



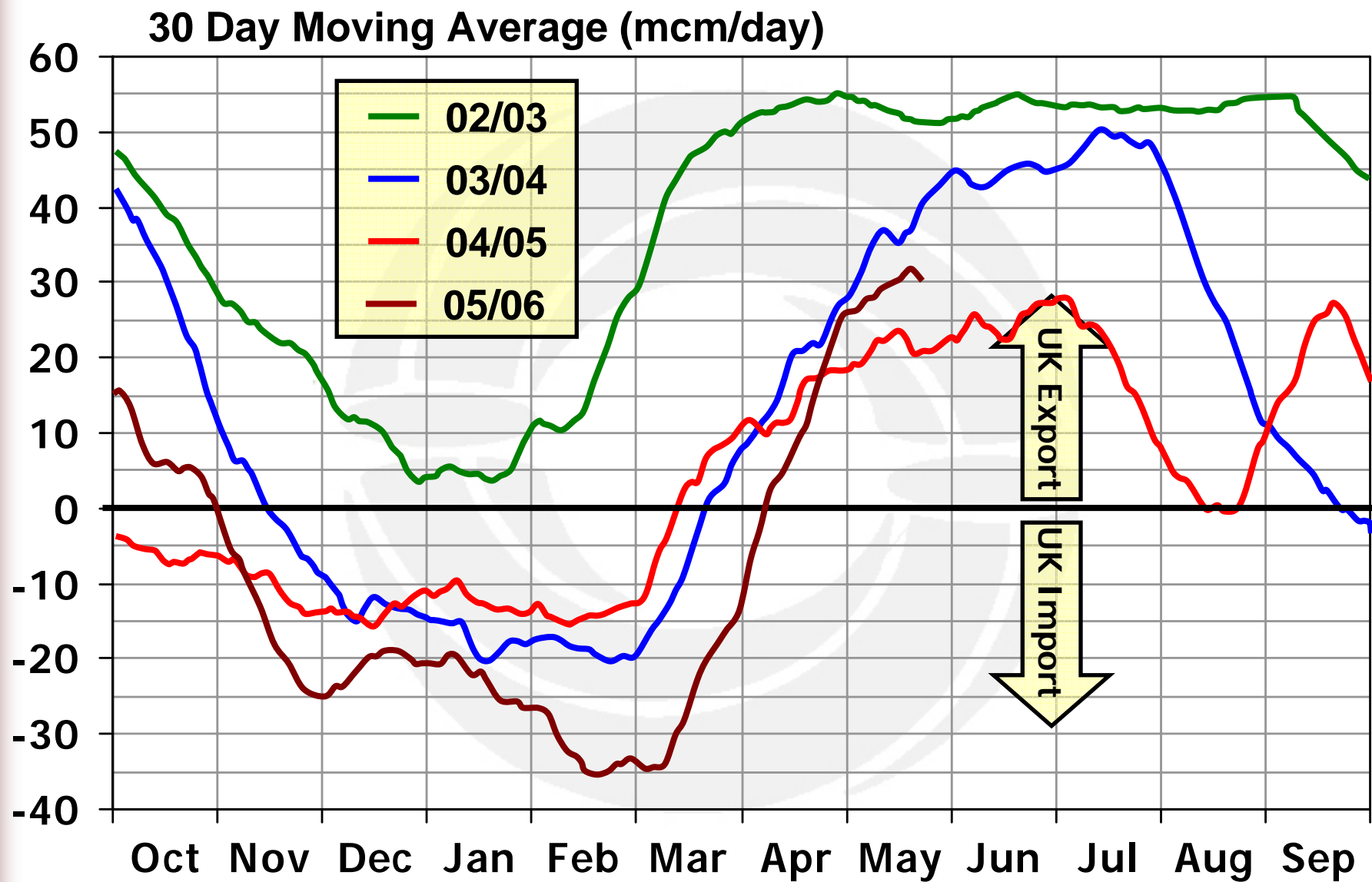
Promises, Promises...

