

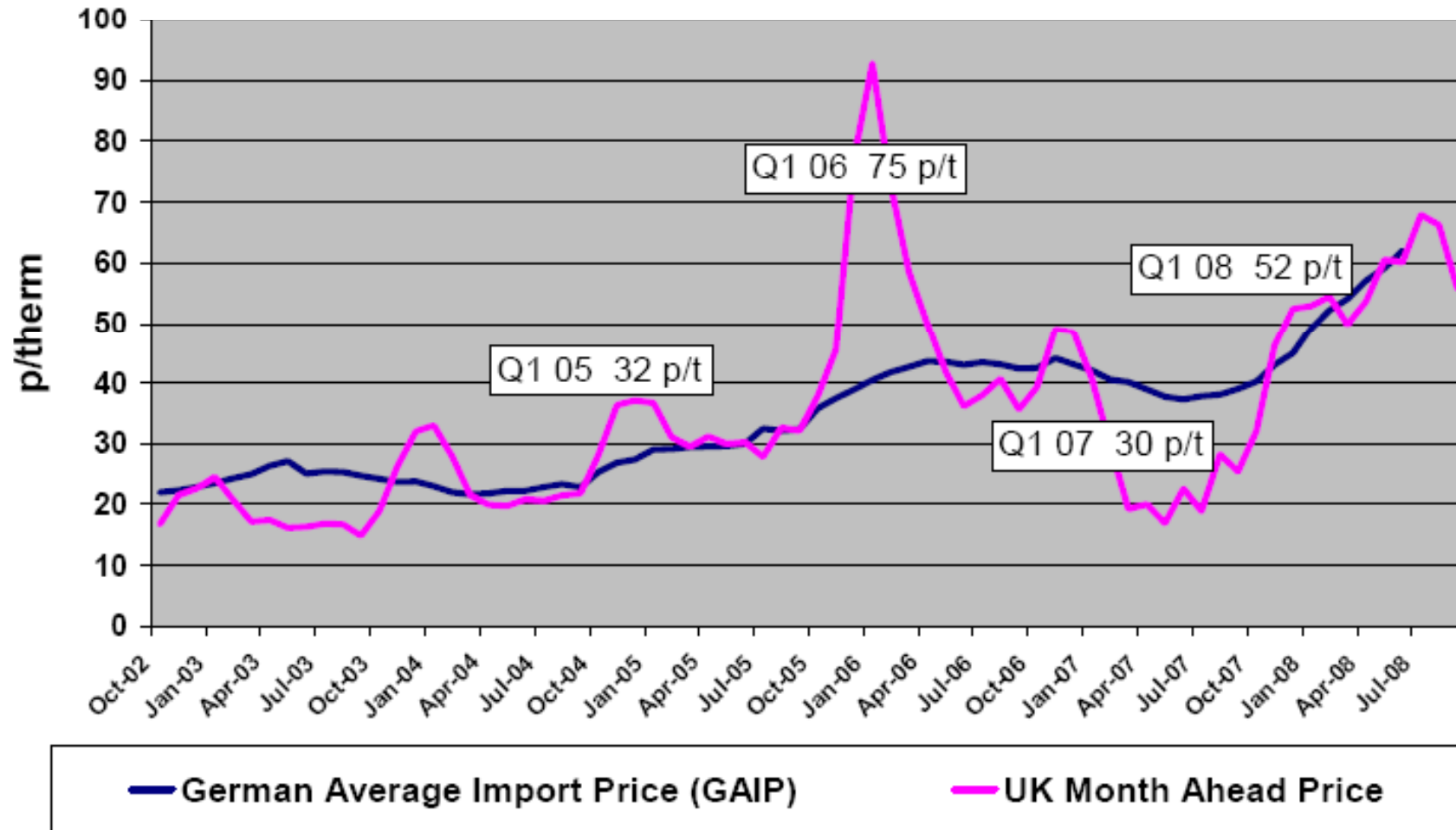
What price for gas this winter?

