

Operational Overview

Nolan Robertson

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Agenda

Weather

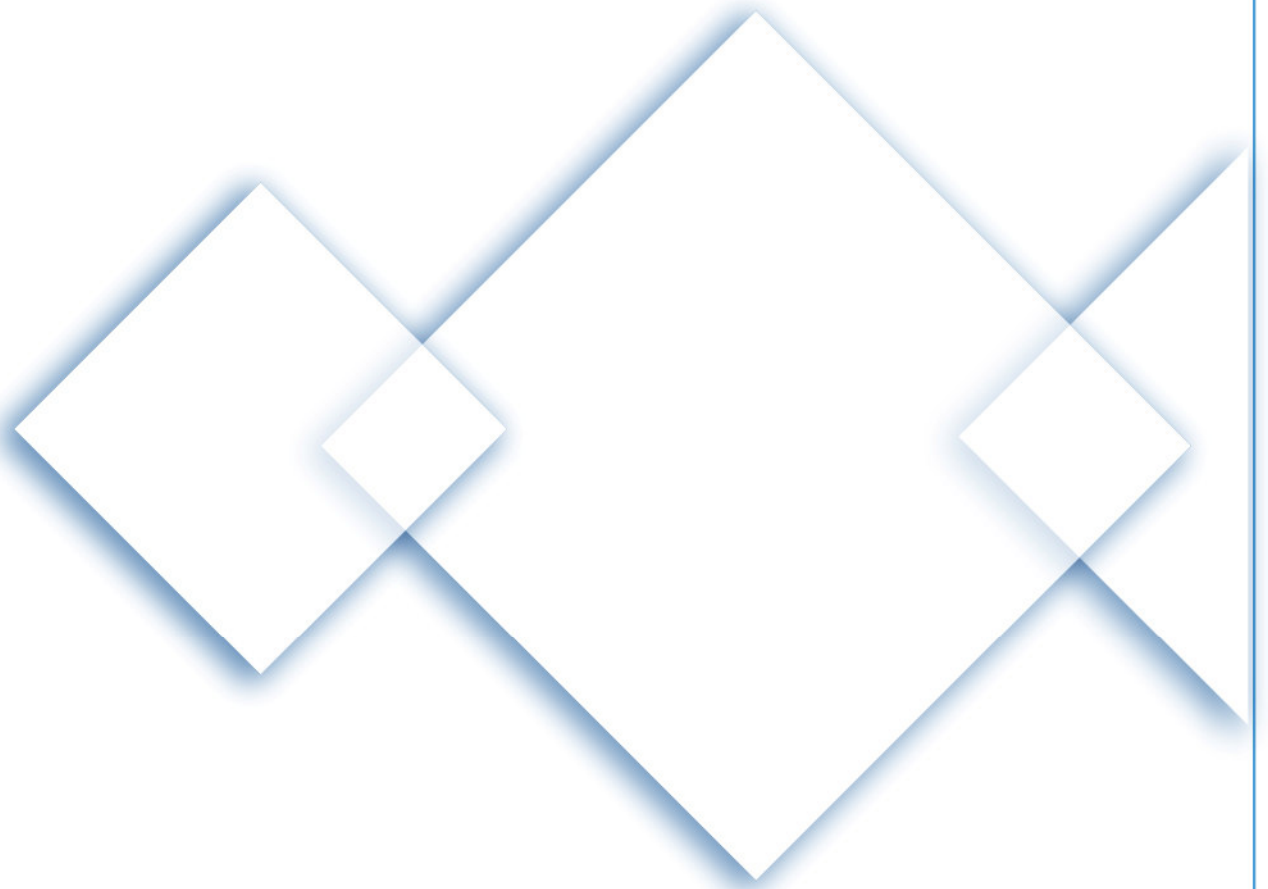
Demand

Supply & Storage

Market & Prices

Capacity

Throughput & Neutrality



Operational Overview

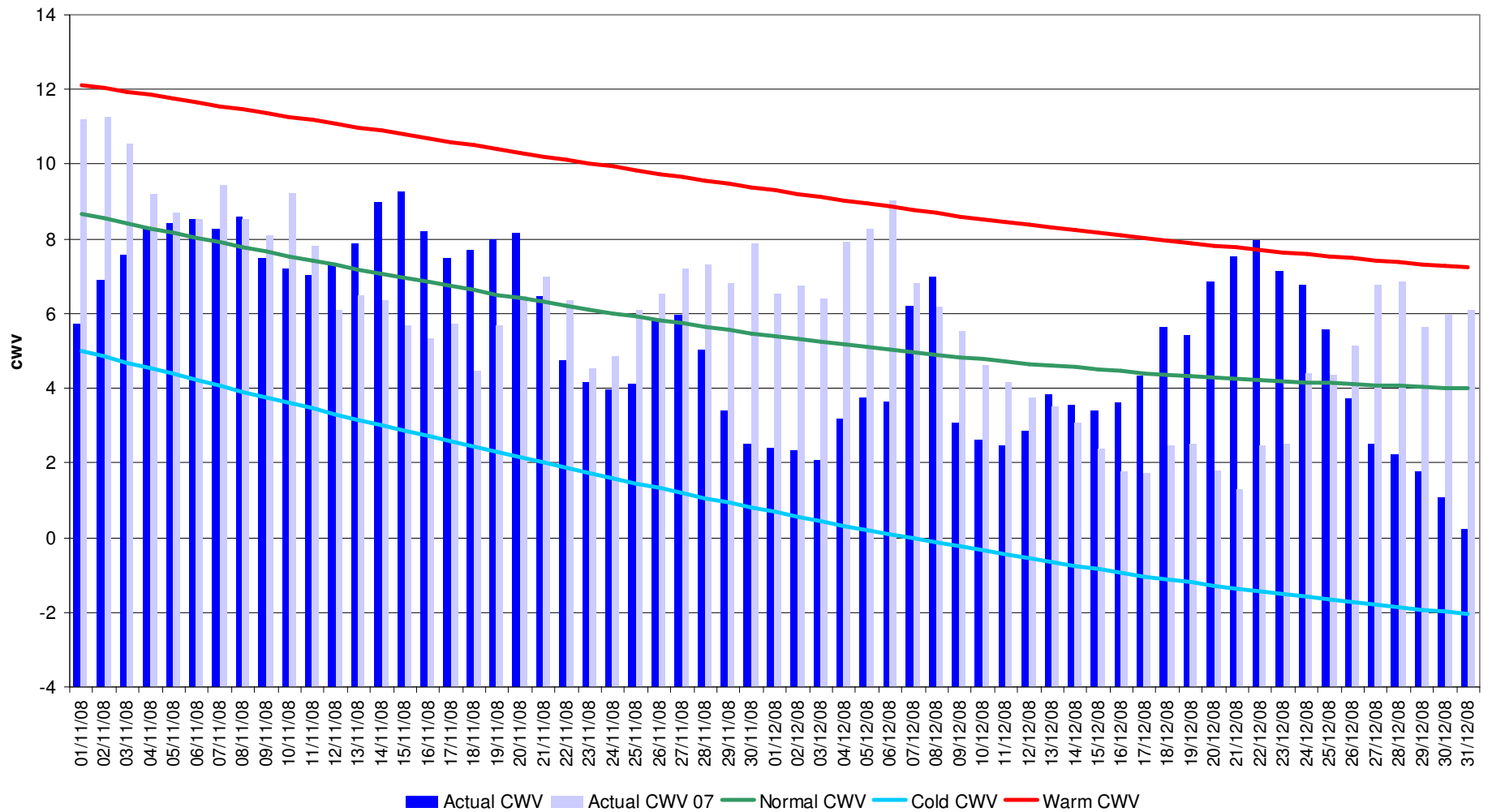
Weather

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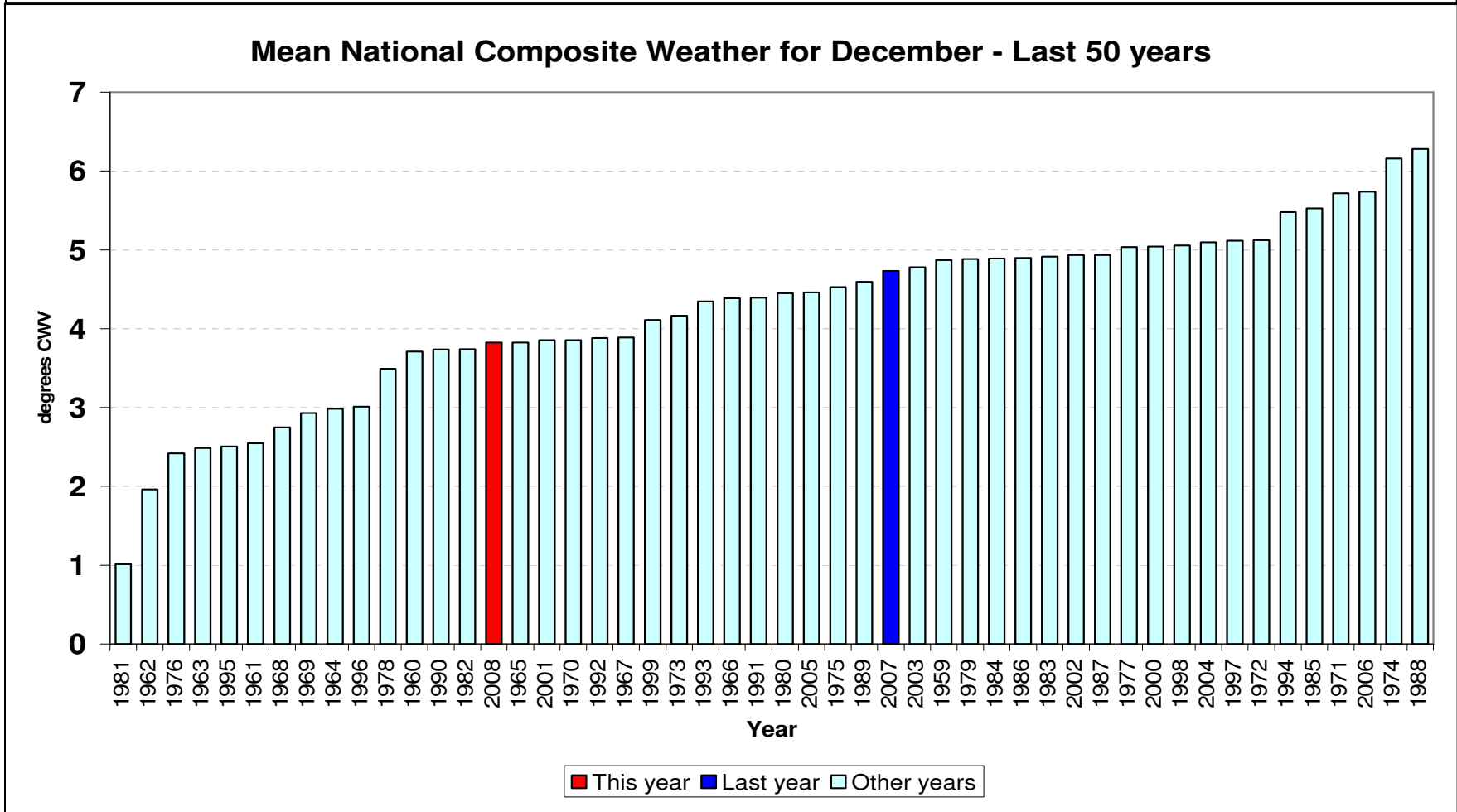
Composite Weather Variables

From 01-Nov-2008 to 31-Dec-2008



Weather

December 2008 was similar to December 2001, the coldest December since 1996.

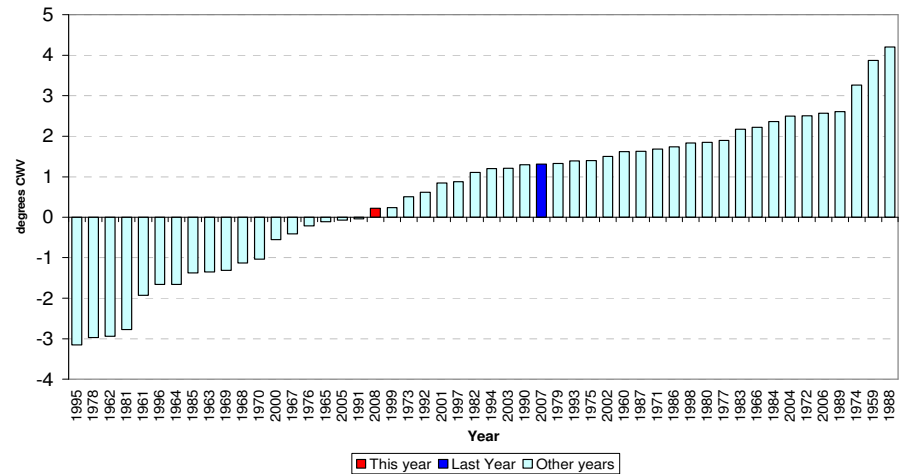


Weather

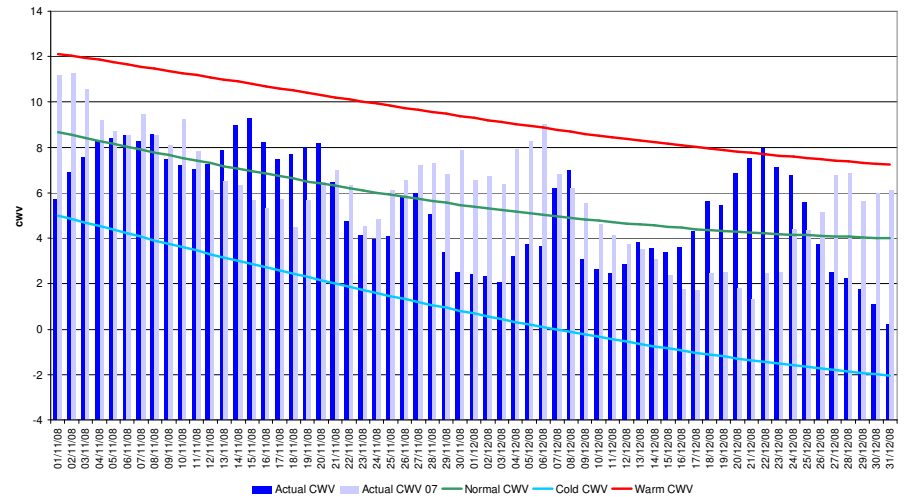
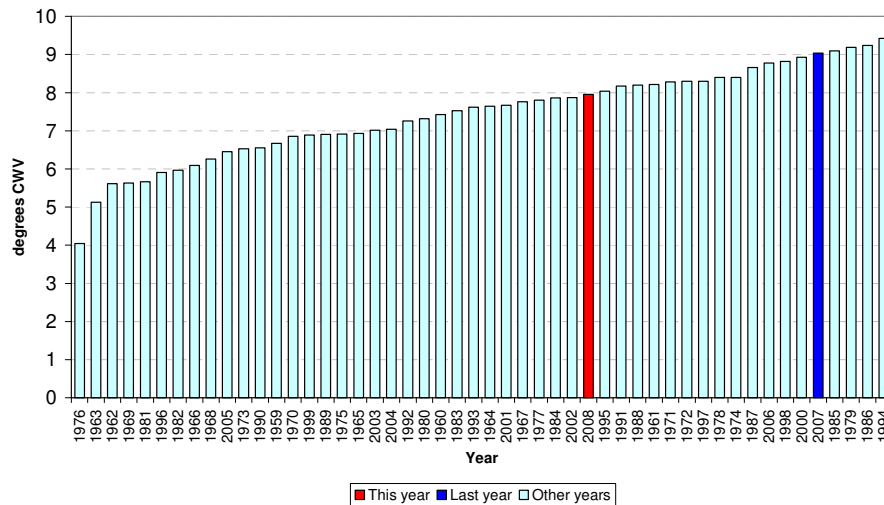
It was very cold throughout most of the month except for the week before Christmas.

