

Update on Trading Activities

February 2005

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Operations and Trading

Presentation Overview

- Trading Principles
- Trading Considerations & Procured Volumes
- Impact of our Trading
- Trading Performance
- Information Sources on Traded Activity
- Looking Forward
- Summary

Trading Principles

Trading Principles

- Trade on expectation of delivering economic benefit
 - Licence obligation to procure economically (Condition C16)
 - subject to prohibition on speculation (Condition C2)
- Requirements based on purely 'physical' considerations
 - to economically offset an expected BM action
 - not trading against a reference price e.g. cash-out prices
- Trading satisfies Ofgem's expectations
- Ensure we comply with FSA regulatory requirements

Trading Principles

- Trading advice prepared by a Middle Office team and all Trading activity undertaken against this pre-agreed advice
- All trades are tagged to specific advice requirements to facilitate post event audit checks
- Energy trading advice utilises information readily available to all participants and taking account of potential BM actions.

Trading Advice

- Energy Trading advice model incorporates -
 - a central imbalance volume forecast model with half hourly forecasts based predominantly on analysis of historic NIV
 - an allowance for forecast BM actions
 - a view on IPN data
 - price curves based on predicted BM Bid / Offer slopes with allowance for reversal probabilities
 - updates for demand forecast changes
 - price premiums to reflect the risk of impacting on margin
- Advice for BMU Specific trades utilises system information where required e.g. constraint details