Ofgem Winter Outlook Seminar
10th September 2008

Cassim Mangerah
Head of Gas Portfolio, Centrica

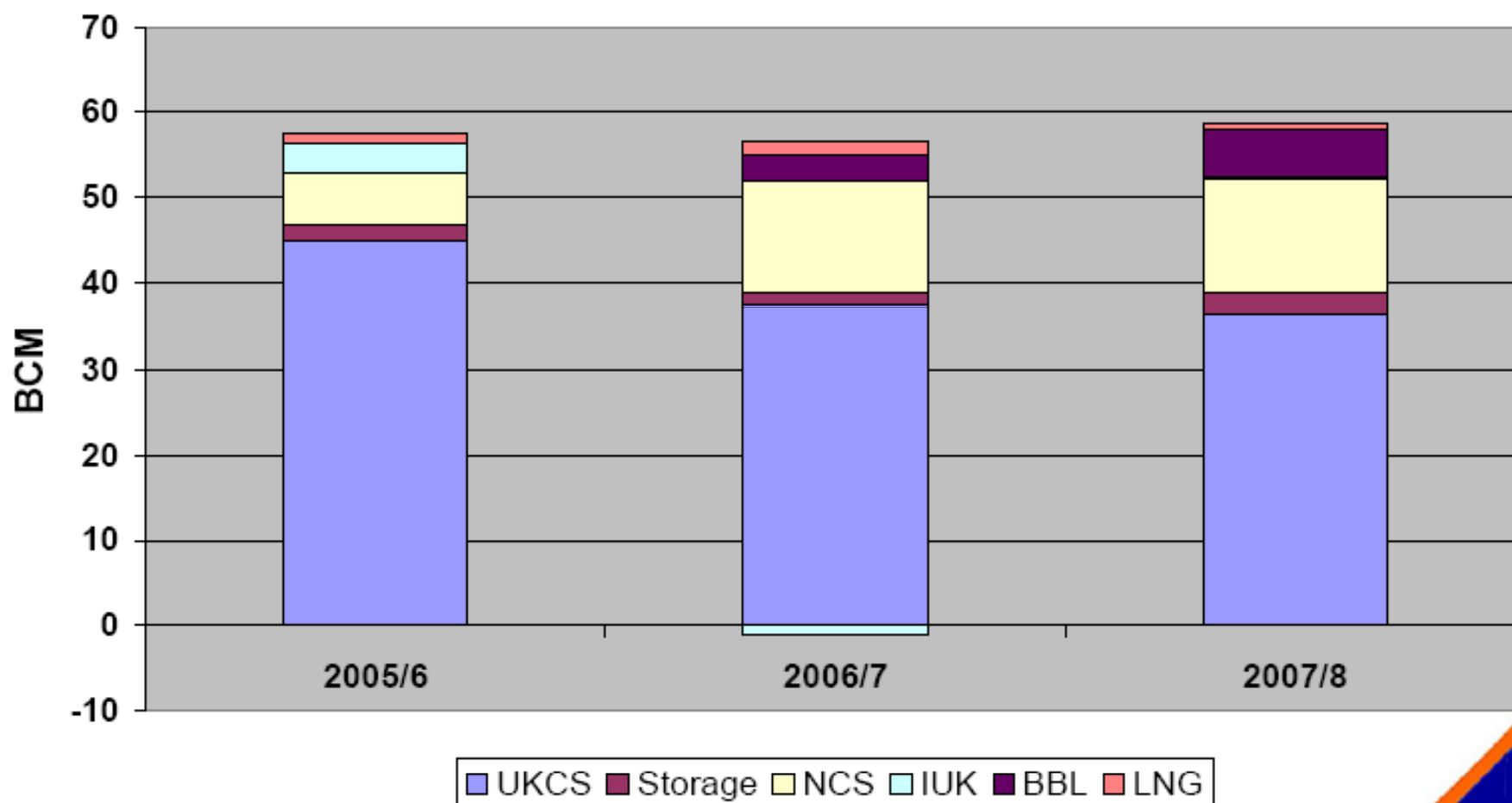
Winter prices have swung significantly over the last 4 years