Minimum and maximums were not exceptional. December 2008 is highlighted in red and December 2007 in blue.

Minimum National Composite Weather for December - Last 50 years



Maximum National Composite Weather for December - Last 50 years



December Weather Lookback



Provisionally, it has been the coldest December since 2001 for England and Wales, since 1995 for Northern Ireland, and since 1999 for Scotland.

Maximum temperatures were generally below average across the UK (and around 1.0°C below average across parts of Southern England). Minimum temperatures were lower than normal across the UK, by up to 2°C in some western areas.

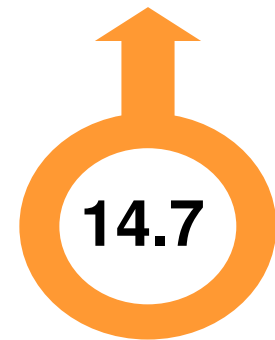
However, sunshine was above normal almost everywhere, and was approaching double the normal amounts in some areas of England.

Rainfall was below or well below normal in most areas, (at around 50% of normal over parts of England and Wales) except on the east coast of Scotland, where rainfall was 150% of normal levels for the area.

A Maximum instantaneous temperature of 14.7°C was recorded on the 20th at Westleton, Suffolk.

A Minimum Instantaneous Temperature of -12.9°C was recorded on the 29th at Aviemore, Highland.

Copley in County Durham recorded 21cm of lying snow at 0900 UTC on the 04th.



January Weather Forecast



UK

In the short term a cold and settled wintry regime looks to be very reluctant to loosen its grip, there are indications however that there will be a change through the middle of January, but the expectations are that this will not be an abrupt change, but a rather more gradual loosening of the current chill during the later stages of January.

The start of the month sees high pressure still in control of the weather pattern, sitting as a large and slow moving feature close to or atop the UK. Overnight hard frosts will persist in some areas throughout the day, with some sunny spells when overnight fog clears.

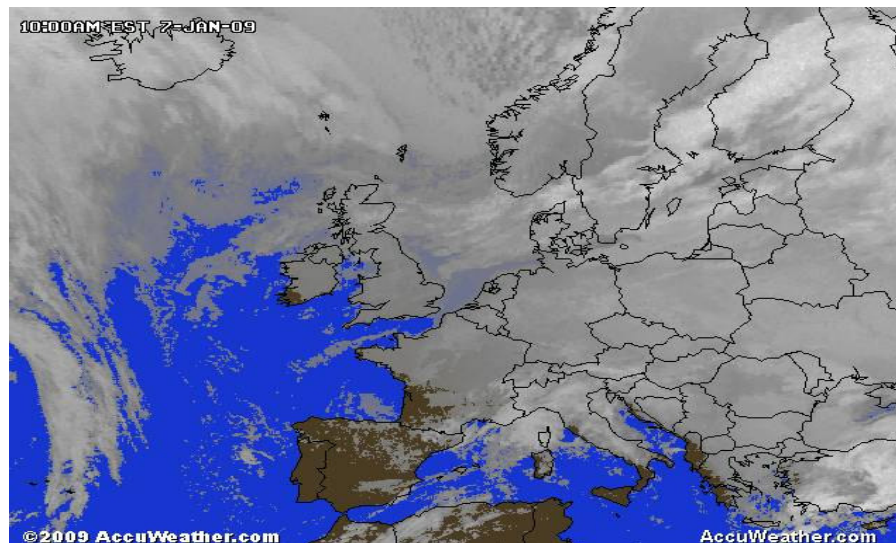
There is then likely to be a subtle change, with high pressure giving way to allow less cold air to be drawn up from the south. There may be misty and overcast conditions for a time as the milder air proceeds over cold ground.

Towards the later stages of the month, it is expected that conditions will become generally unsettled, with bands of rain and strong winds pushing through all areas.

Overall temperatures are expected to be slightly below average and precipitation should be generally below average.

Europe

Northern and Western Europe is expected to see generally cold and unsettled weather with above average snowfall. Moving eastwards, the weather is expected to be relatively mild at first, but it is expected that it will become colder with widespread snow later in the month. The Southern European Countries are expected to be cold at first, becoming increasingly mild later in the month.



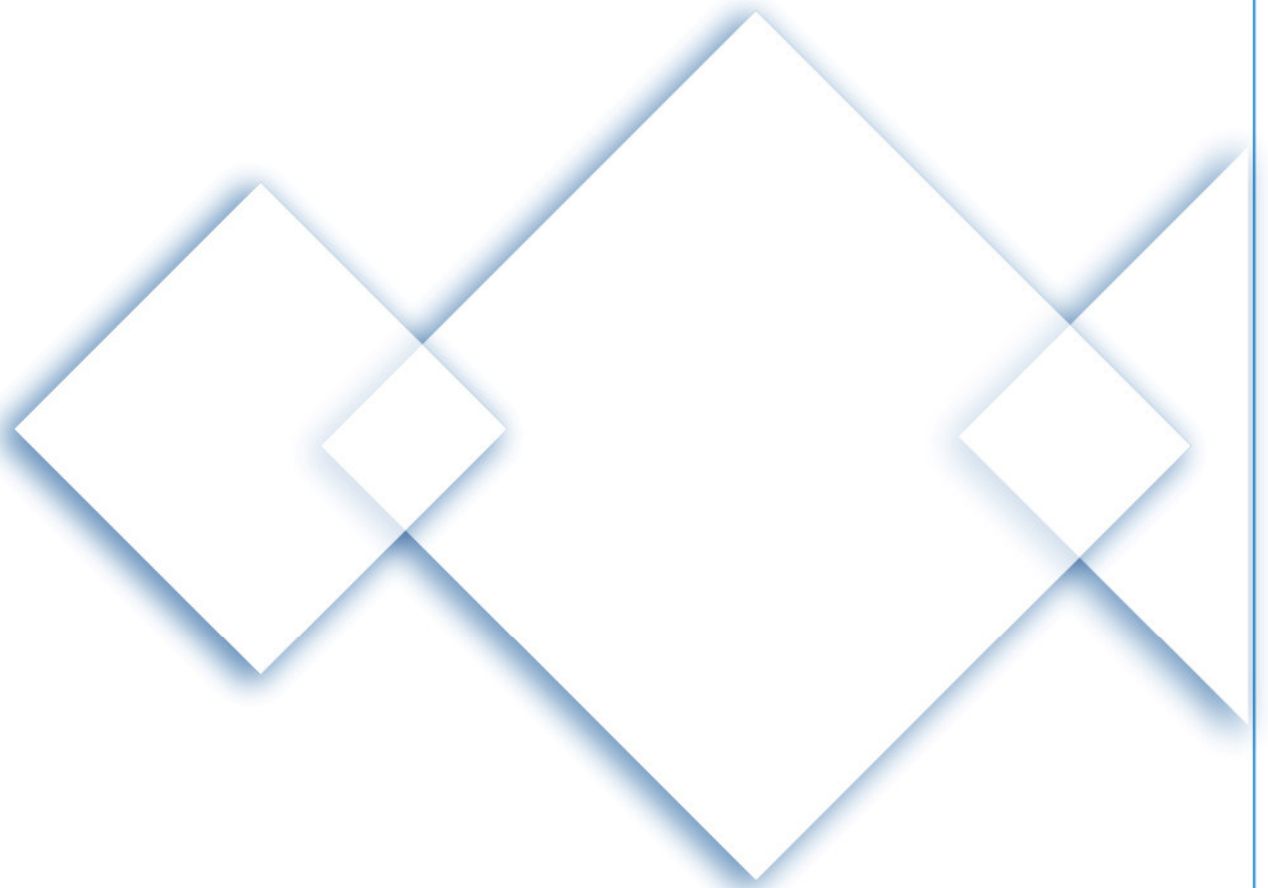
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Weather Summary Slide

December has been the coldest and driest since 2001.

- ◆ While temperatures have generally been below average across the UK for December, rainfall has also generally been below average, and sunshine has been well above normal levels, with some areas approaching double the normal levels of sunshine.
- ◆ CWVs have generally been below seasonal normal for most of the month, apart from a few days at the start of the month, and a particularly mild spell leading into the Christmas week (at seasonally warm levels).
- ◆ This mild spell was then followed by a particularly cold snap at the end of December, where CWVs have approached Cold Seasonal Levels.
- ◆ The start of January is expected to continue the cold patterns of December, but it is expected that conditions will become milder later in the month.



