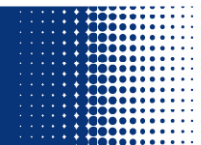




Ex post unconstrained schedule work

David Lewis
EDF Energy
30th March 2007



❖ Introduction

- Ofgem’s main target area for this review is the current rules for removing system trades from imbalance prices (the “tagging” mechanism)
- It is Ofgem’s view that imbalance prices should only represent the cost of “energy” related trades
- The work presented here addresses this problem, but takes an entirely different approach to that currently in place

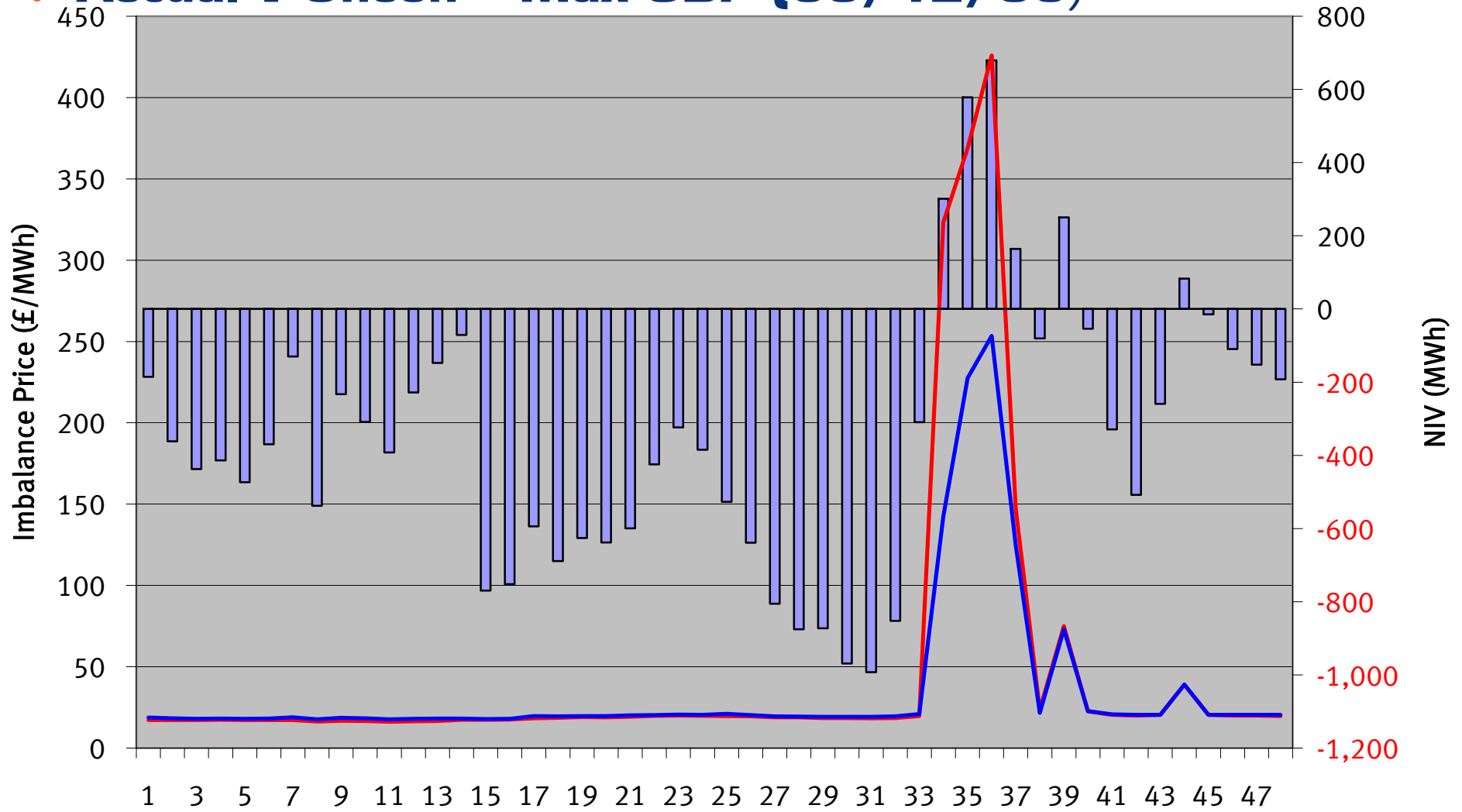
❖ **Alternative approach to removing system trades**

