Flexible Products for the Gas Market

Sion Roberts
Total Gas & Power Ltd

Total Gas & Power in the UK

- **Gas and Power Supplier**
  - Operate under the Elf Business Energy brand.
  - Industrial and Commercial customer base across all I&C segments.
  - 2005 gas deliveries c. 5.6 Bcm (2 billion therms).
  - Growing niche position in power with flexible products.
- **Gas and Power Trader**
  - Significant UK, USA and European trading activities in Gas & Power.
  - LNG Trading from London
- **UK operating locations**
  - Head office in Canary Wharf London.
  - Elf Business Energy main administration centre in Redhill, Surrey
  - Sales office in Leeds, Thorpe Park.

Presentation contents

- **The need for flexibility**
  - Prices and volatility
  - Procurement Options
- **Demand side response**
- **Load Management**
- **AMR**
- **Further Procurement Options**
- **EBE initiatives**
- **Conclusions**

The need for flexible procurement contracts

Buying flat gas after 1 July 2005

Delivery Month	Lowest forward price, p/th	Highest forward price, p/th	Day Ahead Average, p/th
October-05	35	45.5	31.5
November-05	43.8	63.8	75
December-05	56.6	116.3	80.8
January-06	67.2	117.5	64.6
February-06	61.4	110.1	63.2

BEST BUYING CHOICE

Delivery Month	Flat Price, p/Th	Instrument
October-05	31.5	Buying forward
November-05	43.8	Day Ahead
December-05	56.6	Buying in M-1
January-06	64.6	Buying forward
February-06	61.4	Buying forward