Trading Considerations & Traded Volumes

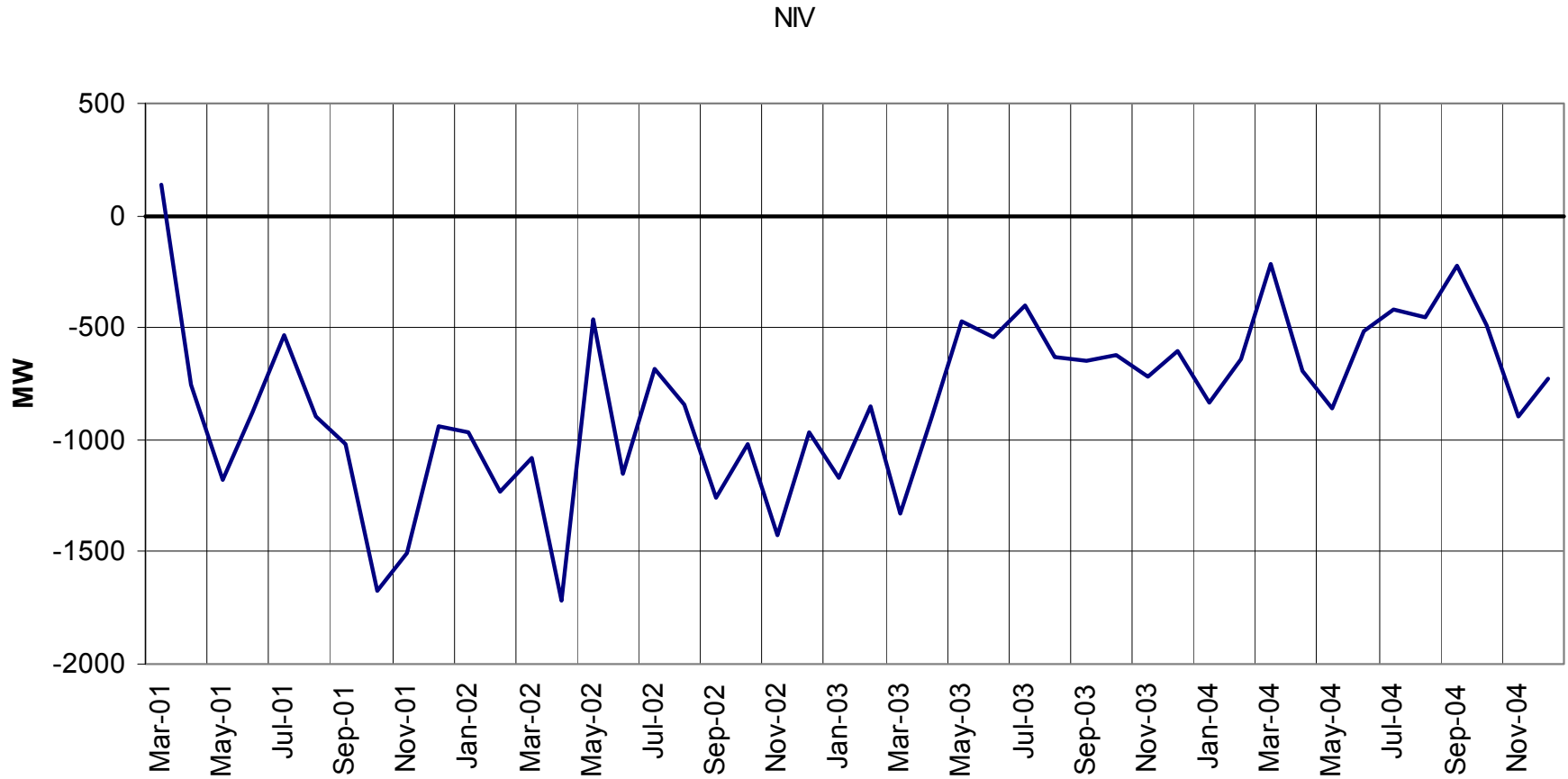
Trading Considerations / Instruments

| <u>REASONS FOR TRADING</u> | <u>INSTRUMENTS</u> |
|--|--|
| Economic Energy Imbalance (Non-locational) | OTC Forwards; Power Exchange; Bi-lateral; Options; Combination Deals |
| Margin Support (Non-locational) | OTC Forwards; Power Exchange; Bi-Lateral; Options; Combination Deals |
| BMU Specific (e.g. margin; constraint) (Locational) | Bi-lateral BMU-specific Forward trades and Options Power Exchange Linked Interconnector (PELI) |

Imbalance Volumes

- Introduction of P78 in Feb 2003 has had a significant impact on imbalance and NGT Traded Volumes.
- Net Imbalance Volume averages -600MW this financial year as compared -1000MW prior to the mod change
- Standard deviation typically 600-700MW so greater risk of forecast position being reversed

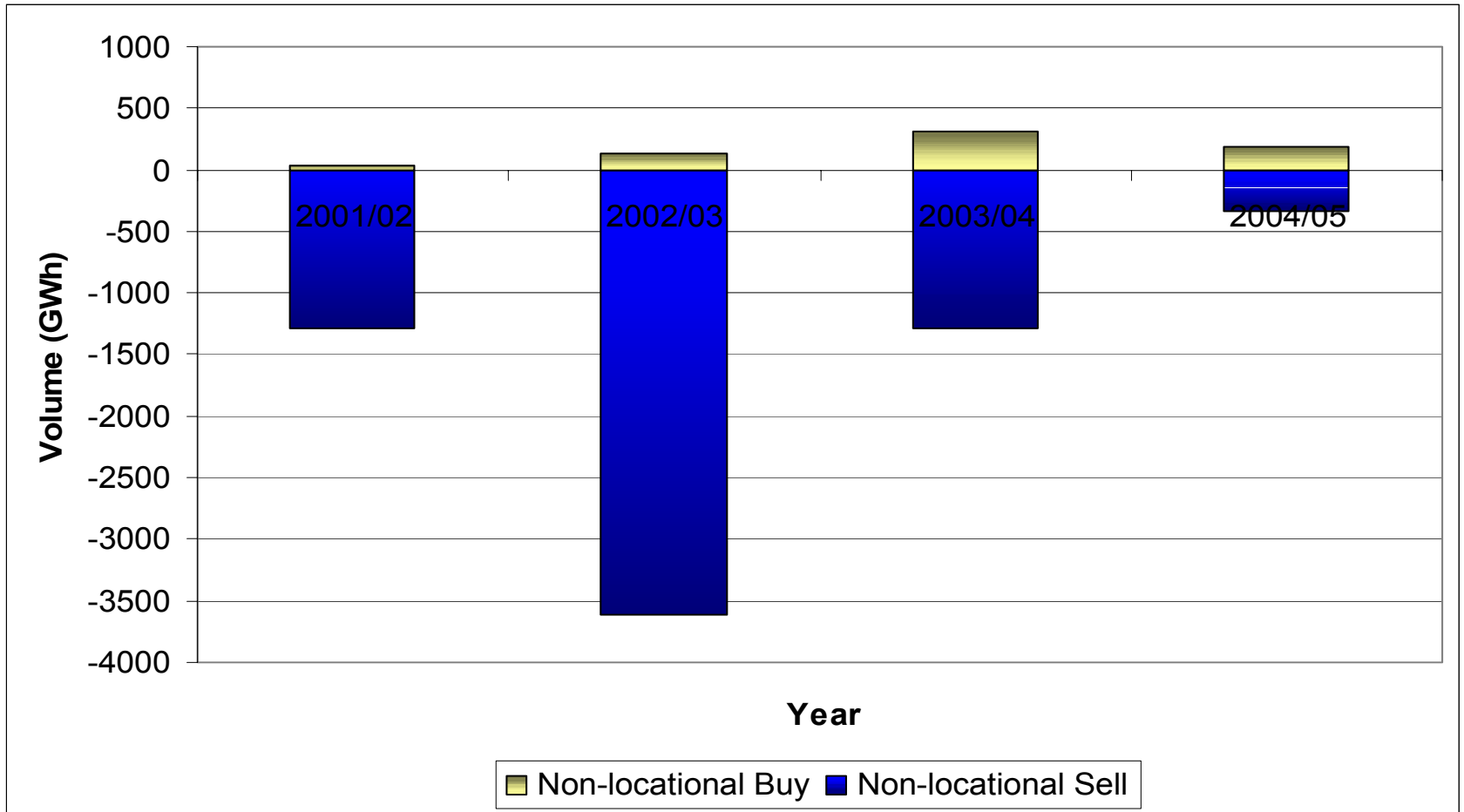
Monthly Net Imbalance Volumes since Go-Live



