ofgem

Promoting choice and value for all gas and electricity customers

Conclusions of CORWG Derivation Workstream

Ben Woodside

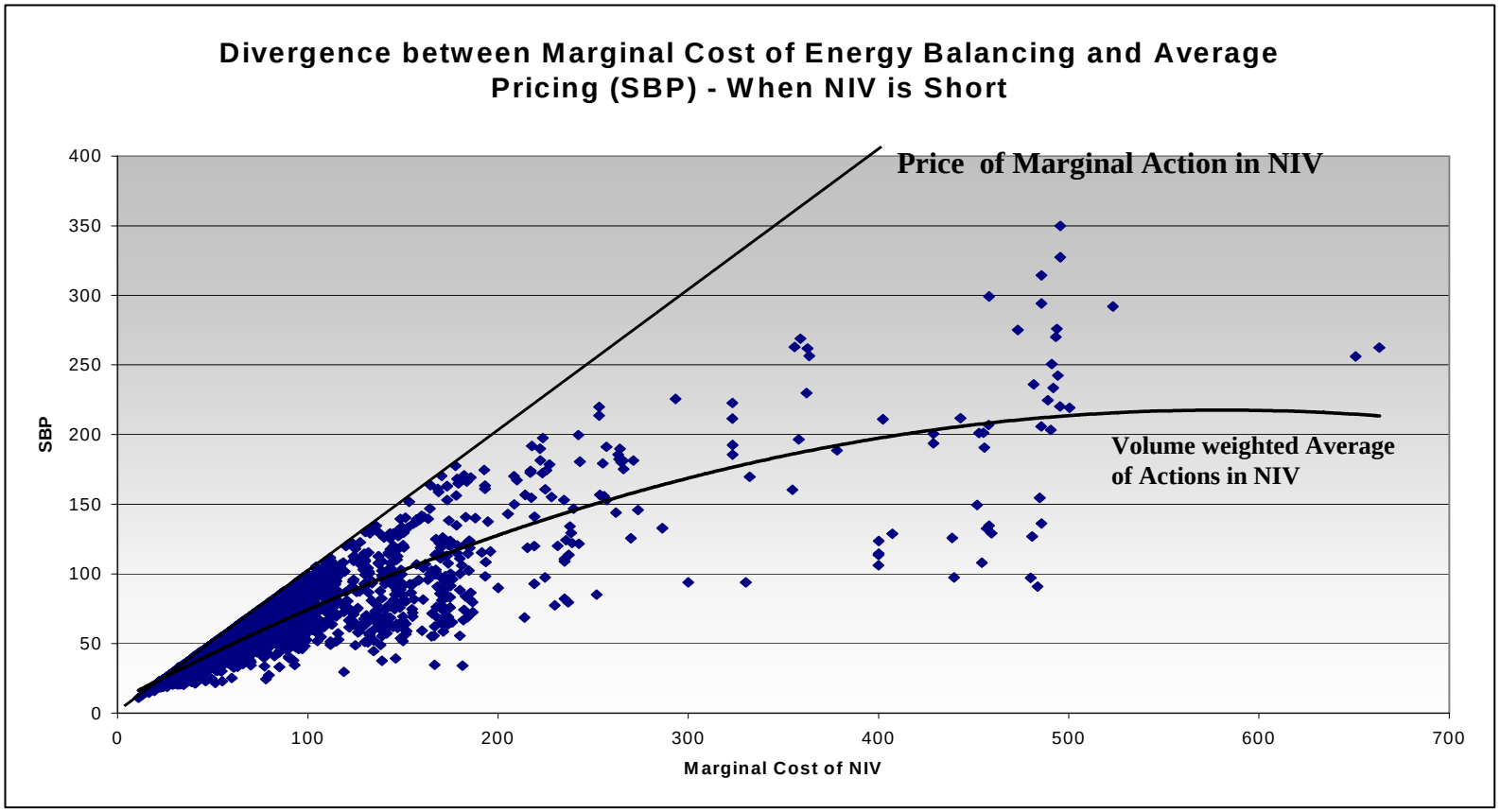
Introduction

- **Derivation sub-group** established to consider relative merits of adopting possible marginal or average cash out regimes (or any other relevant approaches)
- Possible defects in electricity
- Analysis of the impact of different regimes in electricity
  - e.g. Classes of customer
- Gas/electricity interactions
- NB: Group's considerations and findings were intended to be independent of P194 workstream