- Instead of basing the main imbalance price on actions that National Grid actually utilised, an alternative approach is to base it on actions that they could have utilised
- The aim is resolution of the market imbalance (NIV) using the cheapest available actions
- Approach takes into account physical parameters (PN, MEL, MIL, BOA Level), but not dynamic parameters (ramp rates, NDZ, MZT, MNZT)
- Accounting for dynamic parameters would in some cases remove units which would otherwise have been included in the unconstrained schedule
- PAR Tagging could then be applied to the new stack

Unconstrained Price – sample day analysis



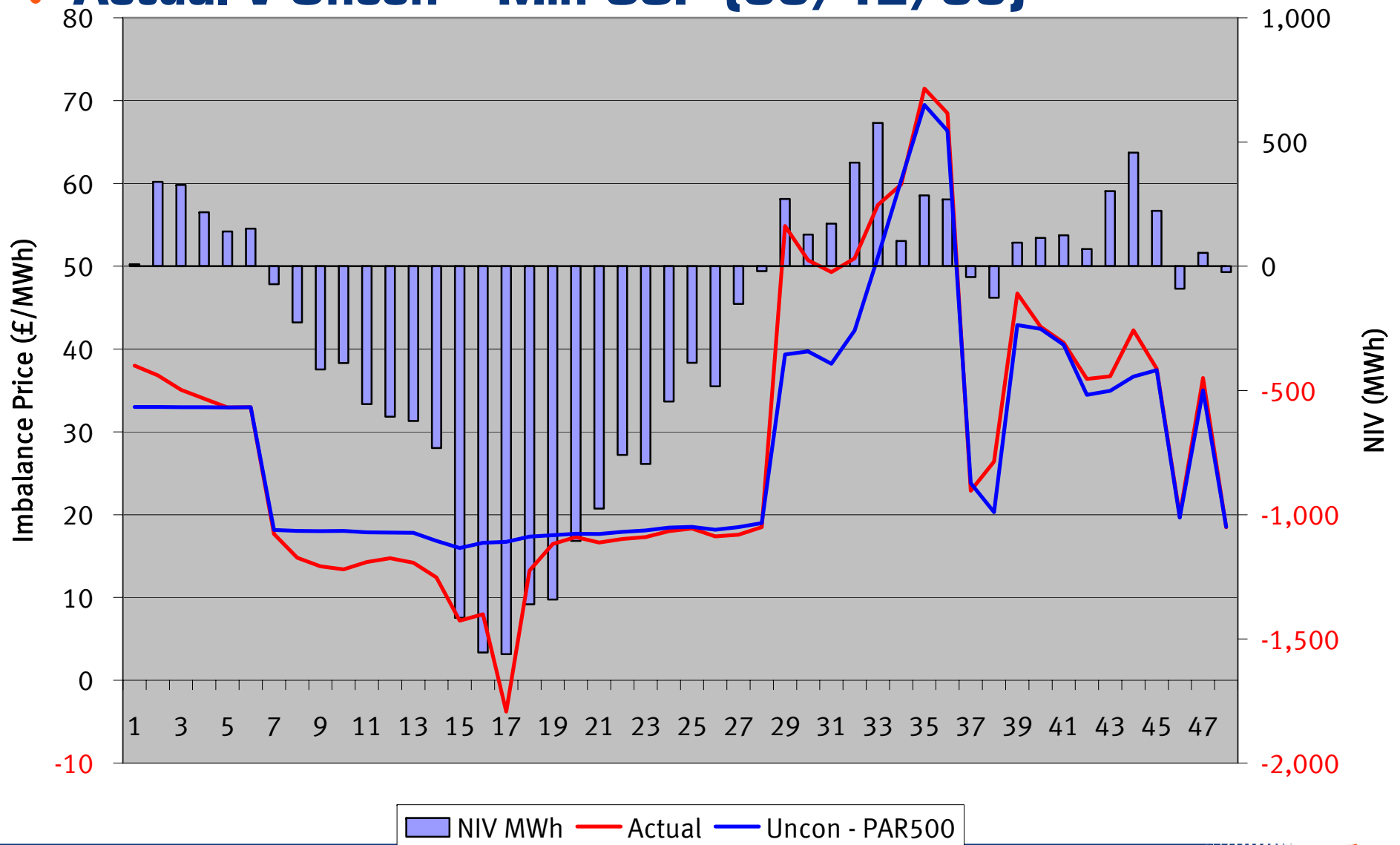
Actual v Uncon - Max SBP (09/12/06)