Non-Locational Trades

- NGT Non-locational energy SALES volumes have decreased to 10% of pre-P78 level
- Increase in the volume of non-locational BUYS to -
 - economically manage the risks of imbalance outturning short when forecast long
 - economically support upward margin requirements

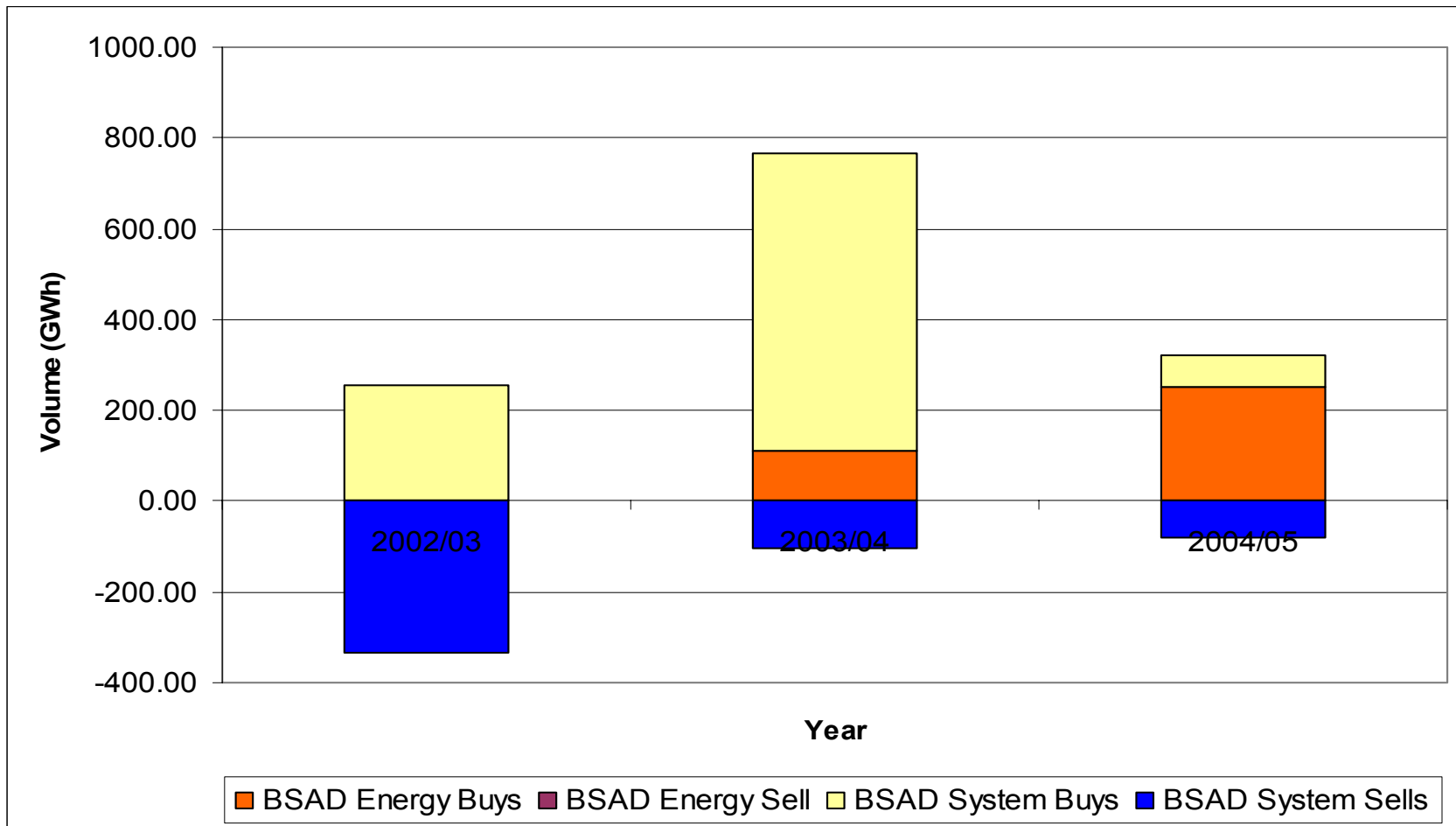
Non-Locational Volumes 2001 - 2005



BMU Specific Trades (excludes PGBTs)

- Typical requirements include -
 - upward margin
 - downward regulation
 - constraints
 - Anglo-French Interconnector
- GTMA Schedule 7A developed to provide a contractual framework - initiative to sign up counterparties still on-going
- Upward margin trades included in BSAD energy figures - others in BSAD system

