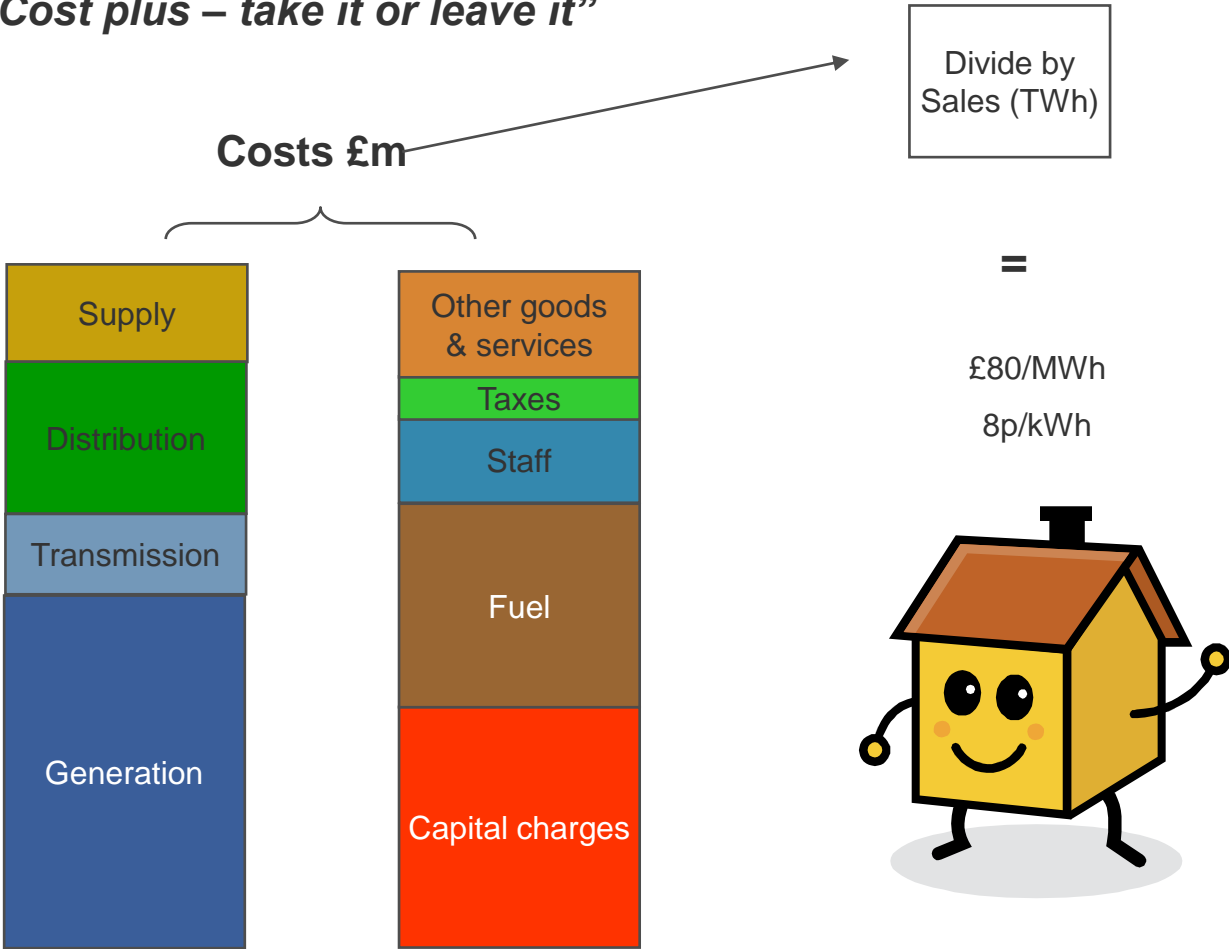
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Nationalised Monopolies' Trading Arrangements

