Winter Outlook 2006/07

Proposed Gas Demand Side Initiatives

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Gaz de France ESS

Gaz de France ESS - Vision

"To be a major player in the UK energy market providing innovative products, value and excellent service to business customers"

Gaz de France ESS - History

- Entry into UK gas market through strategic acquisition in April 1999 with expansion into UK electricity market November 2002
- Entry into UK generation market through purchase of Shotton CHP in October 2003
- Based in Leeds we employ 170+ people, including those who were involved in establishing electricity demand side initiatives throughout the 1990's

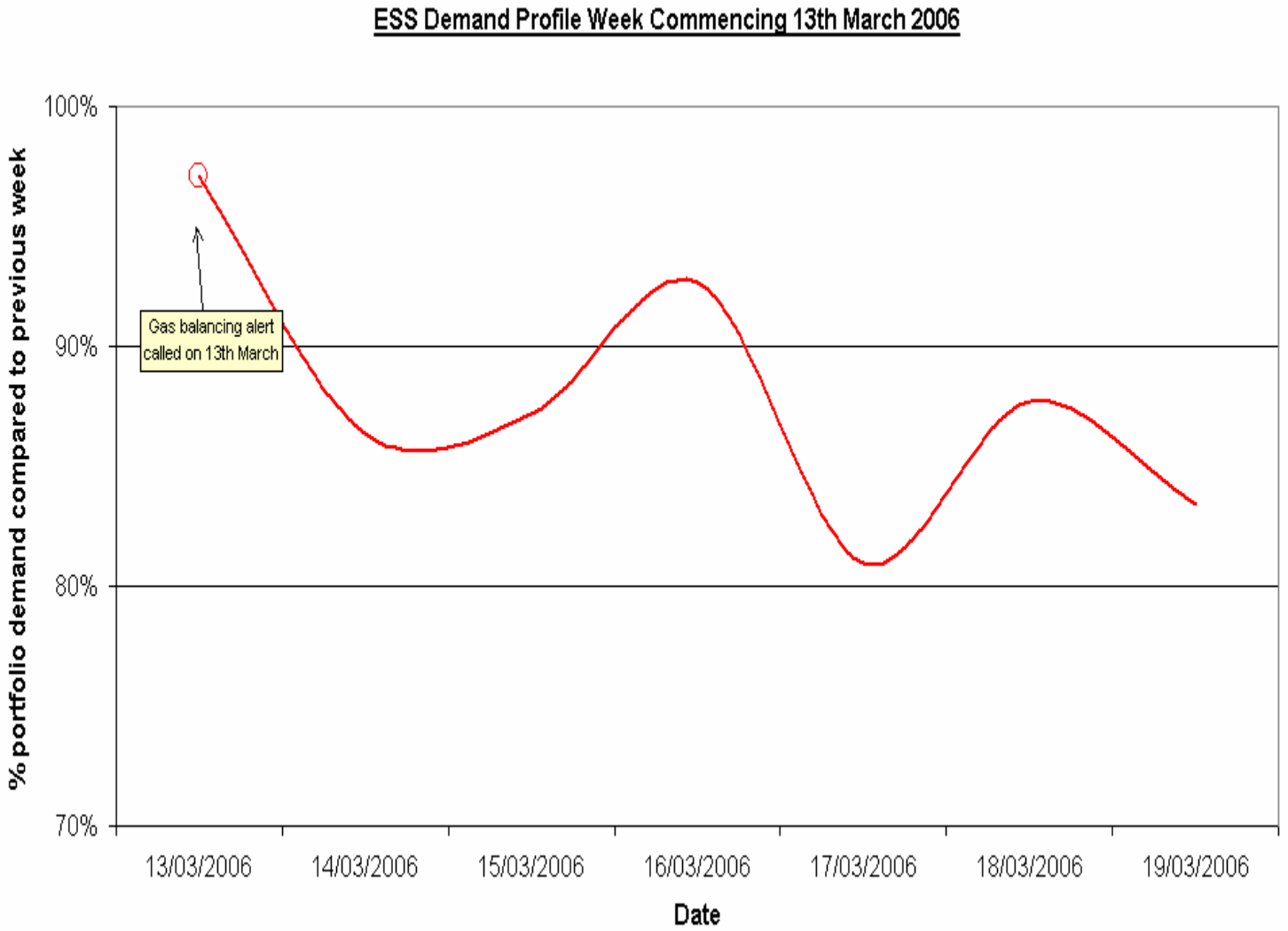
Demand Side Initiatives for Winter 2005/06

