OFGEM “Winter 2007/2008 Consultation” – June 2007

This is INEOS

- INEOS was established in 1998 to purchase a former BP chemicals site in Antwerp, Belgium:
  - Turnover $200 million per annum, 400 employees
- UK owned and operated
- Rapid growth through acquisition and investment
- Now 3rd largest petrochemical company in the world
  - Turnover $33 billion per annum, 16,000 employees
  - UK’s largest private company

INEOS ChlorVinyls

INEOS ChlorVinyls

One of 18 operating companies in INEOS.
Acquired from ICI in 2001. Based at Runcorn, Cheshire

Second largest chlorine plant in Europe

Competitive on-site power station and world scale chemical plants

Only UK chlorine producer

Critical supplier to the UK chemical industry

Completing £400m investment programme at Runcorn

Our Energy Position

- Electricity is a raw material
- Power consumption at Runcorn site is the same as the city of Liverpool
- We purchase gas, which is toll converted through a highly efficient CCGT station on-site
- Energy is 80% of the cost of making our products

Competitive markets

- We compete in a global commodity market
- Price (cost) is the main determinant of winning business
- Main competition is from Germany, France, Benelux, Spain
- Our prime focus as a business is on continually improving competitiveness

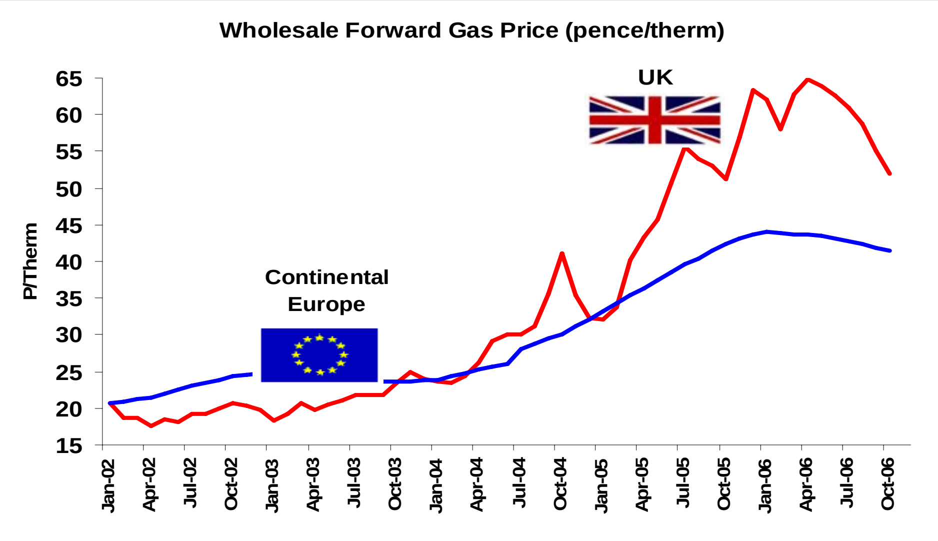
INEOS ChlorVinyls

Overview

- The Impact of Winter 05/06
- Review of Winter 06/07
- Summer and Beyond
- European dimensions

INEOS ChlorVinyls

Wholesale Gas Price Differentials – Oct 2006



Source: P Heren – European Gas Markets/EIUG

INEOS ChlorVinyls

Impact on UK Manufacturing (1)

Glass Sector Closures in the last 18 months – 6000 jobs lost

Tyrone Crystal	Northern Ireland	Crystal Glass Manufacturers
SLI	Doncaster	Lighting Manufacturers
Pilkington	Birmingham	Automotive Glass Manufacturers
NEG	Cardiff	TV and Computer Screen Manufacturers
Therm Tempered	South Wales	Flat Glass Manipulators
Holinee	Glasgow	Fibre Glass Manufacturers
Lewis and Towers	Edenbridge	Container Glass Manufacturers
Epsom Glass	Epsom	Scientific Glass Manufacturers
British Optical	Walsall	Optical Glass Manufacturers
TSL Quadrant	Harlow	Quartz Glass Manufacturers
Caithness Glass	Wick	Crystal Glass Manufacturers
LG Philips	Burnley	Fibre Optics Manufacturers
Lancaster Fibres	Lancaster	Fibre Glass Manufacturers

Source: Energy Intensive Users Group

INEOS ChlorVinyls

Impact on UK Manufacturing (2)

Paper Sector Closures in the last 18 months

- **Sunderland Paper Mill**
- **Sudbrook Mill**
- **Western Board**
- **Kilbagie Mill**
- **Taplow Mill**
- **Fettykill Mills**
- **Nash Mills**
- **Fort William Mill**
- **Purfleet Mill**
- **Langcliffe Paper Mill**
- **Springside Mill**