Monthly Gas Prices



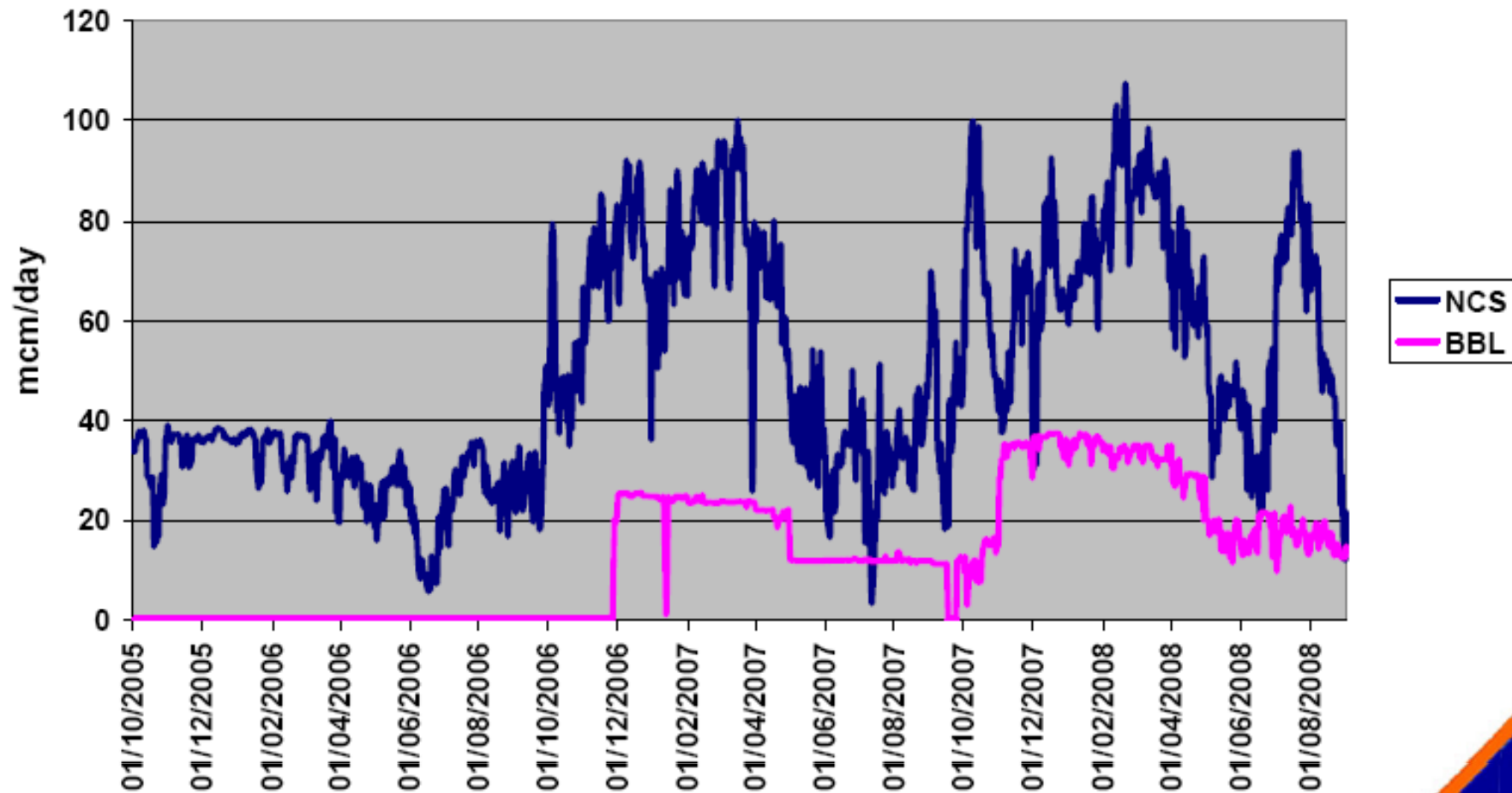
There is a growing need for imports as UKCS gas declines

Winter (Oct to Mar) Supply to the UK



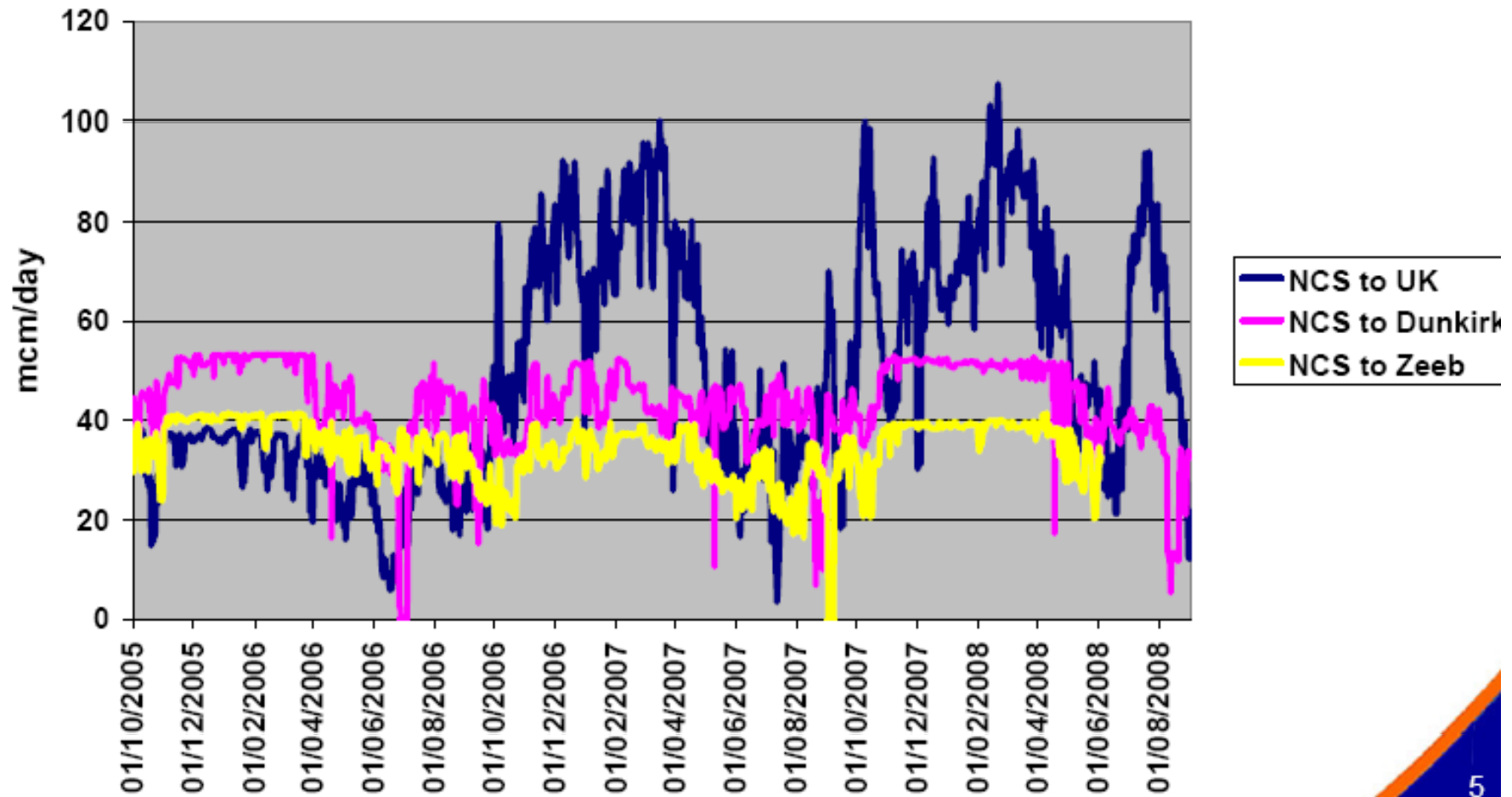
Daily flows from Norway are volatile – relative to the more stable BBL flows