BMU Specific Trade Volumes (2002 - 2005)

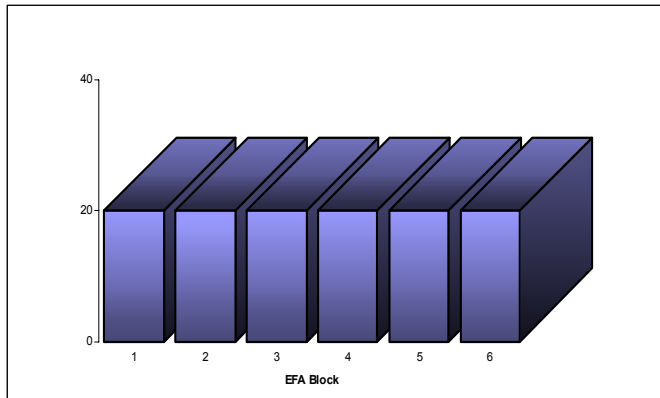


Combination Trading

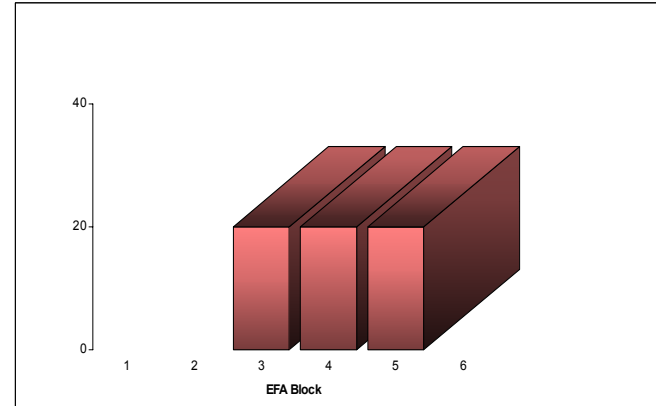
- Set of linked trades undertaken to achieve the physical requirement
- Used as alternative trading strategy where -
 - there is a more economic solution
 - the combination legs are more liquid
 - the requirement is not a standard product
- Approx 30 combination deals undertaken in the last 12 months

