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for all gas and electricity customers

Options for Energy Buyers / Gas Contingency Arrangements

Looking ahead to winter 2007/08

17 July 2007

Philip Davies: Director, GB Markets, Ofgem

Why are we here?

Winter 2005/06 — GB gas prices highest in the world

Winter 2006/07 — 2nd warmest winter in UK since records began in 1914 (Met Office)

Winter 2007/08

New import infrastructure: GB increasingly linked to *emerging Global LNG & Continental European gas markets*

Demand/Supply shocks in other markets?

NTS Network Entry Capacity Constraints?

Tight supplies **?**

High volatile prices **?**

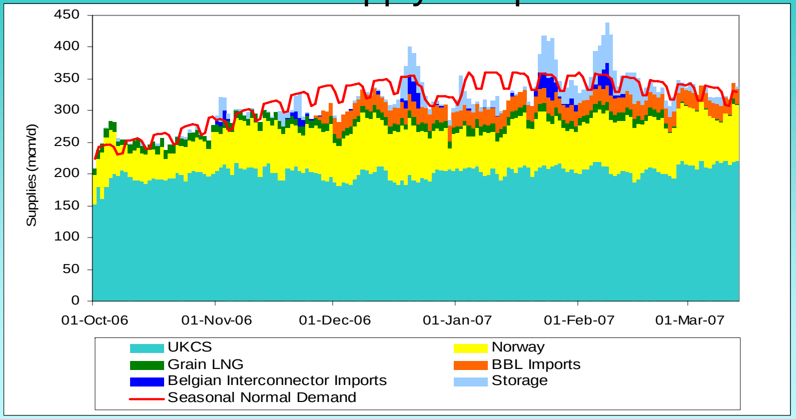
Customer response **?**

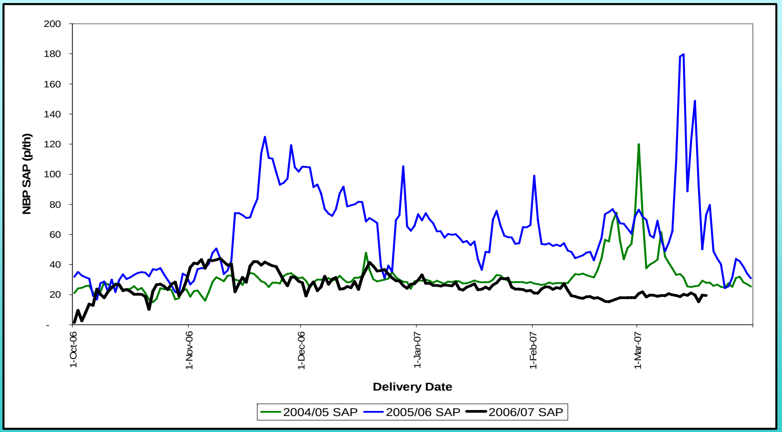
Transparency is key in helping customers manage risk