Daily NCS and BBL Flows



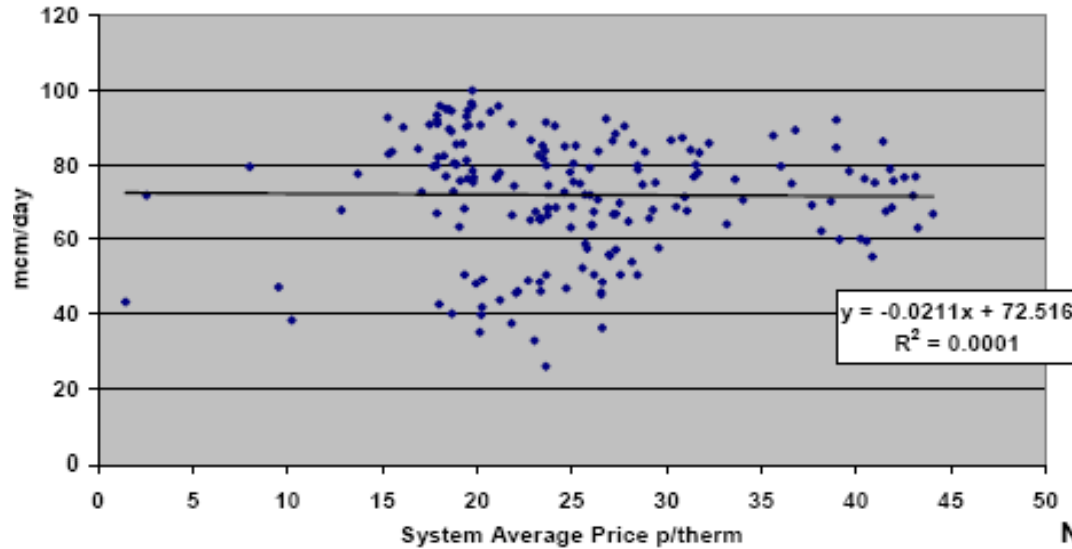
We see more stable NCS flows to European destinations – given the physical delivery and nomination rights of Buyers