Operational Overview

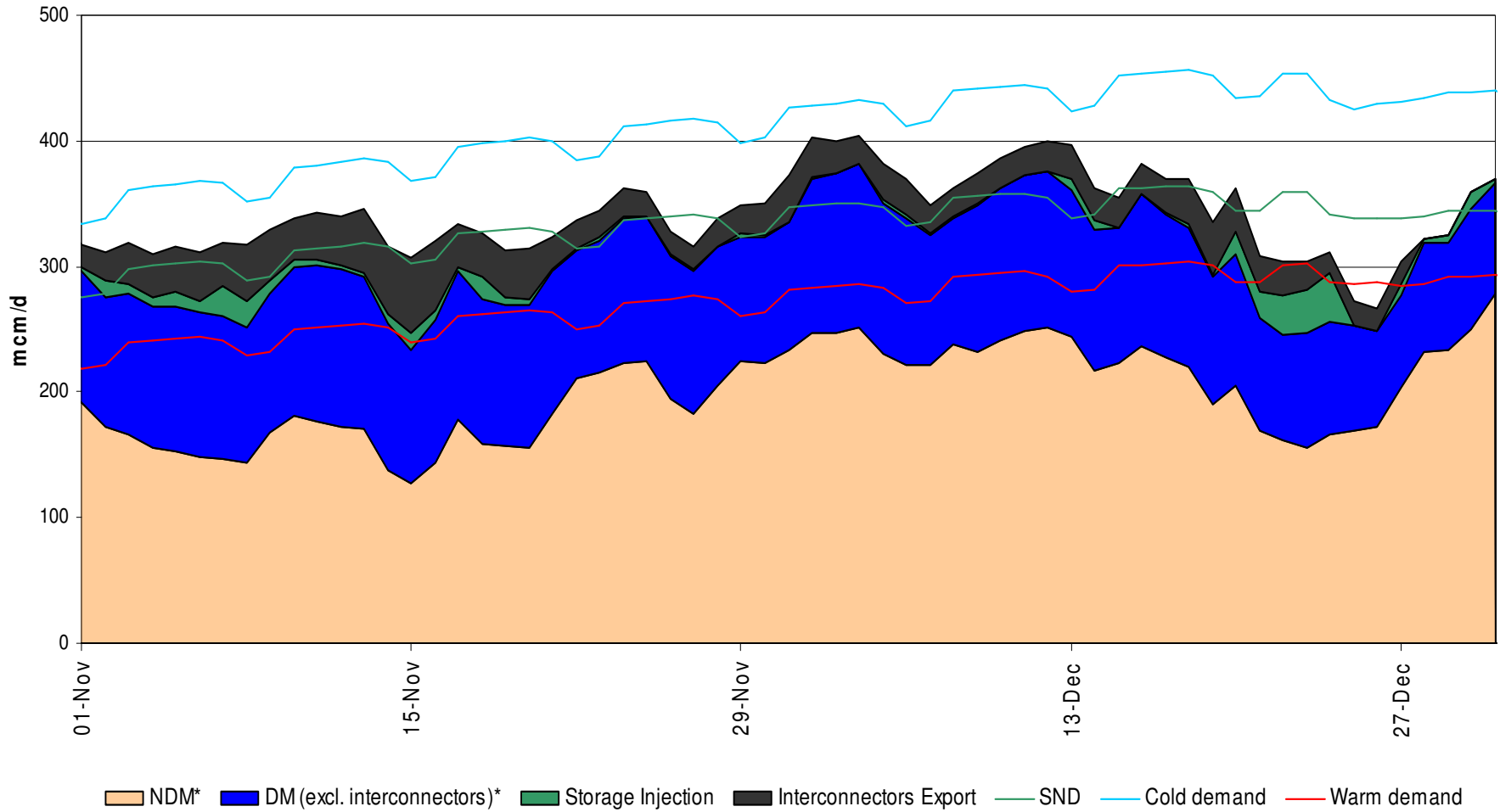
Demand

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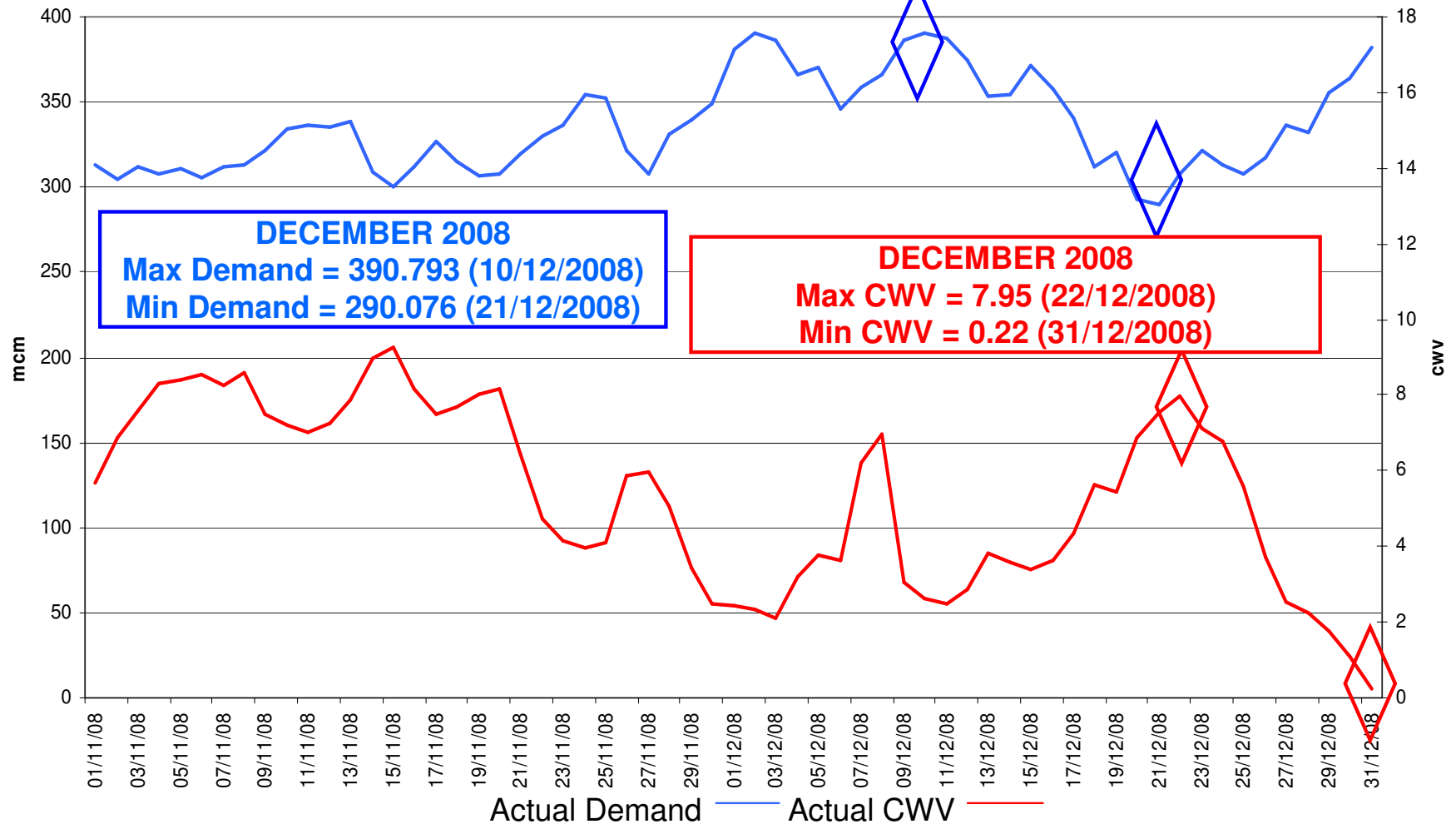
Gas Demand Breakdown

From 01-Nov-2008 to 31-Dec-2008



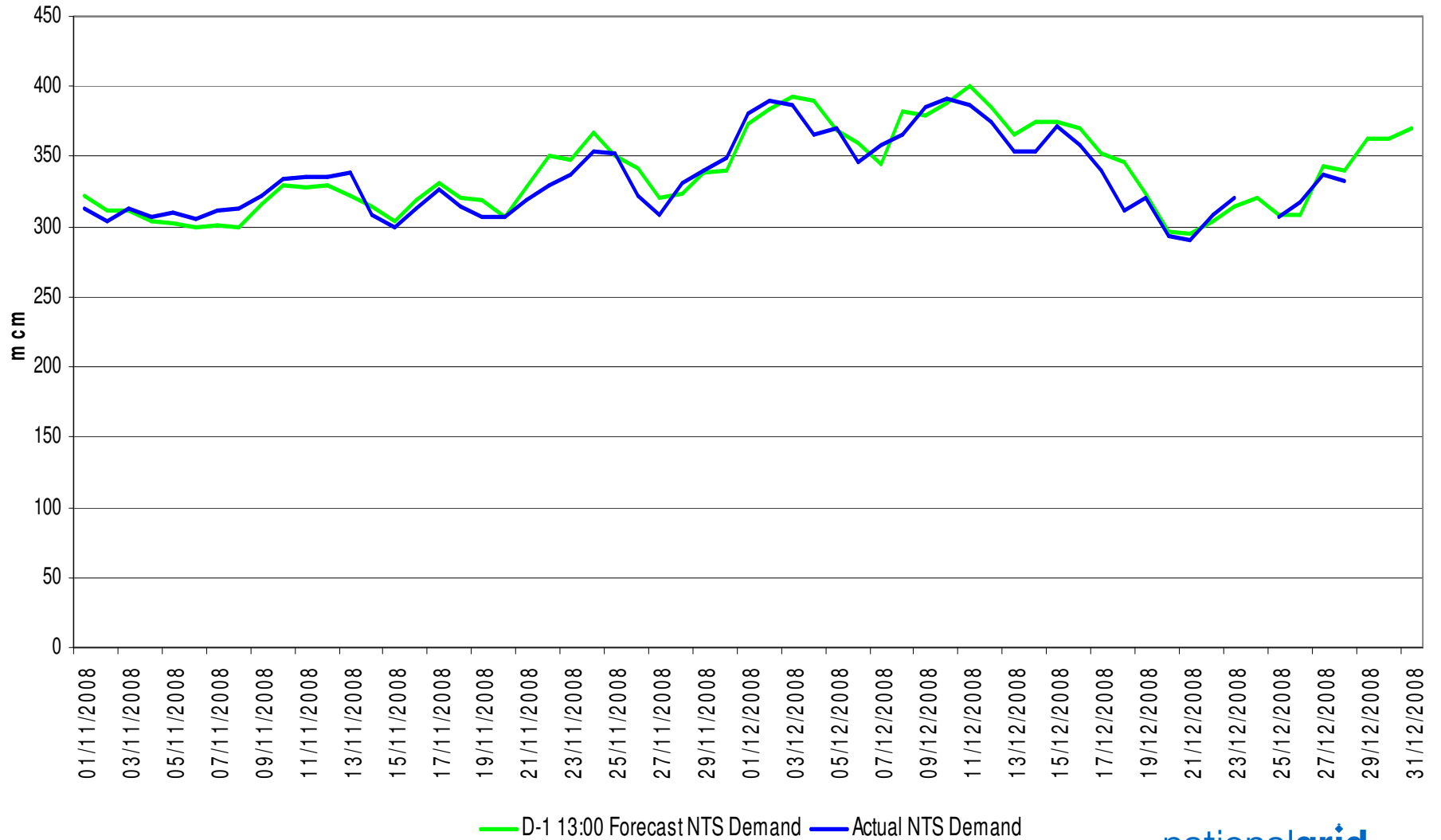
Actual CWV vs Actual Demands

From 01-Nov-2008 to 31-Dec-2008



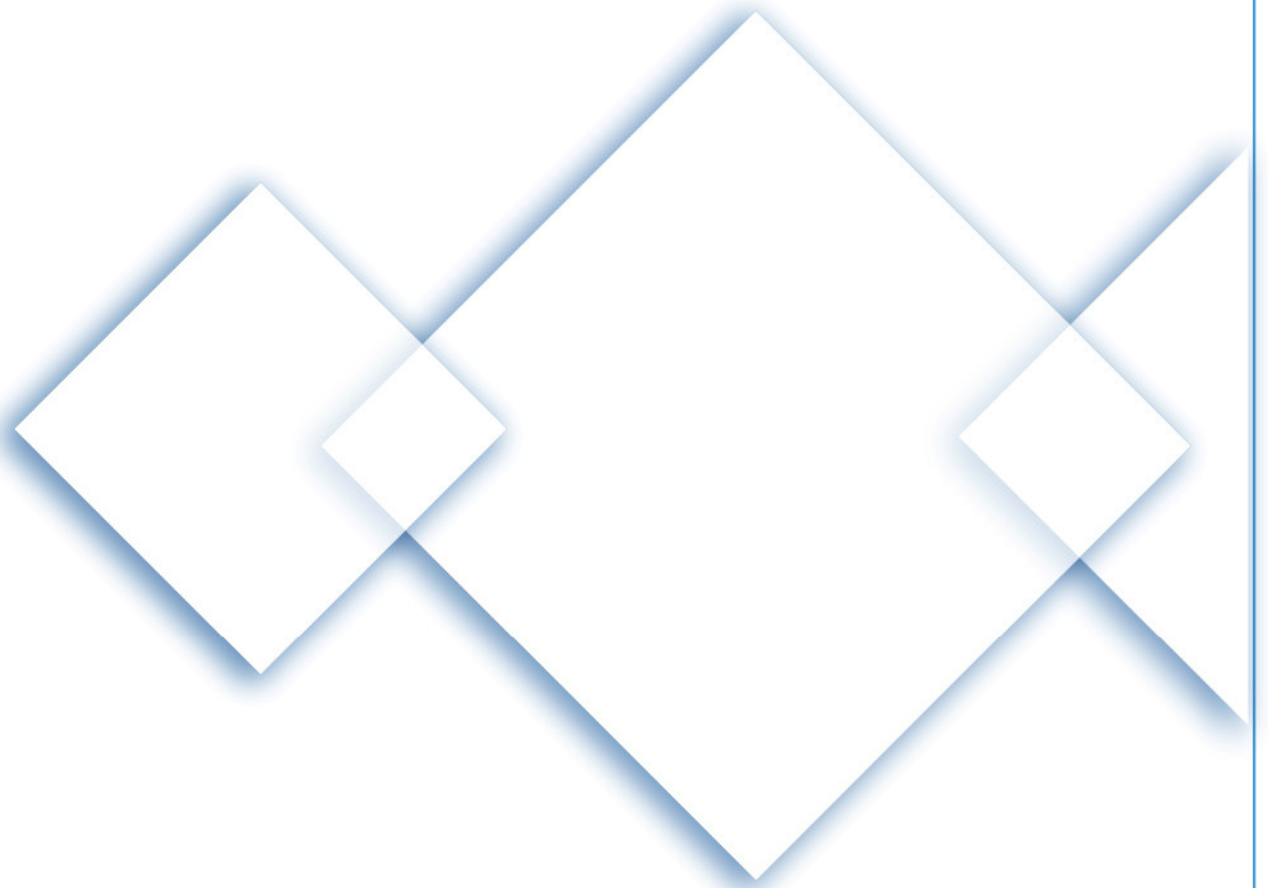
D-1 13:00 Forecast Demand vs Actual Demand

From 01-Nov-2008 to 31-Dec-2008



Demand Summary

- **Again, we can see the inverse relationship between CWVs and Demand, with changes in weather met by increases and decreases in Demand.**
- **High range of Demands in December, with a shift of 100 mcm in the space of 11 days towards the middle weeks of the month.**
- **Demand forecasting performance remains very good, despite the volatile shifts in weather.**