Source: Energy Intensive Users Group

INEOS ChlorVinyls

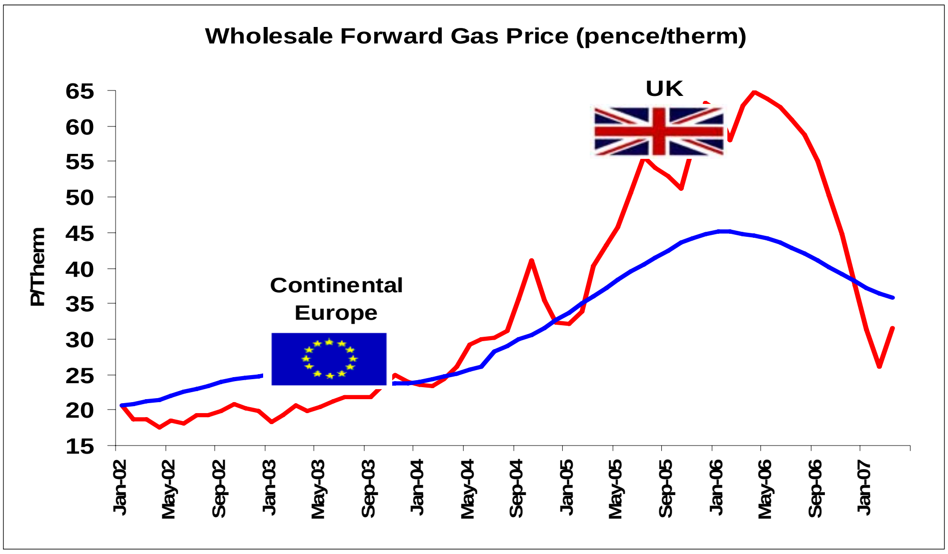
Impact on UK Manufacturing (3)

- **Imerys** – china clay, Cornwall – 800 jobs lost
- **Britannia** – zinc smelter, Avonmouth – 500 jobs lost
- **Laycast** – iron foundry, Sheffield – 150 jobs lost
- ONS reports 100,000 job losses in manufacturing in last 12 months – citing high energy prices
- ILEX report for DTI concluded 1.4 million jobs at risk in the event of a prolonged interruption to industrial gas supplies

Source: Energy Intensive Users Group

INEOS ChlorVinyls

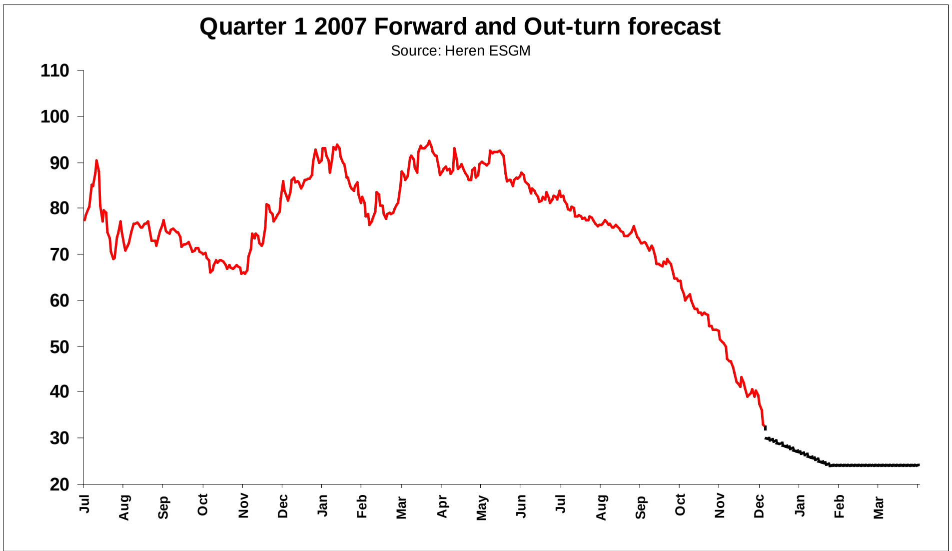
Wholesale Gas Price Differentials – March 2006



Source: P Heren – European Gas Markets/EIUG

INEOS ChlorVinyls

Wholesale Gas Price Differentials – March 2006



Source: P Heren – European Gas Markets/EIUG

INEOS ChlorVinyls

Winter Outlook 06/07 – a review

SUPPLY SOURCE	WOR 06	INEOS Latest View – end Oct 06	Actual
UK production	240	240	200 (estimate)
Norwegian Imports	48	58	79 (estimate)
IUK – Bacton to Zeebrugge	35	35	6
Interconnector - BBL	14	16	16
LNG – Isle of Grain	13	13	10
LNG – Excelerate	0	8	0
TOTALS – MCM/day	**350**	**370**	**311**

*** SOURCE: WOR and National Grid Information Exchange**

INEOS ChlorVinyls

Winter 06/07 – a review – why such a difference?

- So low prices are all down to the weather and higher than expected flows from Langeled….
- But there are other factors:-
  - According to National Grid Data winter has been around 1 degC warmer – reduction of 15MCM heating demand
  - Loss of nuclear generation capacity increases need for generation from hydrocarbons
  - Low prices have resulted in coal generation providing generation flexibility
  - Morecambe Bay has not been used
  - Sean contract has not flowed
  - Interconnector has seen little use…
- So was there actually more deliverability than expected?
- Low spot prices have been good – but volatility is huge!