UK Gas Supply for Winter 2006/7

Sean Waring – Commercial Operations Manager, Interconnector (UK) Ltd

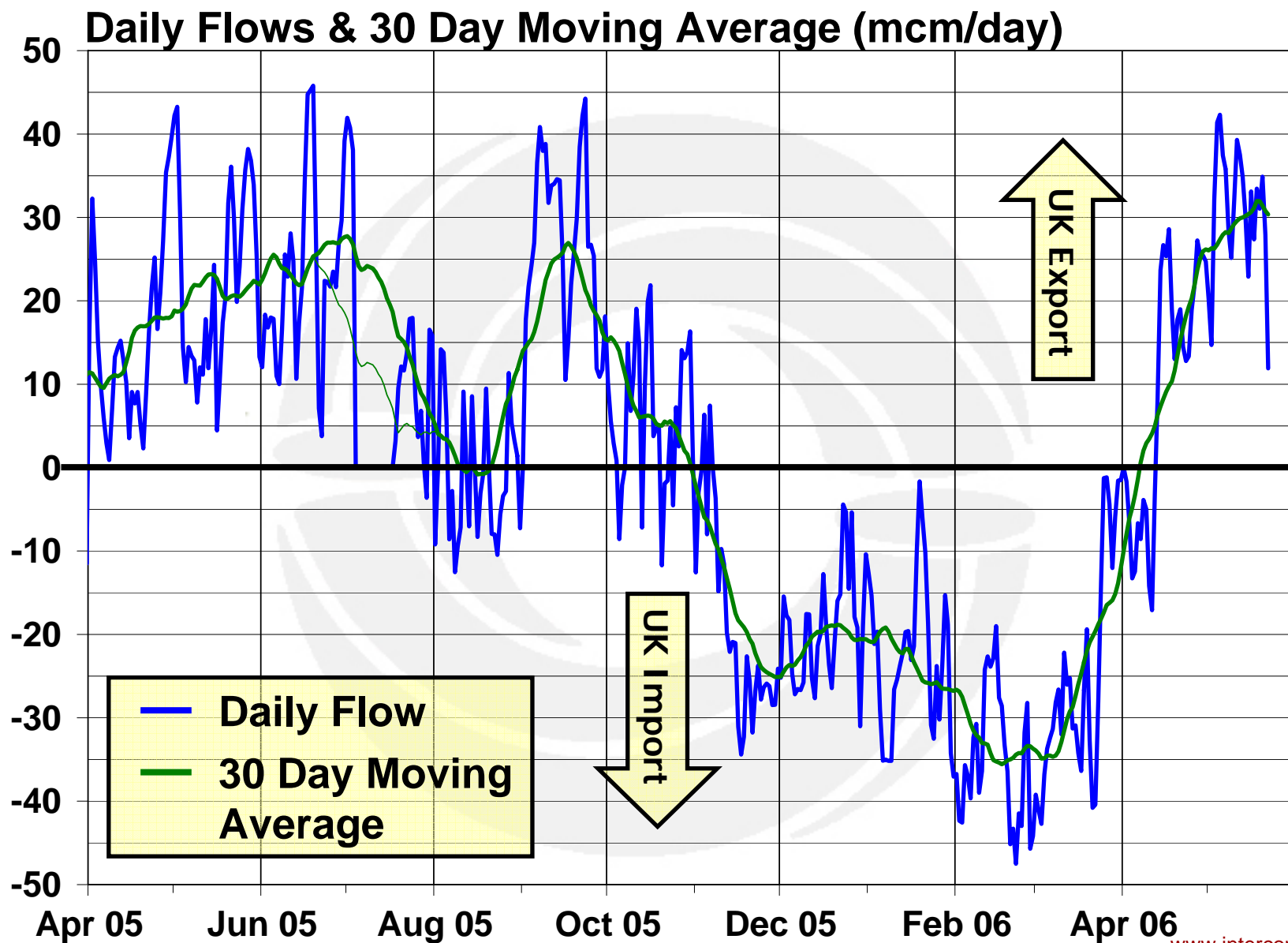


Historic Flows





Recent Flows





Influences on Interconnector Flow Patterns

Rough Outage

Import period early and prolonged

Rough injection start-up may lead to Interconnector Imports

Isle of Grain settled production?