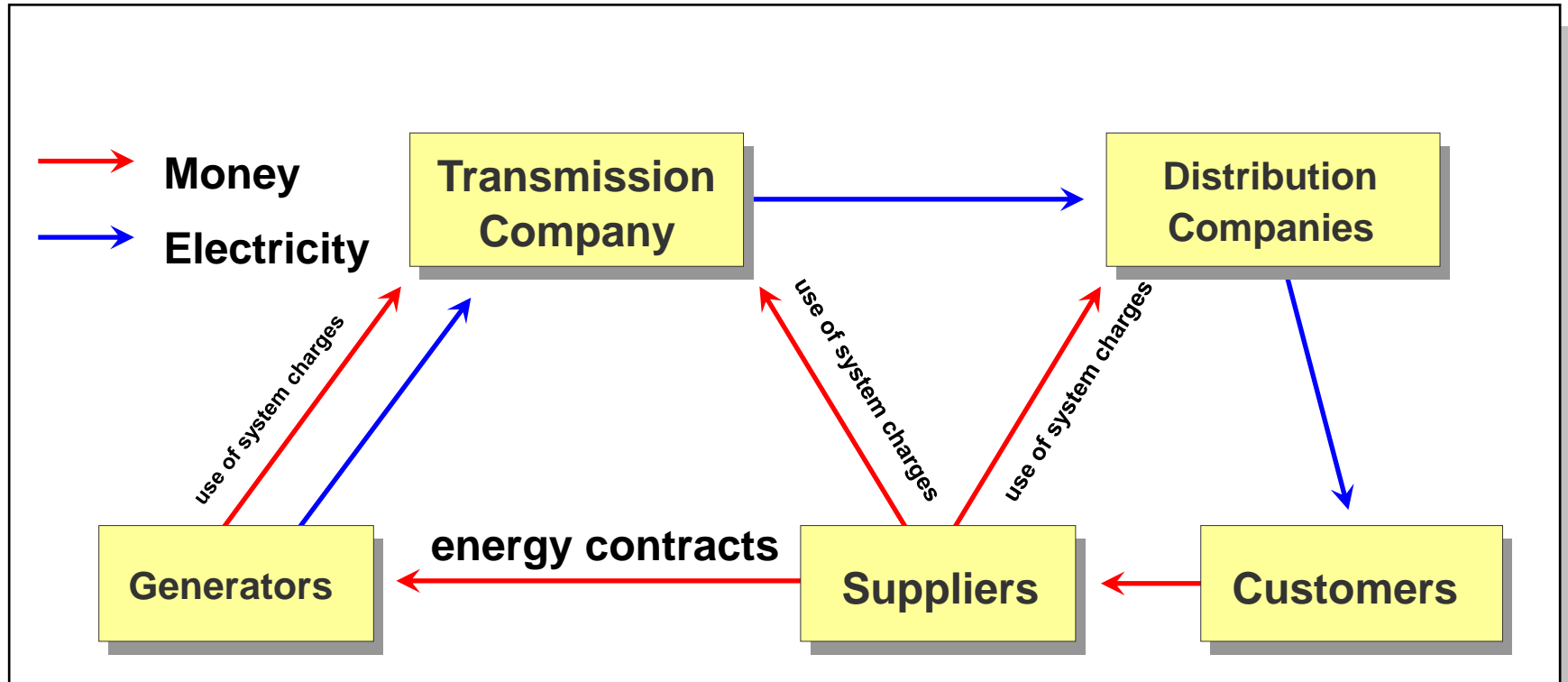
“Cost plus – take it or leave it”



Led to

- Gold Plating – engineers' playground
- Inefficiency
- Corruption?