- Demand Side Working Group:
  - development of a Gas Balancing Alert
  - introduction of multi-day trade opportunities on the OCM
  - improved transparency of information
- Gaz de France ESS developed GBA related services:
  - including enhanced reporting services for their customers
  - additional demand reduction opportunities
- But what were the messages we were hearing from those customers who provided feedback to the Demand Side Working Group meetings?

Customers were concerned about where the Demand Response would come from?

- Gas fired Generation
  - Response is limited due to impact on electricity plant margins
  - Limited availability/Reliability on fuel switching
- Customer Response
  - 1st priority is to run their business not sell gas
  - Fingers burned by exposure to short-term prices winter 05/6 therefore self-interrupt
  - May exhibit more risk averse purchasing for winter 06/7
- Demand response could be more restricted next winter if no further incentives

How quickly did we see demand side responding to the Gas Balancing Alert of 13th March 2006



Gaz de France

Objectives of our Modification Proposal 086 Introduction of Gas Demand Management Reserve Arrangements

- Should not be a surprise that we would want to see some of the benefits provided by electricity demand side response made available to the gas side
- Provide additional tool to prevent onset of a Gas Deficit Emergency and help Security of Supply
- Seek to deliver additional demand side volumes for winter 06/07 and subsequent winters
  - Winter 05/06 34mcm maximum response (mainly CCGT)
  - Winter Outlook 06/07 requires additional demand side response
    - 1.0bcm for 1 in 10 scenario;
    - 2.3bcm for 1 in 50 scenario
- Non discriminatory scheme which can remove barriers to participation for I&C customers
- Provide cost reflective compensation for customers via a structured scheme

Market benefits of demand response

- Achieves greater certainty about actual demand reduction deliverable on the day
- May allow upward adjustment of GBA trigger level
- Customer response avoids passing through problems to electricity market
- Diversifies risk away from storage only options – hedges reliability (eg. Rough)
- Restore confidence in supply/demand balance which may reduce wholesale market volatility and smooth market prices
- Gives better knowledge of firm customers that may be available to respond

Triggers for utilisation of demand side under this scheme

- All actions taken should be “economic and efficient”
- Offers should be taken on price:
  - Utilisation prices stacked against OCM offers and only taken if price efficient
  - Availability fees should be regarded as a “sunk cost”
- Tender price submissions will affect the maximum number of utilisation days
  - If utilisation offers are relatively low = high strike rate
  - If utilisation offers are high = ensure only taken on days of gas shortage
- Multi-day Offers should be facilitated to remove barriers to participation
  - Allocation based on probability of requirement as per mod 0061 (OTC Trades)