Combination Trade - e.g. Synthetic Off-Peak

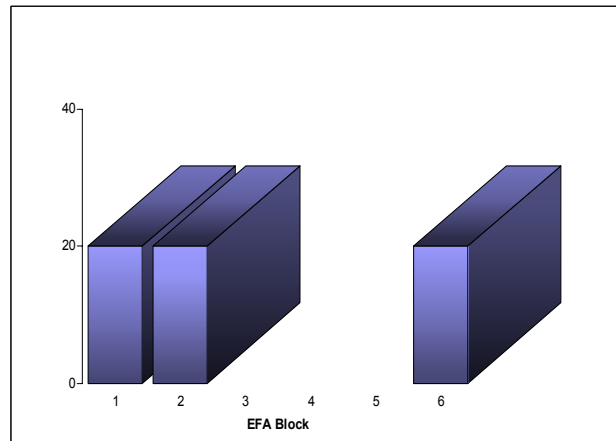
SELL DAY AHEAD BASE LOAD



BUY DAY AHEAD PEAKS



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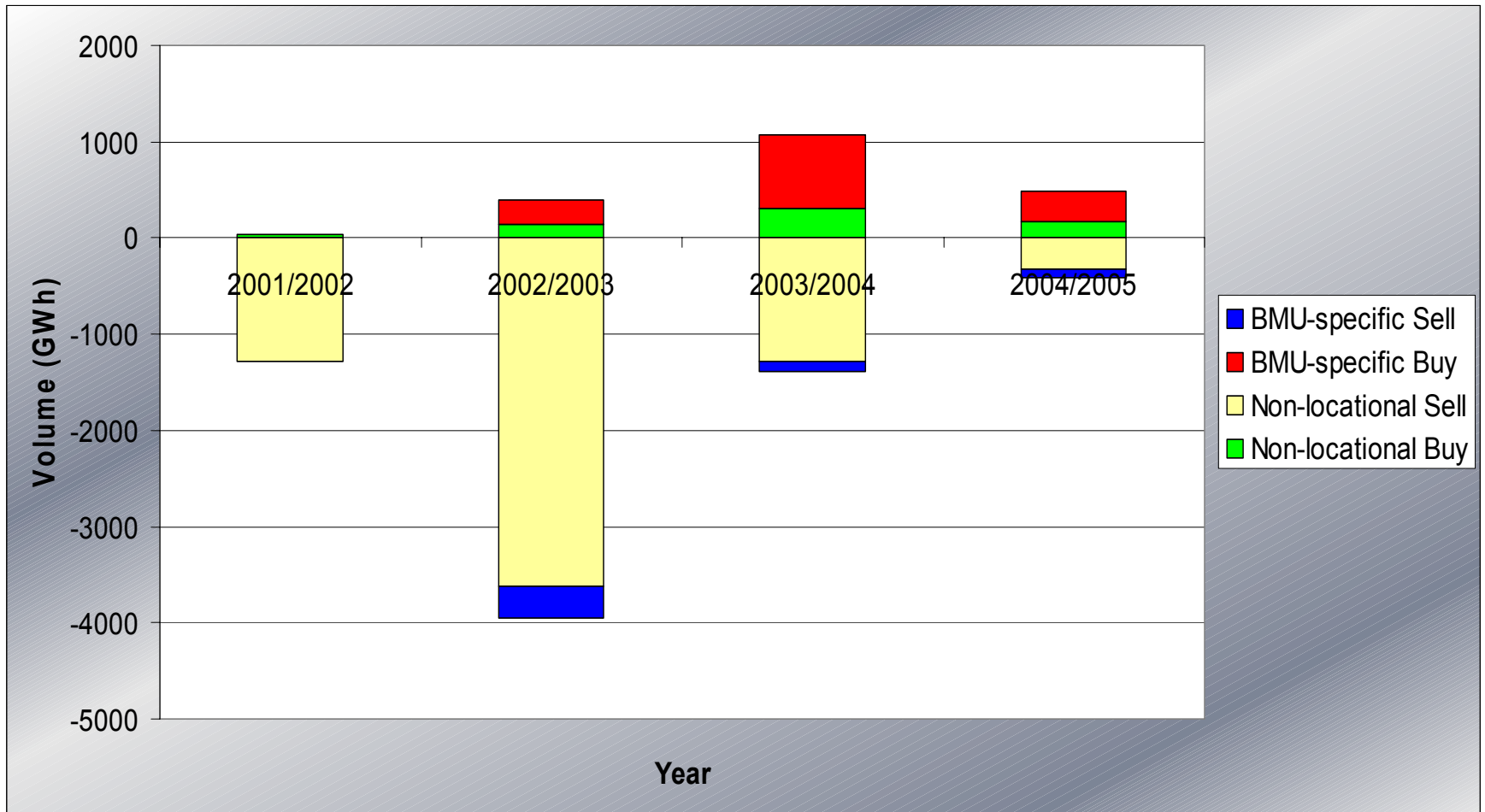


DAY AHEAD
OFF-PEAKS

Total Annual Trade Volumes

- Shift away from being a predominant net volume Seller.
- Most significant change has been the reduction in non-locational SALES post P78.

Total Trade Volumes 2001 - 2005



Other Transactions

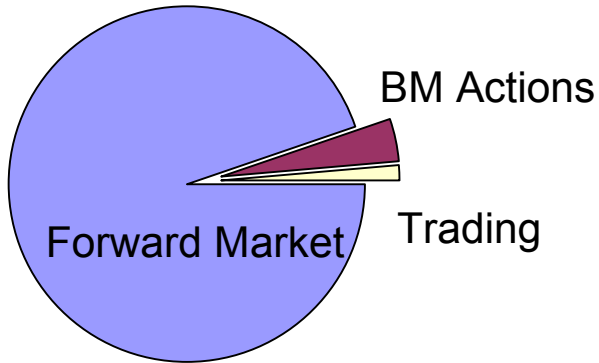
- Options - Since Feb 02
 - Bought 20 CALLS + 1 PUT
 - 19 BMU Specific
 - 2 Non Locational
 - No Options SOLD
- PELIs - Since Nov 03
 - 195 Agreed
 - 158 resulted in BMU Specific Trades

Impact of Trading

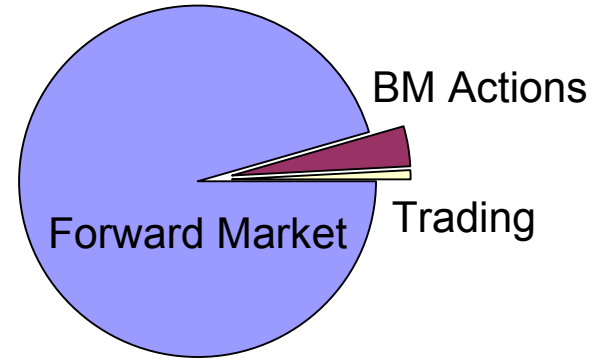
Impact of Trading

- Principally to reduce overall Balancing Costs
- Consequentially feeds into Cash-out Price
- Impact on Forward Price