Operational Overview

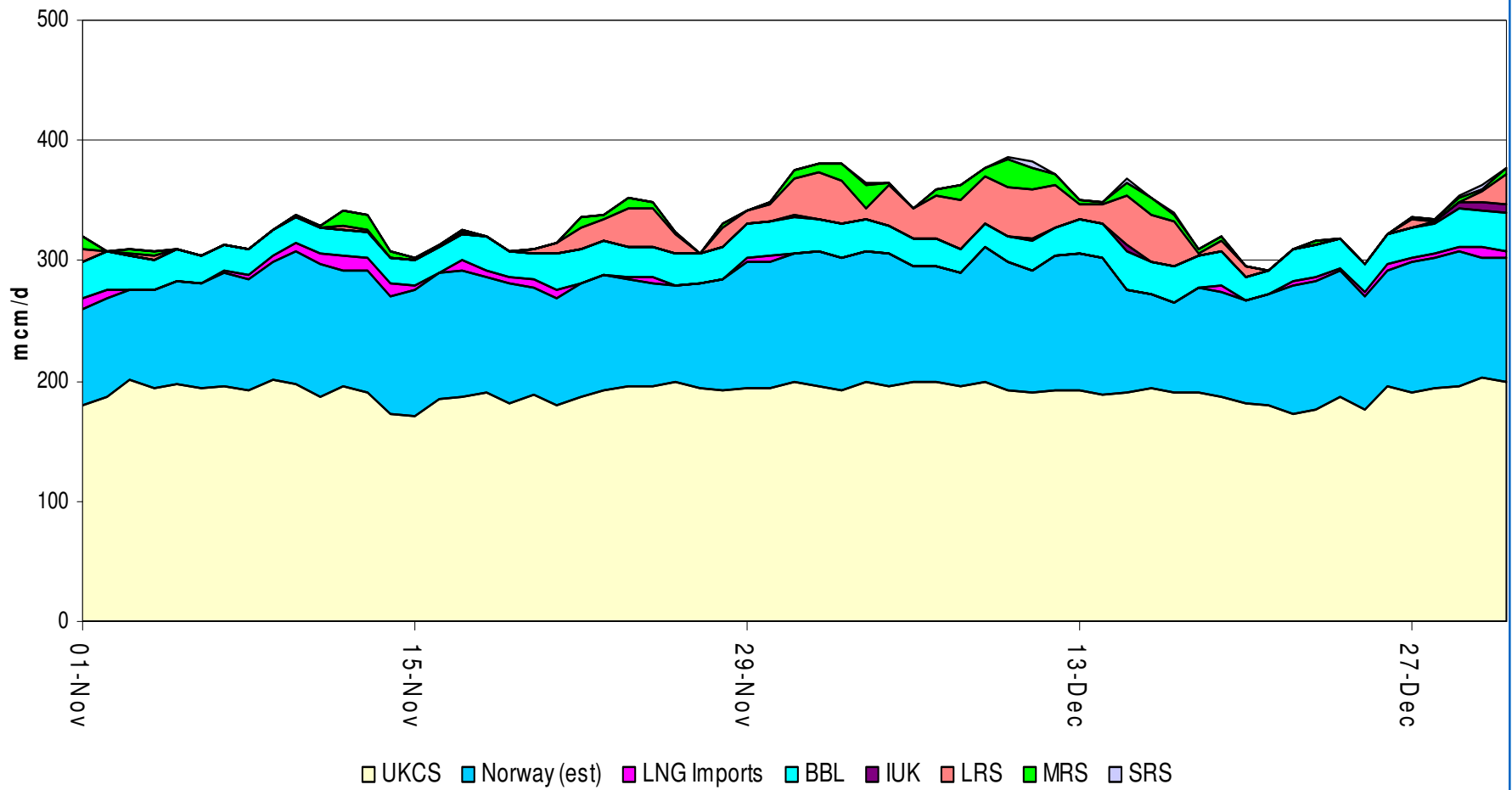
Supply and Storage

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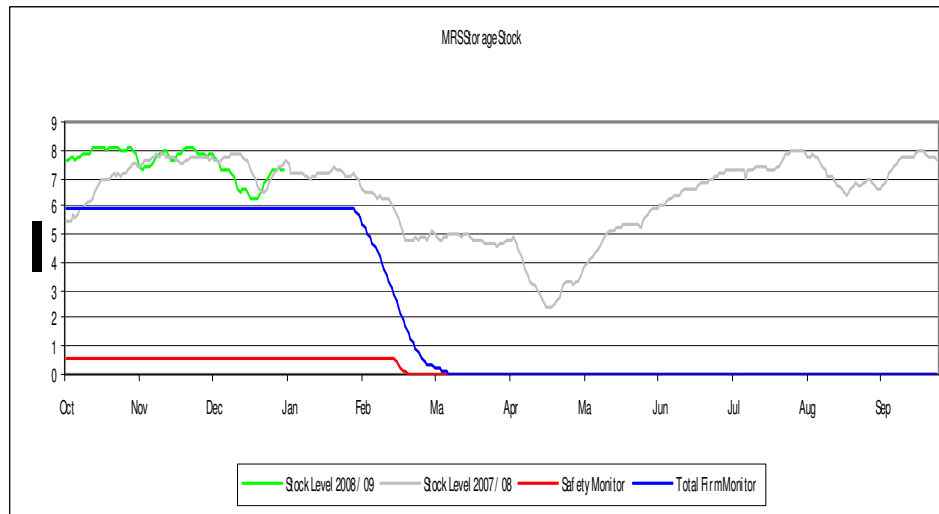
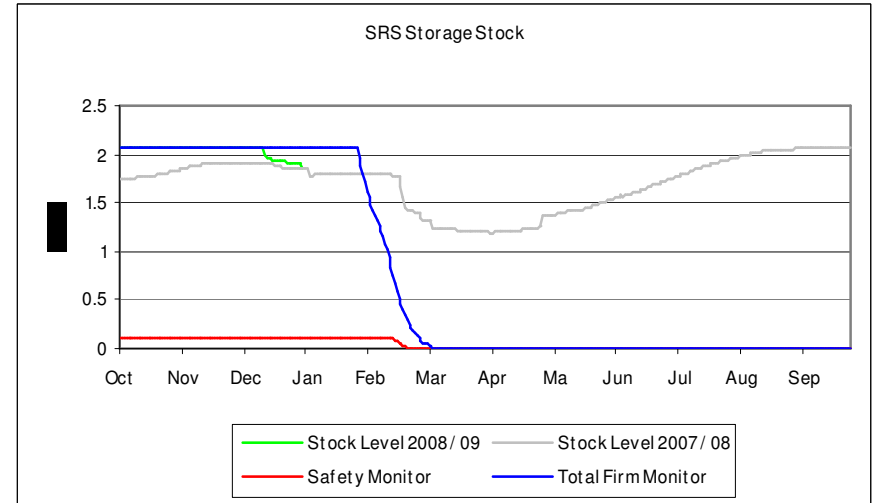
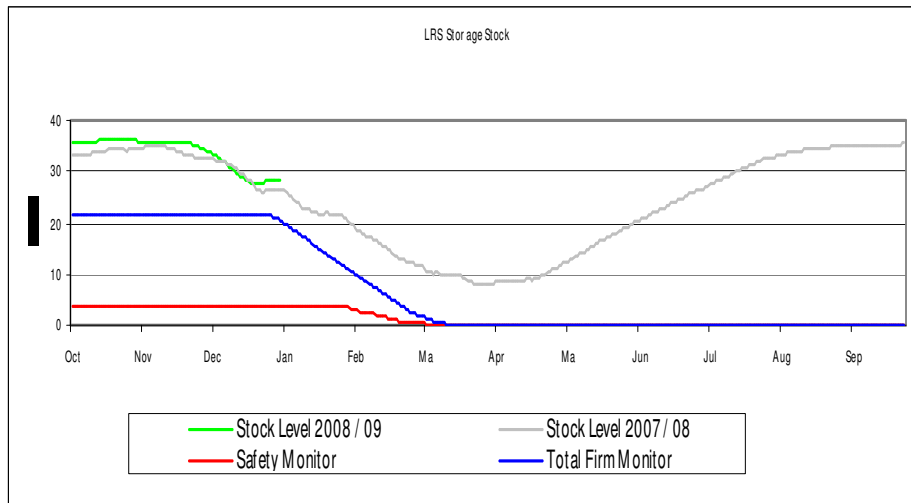
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Gas Supply

From 01-Nov-2008 to 31-Dec-2008



Storage Stocks



LRS: Rough is at similar stock levels to the same period last year, there was withdrawal towards the beginning and middle weeks of December.

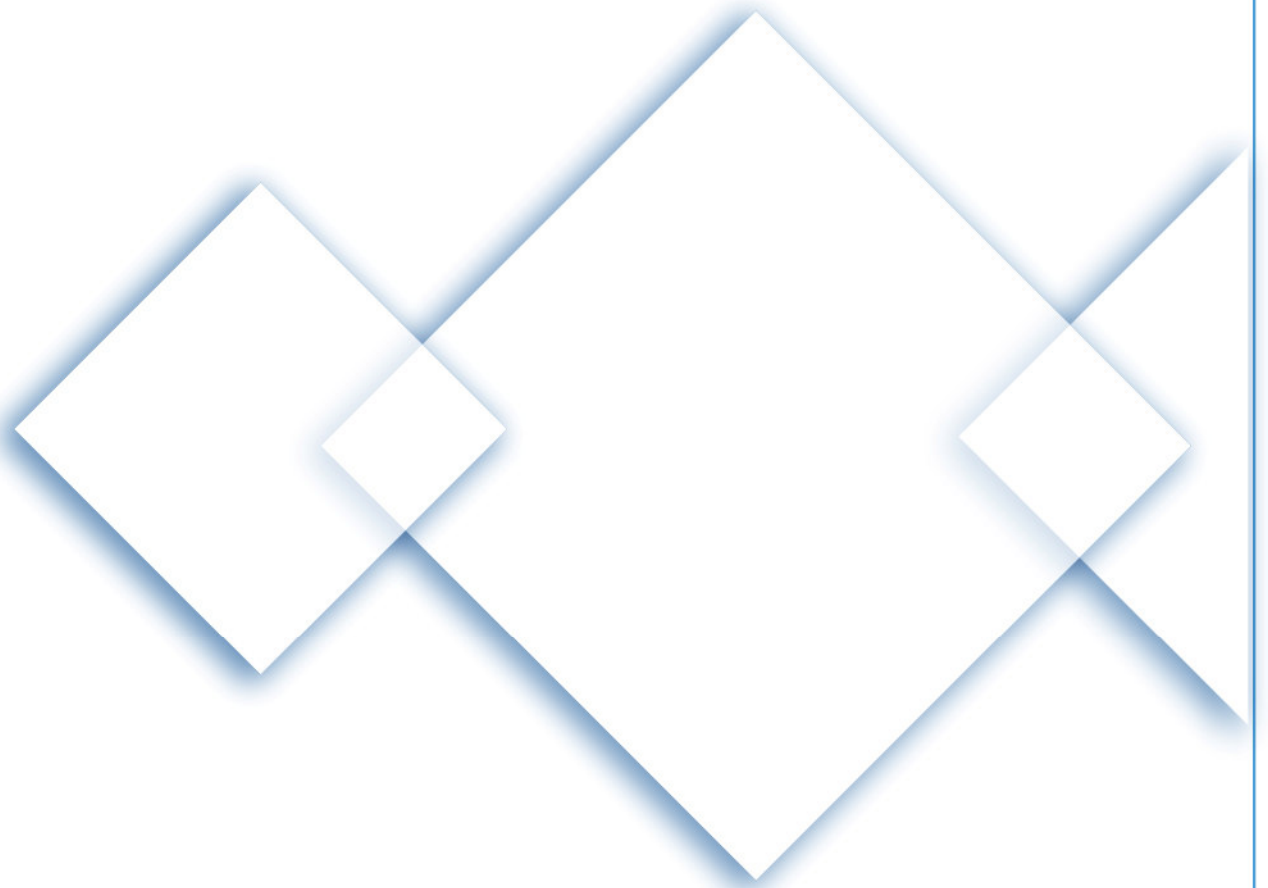
MRS: Some withdrawal towards the beginning and middle of December, offset by injections. Stocks are now similar to the same time last year.

SRS: Some small withdrawal in December. Stocks are at similar positions as last year.

Supply and Storage Summary Slide

- UKCS and Norway supplies were again reasonably steady throughout the month, there were some Storage Withdrawal from LRS and MRS at the high demand periods. Very small IUK Supply flows during the late December cold snap.

Storage stock levels still look reasonably healthy, despite the withdrawals at the peak demand periods. MRS Withdrawals have been offset by Injection during the mild pre Christmas period.