Interaction with commercial interruption

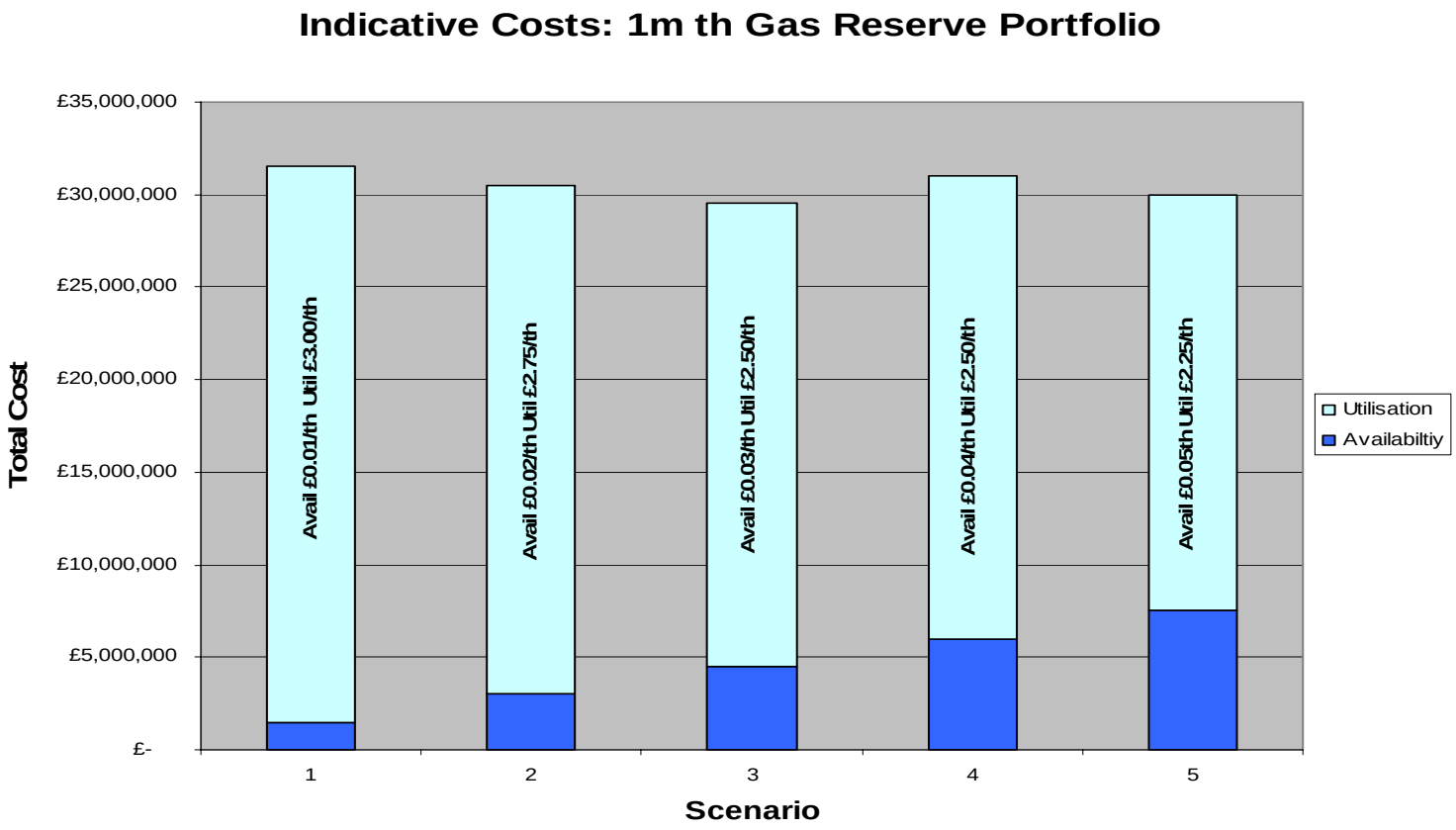
- Demand side scheme to encourage additional volumes in addition to commercial interruption
  - Benefit for customers of National Grid “badge”
  - Available for “difficult days” only
- Commercial interruption will run in parallel with National Grid scheme
  - No constraints for end user to sell back gas to shipper
  - Shipper can offer competing price to utilisation price
  - Shipper risk to provide volumes if subsequently called by NG
  - Market benefit as overall demand still reduced