Experience of winter 06/07

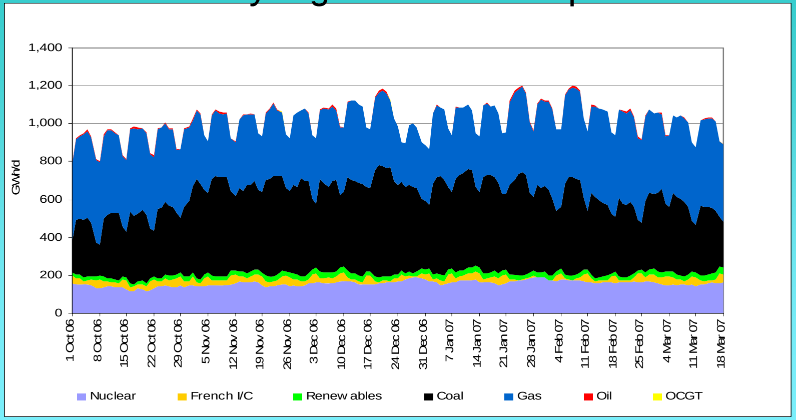
Warmest winter in the UK since 1914

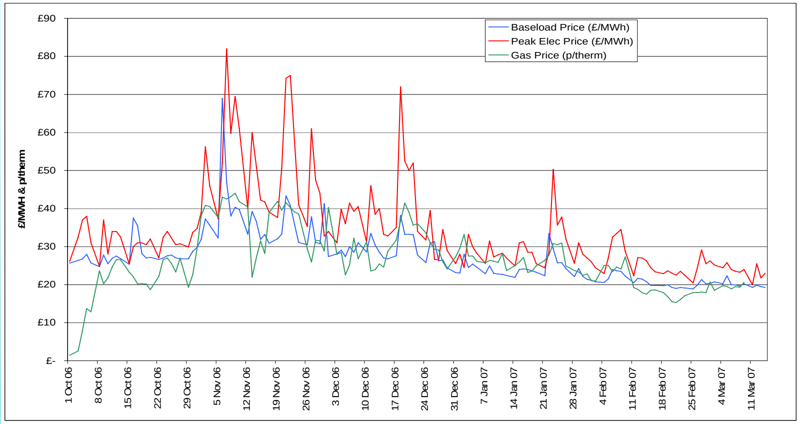
Gas – supply and price





Electricity – generation and price

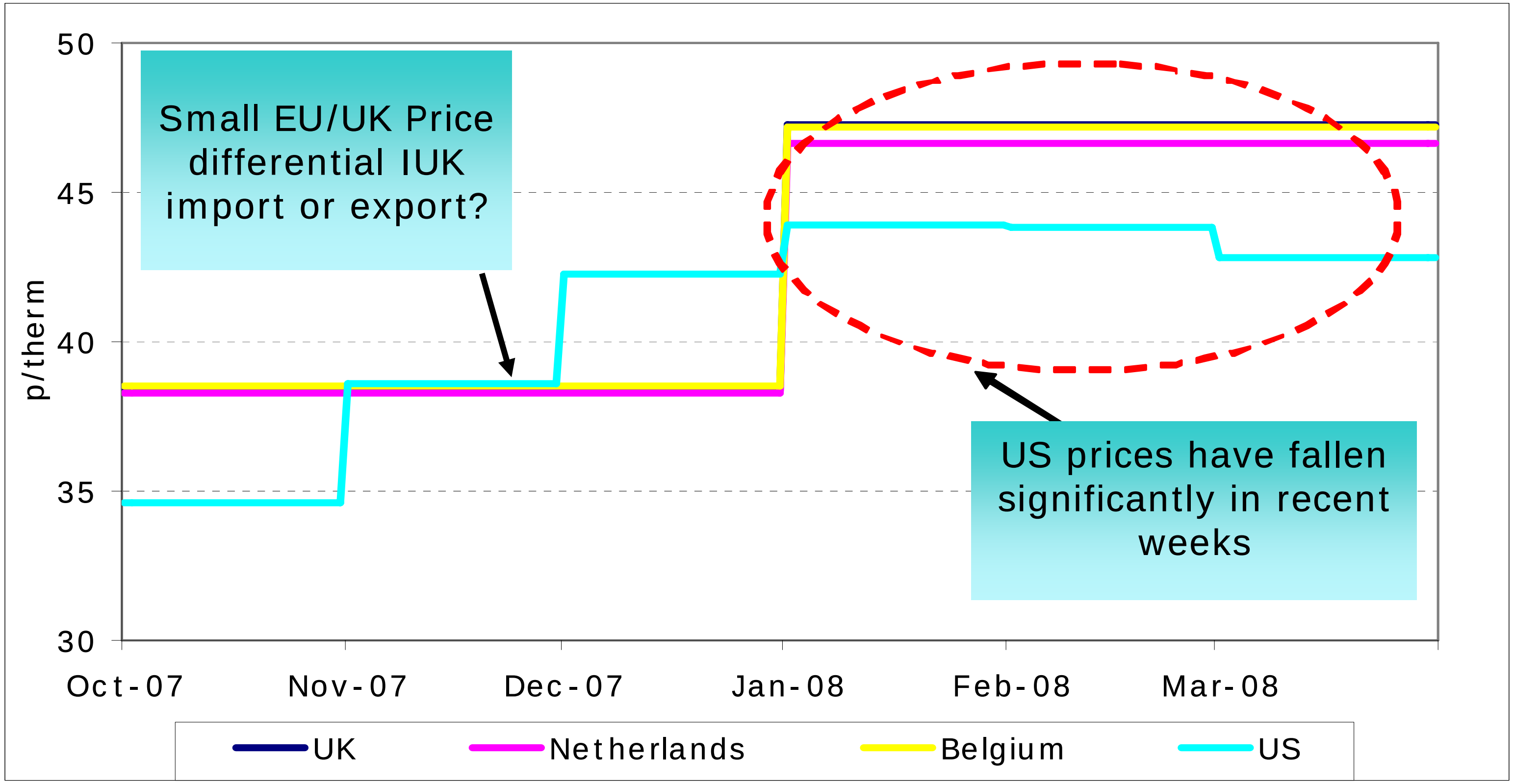




Prices are inherently volatile

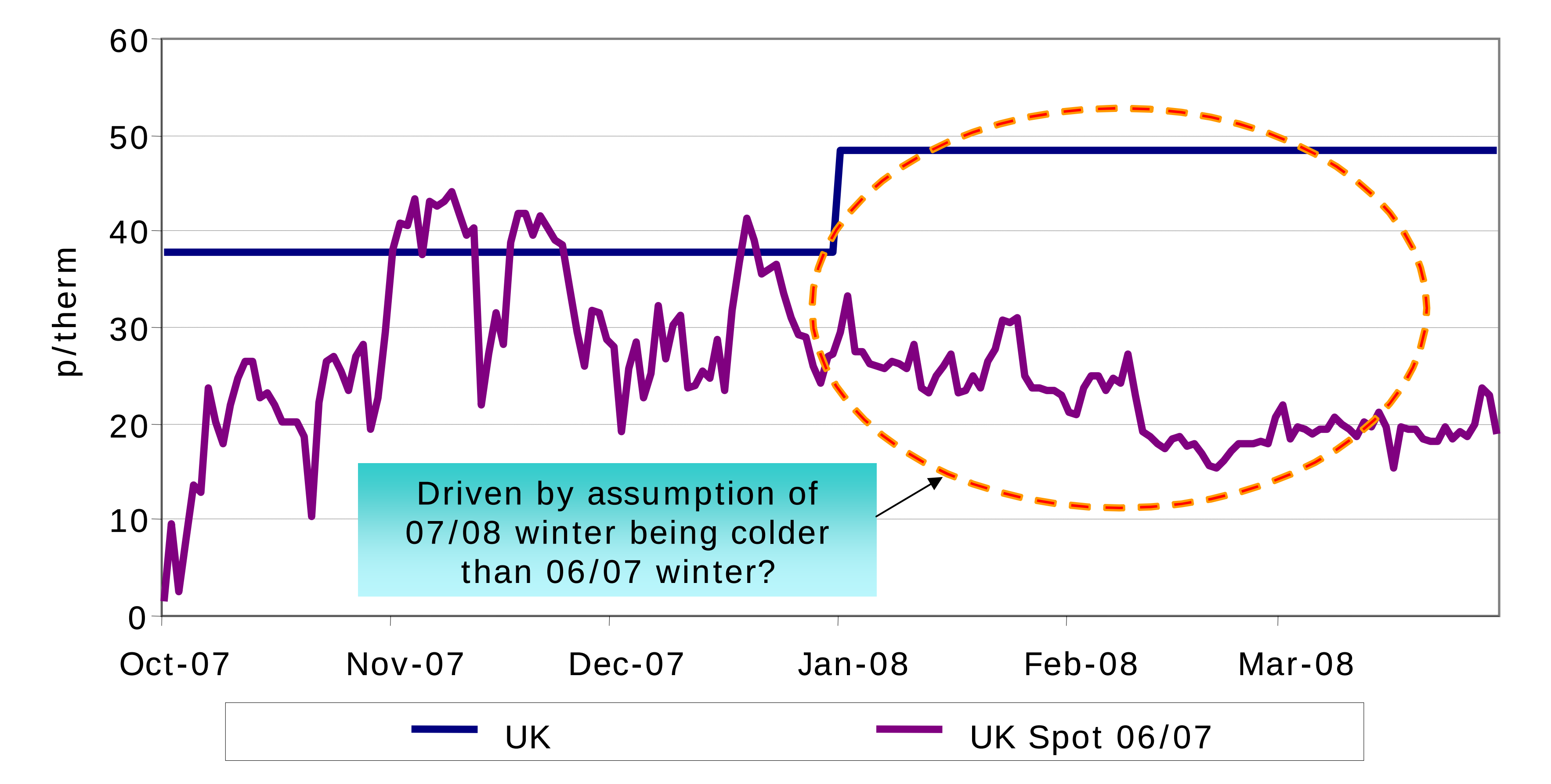
Looking forward to winter 07/08 - Gas

Wholesale gas price expectations



European and global markets increasingly important for GB

Wholesale gas price expectations - weather key for demand



Initial Met Office forecast for Dec-Feb to be released mid-July

Update on key gas issues – Trade and Transfer arrangements

- Existing regime gives LT investment Signals to NGG about where additional capacity is needed on the NTS

- Shorter term arrangements are required to ensure capacity can respond flexibly to shipper demand