Operational Overview

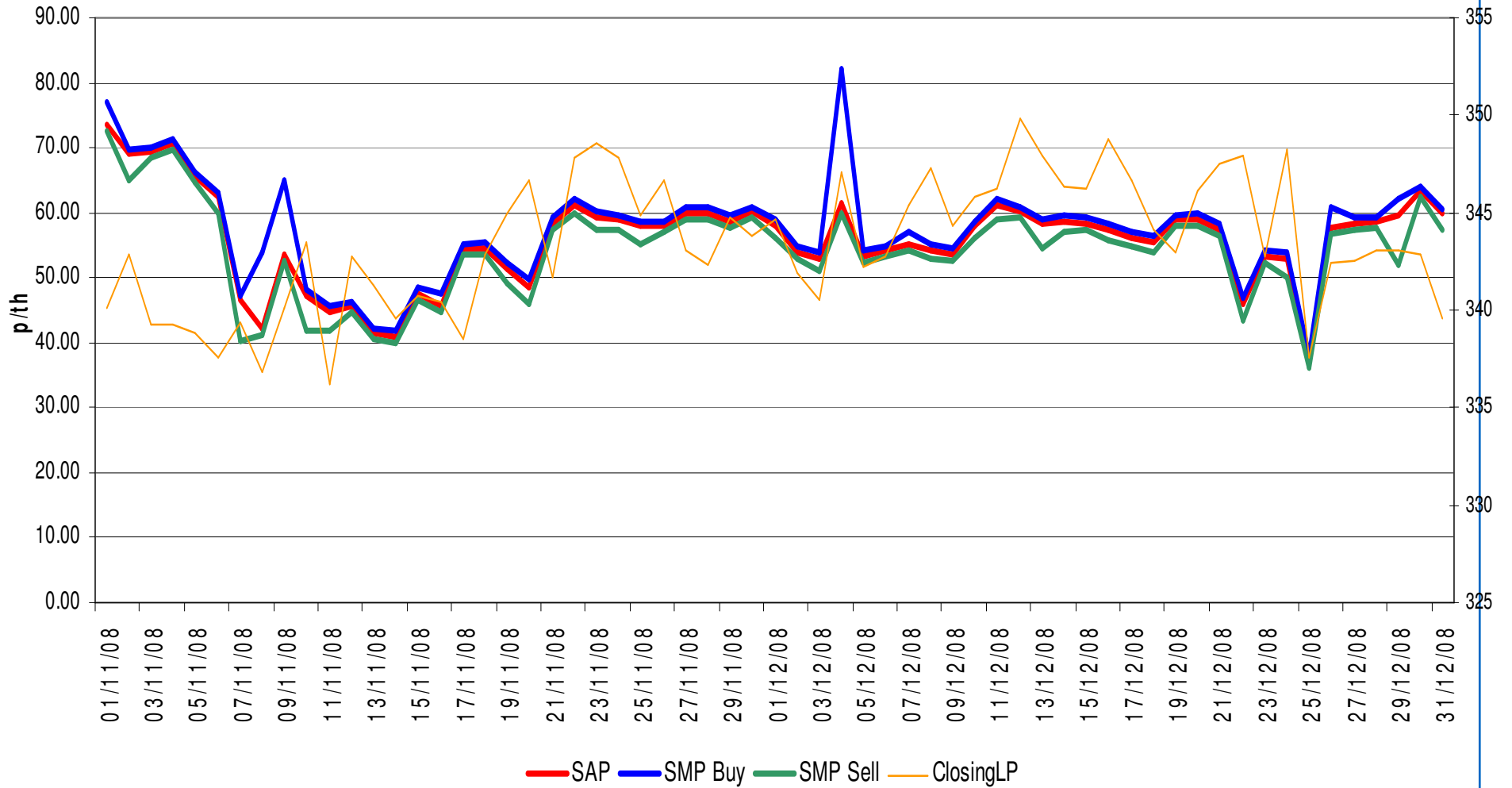
Market and Prices

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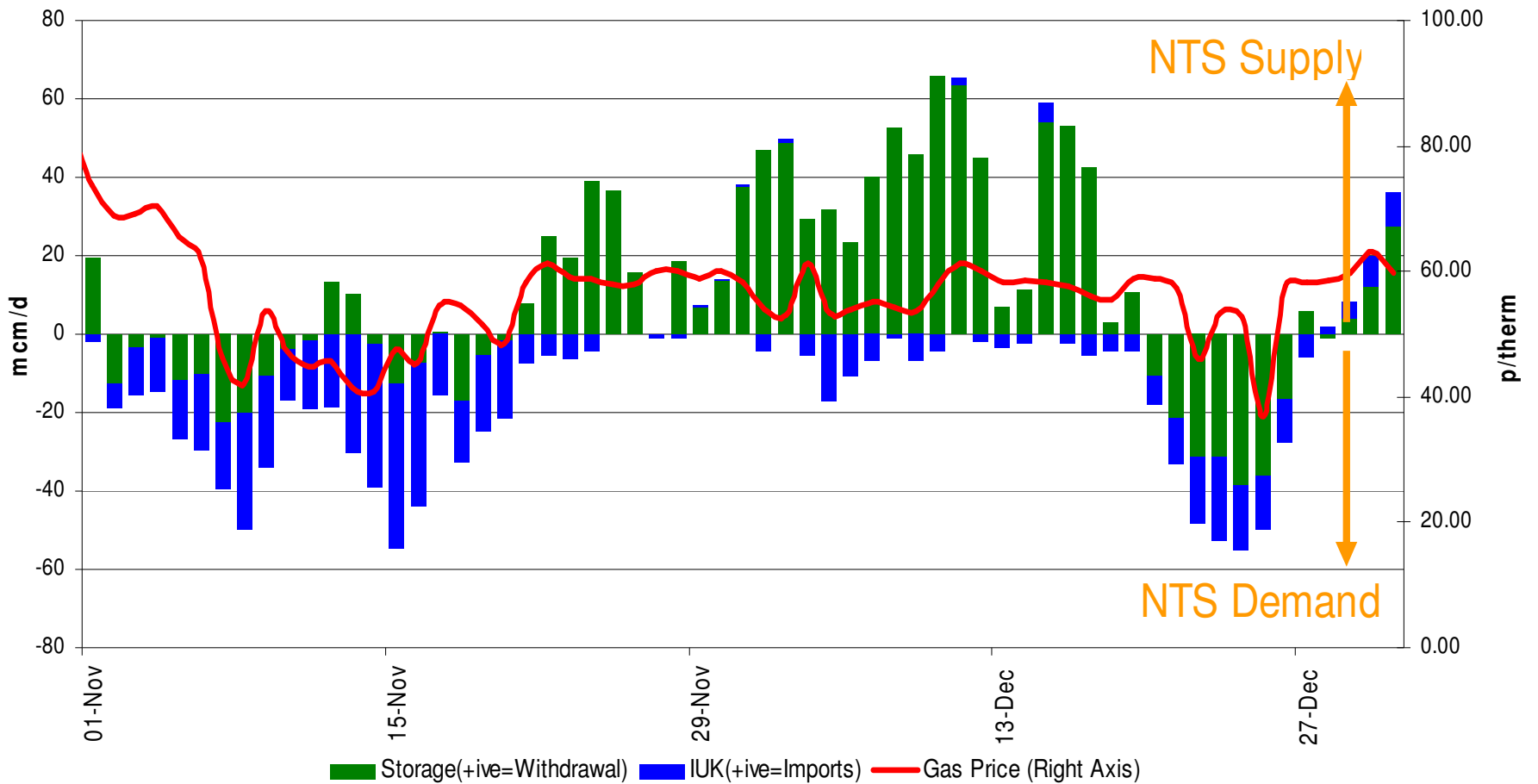
System Prices