1k therms per day = £78k

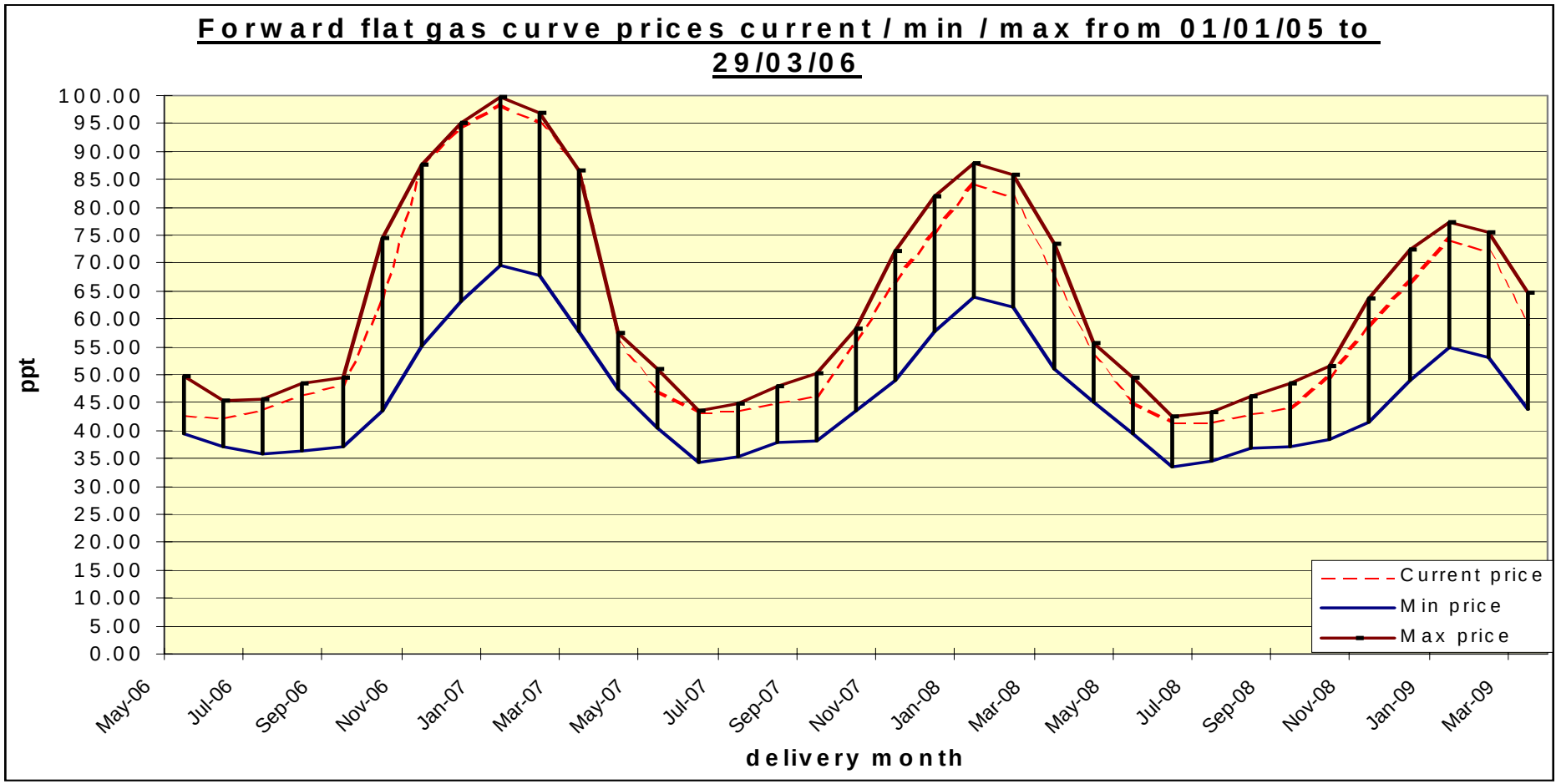
WORST BUYING CHOICE

Delivery Month	Flat Price, p/Th	Instrument
October-05	45.5	Buying forward
November-05	75	Day Ahead
December-05	116.3	Buying in M-1
January-06	117.5	Buying forward
February-06	110.1	Buying forward

1k therms per day = £140k

While there is no obvious time to buy, management of the timing of procurement is essential

Forward curve volatility and pricing



- The forward prices, since 01/10/05 have been quite volatile with the summers trading in a 10-15ppt range and the winters trading in a 20-30ppt range.
- The current curve is close to the highs of the volatility range driven primarily by fears over the Rough storage facility and supply v demand issues for the current winter.

What do gas consumers need to procure well?

Flexible procurement options - as to how and when you procure

- Flexibility to lock in a range of periods - months/quarters/years
- Markets can move significantly during the day so access to Live traded prices as well as Settlement
- Ability to spread risk by procuring in trenches rather than full months
- Access to day ahead

Information

- Customer's consumption data, procurement position
- Price analysis
- Market and regulatory information
- View of the market