- Pattern of gas supplies and imports to GB is constantly changing

- Demand for entry capacity at each terminal can change quickly

Need capacity to be available at the terminals where shippers wish to land gas

Transfer and Trade arrangements to be implemented for this winter

Update on key gas issues –
Entry capacity – NG's roles and responsibilities

National Grid

Licence and statutory obligations to ensure all physically available capacity is released to shippers

Commercial incentives to maximise capacity offered

Work with industry to deliver obligations on entry capacity trade mechanisms

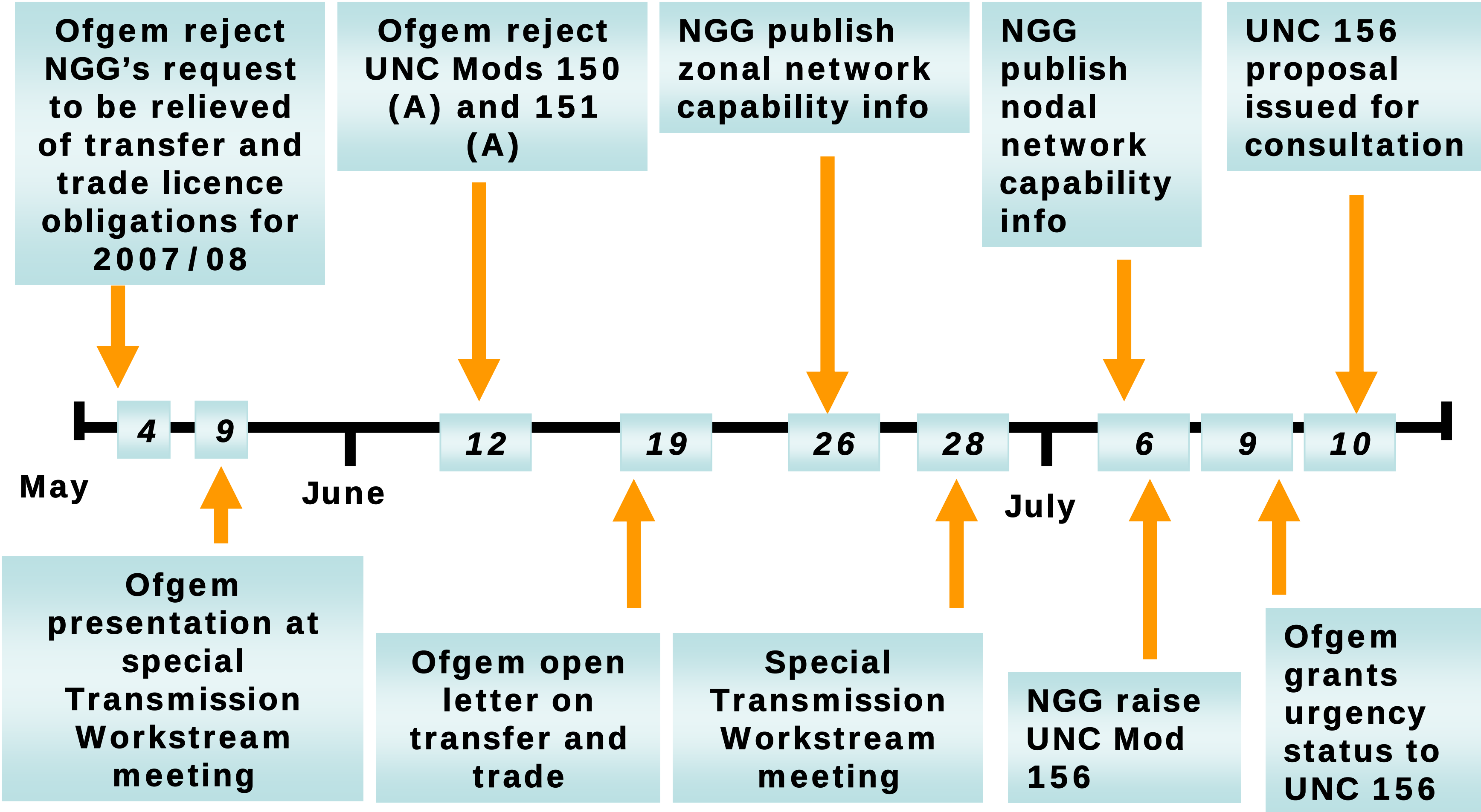
Commercial tools at NG's disposal to manage capacity constraints

Ability to sell additional firm and interruptible capacity before or on each gas day