May keep Interconnector in export mode for longer

Langed start-up in Autumn

May keep Interconnector in export mode for longer

BBL start-up on 1st December

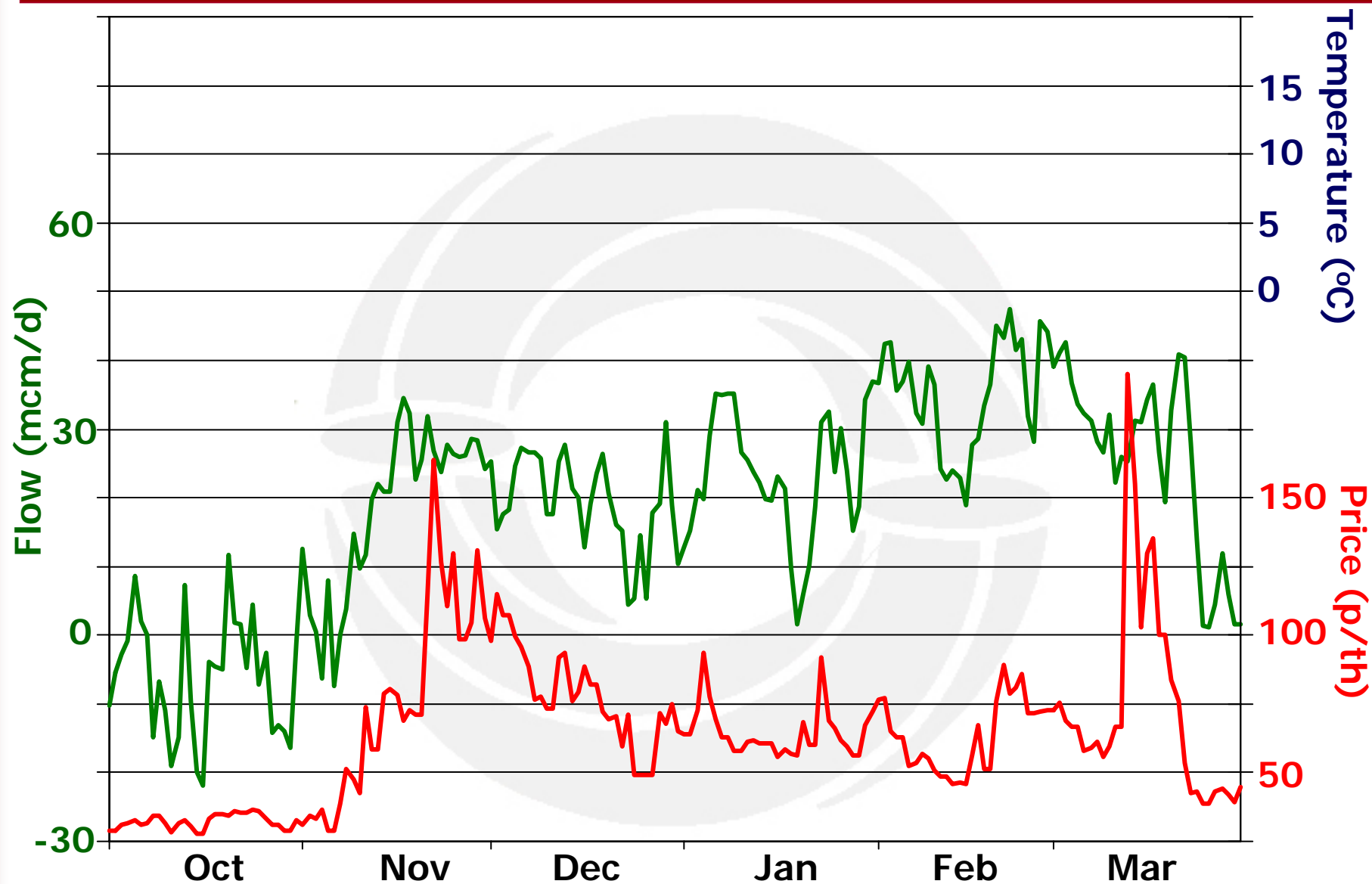
May keep/switch Interconnector in/to export mode