Daily NCS flows to the UK, Dunkirk and Zeebrugge

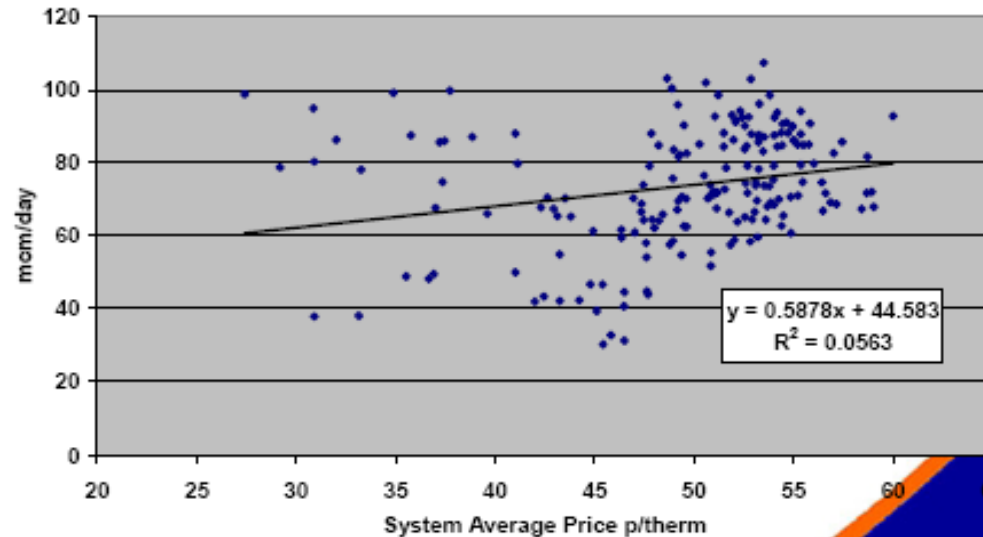


NCS flows to the UK do not seem particularly price responsive

NCS flows to the UK vs SAP
Winter 2006/7



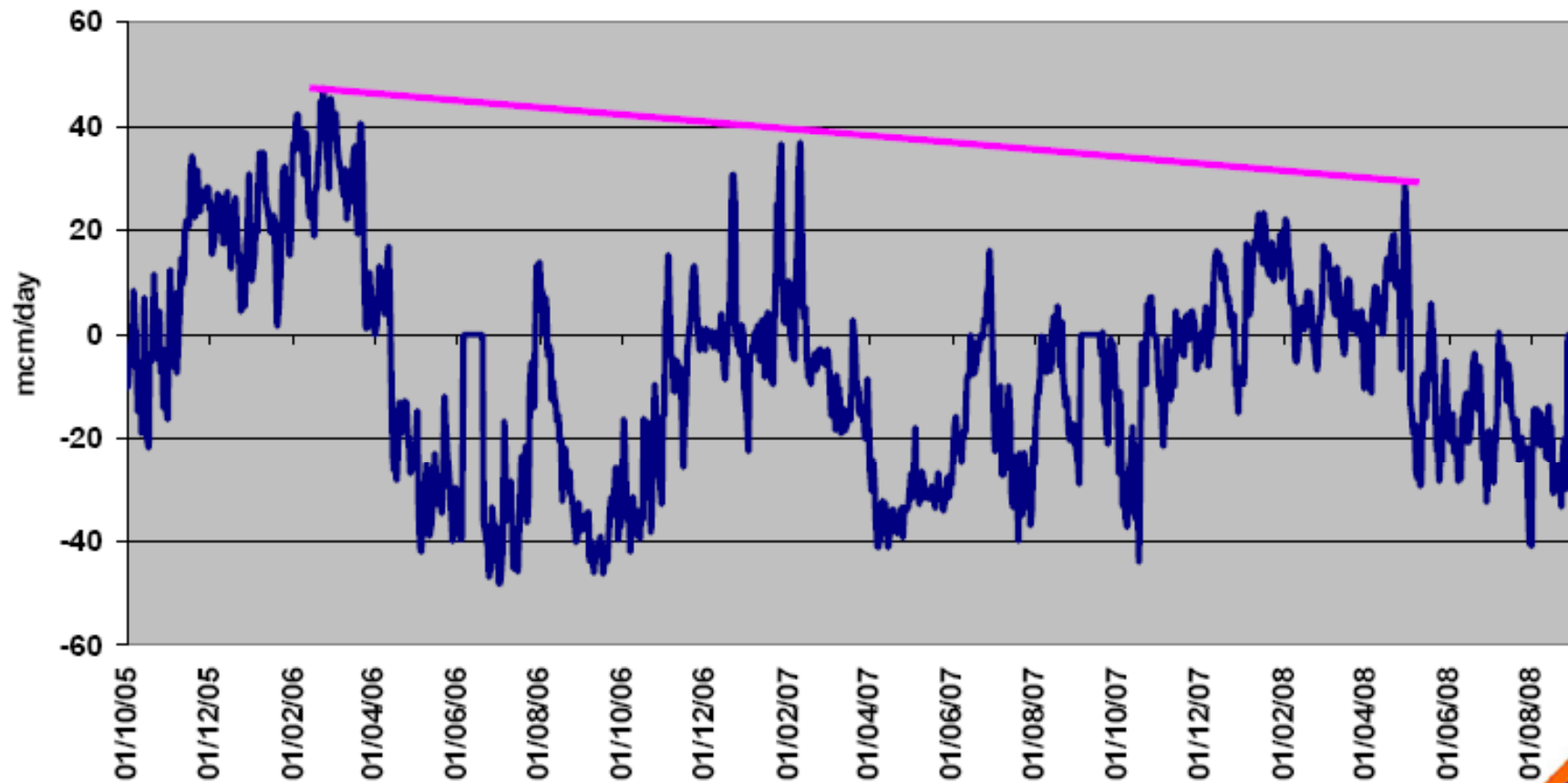
NCS flows to the UK vs SAP
Winter 2007/8



But do we see less
variability when prices
are higher?