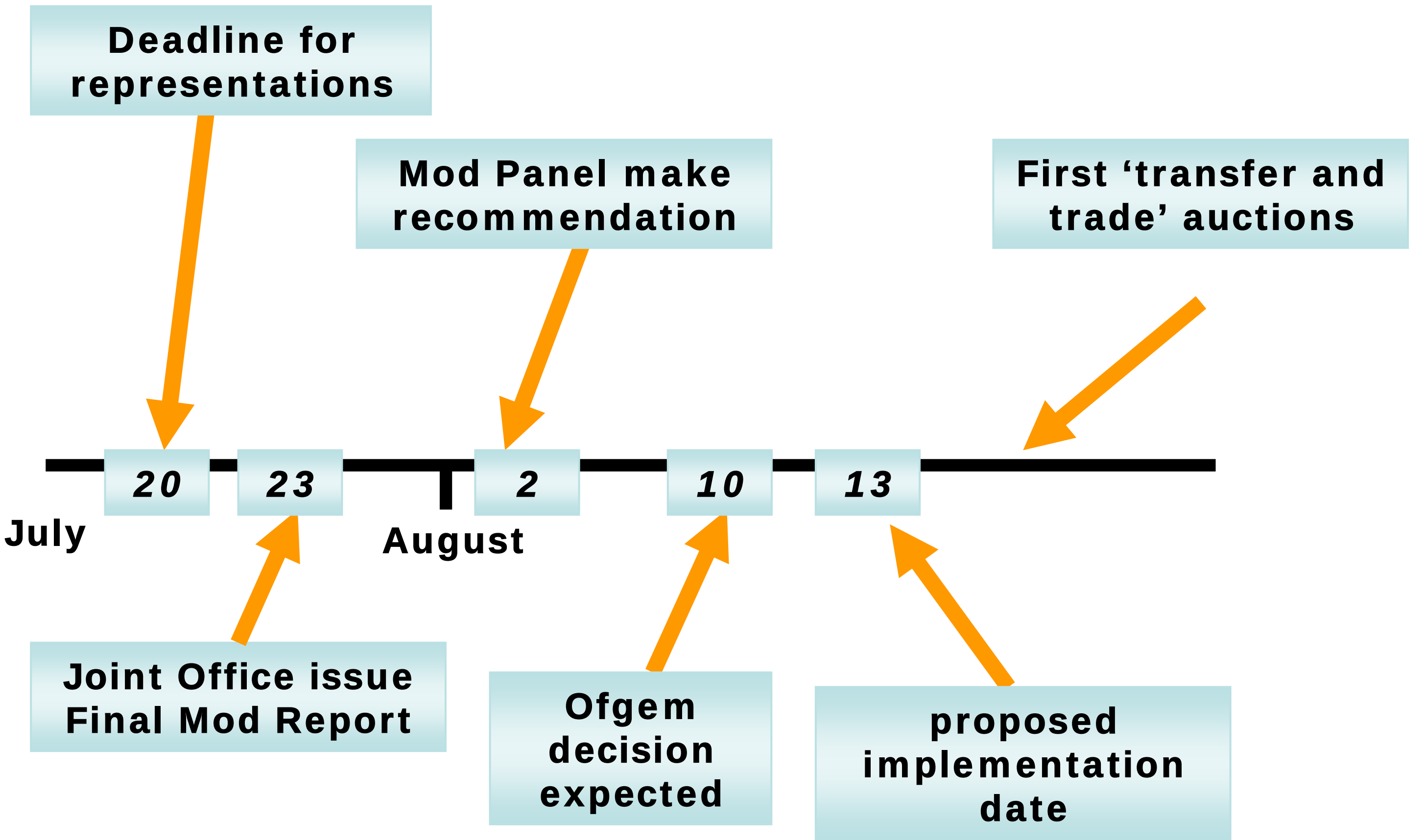
Entering into forward or options contracts to "buy back" capacity

Ofgem
Monitor NG
Investigate and take action where necessary

Transfer and trade – recent developments



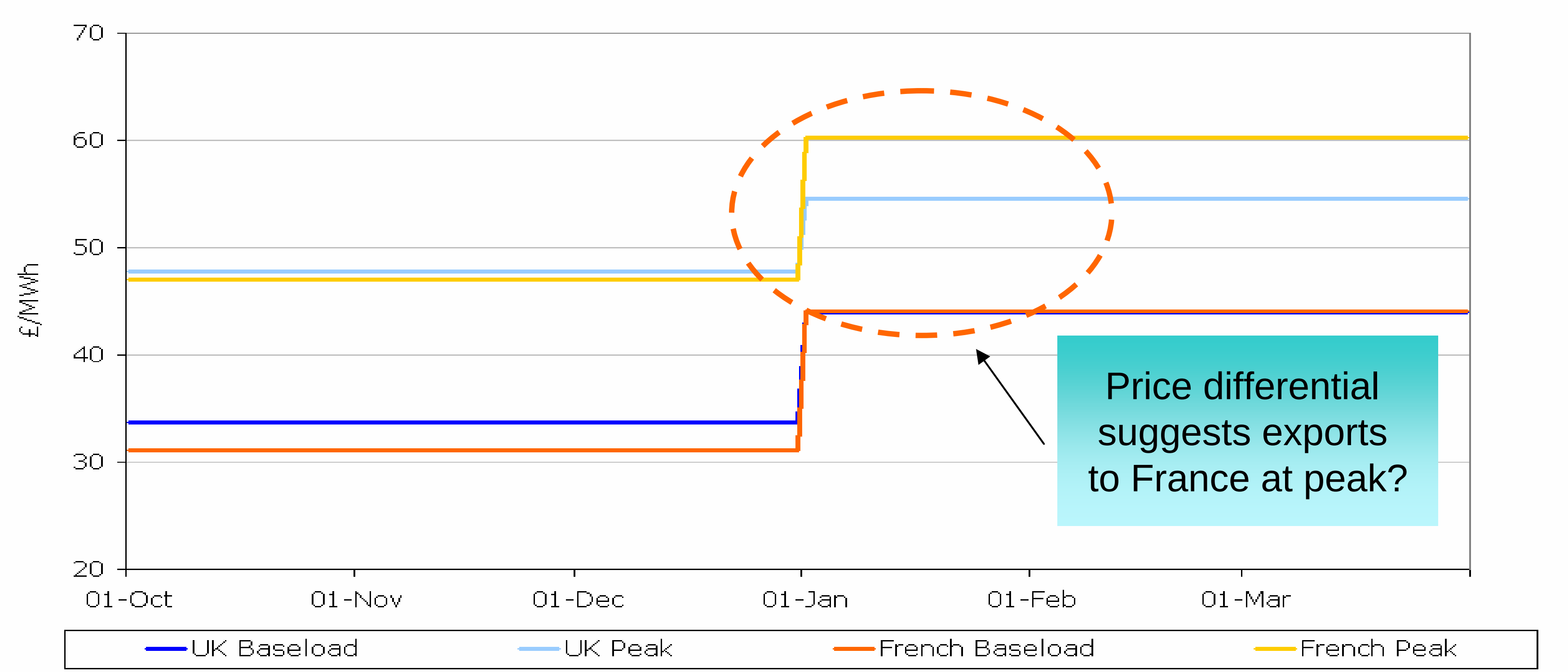
Timetable for UNC 156



UNC 156 – "Transfer and Trading of Capacity between ASEPs"