From 01-Nov-2008 to 31-Dec-2008



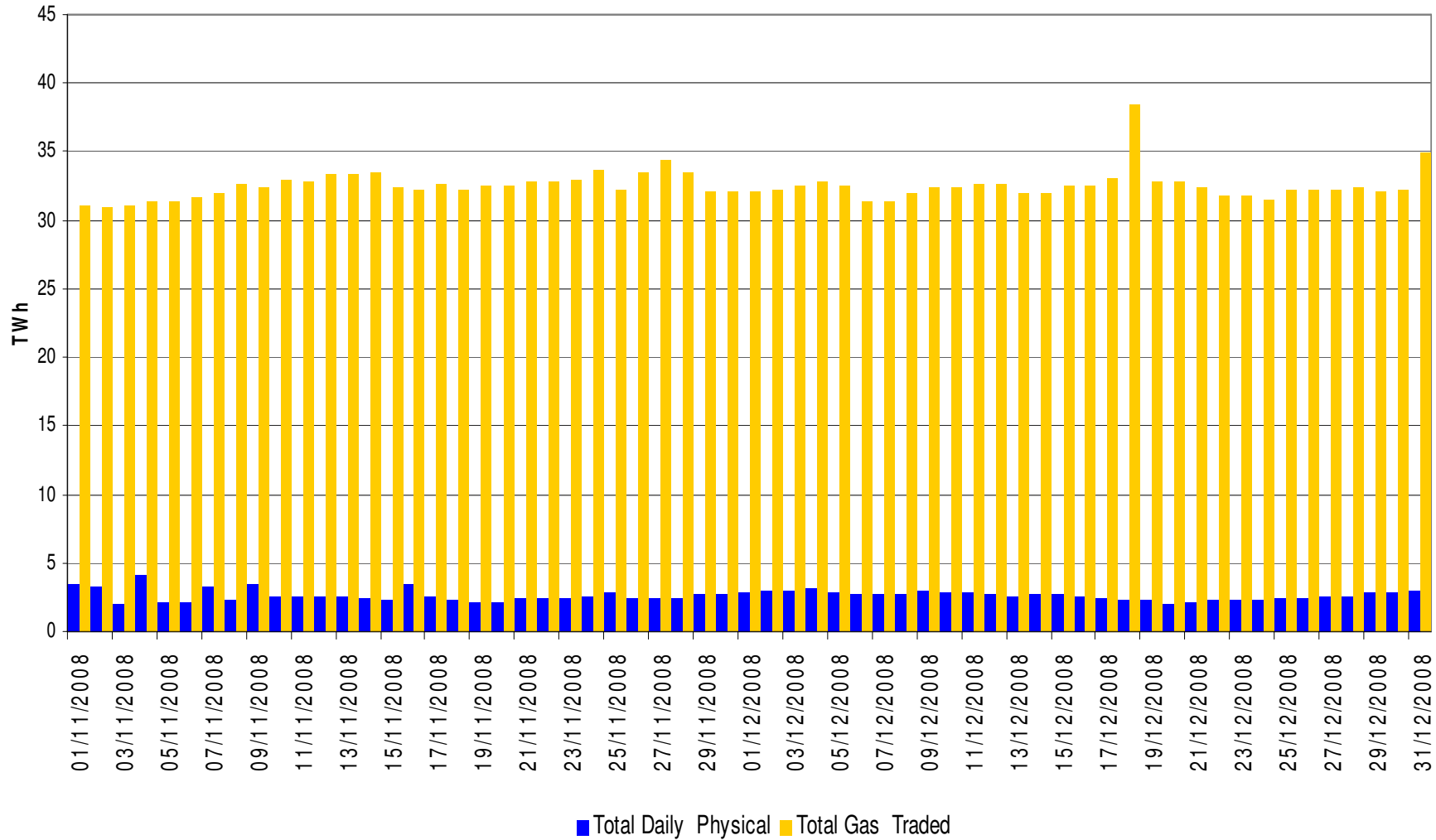
Price vs I(UK) & Storage Outturn

From 01-Nov-2008 to 31-Dec-2008



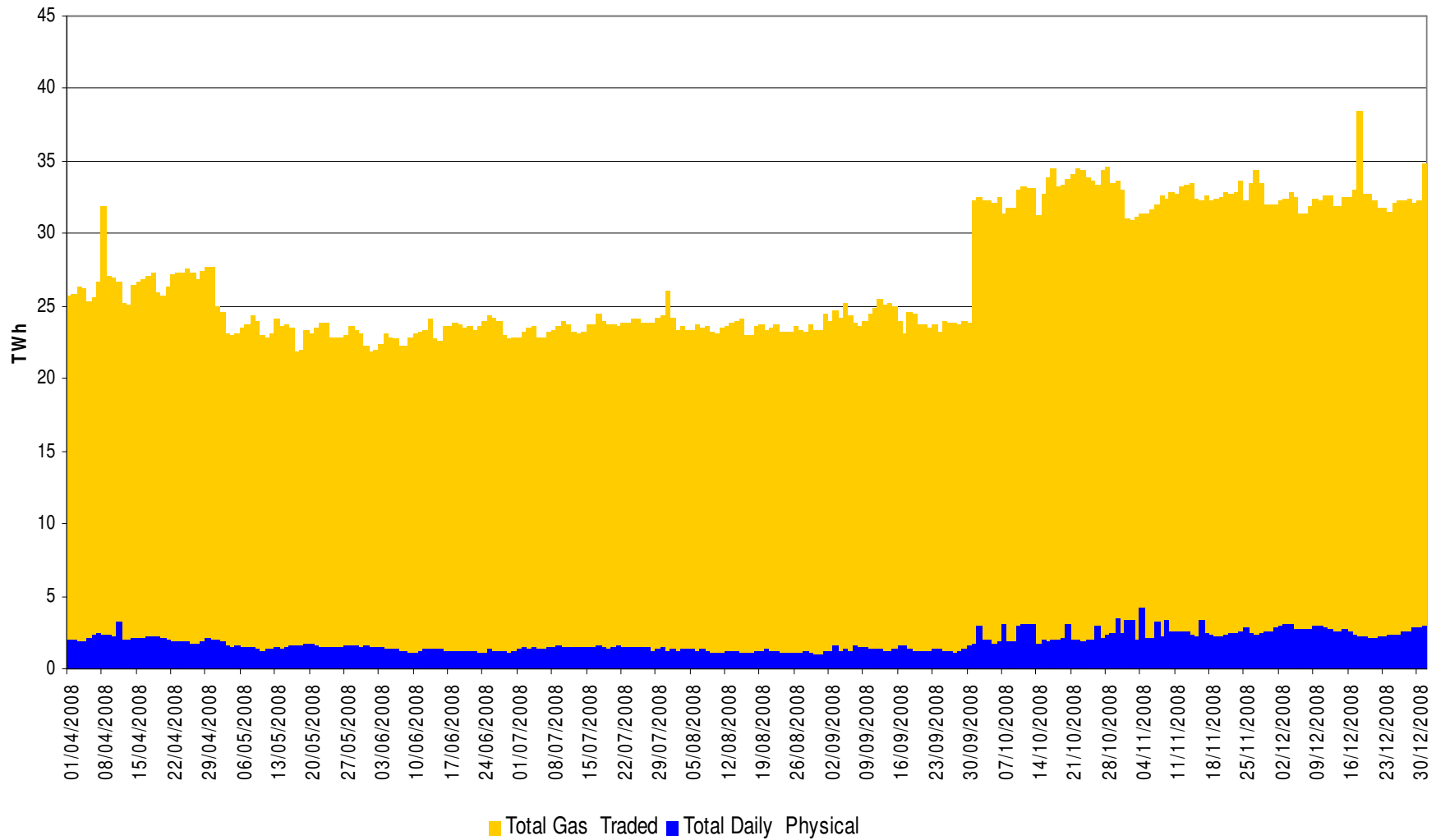
All NBP Trades vs NBP Gas Flows

From 01-Nov-2008 to 31-Dec-2008



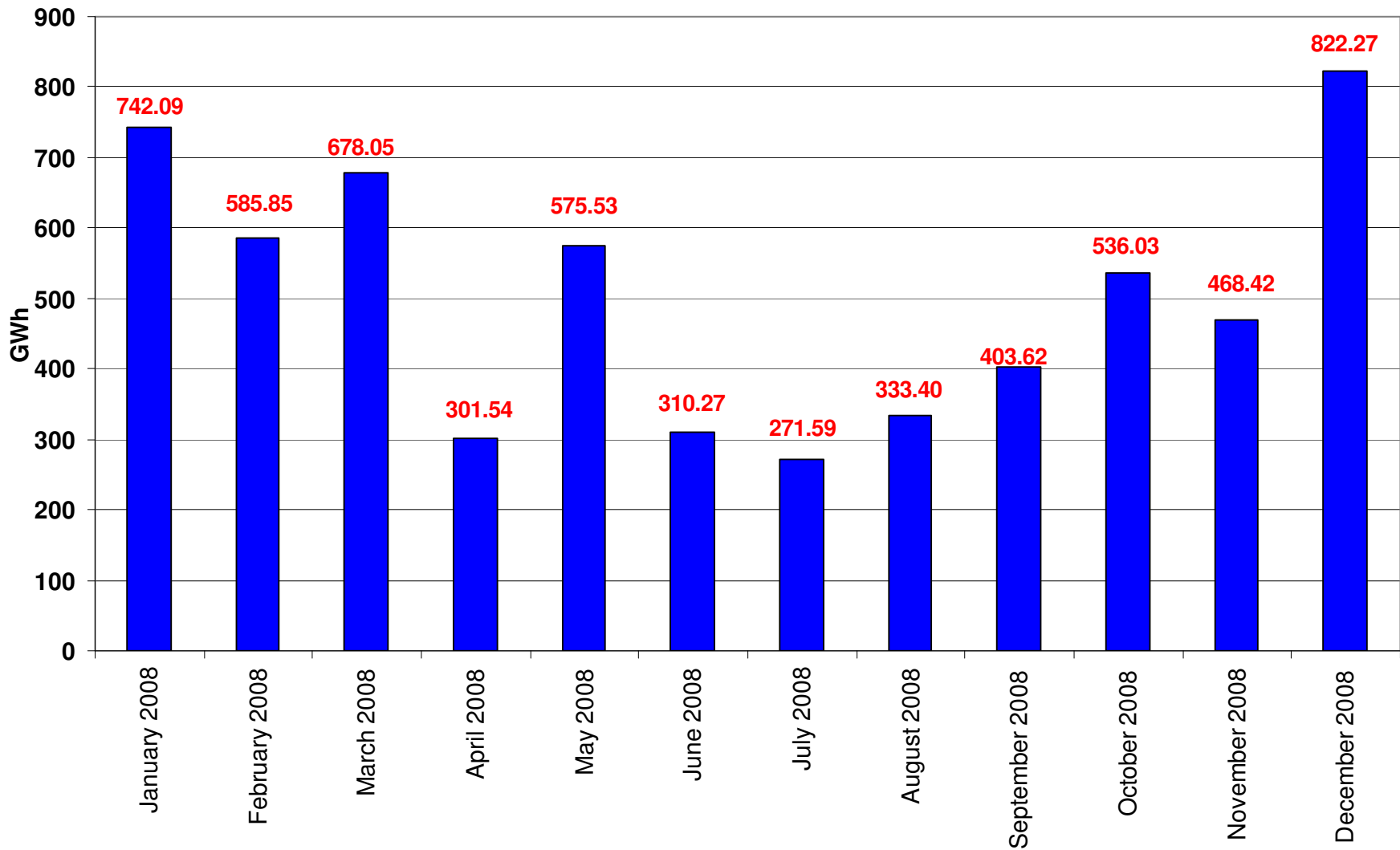
All NBP Trades vs NBP Gas Flows

From 01-Apr-2008 to 31-Dec-2008



Transporter Energy Traded on the OCM – By Market

From Jan-2008 to Dec-2008



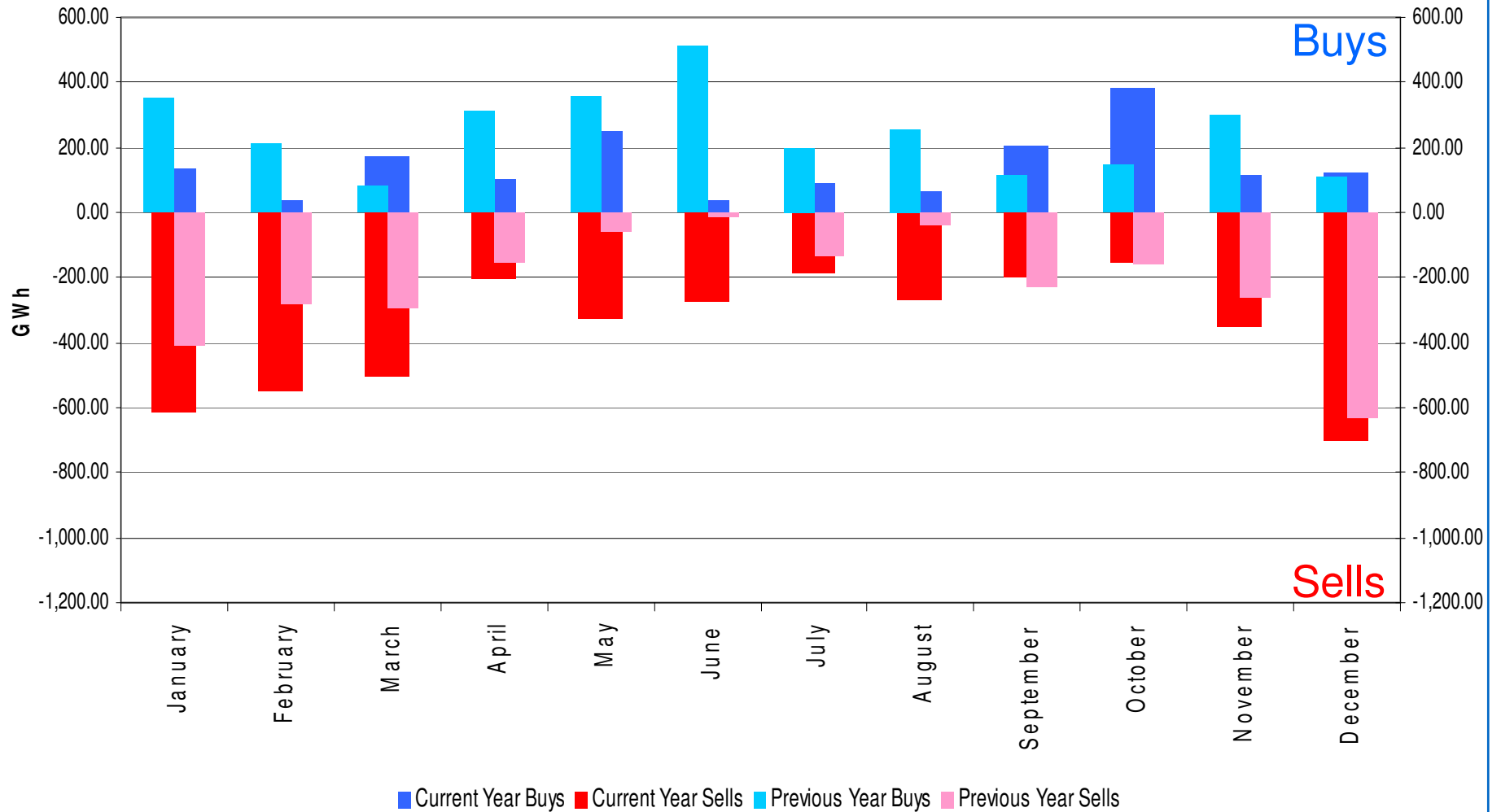
■ Locational for Locational Reasons ■ Locational for Price ■ Physical ■ Title

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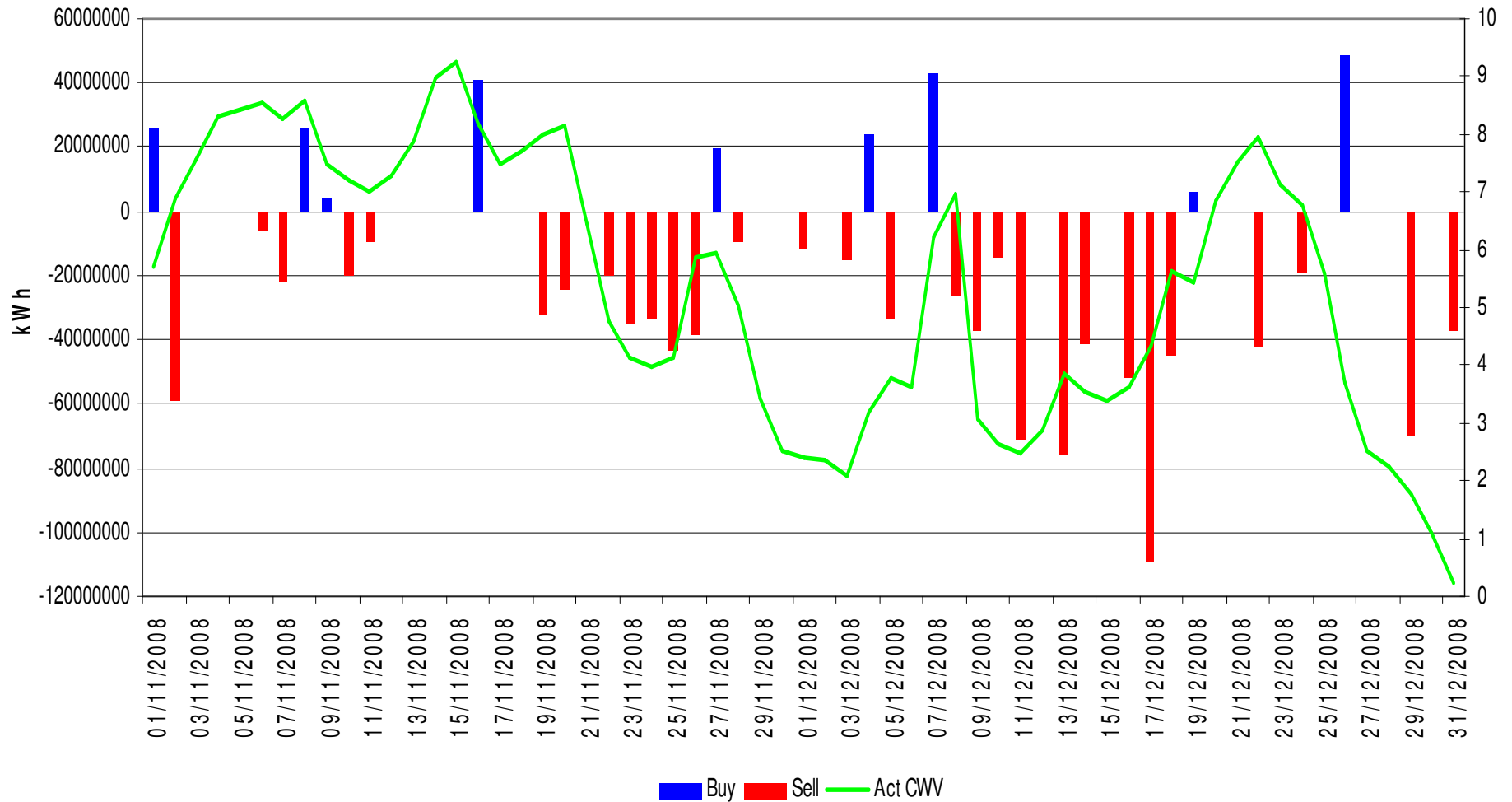
Transporter Energy Traded on the OCM – Buys / Sells

Comparison between 2008 and 2007 – Jan to Dec



Transporter Energy Traded on the OCM – Buys and Sells by Day

From 01-Nov-2008 to 31-Dec-2008



Days of Default SMP Prices

From 01-Dec-2008 to 31-Dec-2008

Percentage of Days of Default SMP

December 2008

SMP Buy

SMP Sell

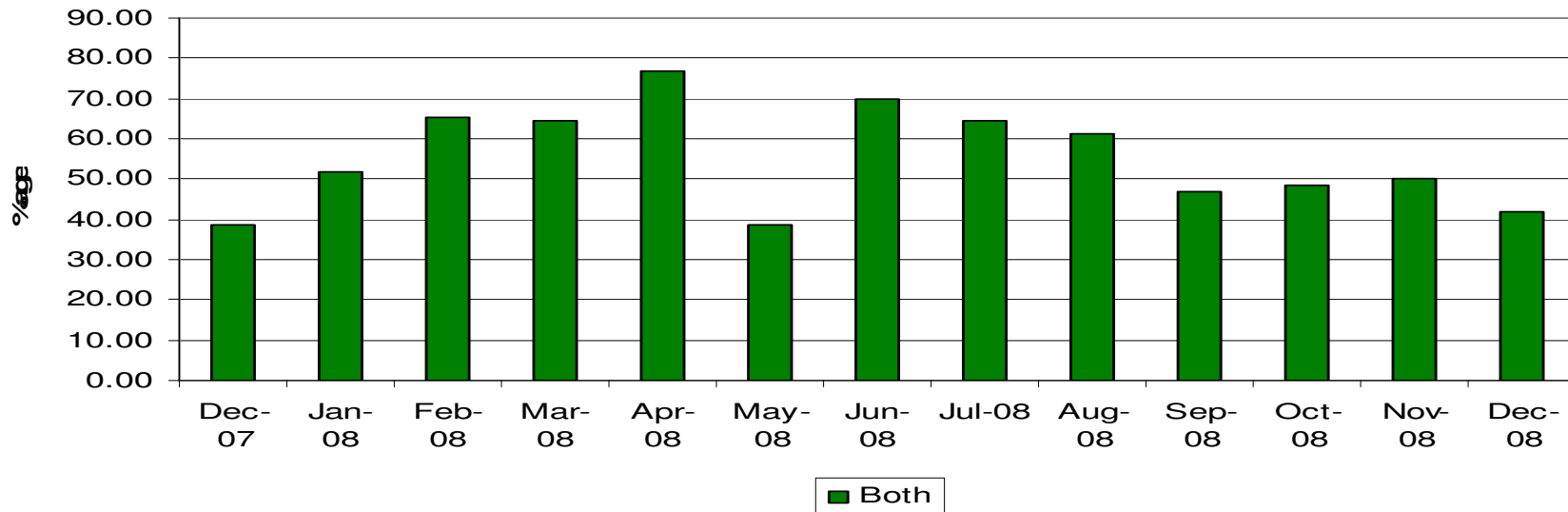
Both

83.9%

51.6%

41.9%

Days Of Default SMP



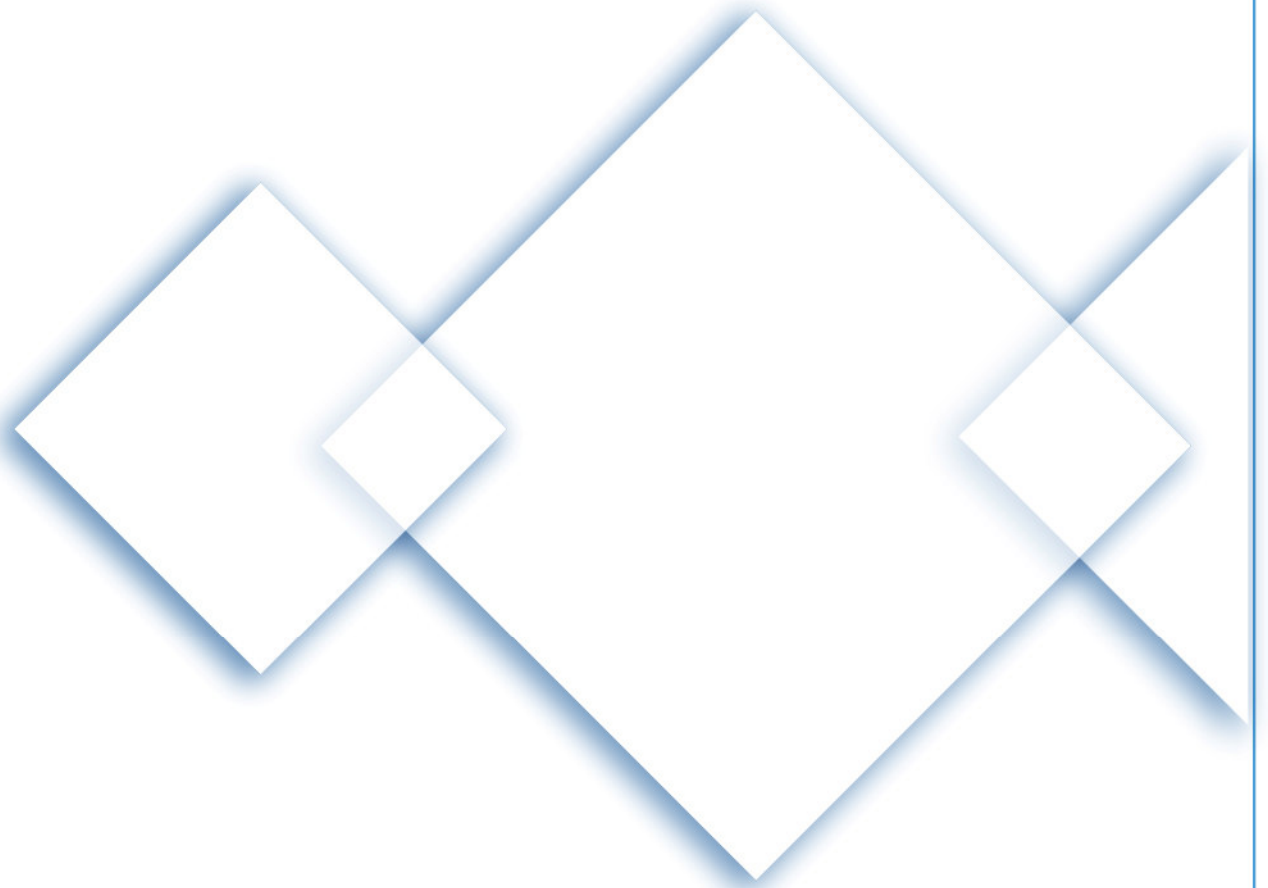
Market & Prices Summary

Prices have remained reasonably steady over most of December, staying at around the 60 p/therm mark throughout.