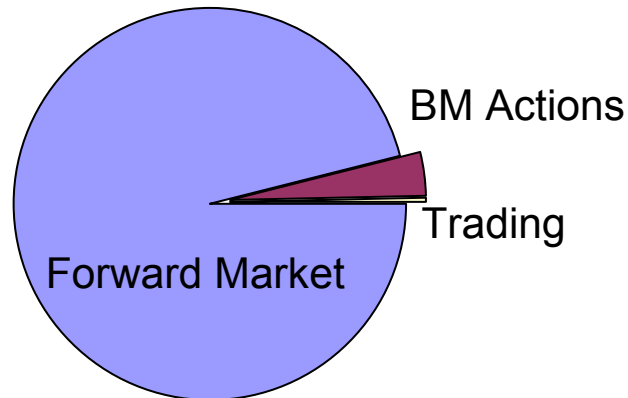
Energy Supplied 2002 - 2005



2002/3



2003/4

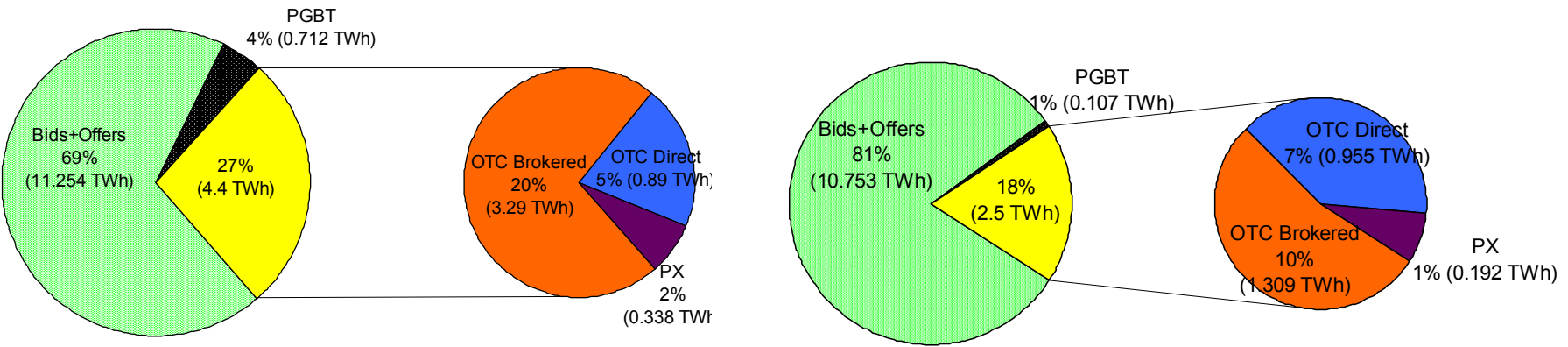


2004/5

Interaction with BM Activity

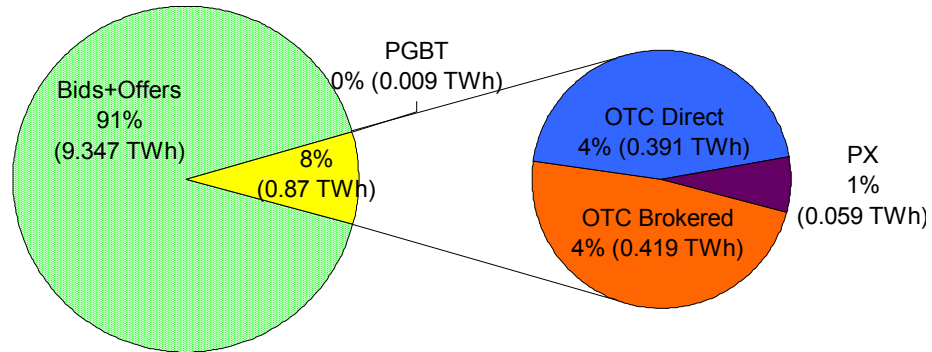
- Vast majority of Balancing Actions are undertaken in the BM
- Trading currently accounts for <10% of Balancing Actions