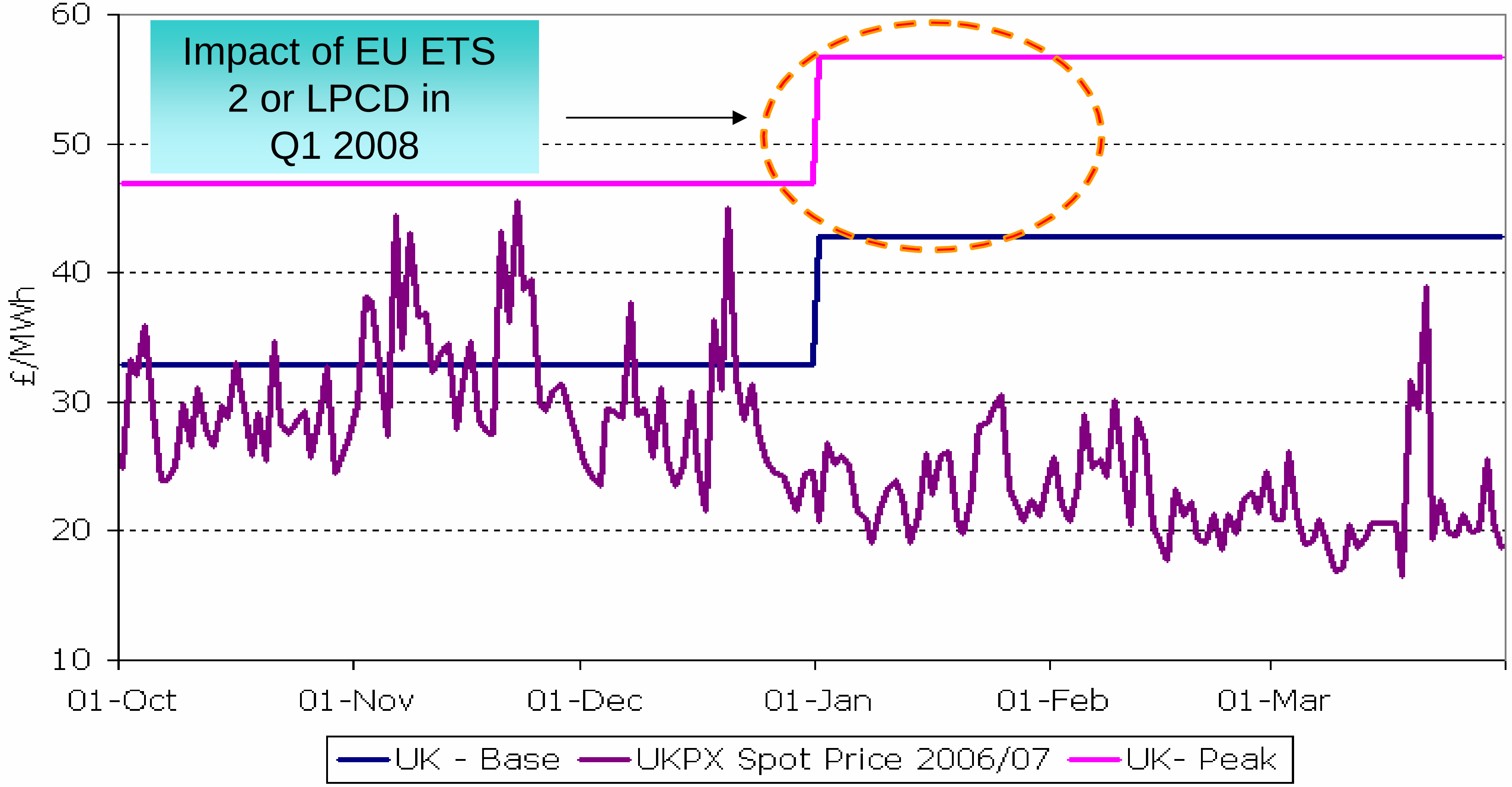
Looking forward to winter 07/08 - electricity

Wholesale electricity price expectations – European interactions



GB electricity market expected to be increasingly interconnected with Europe

Wholesale electricity price expectations – Environmental interactions



EU ETS 2 & LCPD expected to impact price NOT security of supply

Update on key electricity issues – Large Combustion Plant Directive (LCPD)

What does it mean?

- Restricts around 12 GW of coal and oil generation to run for 20,000 hours from 1 Jan 2008 to 2015
- 1hr of allowance used up whether 1 unit (500 MW) or 4 units (2 GW) run

Implications

- ***Volume effect***

  Generators will want to get revenue for 4 units rather than 1

- ***Price***

  Opportunity cost for generators, so price may reflect expectation of prices to 2015

- No impact on security of supply- generators will still be available to run… but at what price?
- Effect may be higher price spikes in BM

Summary

Gas

- Supply outlook more positive than last winter

Electricity

- Generation margin sufficient even in a severe winter

Shift in focus from supply to network issues → Transfer & Trade arrangements to be implemented for this winter

Environmental Pressures important → EU ETS 2 & LCPD impact on price NOT security of supply