Interconnector Phase 2 enhancement on 1st December

May reduce imports from other sources

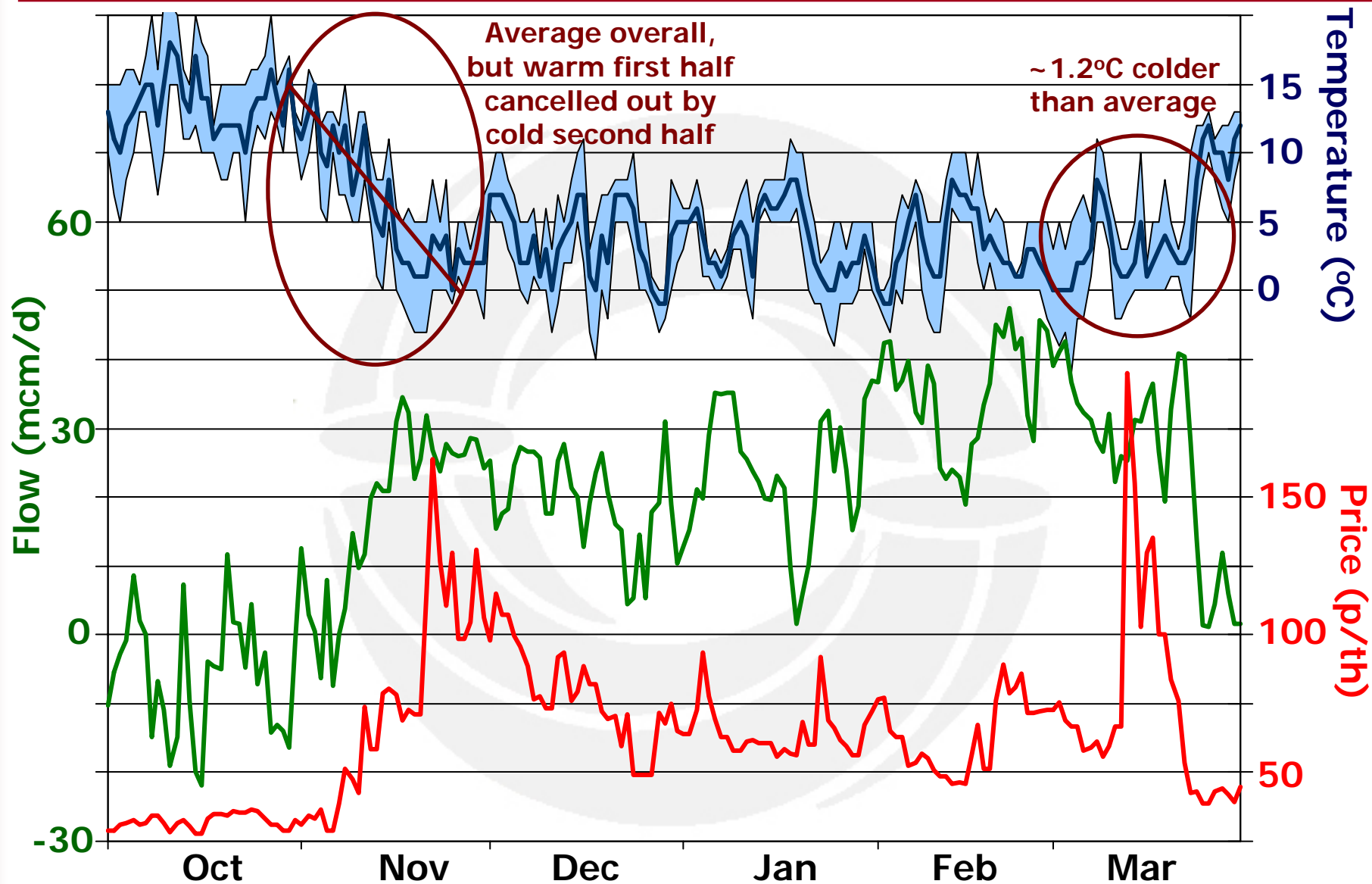


Interconnector Flows 2005/06





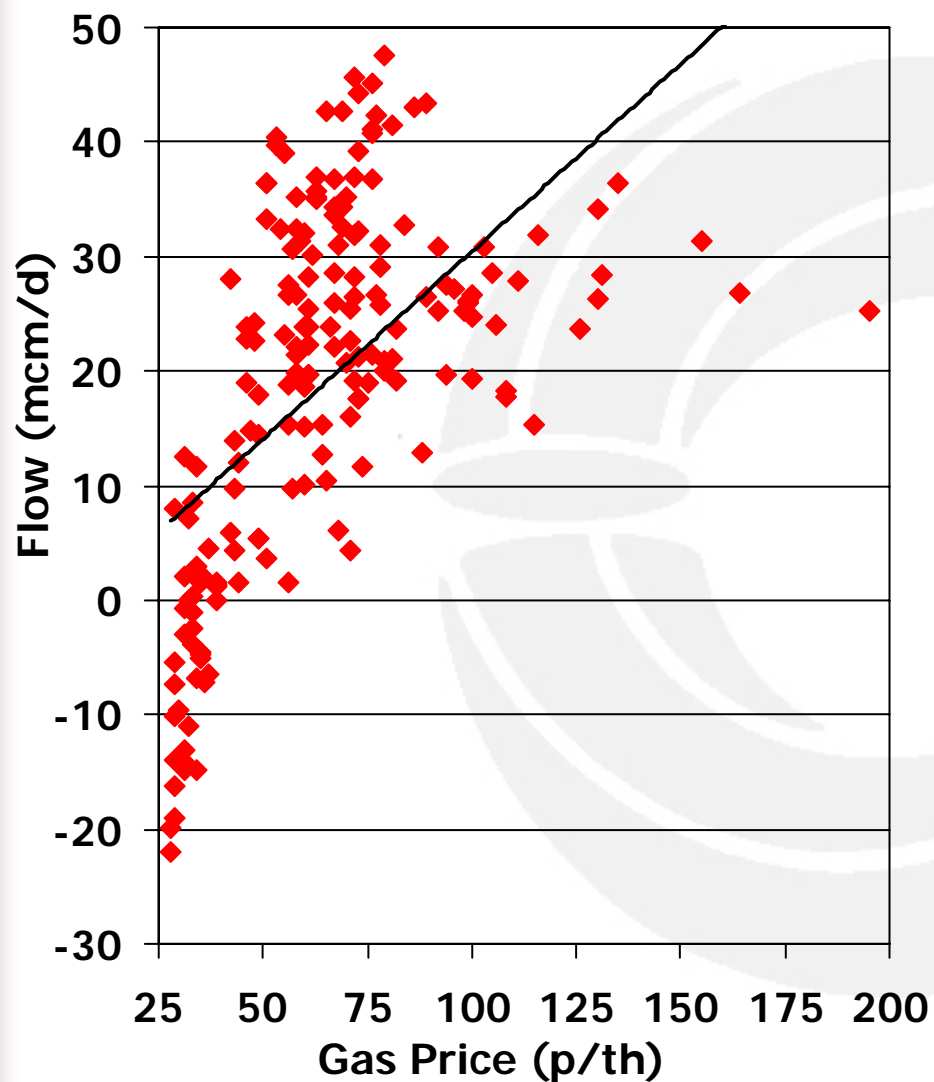
Interconnector Flows



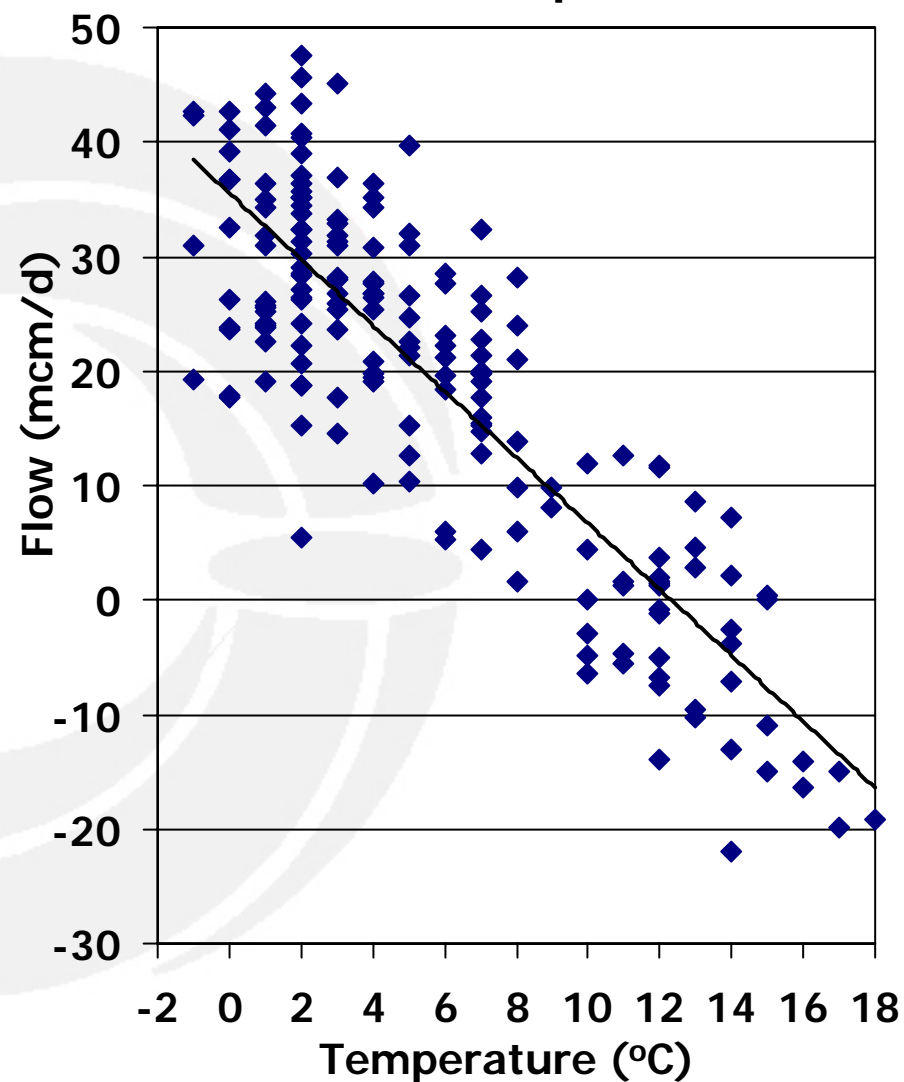


Flow Correlations

Flow vs Gas Price



Flow vs Temperature





Lessons learned from a winter of discontent

Infrastructure

Privately built infrastructure likely to be too late for strategic supply

Investment signals are poor for the long run

Gas Prices

Rose to record levels on the *fear* of supply crises

Emotive talk by politicians, regulators, CBI, Met Office and industry
possibly drove prices higher

Demand side response

Eased the situation, but do we want it as a regular supply
management tool?



Lessons learned from a winter of discontent

Gas Supplies

Interconnector provided a reliable and early expanded service

Price alone will not move gas across borders

There is no single market

Storage can step-up production instantly, traded gas takes longer

Complementary infrastructural investment across borders takes time

EU Commission

Has assumed responsibility for and commitment to, the borderless market model ...

... Will it deliver?