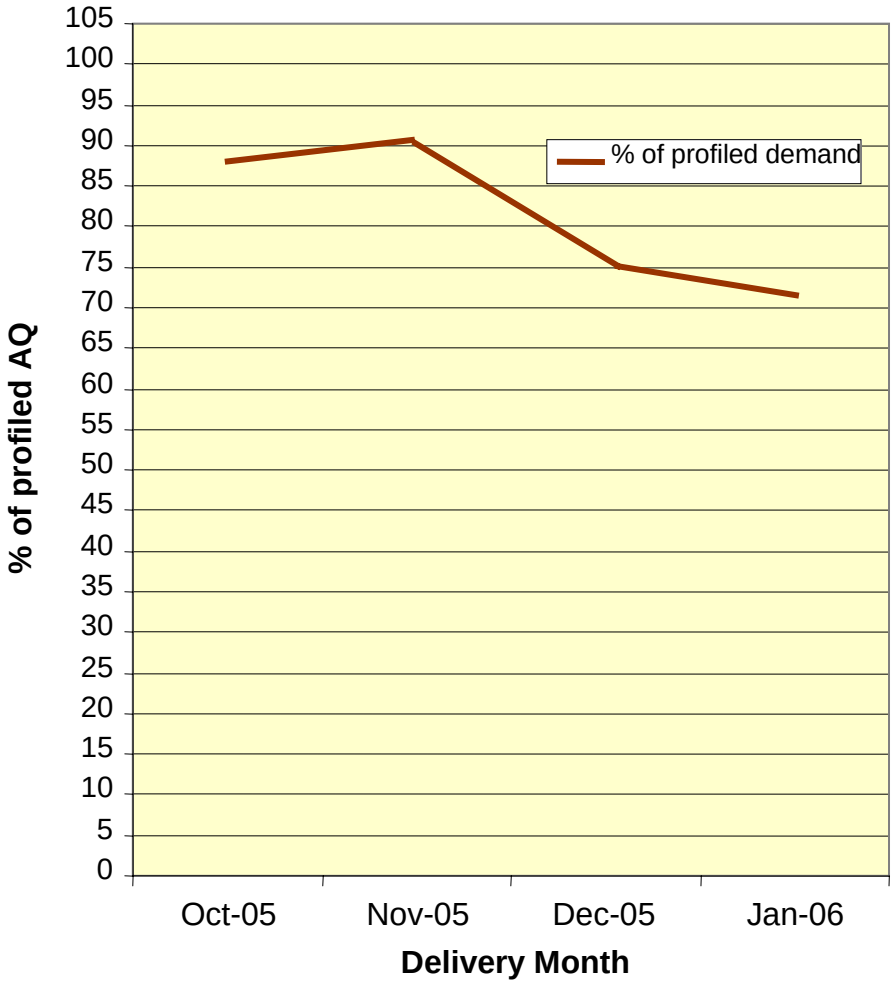
A procurement strategy

Demand Side Response

Supply contracts should enable customers to respond to the price incentives for them to interrupt/reduce offtake. 3 possible types of contract to facilitate demand response are:

- **Commercial (Shipper) Interruption**
  - In exchange for an agreed discount to the customer price the shipper has a number of days of commercial interruption
  - The discount can be agreed in advance or related to market prices at the time of interruption for gas or alternatives such as gasoil and electricity. (Shipper choice).
- **Agreement in event of a Gas Balancing Alert based on contract and market prices**
  - Contract sets out how and when such an agreement can be made, customer has choice over whether to interrupt.
- **Self Interruption by Customer on daily priced contracts**
  - In such cases the contract structure facilitates demand side response by passing to customers the benefit of procured gas they don't use (days of high demand / high price/ risk of enforced interruption)

Demand side response - EBE DM experience



(Analysis taken from EBE portfolio)

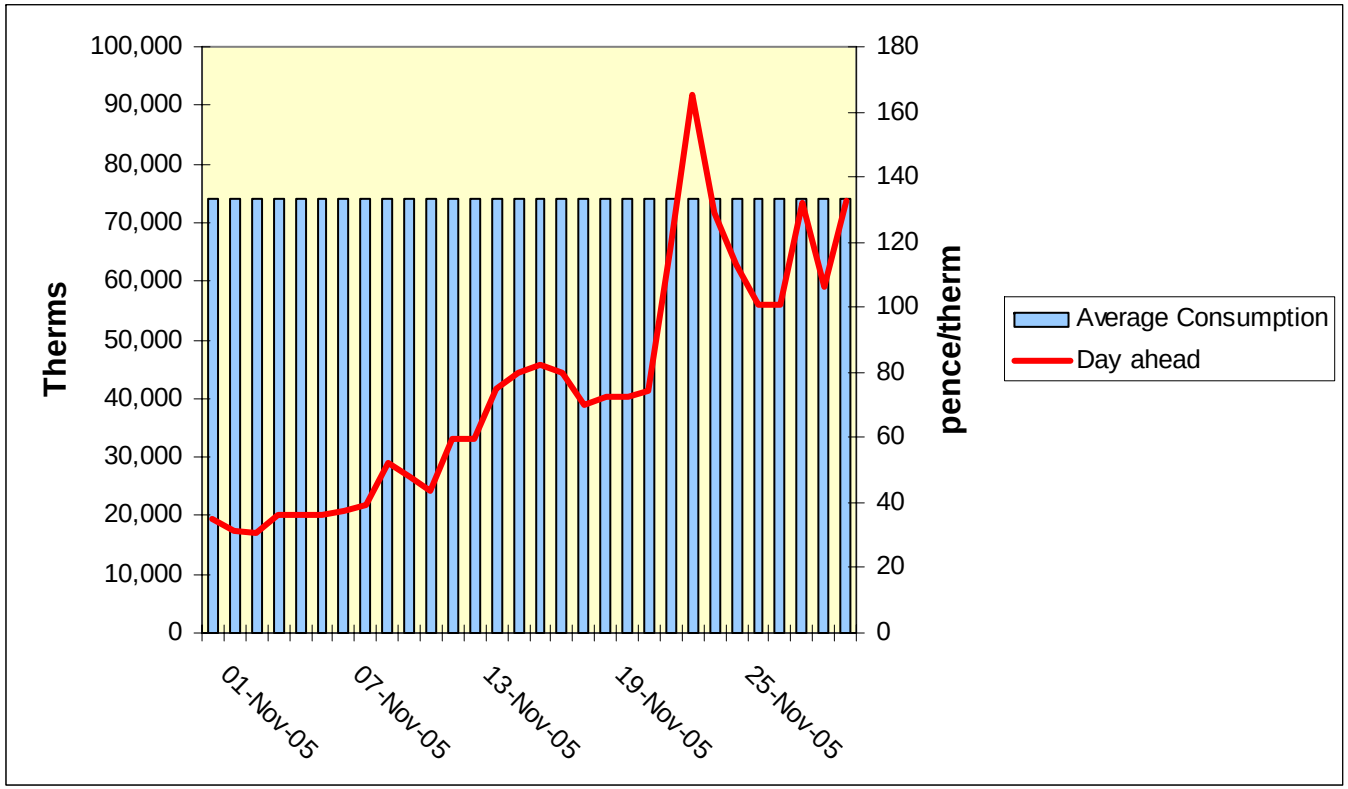
In addition to the Power Generation response seen in the market during winter 2005 / 06, EBE have seen significant Daily Metered demand reduction from expected profiled usage.