1989 Act - Competition wherever possible

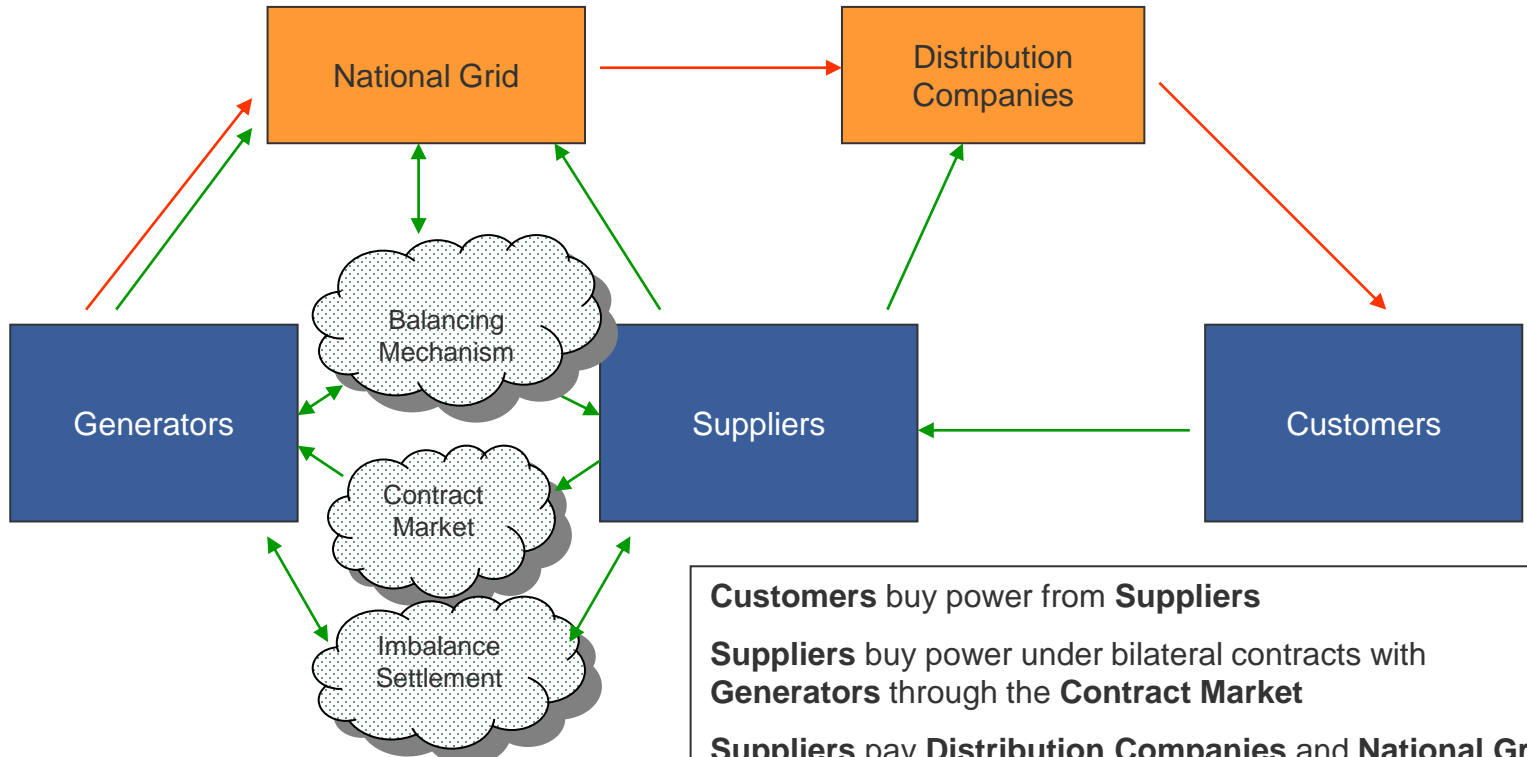


“The market should decide what, when and where new generation is built ”

How to trade power?

- “Impossible” – Lord Marshall - 1988
- “No problem” – Prof Caramanlis MIT - 1985

British power market structure:

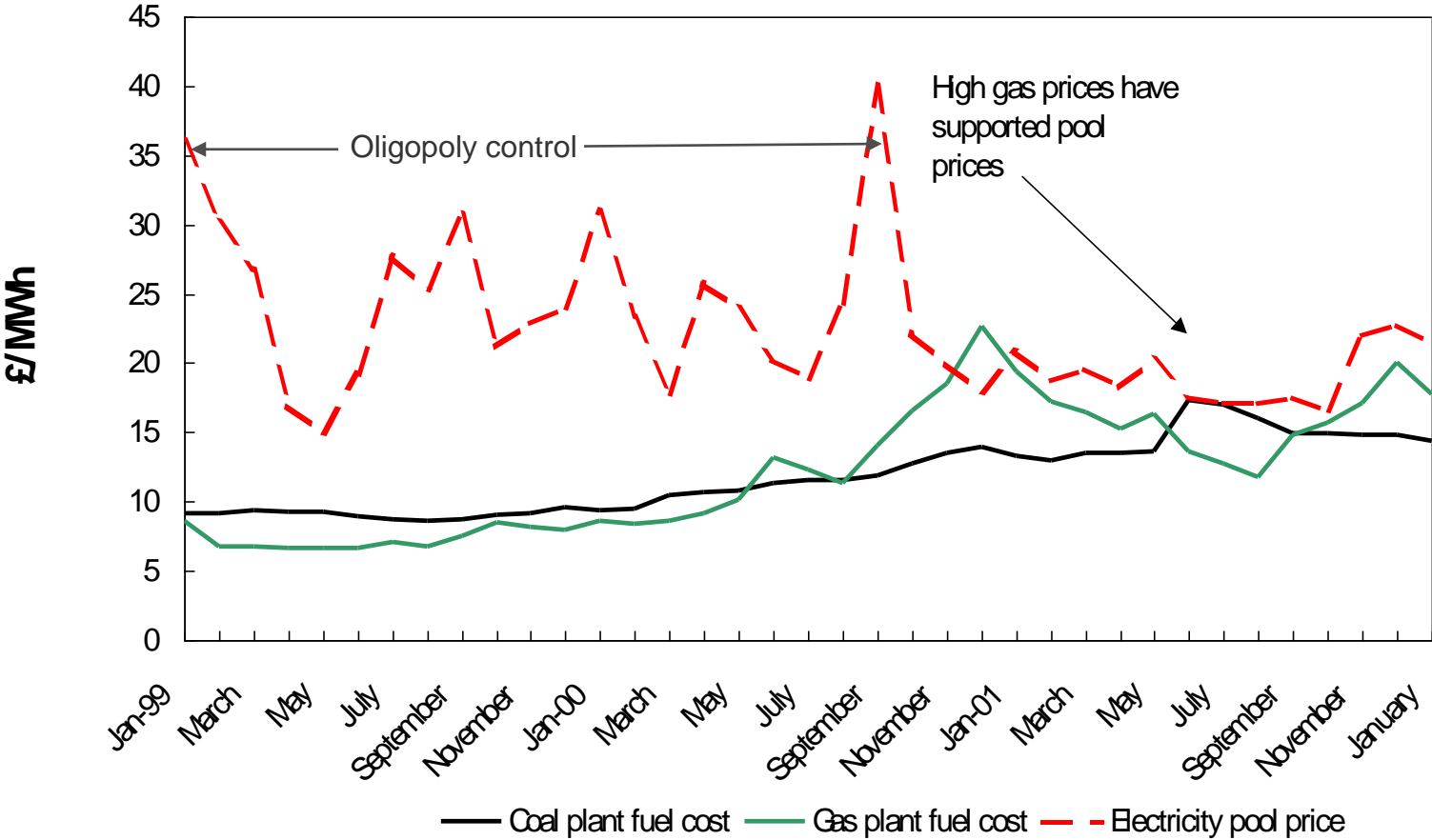


 Money flows
 Power flows

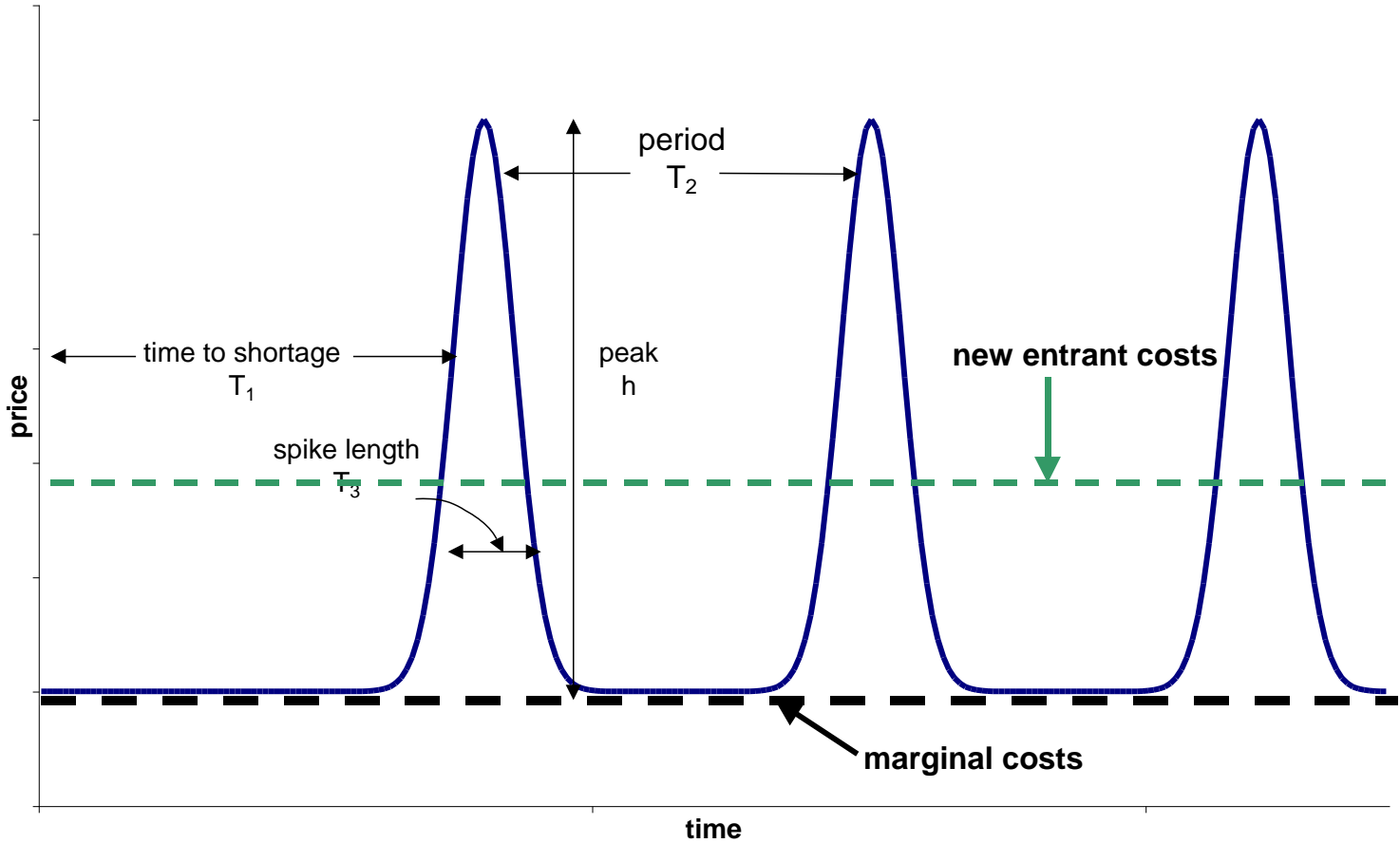
Customers buy power from **Suppliers**
Suppliers buy power under bilateral contracts with **Generators** through the **Contract Market**
Suppliers pay **Distribution Companies** and **National Grid** for the use of the wires
 Contract trading (Gate Closure) stops 1 hour before actual delivery. **Balancing Mechanism** helps **National Grid** to keep system stable by accepting offers to change contacted position.
 Ex post surpluses and deficits from the contract positions are sorted out through the **Imbalance Settlement**

Transition of “ordered” to competitive market

England & Wales Wholesale Power Market



Price behaviour in competitive markets?



Prices in competitive markets

■ Oligopoly

- ▶ Likely to be stable at or just below new entrant costs
- ▶ ...but probably unstable.

■ Volatile

- ▶ When demand \ll supply (most of the time), at marginal costs of production
- ▶ Soaring when demand \sim supply, then collapsing when plant built

■ Who, in their right mind, would invest?

■ Since 2010, all new plant first secured a long- term contract.