Why were flows lower than some people expected?

No gas available - no single market

Continent unwilling (not surprisingly) to share their stored gas with others until their supply is assured ... or may be not at all

Market unable to step-up quickly to meet sudden demand ... why?

in future

Limited capacity to deliver gas to the flange

IUK announced its expansion in 2002 and adjacent systems will respond by 2010

Complementary investment across borders takes time

Gas quality

UK gas specification is tighter than the dominant continental specification which may constrain trades and physical flows



No gas available – no single market

Continent unwilling (not surprisingly) to share their stored gas with others until their supply is assured ...

... or maybe not at all

2006/07 Pattern of release likely to be the same, i.e. restricted early/middle part of winter with release towards the end

Pressure from EU may result in modified behaviour?

Storage ownership rules and release still opaque

Economic patriotism increasing

IUK partly owned by the French state?



Unable to meet sudden demand

Market unable to step-up quickly to meet sudden demand ... Why?

Significant percentage of IUK flows appear to be contracts linking dedicated demand to dedicated supply

Response to price is therefore tempered by underlying demand

Liquidity at the Zeebrugge Hub partly reflects an opaque storage system and deters players

Levels of liquidity at the Zeebrugge Hub unlikely to change significantly for next winter



Limited capacity to deliver gas to the flange

IUK announced its expansion in 2002 and adjacent systems will respond by 2010?

Complementary investment across borders takes time

Zeebrugge LNG upgrading from ~13 mcm/day to 26 mcm/day output for winter 2007/08

German border constraints being partially removed for winter 2006 and completely by winter 2008

German import capacity rising to ~40 mcm/day by 2010

Belgian transit being upgraded for winter 2010?

Other changes to the Fluxys system?

Bi-directional flows at Belgian/Dutch border?



Gas Quality (Wobbe)

UK gas specification (with respect to Wobbe) is tighter than the dominant continental specification which may constrain trades and physical flows

Zeebrugge LNG cannot meet UK specification but new LNG supplies generally becoming leaner

Zeepipe usually meets UK spec. but is not contracted to do so

German gas may not meet UK spec. but changes will improve quality by winter 06 and will meet the required spec. by 07/08