- Some of this demand reduction appears to have been proactively managed by the customers before the onset of winter, through production scheduling, use of alternative fuels etc, whilst some has been more reactive (unscheduled shutdowns) in its nature.
- The main reduction in demand is from the energy intensive manufacturing and chemicals sectors, rather than service sector, lighter industry or heating load.
- Most of the demand reduction was from customers with daily priced contracts that facilitate load management but a large number of our/all customers do not have such products

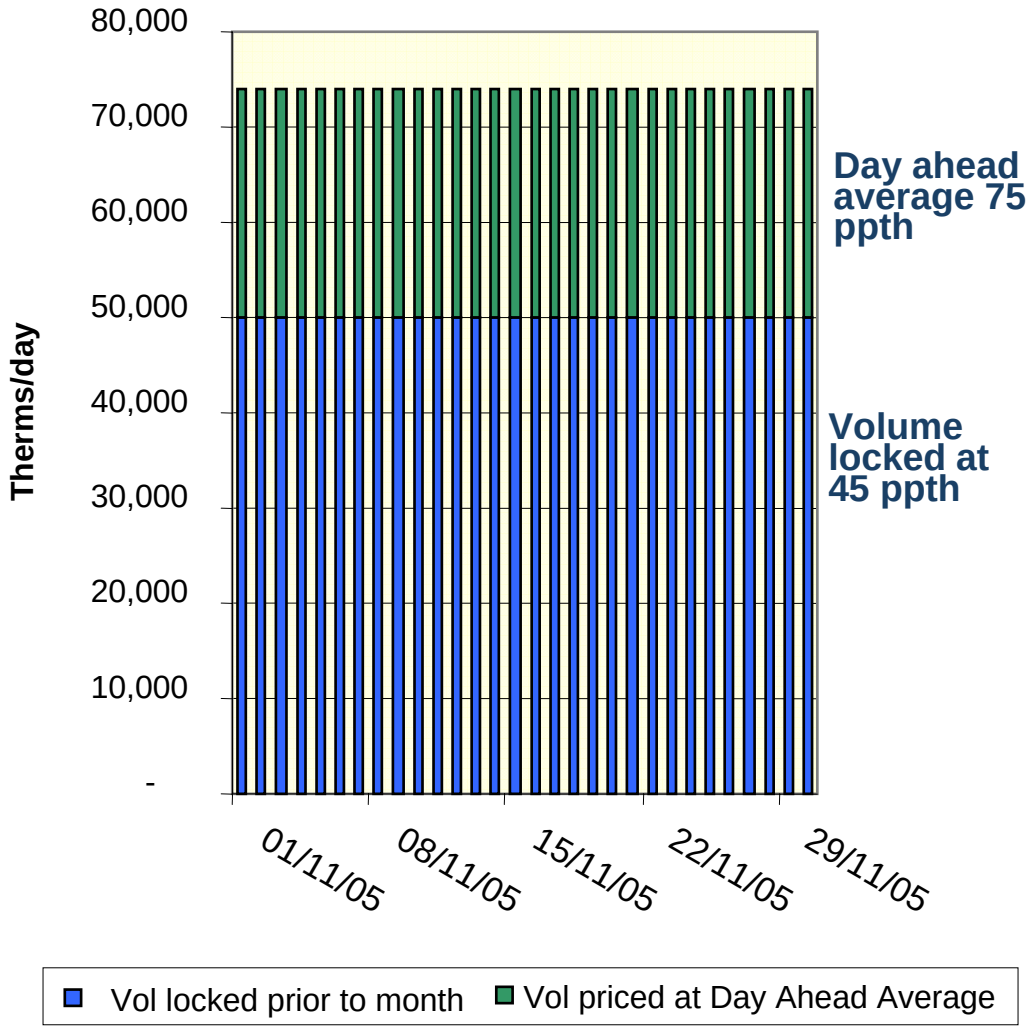
Load management in response to price

Volatile prices create an opportunity as well as a threat to users who can demand manage (defer production, switch to alternative fuels, outsource).

A daily pricing structure enables a customer to switch out of gas if prices reach uneconomic levels



Load management - monthly prices



Average volume 74,000 th/day

Average price 54.7 ppth

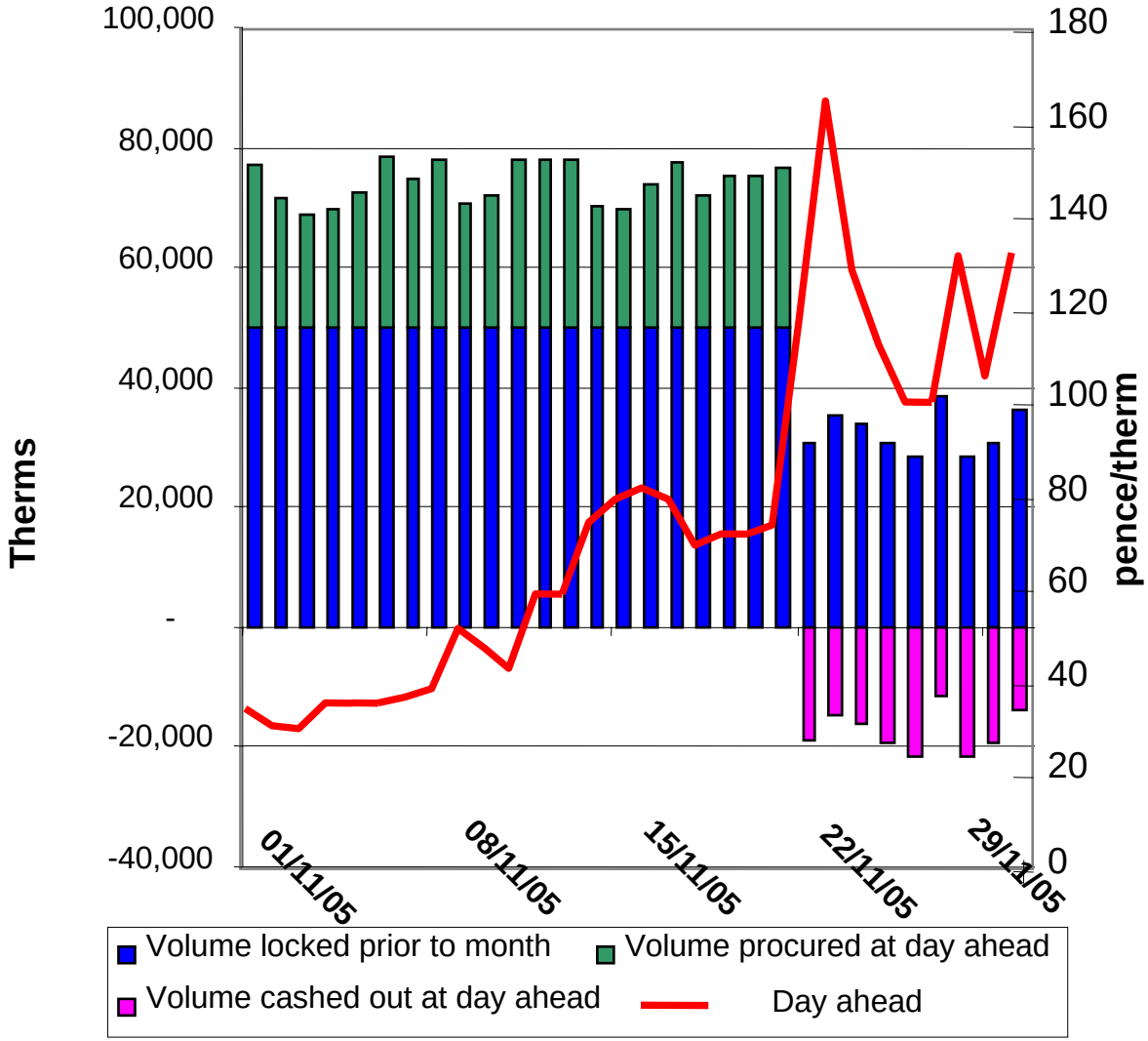
Price paid for every day in month is 54.7 ppth regardless of consumption.