Summer 07 update

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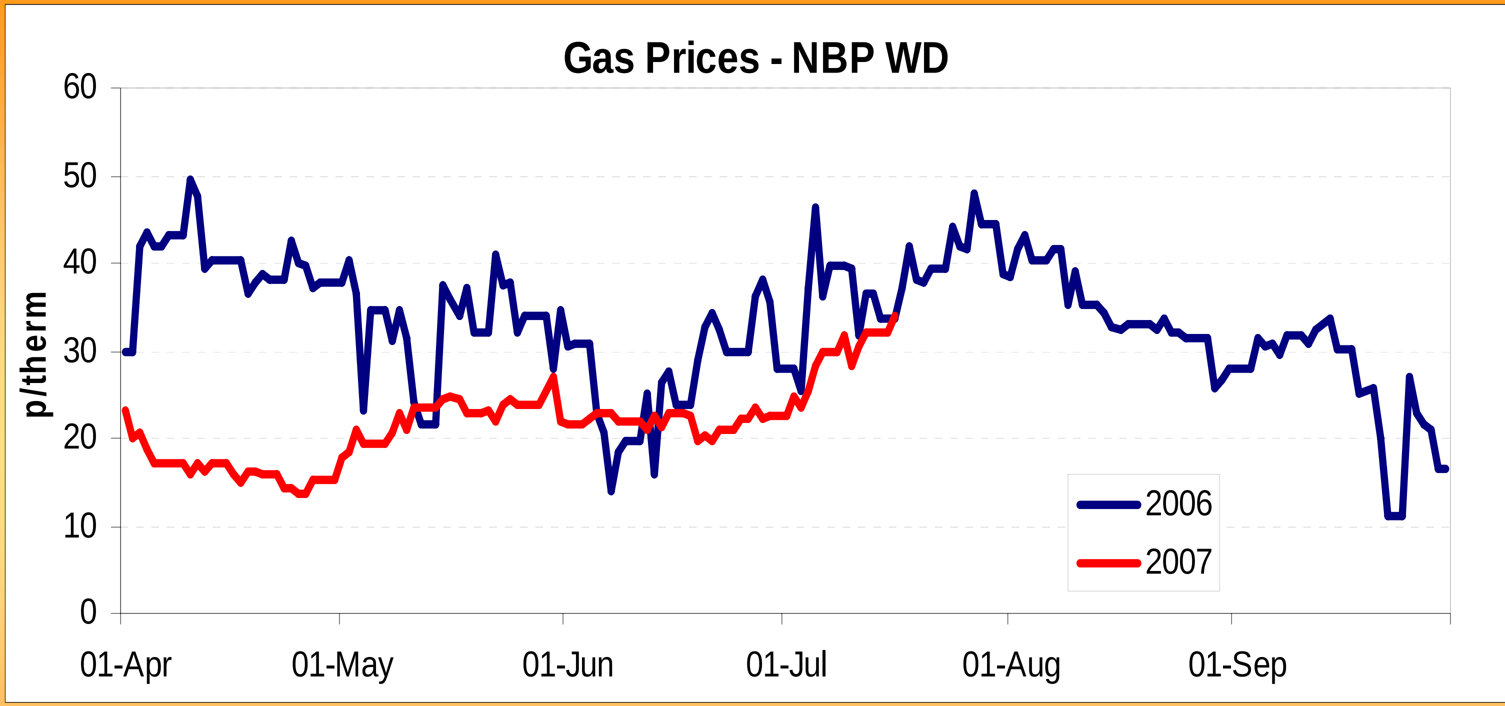
Gas price update



This years spot prices appear to reflect improved supply availability

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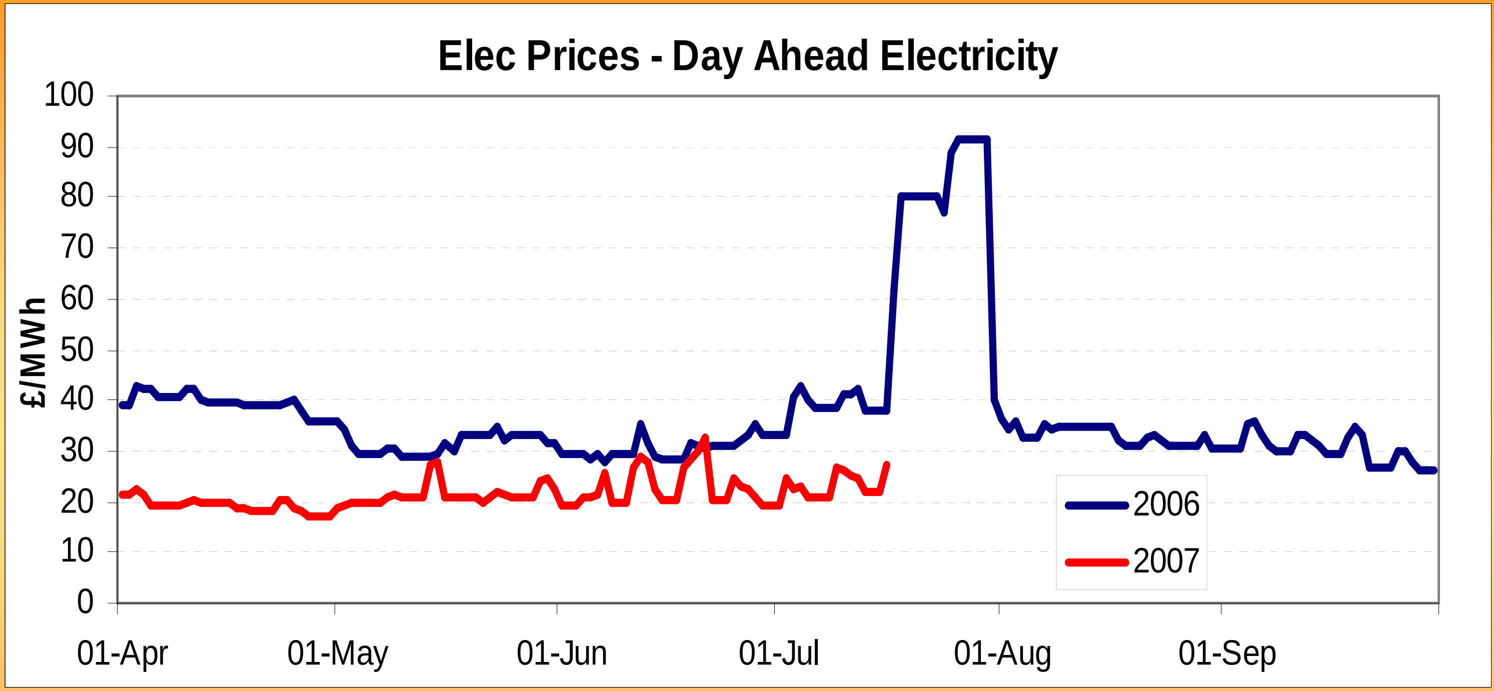
Electricity price update