Gas can be ballasted or blended to meet the UK specification

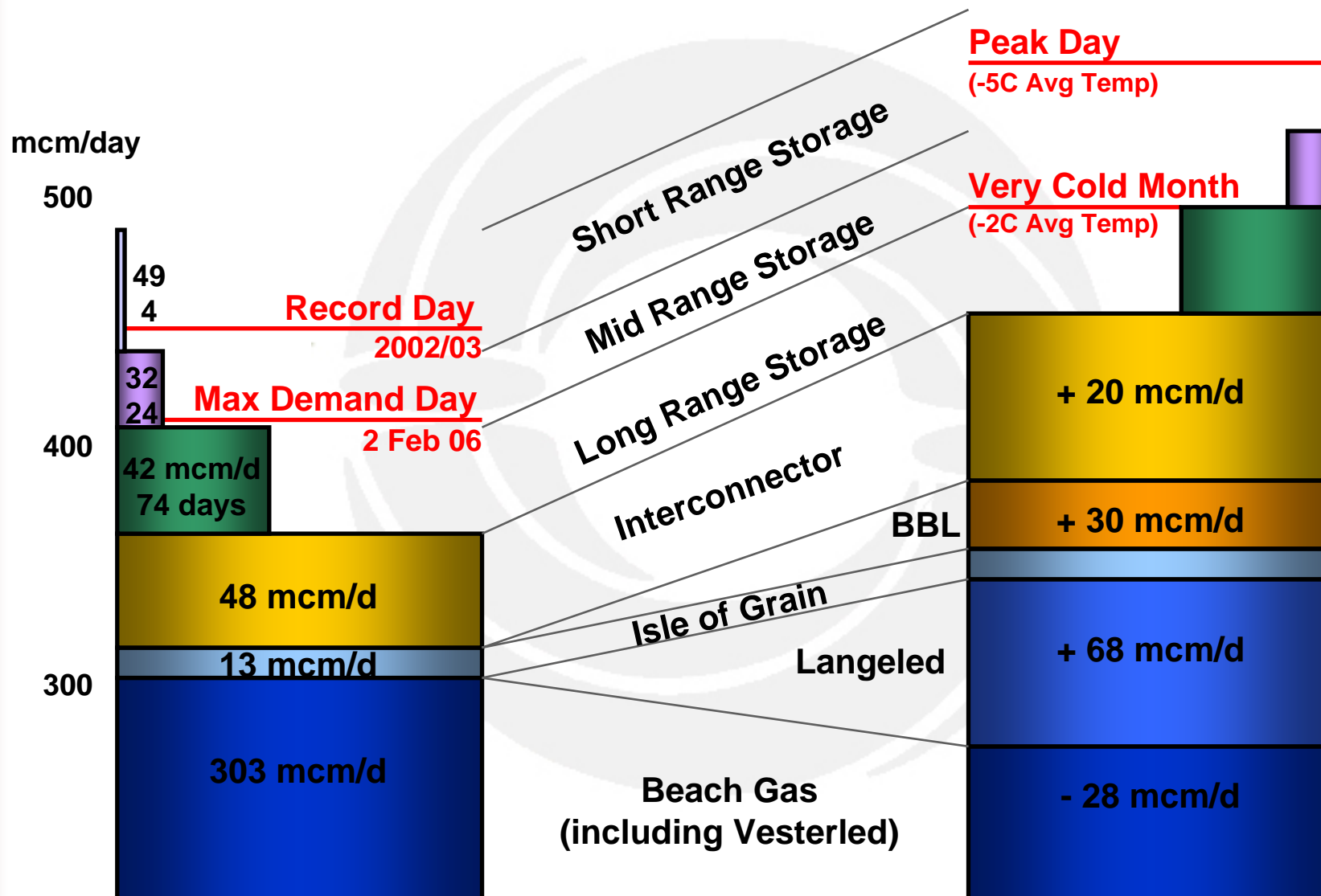
Either the gas seller should discount its gas or the buyer pay for treatment depending on the market fundamentals



Max UK Winter Gas Supply (Capacity)

Winter 2005/06

Winter 2006/07





Max UK Winter Gas Supply (Flow)

Winter 2005/06
Maximum Demand Day
2 February 2006

Winter 2006/07

mcm/day

500

400

300

Record Day

2002/03

Max Demand Day

2 Feb 06

Short Range Storage

Mid Range Storage

Long Range Storage

Interconnector (-50%)

BBL (-25%)