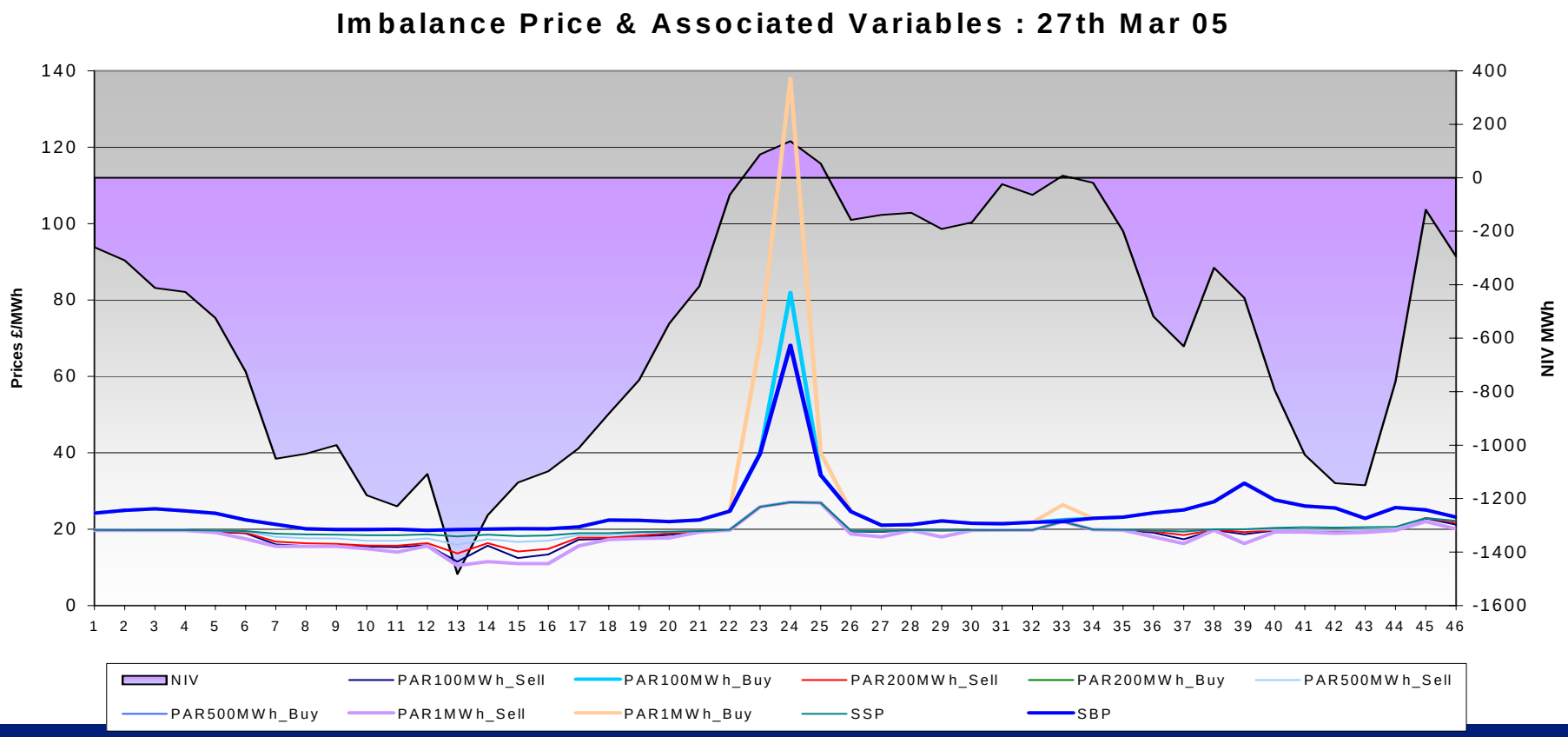
Derivation – Electricity

- Objective of cash-out that prices reflective of NG's marginal cost of balancing
- Provide right signals and incentives for market response
- Under current arrangements prices set on the basis of average prices which should in theory tend towards the marginal price

Analysis of Defect



Analysis of Defect (2)



Results of Analysis

- The group concluded that Bid/offer Price submissions are such that there is a divergence between marginal and average cost in certain periods, particularly tight periods.

- Identified a number of reasons for the divergence:

Reasons for Divergence

- Existence of gate closure
- System/constraint actions in the stack
- Reserve contracting
- BM has non-energy aims
- Fungeability
- Operational barriers, eg, dynamic/warming constraints
- Lack of perfect market info
- Actions taken for margin reasons
- Non-BM balancing actions
- SO-SO trades
- Unwinding
- BSAD

Solutions Analysed – Mod P194

- P194 considered a "chunky" marginal price
- Wider analysis agreed by CORWG was:

  - Calculating potential outturn cash out prices in the chosen sample periods based on different methodologies (Marginal, chunky marginal, average prices)

  - Size and number of actions that would set price

  - Impact on cash-flows

Key findings

- The group agreed that in theory/principle a marginal price is a more efficient mechanism than an average price in signalling scarcity or excess supply
- The group had differing views as to whether the divergence represented a "defect", due to the barriers identified the current system may be better than a marginal system.
- **Historic** analysis did not suggest that small– unrepresentative trades could set price (de-minimis)
- Gameability – marginal price may in theory increase the potential "pay-off" but the group considered that this was too difficult to do and competition law/reputational risks were too large

Key concerns/remaining issue

- Imperfect tagging is potentially a greater issue under marginal prices
- Potential impact on small/variable loads noted:
  - Impact would be in proportion to size of imbalance (not directly the size of BM unit)
  - Group didn't seek to analyse the magnitude of any impact
  - In principle group thought that shouldn't seek to "distort" cash-out regime to resolve this

Derivation - Gas

- In the gas market, cashout prices are marginal
- The difference with electricity seems justified:
  - Many buyers in gas; only one (NG) in electricity
  - The group believed that none of barriers (to prevent average from tending towards marginal) identified in electricity were present in the gas market to the same extent
  - It was recognised that in the future some may appear as a result of current and potential mods