National Grid were very much a net seller in December, as has been the case in previous years.

NBP trade volumes were reasonably consistent.

There was more gas traded by National Grid in December 2008 than the same time last year, although the pattern of these trades remains consistent.



Operational Overview

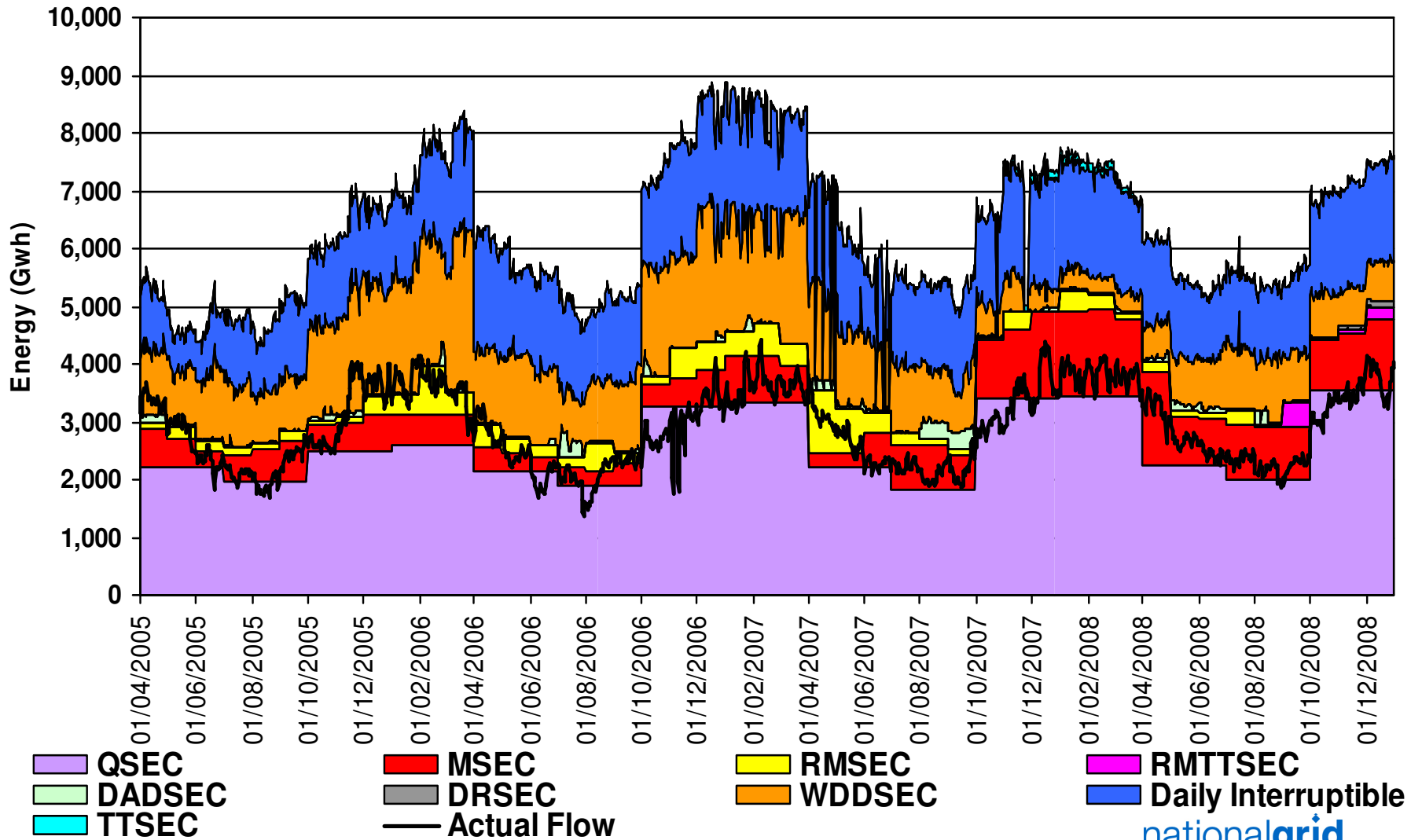
Capacity

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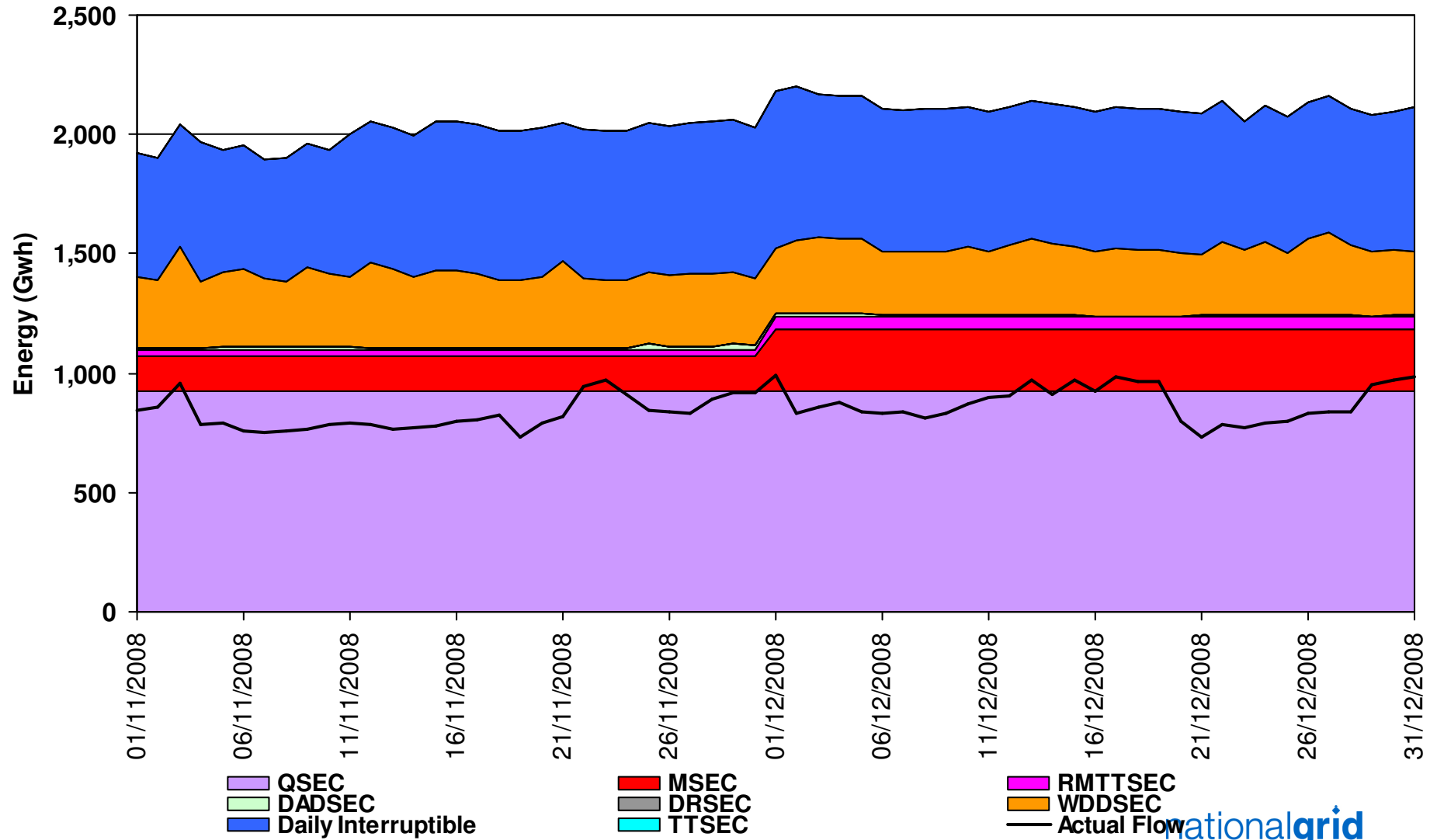
Capacity Sold vs Actual Flows (For the 6 Major ASEPS)

From 01-Apr-2005 to 31-Dec-2008



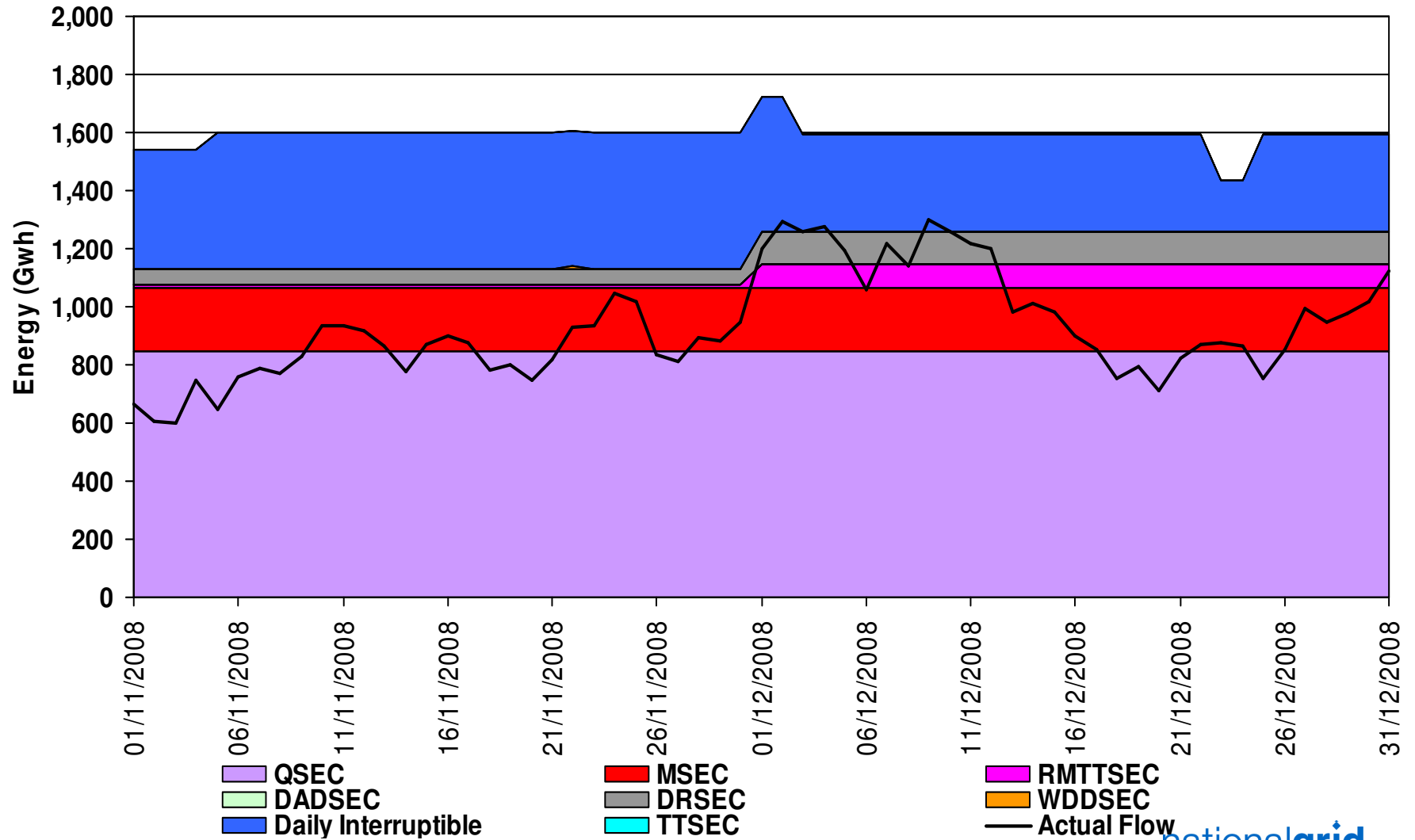
Bacton – Capacity Sold vs Actual Flows

From 01-Nov-2008 to 31-Dec-2008



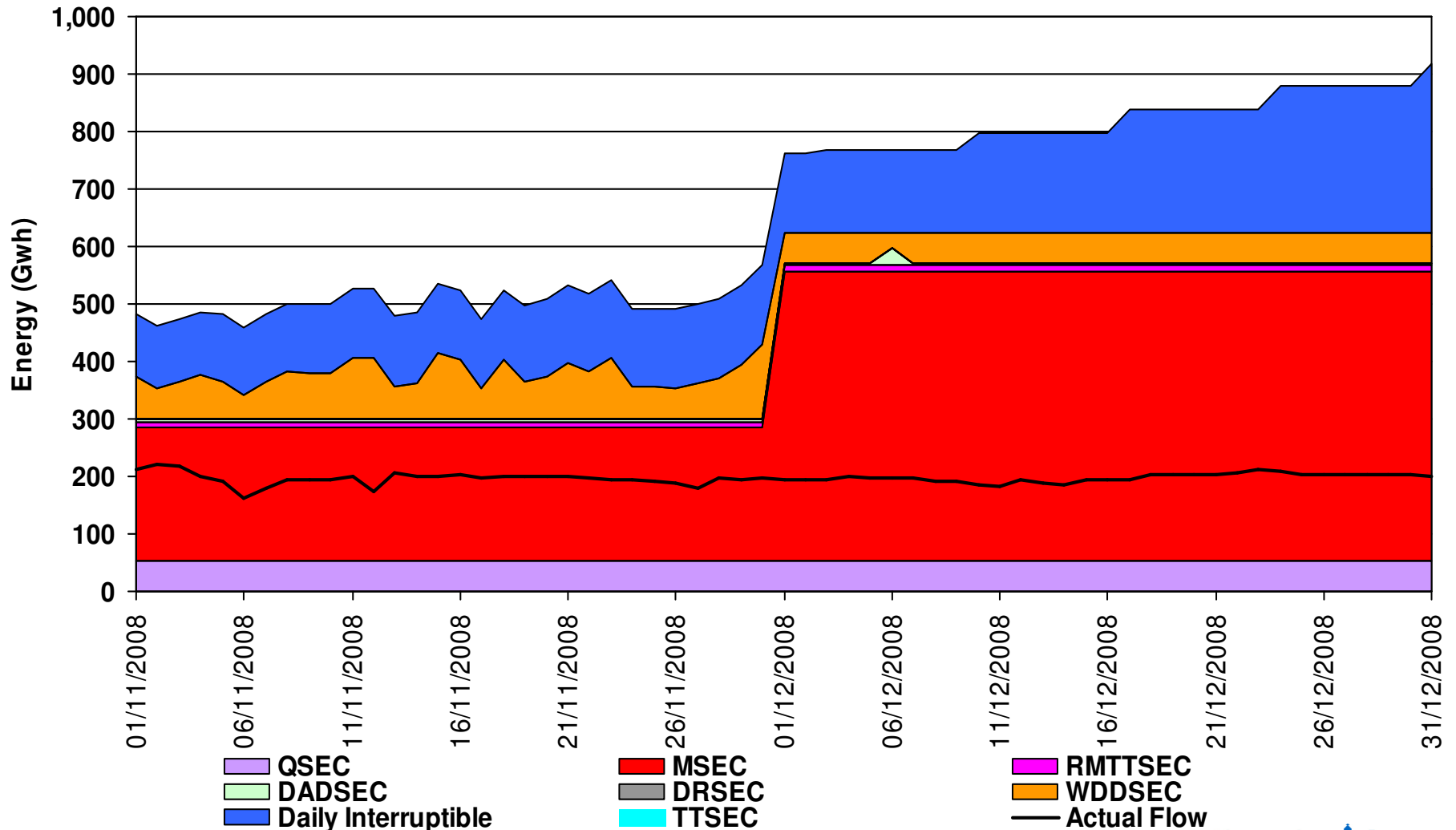
Easington – Capacity Sold vs Actual Flows