Balancing Action Volumes 2002 - 2005



2002/3

2003/4

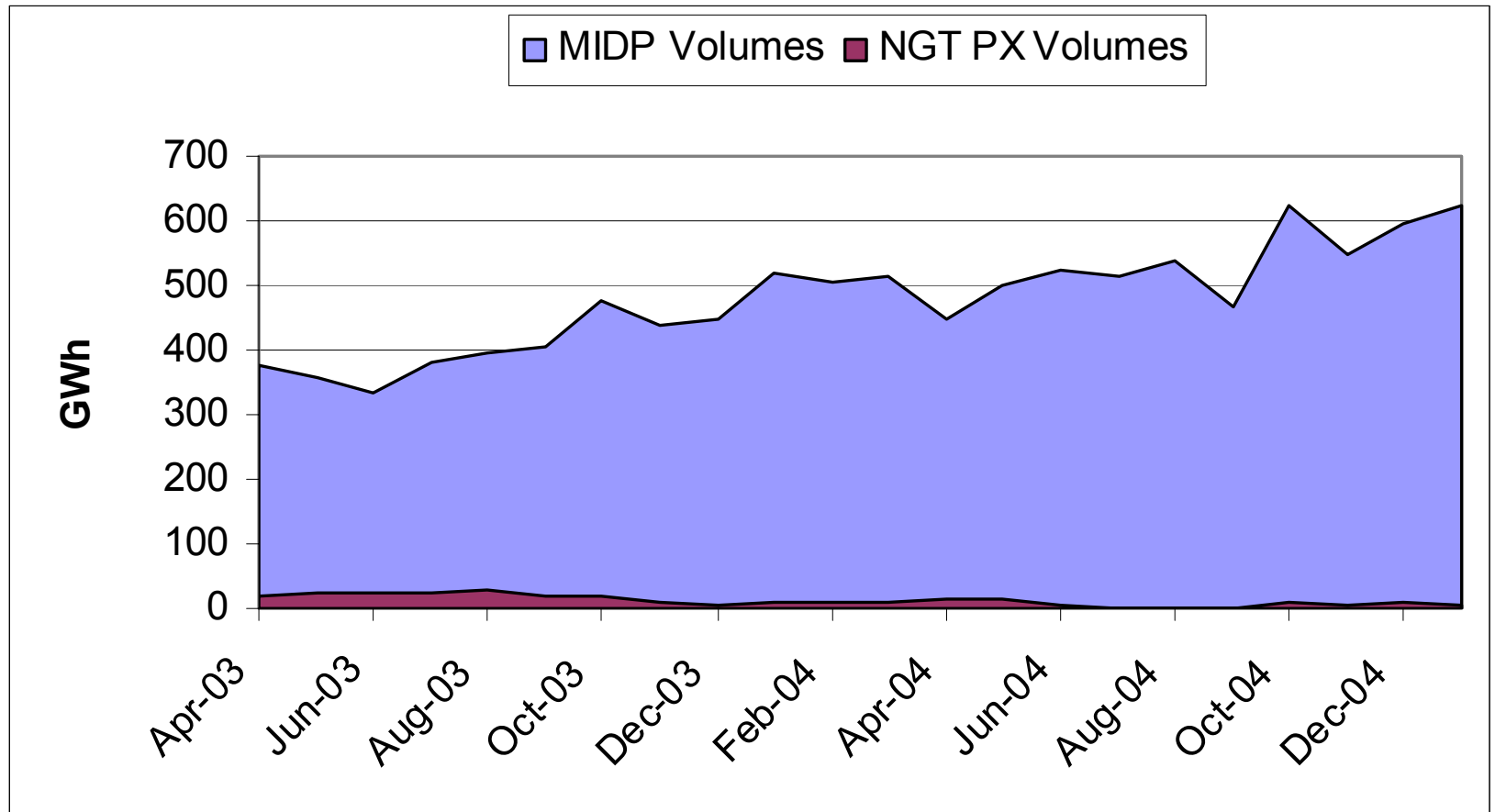


2004/5

Effect on Cash-Out Prices

- NIV Direction Cash-out (BSAD Methodology)
 - trades used in the calculation of net energy BSAD variables
 - e.g non-locational and BMU specific upward margin trades
 - trades used in the calculation of net system BSAD variables
 - e.g BMU specific trades for constraints or downward regulation
- Reverse Cash-out Price - PX trades included within Market Index Data - typically 1% of trade volume procured via the PX

MIDP Volumes v NGT PX Trades (2003-2005)