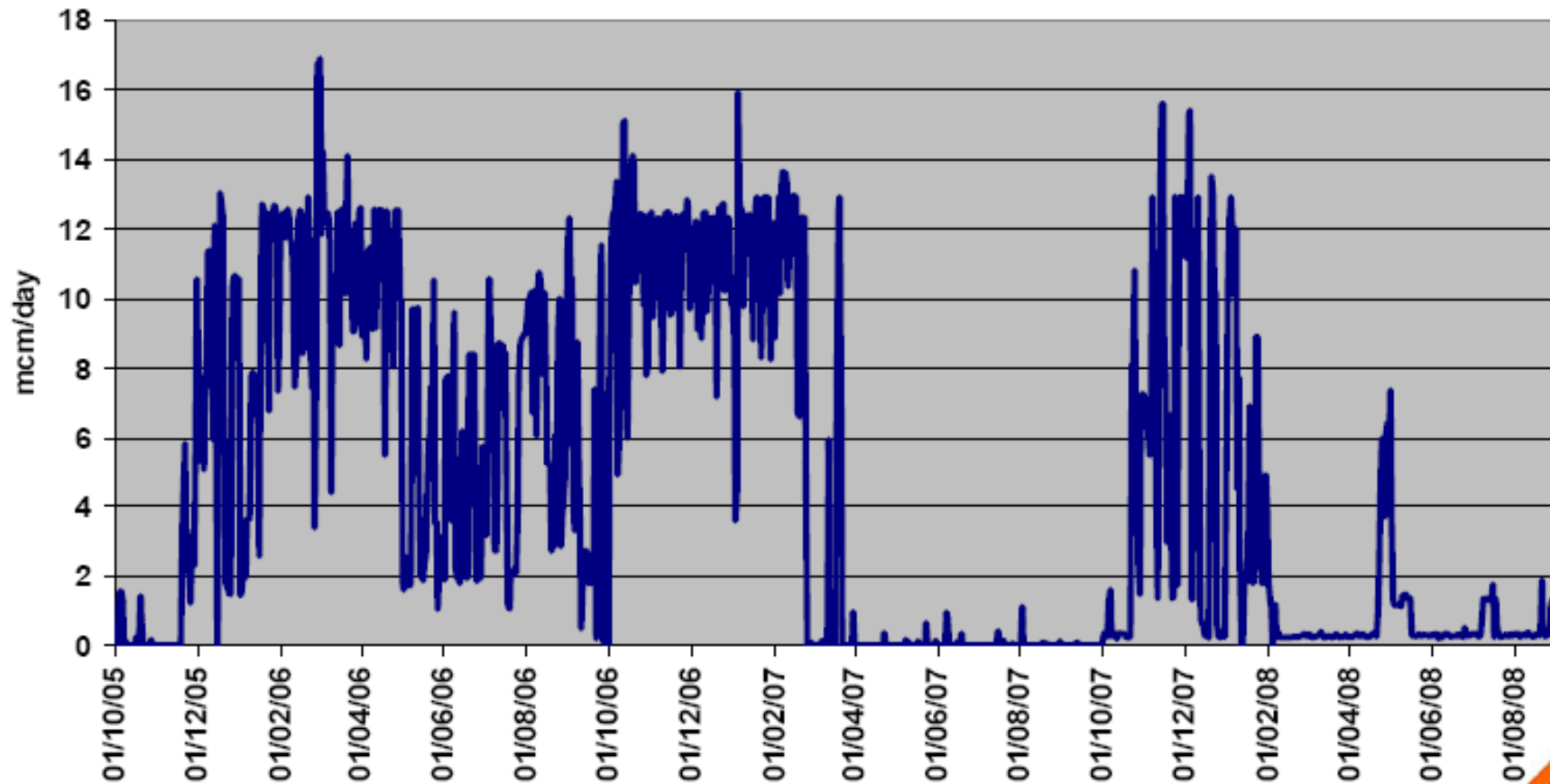
As IUK import capacity has increased (to around 70 mcm/day)
has IUK import availability declined?