….but no grounds for complacency

European Outlook

European Transmission System Operators (ETSO) Winter Review for 2006/07

Lessons learned

- Weather conditions (past and expected) should be the key consideration in developing the ETSO Winter Outlook Report
- Unplanned outages and changes to maintenance periods drive variation between forecast and actual capacity on the day
- Co-operation between TSOs and operations is crucial to manage power shortage situation
- National balance cannot be approached in an isolated manner

Key risks 2007/08

- Weather
- Unexpected outages
- Levels of wind generation
- Reliance on cross-border exchanges

http://www.etso-net.org/upload/documents/Winter%20Review%20Appendix%20FINAL.pdf

Information remains key

Developments in information release

Gas

➢ **NGG UNC Review Group 140**
Review of NG's Gas Information Exchange aims to:
- Review of all gas operational data
- Consider additional data items for publication
-Review NCORM & create a "data centric" website
-Review data format and presentation

➢**NGG UNC Review Group 162**
Review of information provision to Shippers in respect of forecasting the future path of transportation charges

Electricity

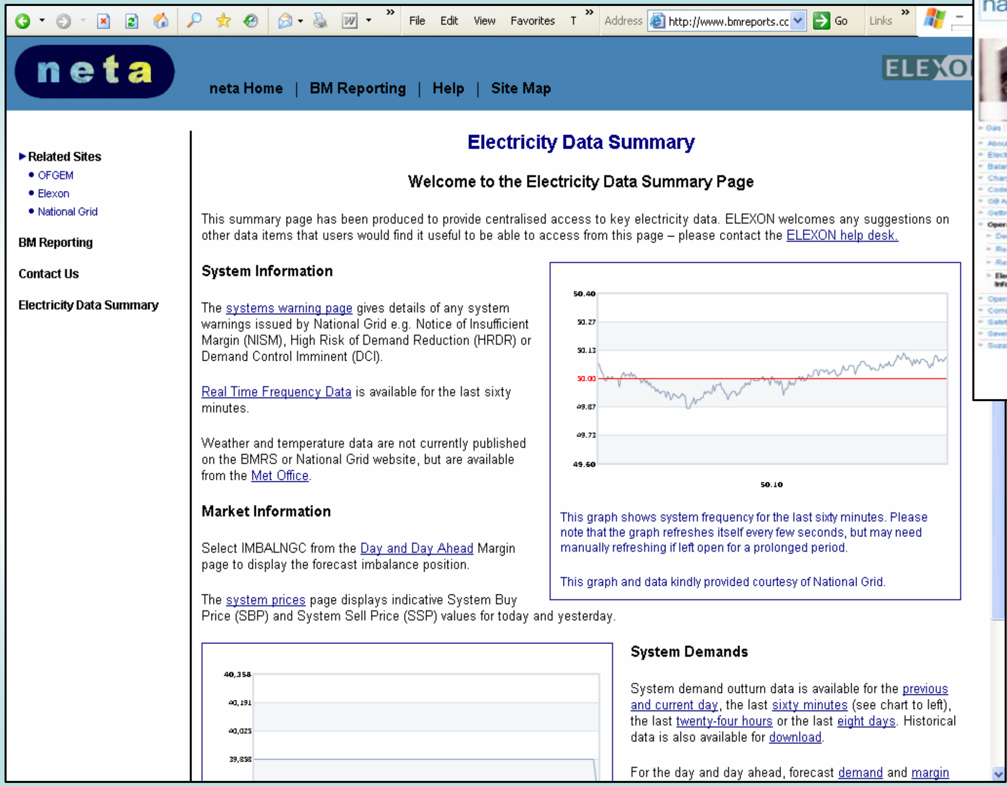
➢ **NGET electricity information transparency review**
- Electricity Daily Summary Page?
-Publication of additional data e.g. gen mix?
- *NG report due early August*

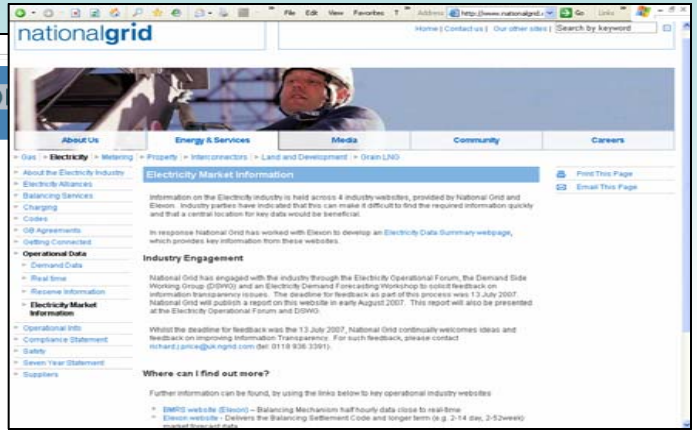
➢**BMRS Electricity Data Summary Page**
-now live on www.bmreports.com

➢**NGET new web pages:**
- demand side website
-electricity market information
www.nationalgrid.com/uk/electricity/

Customer input is <u>essential</u> as these projects move forward

Electricity Data Summary Page





- Electricity Summary Page - quick win
- Further developments in electricity transparency being developed through the DSWG

www.bmreports.com/dsr.htm / www.nationalgrid.com/uk/electricity

Current industry information initiatives

Proposals to be *implemented* October 2007

UNC 121	Provision of ex-post demand info for all NTS off-takes	✓

Proposals with Ofgem for decision

UNC 104	D+1 publication of storage stock info at LNG importation facilities - *(minded to accept)*	?
UNC 088	Facilitate the use of smart metering by non daily metered medium sized I&C customers	?