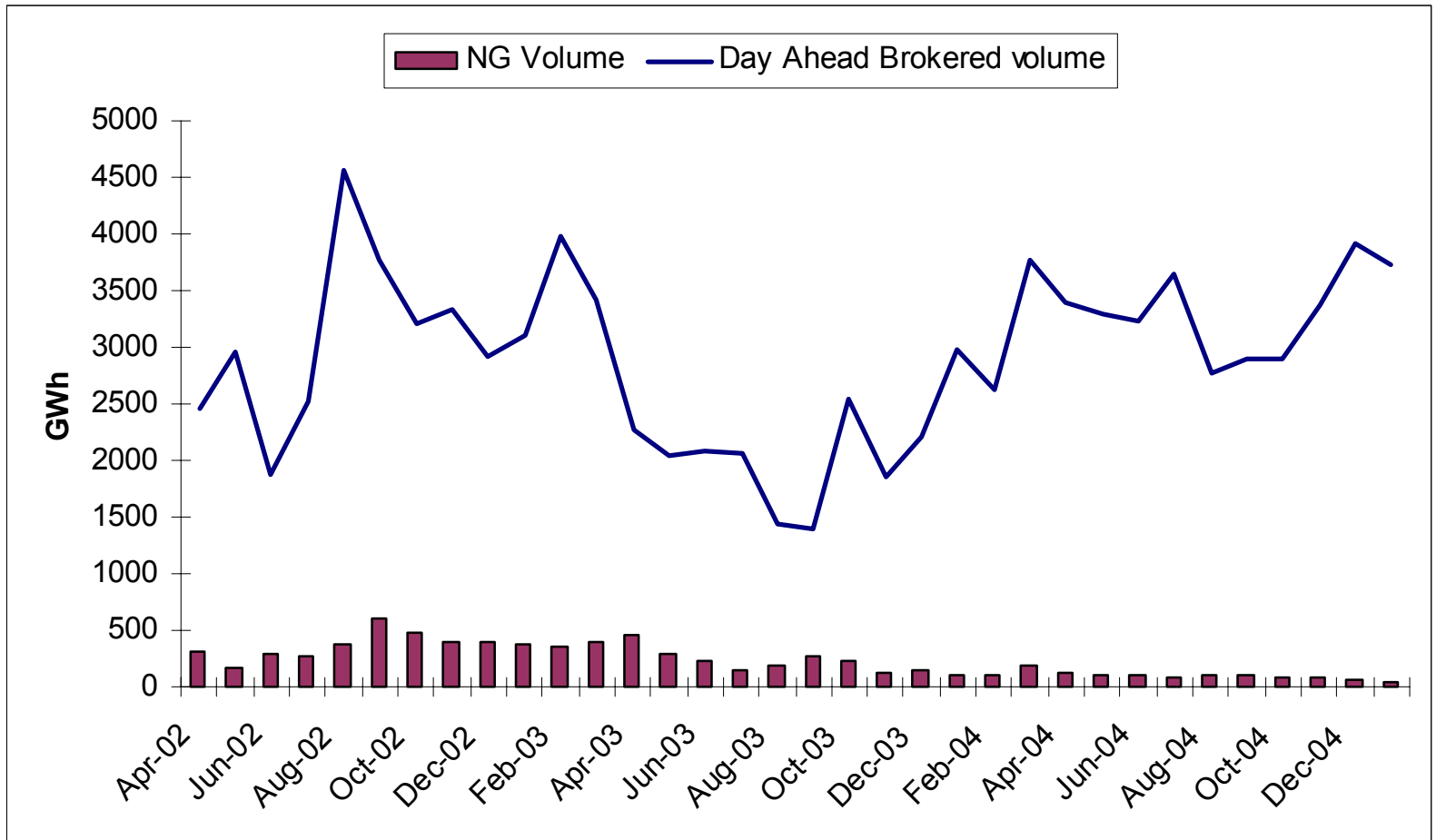
Consideration of Impact on Main Cash-Out Prices

- Trading accounts for a very low proportion of overall balancing actions
- Some analysis undertaken of 03/04 trading volumes to assess potential impact -
 - On specific days noticeable effects could be identified
 - However when viewed across the year as a whole the current level of NGT trading activity was not considered to have a 'material' impact on long term cash-out signals

Impact on Forward Curve Prices

- NGT traded volumes account for less than 0.5% of the total annual energy delivered.
- Vast majority of NGT trades are undertaken at day-ahead.
- This Financial Year -
 - 95% of trade volume was for delivery day-ahead.
 - For the other 5% the max time horizon was less than 2 weeks
 - we have traded less than 3% of the brokered dayahead market
- Consequently can conclude that we do not have a material impact

Impact on the Forward Market



Trading Performance

Trading Performance Assessments

- Indicative since impossible to show absolute comparison between the traded and non-traded position
- Daily BM information on energy Imbalance BOAs allows a reasonable assessment of the expected alternative cost if energy imbalance trades not undertaken
- No consistent methodology for determining BMU Specific trading benefit since many trades are undertaken to provide firmness and certainty ahead of gate closure.

Indicative Trading Performance Results

- Indicative Non Locational Energy trade Benefit data -
 - 2002/3 £8.8m
 - 2003/4 £0.9m
 - 2004/5 £0.4m
- Non-Locational Energy Trade Reversal statistics excluding upward margin & BMU specific trades -
 - 2002/3 Traded 3.5TWh Reversed 0.4TWh
 - 2003/4 Traded 1.2TWh Reversed 0.2TWh
 - 2004/5 Traded 0.32TWh Reversed 0.05TWh

Information Sources on NGT Trading Activity

Trading Information Sources

- **BMRS - Balancing Services Adjustment Data**
 - Day-ahead
 - Gate Closure
 - Post Event Day +1 (11:00)
- **NGT Balancing Services Industry Information Website**
 - BSAD Info (net volumes)
 - Forward Contracts Info (Segregated Buys & Sales volumes)
- **Procurement Guidelines**
 - Balancing Services Monthly Report (Breakdown of Costs / Volumes)
 - Annual Procurement Guidelines Report (Pursuant to C16)

Looking Forward

Looking Forward

- Focus on the periods where high BM costs arise and use appropriate Trading Strategies to mitigate these
- Continue to look for opportunities to hedge risk using Options
- Continue initiative with Market Participants to sign onto Schedule 7A amendments

Summary

Summary

- Imbalance Volumes have tended to a more balanced position since P78 which has resulted in -
 - total traded volumes significantly down
 - a greater propensity to BUY volumes for margin support
- Volume of BMU Specific trades has increased due to an increase in Anglo-French Interconnector trading requirements

Q&A

Any Questions