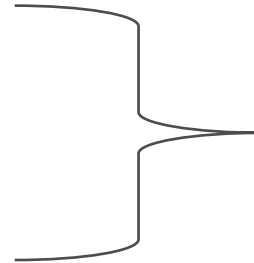
- ▶ Storr, Capacity, CFDs

■ So much for the market making investment decisions

Risks of generation:

❑ Construction

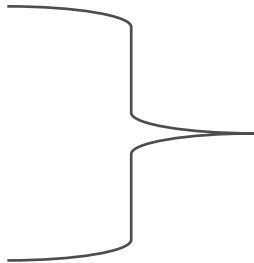
❑ Operation



Leave to “market”

❑ Timing

❑ Fuel technology



Socialise?

Currently delivered through the LCCC and ESC

Two issues remain

■ Governance

- ▶ Who oversees the investment decisions?

■ Efficiency

- ▶ Is the reliance on Contract for Differences sensible?
 - Will generators be confident of matching the reference price?

Back to the future?

■ Central Agency

- ▶ Purchases all power under long term competitive contracts
- ▶ Capacity commissioning and retirement decisions independent of Government, consistent with Law
- ▶ Sells power to unregulated Suppliers by a published tariff & purchases from large embedded generation
- ▶ Would enjoy a very low cost of capital

■ Generators

- ▶ Rewarded for providing capacity and efficiency. Market fuel prices are “passed through”
- ▶ NOT rewarded for trading

■ Suppliers

- ▶ Rewarded for efficient & accurate billing, customer management – but NOT trading

Questions?