Payments and cost recovery - principles

- The proposal would not “dilute the incentive for shippers to secure gas in any way”
- The costs of actions taken in the scheme feed into SMP buy price to provide a further incentive to balance
- Principal of “polluter pays” is inherent in the proposal
  - Costs targeted at shippers who are short
    - Particularly on difficult days
  - Shippers who are better than average at balancing should not be disadvantaged
- Cash Flow similar to Electricity Standing Reserve scheme:
  - National Grid Gas NTS pay shipper, shipper validates and re-imburses customer (monthly in arrears)

Indicative Scheme Costs

- Based on 1,000,000 therms per day
- 10 day availability & 10 day utilisation
- Availability is the true cost, utilisation is a substitute for supply side actions and only when price is competitive



Proposed cost recovery – Availability Payment

- Cost of availability payments is additive to SMP buy Price to ensure costs are targeted appropriately
- Costs allocated on a flat daily basis (Total Annual Cost/[365]) and added to SMP buy price
- Prices calculated on an ex-ante basis to enable users to have a near real time estimate of prevailing SMP buy Price
- Prevailing SMP buy price based on estimate of short imbalances, reconciliation through to balancing neutrality
- If an action was taken as part of the scheme Utilisation fee may set the SMP buy price

Bid volume calculations and trigger level

- Volume calculation based on prevailing nomination for DM sites
  - If subsequent days then
    - a) D-7 nomination or
    - B) SOQ
  - Ability to declare minimum excluded quantity if there is a requirement for essential running
- If utilisation occurs prior to a GBA then reduce demand forecast to prevent onset of a GBA or escalation to emergency
  - Quantifiable level of demand response
  - Increased visibility of demand response

Governance and reporting

- Alongside the progression of this proposal National Grid Gas NTS should develop a gas reserve tender methodology statement in conjunction with users and potential providers of demand side response
  - National Grid Publish Methodology for comments
    - Report on reaction to responses
    - Users have recourse to OFGEM if not satisfied
- Reporting for the tender scheme should follow a similar process for that of electricity standing reserve

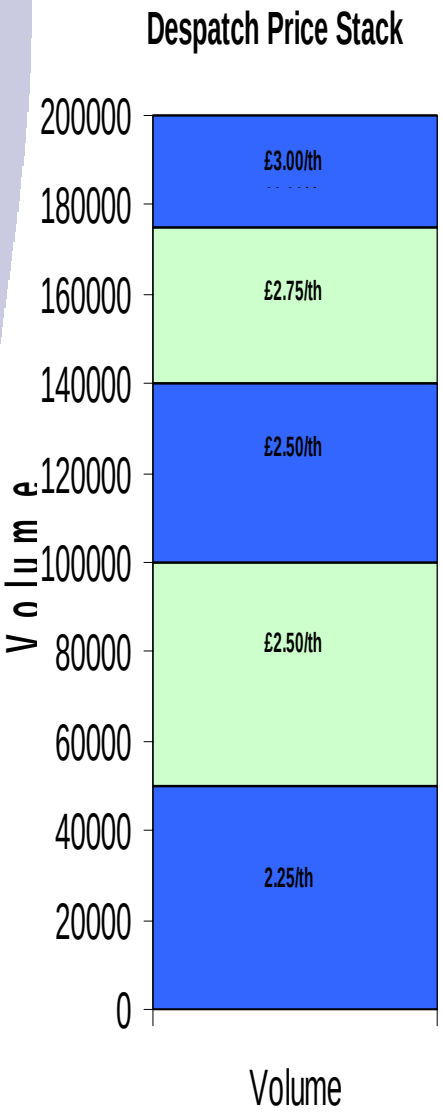
  1) Following tender acceptances
  - Define volume tendered, profile of days available, scheme costs, availability cost and average Utilisation price etc.