Daily IUK Flows (imports +ve)

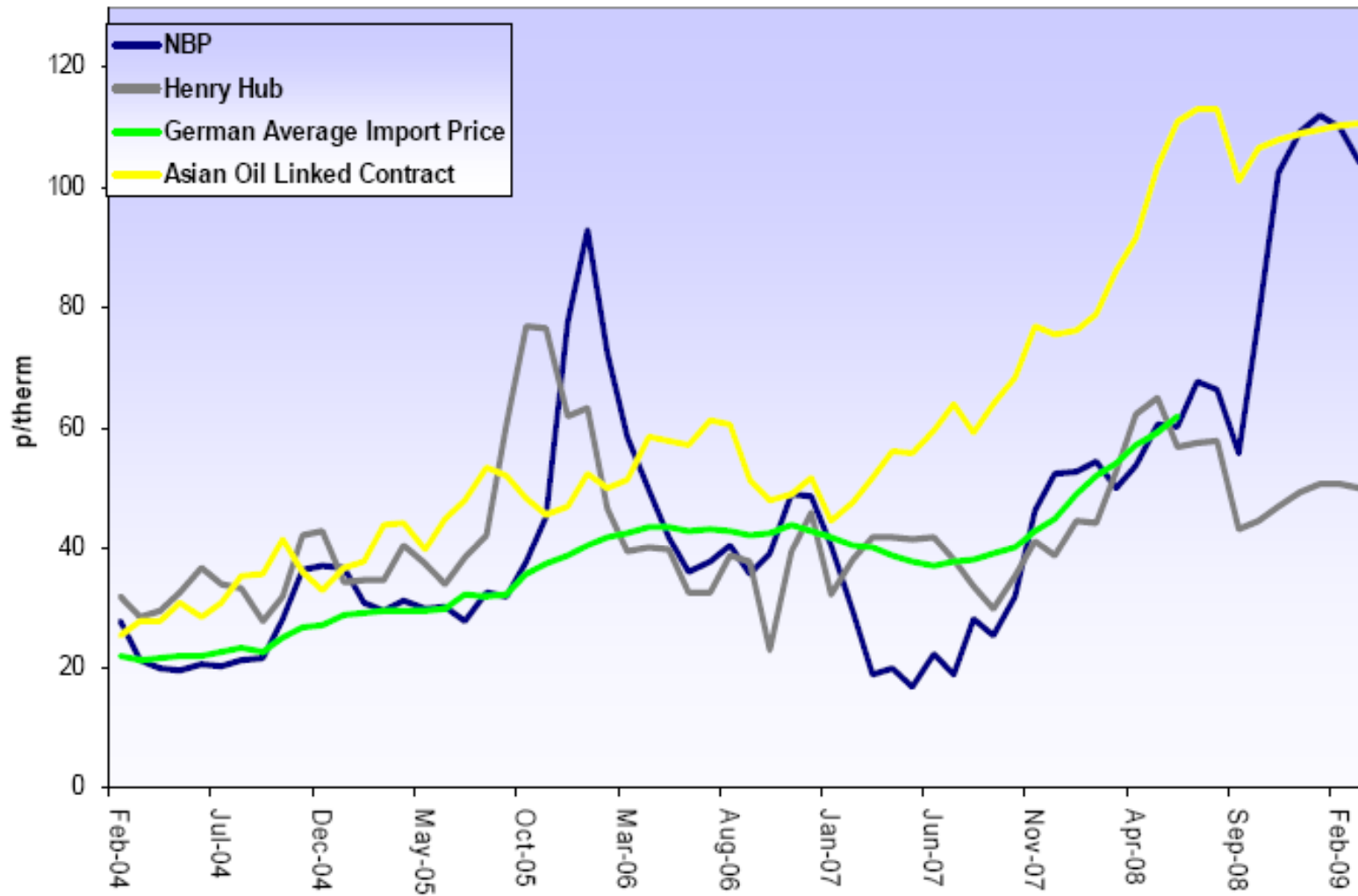


With the surge in Asian demand for LNG, deliveries to Isle of Grain since winter 06/7 have been limited