INEOS ChlorVinyls

Winter 06/07 – further thoughts

- But there has been some significant improvement this winter – not only in price
- Modification 006
  - We believe implementation was the correct decision
  - Web-site design recognised the views of users
  - Largely information flows have been robust
  - Has to an extent reduced speculation
  - Has it actually helped to reduce volatility (impact of information loss on 28th March)
- UNC Modification 104 – would be a further improvement

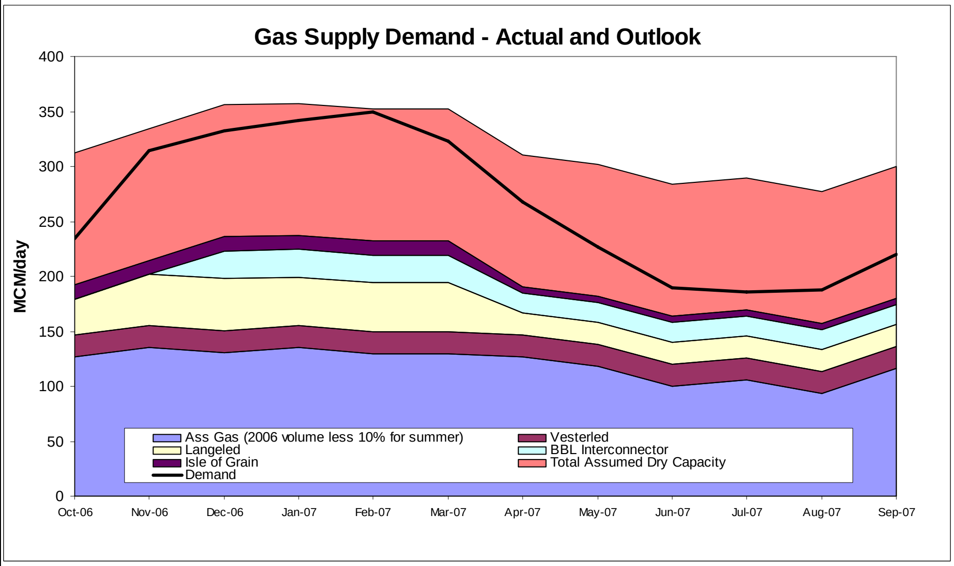
INEOS ChlorVinyls

Summer and beyond – what is the outlook?

- Markets require good information to function properly
- How will summer demand be met – there have been some big unknowns
  - Storage injections likely to be down
  - Flows to Europe – will the Interconnector be full?
  - Will Associated gas be sufficient to meet UK demand?
  - Maintenance programme has been a significant unknown factor – what meaningful information is available?
- and prices have actually remained very volatile (Q3 15ppt to 25ppt) …is this what we would predict?

INEOS ChlorVinyls

Supply/demand – Winter 06 and Summer 07



Source: P Heren – European Gas Markets/EIUG

INEOS ChlorVinyls

Outlook for winter

- From Winter 07 and beyond
  - Should start to see new Norwegian gas – Ormen Lange
  - FLAGS Late Life Project
  - Additional LNG infrastructure
  - New storage facitlities
- Are prices holding a premium?
- What might the supply and demand fundamentals be?

INEOS ChlorVinyls

Winter Outlook 07/08 – an initial view

SUPPLY SOURCE	AN INITIAL VIEW
UK production	210
Norwegian Imports	78
IUK – Bacton to Zeebrugge	10
Interconnector - BBL	24
LNG – Isle of Grain	10
LNG – Excelerate Dragon	5
FLAGS Late Life	10
TOTALS – MCM/day	**347**

- **Average Demand across "normal" winter – 325 MCM/day**

- **Key Assumptions –**
  - **Coal below gas in generation merit order (add 20 MCM to demand if not)**
  - **Winter at Seasonal Normal Temperature**
  - **No gas flows from SEAN fields**

INEOS ChlorVinyls

Issues (1) - General

- Information
  - This has improved but gaps remain
  - Electricity information is much less user friendly than gas
  - Demand information
    - Restricted or unrestricted and basis of weather scenarios

- Regulation issues
  - Number of consultations
  - UNC Mod 90
  - Gas Quality

- Infrastructure
  - New supply infrastructure has been delivered
  - But this must continue
    - In particular need more gas storage
  - Infrastructure must be used efficiently – which takes us to Europe

INEOS ChlorVinyls

Issues (2) - Europe

- Experience of the previous two winters demonstrates need for efficient markets when the UK is (increasingly) reliant on imports
- European Commission reports make perfectly clear the issues in the wider European Energy market
  - Progress to liberalisation should have progressed much further than it has
  - Strong resistance remains
- What is needed?
  - Unbundling – “full ownership”
  - Transparent markets – there is a huge lack of information
  - More consumer choice – proper competition
- As consumers we must push for change – before the supply demand balance shifts again

INEOS ChlorVinyls