Proposals with industry for consideration

UNC Review Group 140	Review of information provision on National Grids Information Exchange website

Energy Markets Outlook (EMO)

Energy White Paper commitment to

"a new energy market information and analysis service from this autumn" that "will be jointly run by DTI and Ofgem"

- Analyse potential developments in gas and electricity markets over next 15 years

- provide industry participants with credible long term market scenarios

- **First annual report to be launched in the autumn**

- **Stakeholder engagement will be key -** consultative process

Transparency in Europe - GSE Gas Storage Investment Database

gSe Gas Storage Europe

STORAGE INVESTMENT DATABASE

HOMEPAGE | DATABASE

Welcome

The **GSE Storage Investment database** presents a collection of GSE and non-GSE public information on storage projects around Europe. The projects are presented per country and company. The status of each project is indicated as:

- planned in case the project is at an early evaluation stage
- committed in case the project is under evaluation by the company with detailed studies and possibly undergoing planning and permitting stages
- under construction in case the project has already started (procurement and physical operations)

About GSE

GSE represents the interests of 28 Storage System

Downloads

Storage projects database (Excel-format) 31KB
Version 5 July 2007

GSE Storage map 4.671KB
Edition 2006

GSE STORAGE INVESTMENT DATABASE @ JULY 2007

Country	Company	Name of facility	Type of facility	Investment	Status	Expected Capacity (Mcm WG	Expected Date
USTRIA	OMV Gas	Schonkirchen Tief	Reservoir	New facility	Planned	1000	by 2015
USTRIA	RAG	Haidach	Reservoir	New facility	Under construction	1200	by 2010
USTRIA	RAG	Haidach	Reservoir	New facility	Under construction	1200	by 2013
ELGIUM	Fluxys	Loenhout	Aquifer	Expansion	Under construction	100	by 2010
ELGIUM	Fluxys	Poederlee	Aquifer	New facility	Planned	300	by 2015
ULGARIA	Bulgargaz	Chiren	Reservoir	Expansion	Planned	700	by 2015
ZECH REPUBLIC	Rwe Gas storage	Not specified	Reservoir	Expansion	Planned	555	by 2015
ENMARK	Dong Storage	Stenlille	Aquifer	Expansion	Under construction	90	by 2010
RANCE	Gaz de France	Céré La Ronde/Soings	Aquifer	Expansion	Planned	200	by 2013
RANCE	Gaz de France	Etrez/Manosque	Salt cavity	Expansion	Planned	200	by 2013
RANCE	Gaz de France	Hauterives	Salt cavity	New facility	Planned	100	by 2013
RANCE	Gaz de France	Ile-de-France Nord/Gournay	Aquifer	Expansion	Planned	300	by 2013
RANCE	Gaz de France	Trois Fontaines	Reservoir	New facility	Committed	80	by 2010
RANCE	TIGF	Izaute/Lussagnet	Aquifer	Expansion	Planned	240	by 2015
RANCE	TIGF	Pécorade	Reservoir	New facility	Planned	750	by 2015
ERMANY	EDF-EnBW	Etzel	Salt cavity	New facility	Planned	400	by 2010
ERMANY	EEG	Peckensen	Salt cavity	New facility	Planned	500	by 2015
ERMANY	E-On	Kiel-Rønne	Salt cavity	New facility	Planned	50	by 2015
ERMANY	EWE	Fluntorf	Salt cavity	New facility	Planned	150	by 2015
ERMANY	EWE	Nintermoor	Salt cavity	New facility	Planned	180	by 2015
ERMANY	EWE	Rudersdorf	Salt cavity	New facility	Planned	300	by 2015
ERMANY	Gas Union	Reckrod	Salt cavity	New facility	Planned	30	by 2015

- public information on storage projects across Europe
- Live July

www.gie.eu.com/gse/storageprojects/

Other policy developments

Government and European Energy Policy

Commitment to markets

Energy
White
Paper

Support for demand-side measures

"independently regulated, competitive energy markets, are the most cost-effective and efficient way of delivering our objectives"

"effective markets will ensure that the world's finite resources are used in the most efficient way and ensure that we make the transition to a low carbon economy at least cost. Further liberalisation of EU energy markets is an important part of this"

"the starting point for our energy policy is to save energy"

Are we already seeing the impact of environmental concerns? Peak electricity demand forecast for winter 07/08 is 0.5 GW lower than for winter 06/07.

European **"Third package"** of liberalisation legislation due 26 September 2007

What Ofgem is doing

GB Markets

SO Review

- Full review of electricity and gas SO functions and incentives
- Need for multi-year incentive schemes to increase long-term incentives
- Consultation in July

Distributed Energy

- Potential to increase security and reliability of supply
- Ensure fair treatment in network operation/regulation

Cash out Review

- Wide ranging review in 2007
- Aim to simplify current arrangements
- Industry input key (Mods P211/212)

Gas Quality

- Potential supply constraint
- Market participants need to consider need for investment
- Document just published

Demand Side Working Group

- Continue to identify barriers to demand side participation
- Strong focus on improving transparency

Smart Metering

- EWP included vision for universal smart meter roll out in medium term
- Government to consult

Gas contingency arrangements - introduction

Impact and implications for customers

Market arrangements

Commercial tools available

- Operation of OCM
- Commercial demand side response / interruption

Opportunities for customer / supplier response

Contingency arrangements

Commercial tools Restricted / removed

- Emergency stages apply
- Firm load shedding can occur

Command and control in force – less flexibility

Joint Response Team

Joint Response Team
Operates during contingency periods
Ofgem, DTI, HSE

Liaise with Network Emergency Coordinator (NEC)

Industry communications hub

Other developments in gas and electricity contingency arrangements

Gas

- **Emergency contact details**
– Best Practice Guidelines (gas forum)

- **DBERR Gas priority user consultation**
Final policy conclusions due end July

- **HSE Review of the GS(M)R Regulations**

- **Changes to the interruption regime**

- **Gas Emergency Cash-out modification**
- Modification Proposal 0149A - “Gas Emergency Cash-out Arrangements: Keeping the OCM open during a GDE”

Today – focus on customers

Options for Energy Buyers

Products and services:

- Suppliers
- Energy Managers
- Information Providers

Gas Contingency Arrangements

- New developments
- Risks and opportunities for your business

Winter 2007/08

- Outlook ahead

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