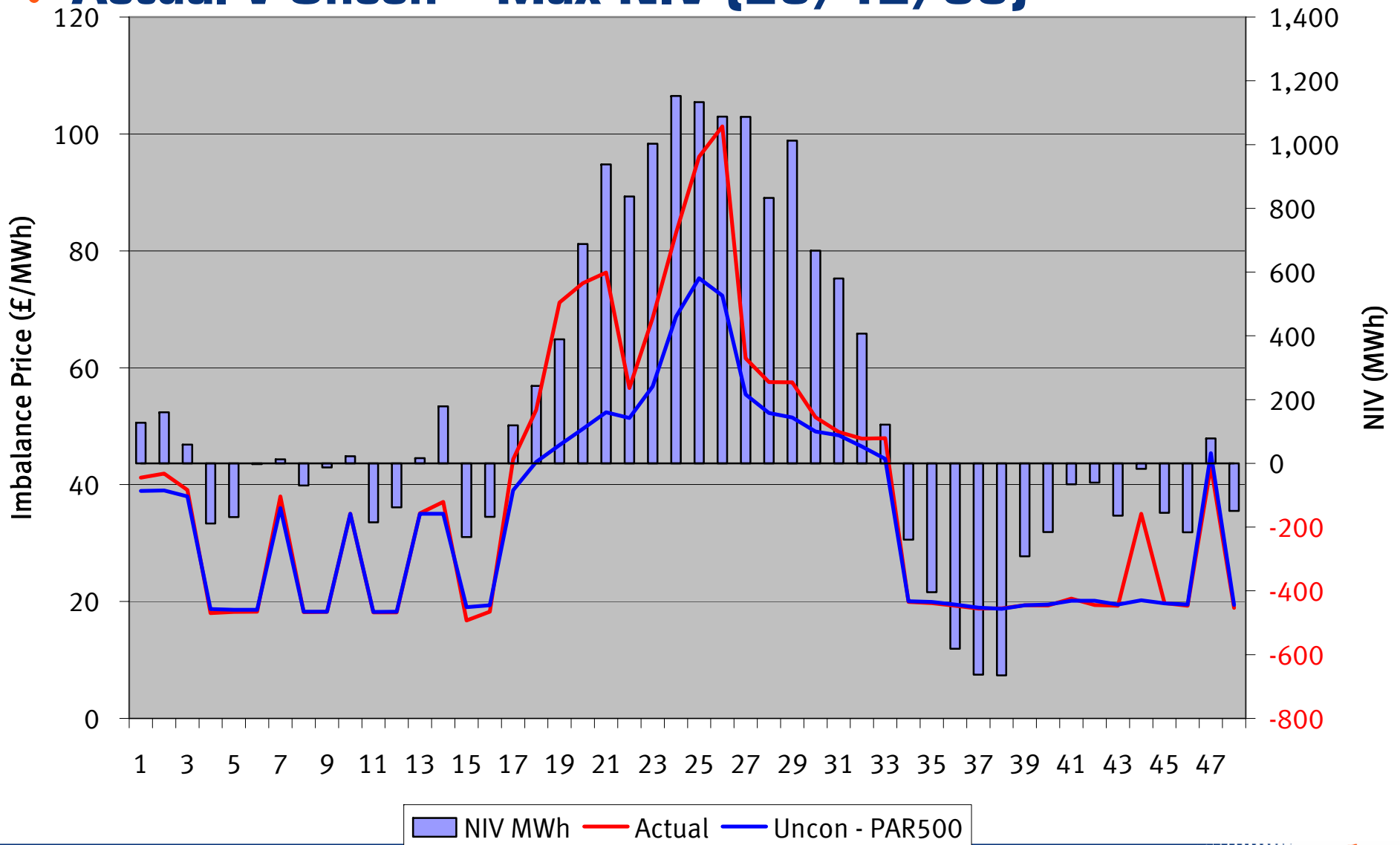
■ NIV MWh
 — Actual
 — Uncon - PAR500



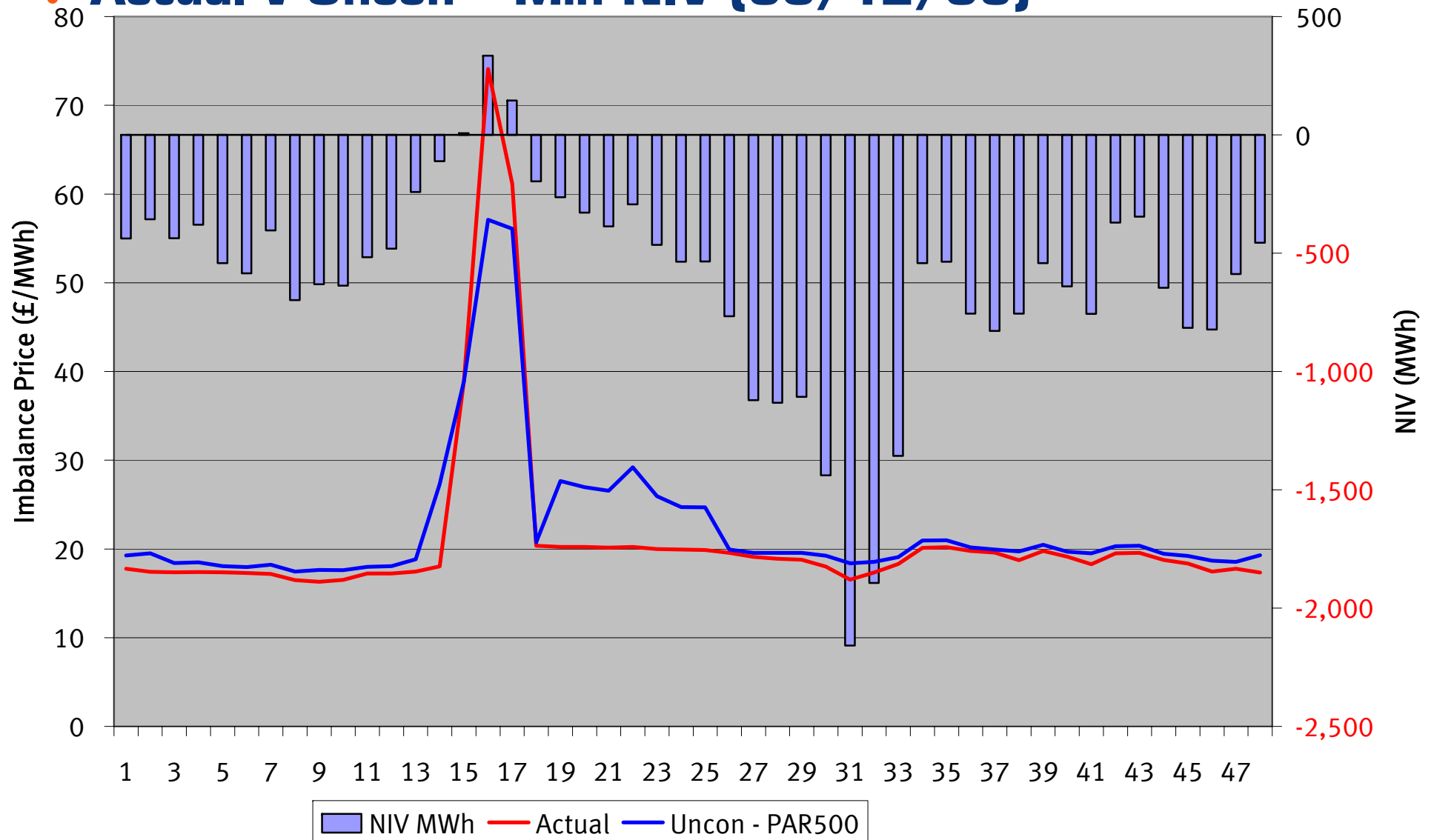
Actual v Uncon - Min SSP (30/12/06)



Actual v Uncon - Max NIV (25/12/06)



Actual v Uncon - Min NIV (08/12/06)



Conclusions and interaction with the cash out review

- Ofgem's priority area is tagging because there is a concern that the cash out price is often based on the 'wrong actions' (i.e. system trades)
 - An unconstrained schedule ensures that the right actions are used and that all system trades are excluded from the price
- Prices are not cost reflective which creates uncertainty and unpredictability
 - Basing the price on actions that the SO could have taken on an unconstrained system removes this unpredictability – parties simply do not have the transparency to understand the location or price of constraint actions
- Overall aim to simplify the arrangements
 - Electricity Imbalance Price calculations are very complex – our solution removes this complexity and provides a price that is reflective of the cost at which parties are willing to buy or sell power in the balancing market

⌘ Questions and Discussion