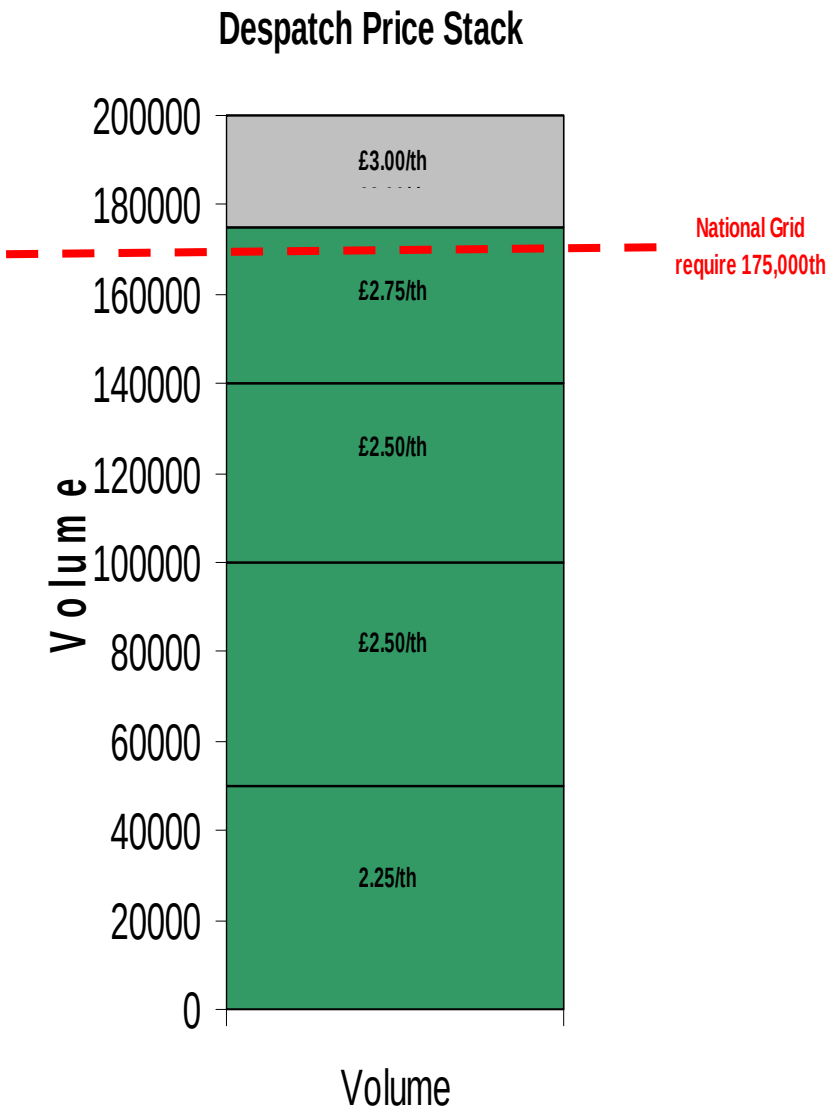
  2) Post Winter Report
  - Detail utilisation and costs incurred, provide auditable trail of actions and explanation

Possible structure of a scheme

- Tender scheme should be developed by National Grid Gas NTS and potential participants similar to electricity standing reserve scheme
- Scheme could offer a limited number of standard contracts
  - Committed – firm delivery of 100% of stated volume
    - Claw back penalties for non-delivery
  - Flexible – [85%] delivery of stated volumes or
    - [8.5]/10 instances delivered at 100%
- Contractual penalties under the scheme to discourage non-delivery back to back NG/Shipper/Customer
  - Contract should equally ensure delivery from multi-shipper sites

How might a scheme work? Bid Stacking





Possible despatch procedure

- National Grid to be made aware of volumes available to Gas Reserve on at least a weekly basis
- National Grid identify a requirement for Gas Load Management (175,000 therms in the example)
- All contracts are stacked in ascending price
  - Standing Reserve methodology can be applied here to ensure that contracts of the same price are handled equally.
- Contracts would then be despatched;
  - Via the shipper
  - Directly with the customer
  - Automatically via a system
- Customers/ shippers to confirm despatch to National Grid
- Data provided post event to prove service delivery and for settlement

Any Questions?

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