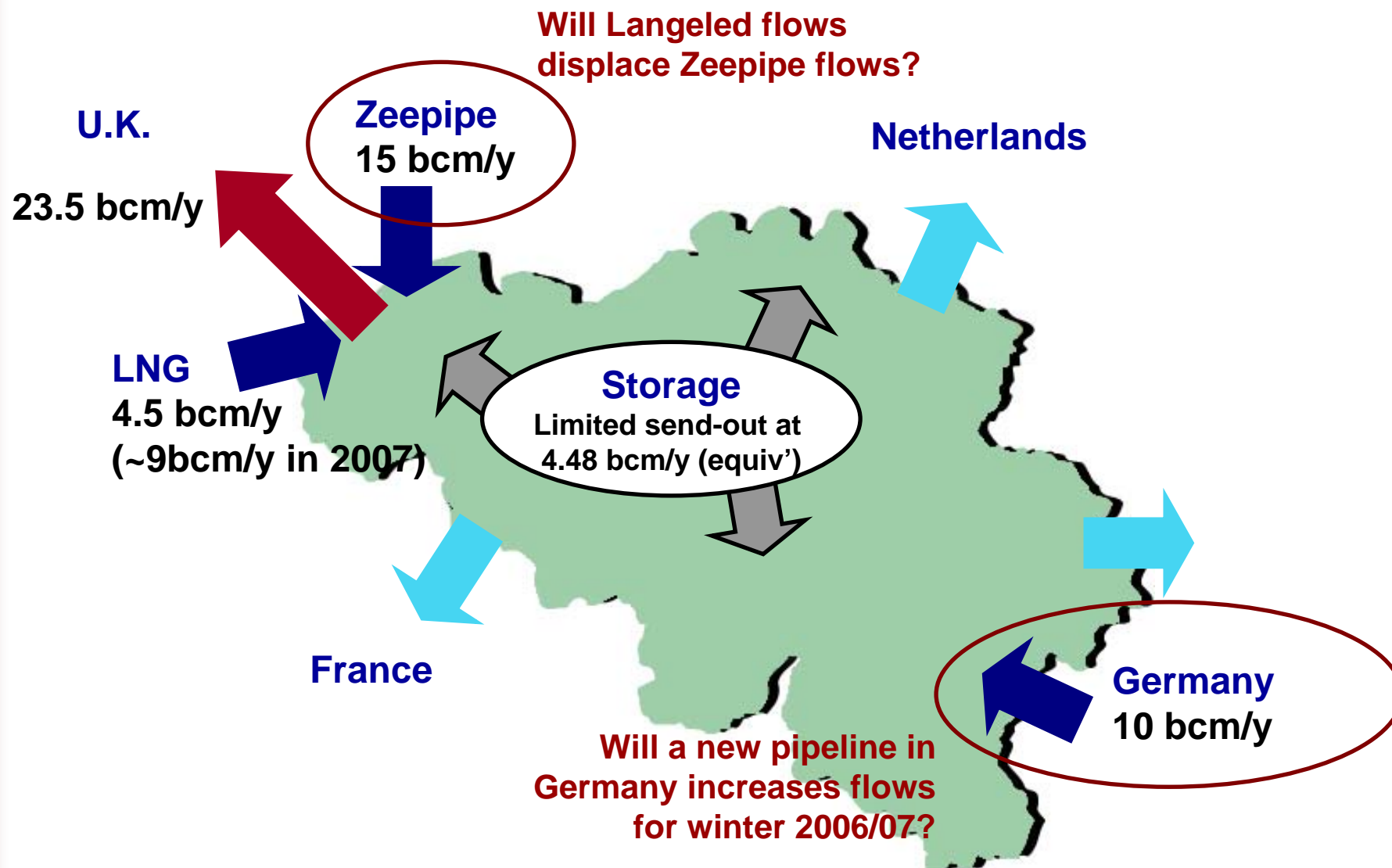
Isle of Grain

Langeled (-50%)

Beach Gas
(including Vesterled)



Gas Sources for Interconnector?





Interconnector Phase 2 enhancement

Compressors delivered

Electric motors delivered

Cooling systems complete

Metering systems require upgrading

Control systems upgrade ongoing

Pipework requires hook-up to existing operating system

Testing and commissioning to commence in June/July

**Still someway to go but confident of 1st December
start-up**



Zeebrugge: Site nearing completion





Zeebrugge hook up to do





Zeebrugge: Motor / Compressor





Bacton: Boiler House





Bacton: Let Down Train/Heat Exchanger





Bacton: Pipework





Interconnector Phase 3 enhancement

**Increasing UK import capacity
from 68 mcm/day to 74 mcm/day**

Possible by winter 2007

Important to maximise the asset

**Important to send firm signal for infrastructure expansion in
Europe**

Approached authorities in February

**for confirmation that this new capacity enhancement would be
treated the same as previous capacity enhancements in
Interconnector**

... awaiting an answer prior to marketing



Conclusion

**“There are only two kinds of forecasters ...
those who don't know and ...
those who don't know they don't know”**

J. K. Galbraith