Customer does not know price until end of month so does not know whether economic to consume

No price incentive to load manage from day to day

Customer exposed to day ahead prices & unable to mitigate against them

Load management - daily prices



Customer locks 50,000 therms/day at 45 p/th ahead of the month

For 21 days excess volume procured at day ahead - Av 24k th/day at 55p/th

When daily price exceeds £1 customer switches fuel for part of load, avoiding need to procure at day ahead and selling out some of the volume bought ahead (Av. 17,400 therms @£1.20)

Daily pricing provided price incentive for customer to respond

Load management & AMR

Should be considered by customers

- **who can switch to other fuels, defer production, outsource**
- **with contracts that enable a response to prices**
- **whose demand is measured - Daily Metered only**

NDM Customers

For NDM customers there is currently little point in managing daily demand in response to daily prices as the reduction would not be recognised in their allocated consumption

Total will

- **promote and make available AMR to it's NDM customers**
- **provide them with access to more frequent & actual consumption data.**
- **push for daily balancing to become more widespread to enable a wider range of customers to benefit from load management**

Further procurement options

- **Release or ‘sellback’ of gas procured**
- **Linkage to other commodities**
- **Price Caps**
- **‘Storage’**
- **Within month procurement**
  - Balance of month
  - Groups of days
  - Within day

EBE's initiatives and approach

- **To offer products to allow flexible procurement strategies:**
  - Enable more customers to break demand down into trenches, lock through settlement, 'live' prices and Day Ahead prices.
  - Provision of data and information to customers to enable them to proactively take procurement decisions and/or work with them to establish a target based approach that we then transact.
  - Enable 'sell back' - subject to FSA regulations- either ahead of delivery or on the day of delivery.
  - Daily priced contracts giving customers ability to load manage in response to price and to fix volumes for parts of a month

- **In 2006 we will be enhancing our offerings and services to include**
  - To work to advance Automated Metering technology (AMR), support changes in balancing regime to enable more customers to load manage
  - To work with customers on energy efficiency programs and data to support them.
  - To launch services to give customers access to more data to help them manage their energy consumption, buying and demand management
  - Provision of more complex products for those customers who require them

Our Conclusions

- **Customers need to see energy management as business critical and having potential competitive advantage.**
- **Customers need to have flexibility in how they procure their gas, matching their business dynamics to how they buy.**
- **Customers should consider whether load management is a sensible option**
- **Customers need to have the necessary data and understanding available to them to make appropriate decisions for their businesses.**
- **Suppliers need to provide a range of flexible products and buying options along with market information to enable each customer to manage their energy to their specific needs.**
- **The potentials of AMR and energy efficiency programs need to be publicised and potentially financially incentivised.**
- **Elements of the gas balancing and reconciliation regime are potential barriers to demand side response and energy optimisation amongst smaller industrial and commercial users.**

Thank you for listening