Daily Isle of Grain Flows



Global Gas prices

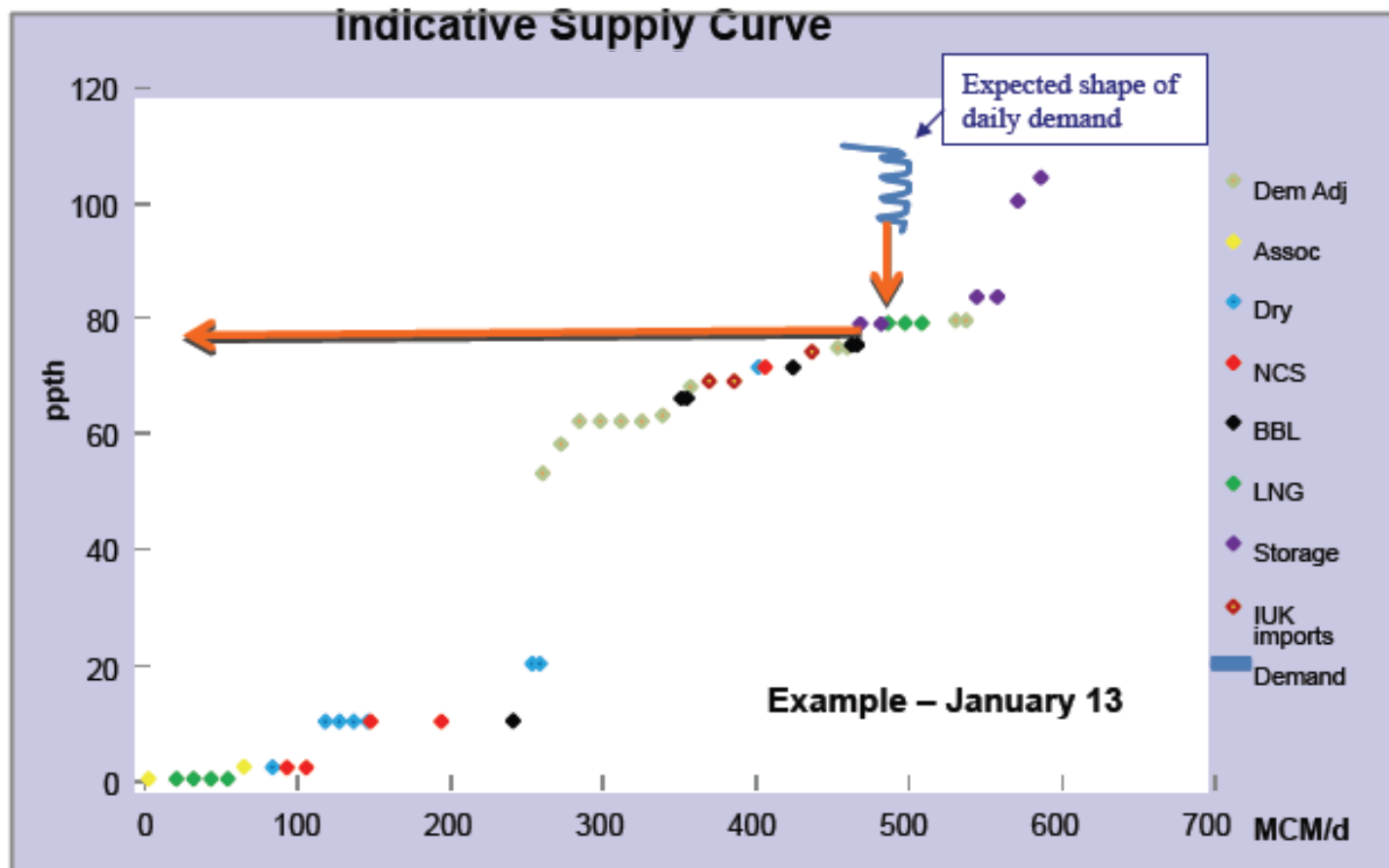




Mechanisms for managing price/supply volatility

- There is increased scope for storage cycling given:
 - The increased Rough injection rate which should enable more cycling this winter
 - The new Aldbrough storage facility is currently commissioning with the prospect of being available at some point during this winter
- Power switching between gas and coal has become a key price setter – providing system plant margin is not under pressure
- IUK should continue to act as an import/export ‘valve’ (BBL also has the potential to be price responsive)

Supply curves can be used to highlight risks around price stability





Overview/Conclusions

- From our own analysis we see uncertainty in supply to the UK this winter which is also expressed in NG's Outlook Report
- We see the level of Norwegian supply to the UK as critical to NBP prices – NCS production less Continental takes.
- Our expectation is that any NCS production incremental to last year is likely to be additional supply to the UK (e.g. from new Ormen Lange wells)
- However, the downside risk is that UK would tend to feel the full impact of any NCS (as well as UKCS) supply problems.
- Whilst LNG import capacity is increasing we are unlikely to see much arriving in the UK unless we outbid Asia and Spain for cargoes
- Weather (across Europe) will be a key driver of price this winter – given that the liberalised UK market is providing a mechanism for managing swing in Europe



Overview/Conclusions (continued)

- We would expect storage (including storage cycling), power switching between gas and coal and imports/exports via IUK to provide the mechanisms for managing day to day price volatility during the winter
- The additional Rough injection and expectation of additional storage from Aldbrough during this winter should increase the storage cycling opportunity
- The scope for power switching will depend upon power station reliability
- Based on recent winters maximum IUK availability seems to have declined
- In summary, provided that we see additional NCS production this winter we would expect the UK to be reasonably well supplied, particularly if, in addition, the weather is mild to seasonal. However, as noted above there are a number of key downside risks.



Questions?