From 01-Nov-2008 to 31-Dec-2008



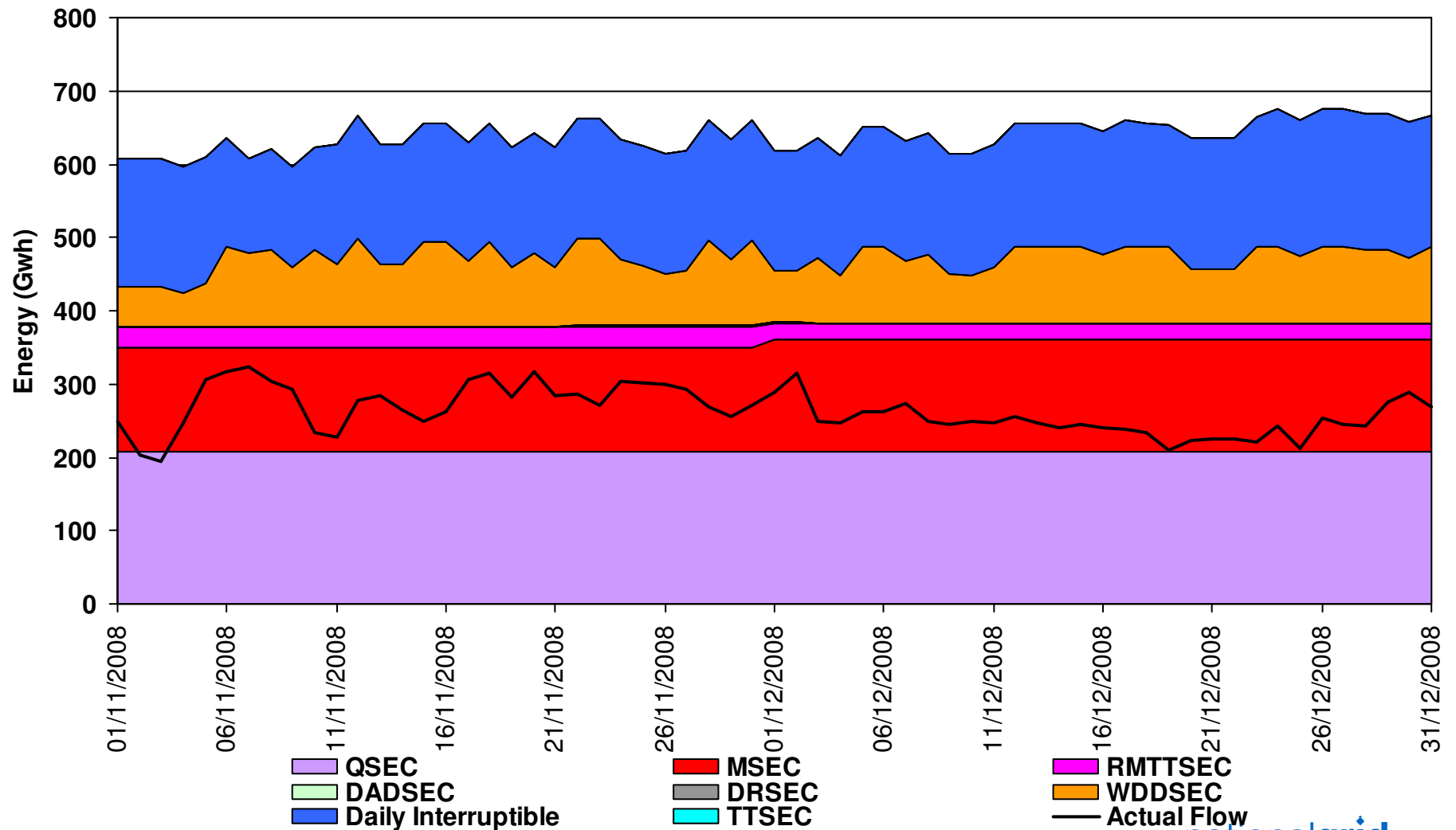
Theddlethorpe – Capacity Sold vs Actual Flows

From 01-Nov-2008 to 31-Dec-2008



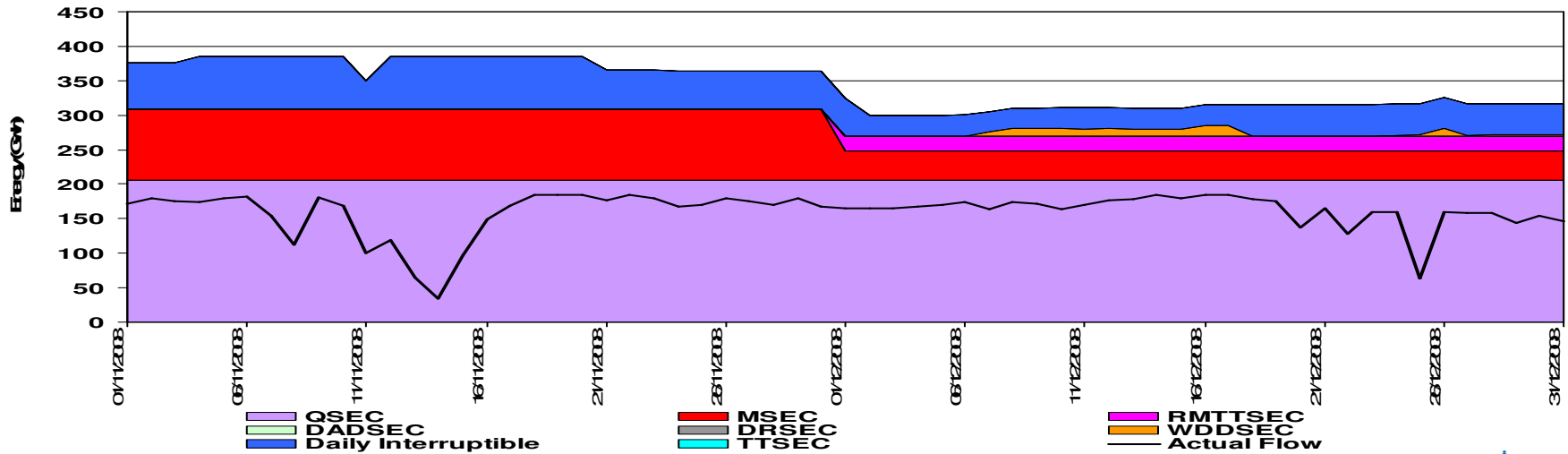
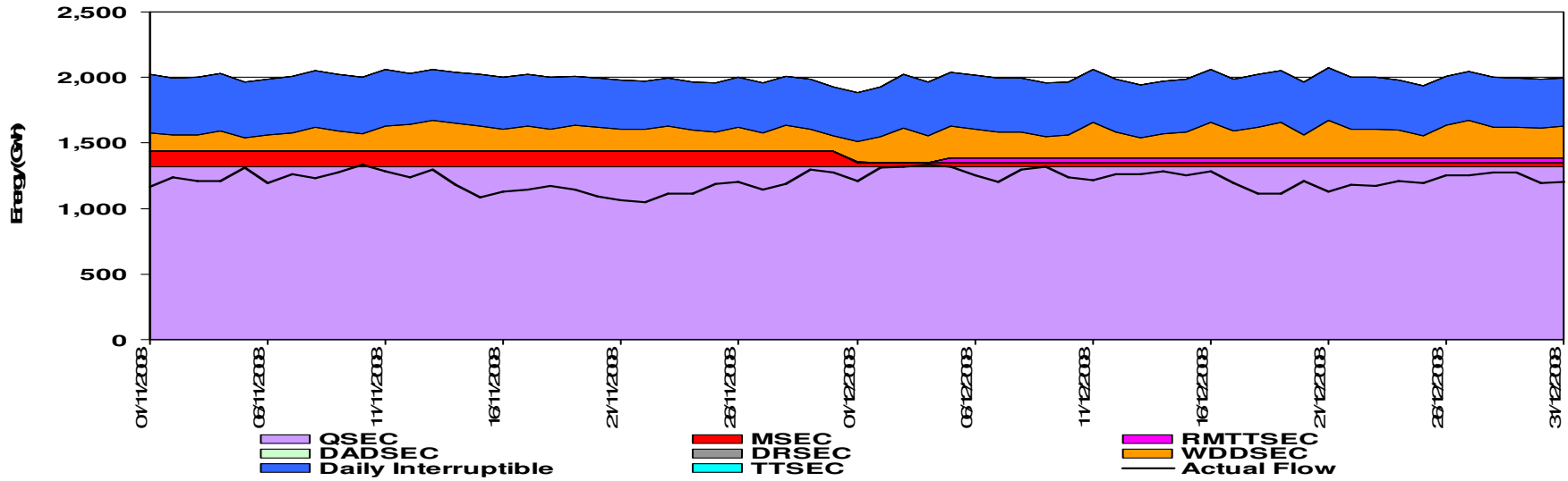
Teesside – Capacity Sold vs Actual Flows

From 01-Nov-2008 to 31-Dec-2008



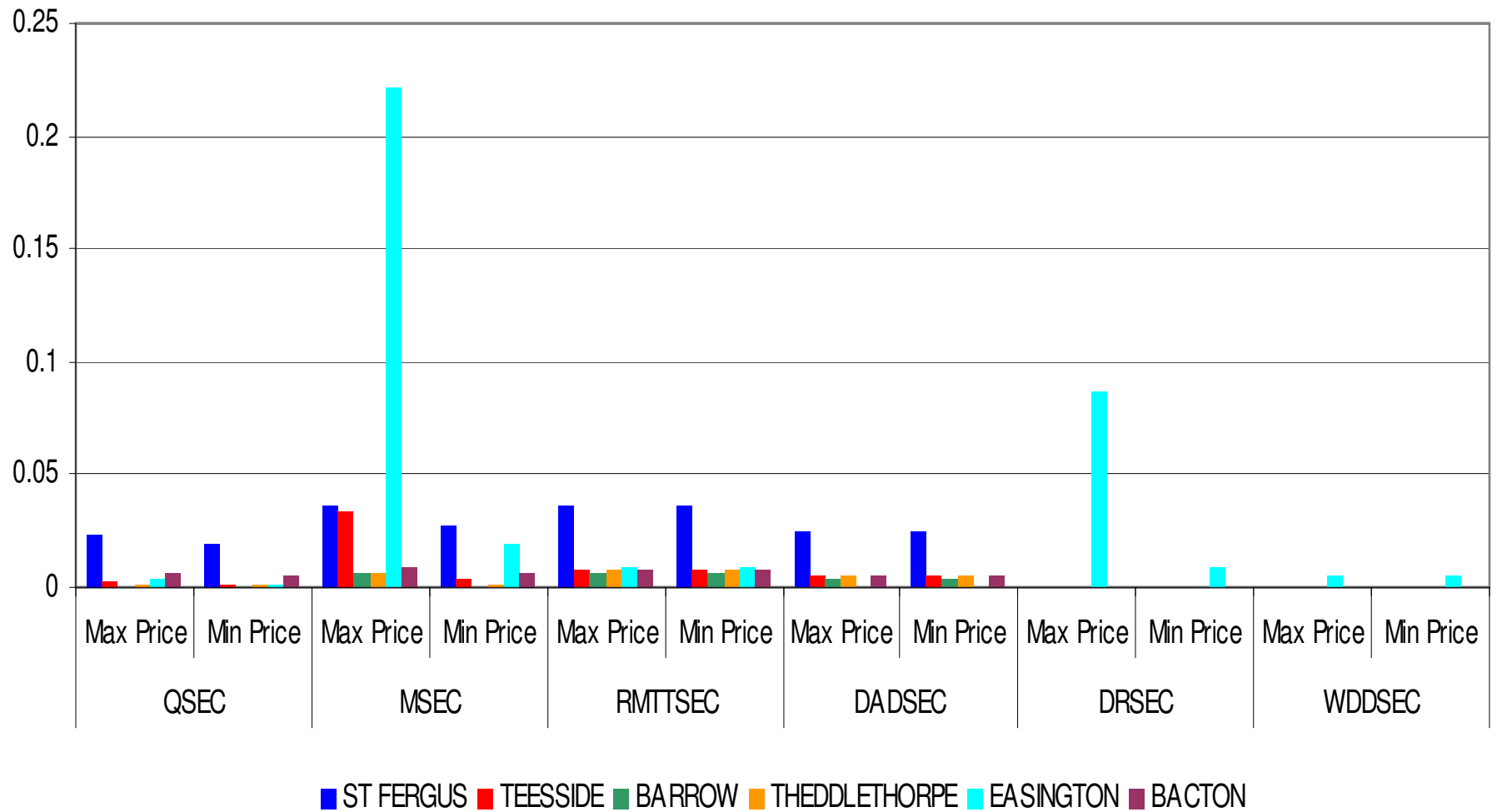
St Fergus & Barrow – Capacity Sold vs Actual Flows

From 01-Nov-2008 to 31-Dec-2008



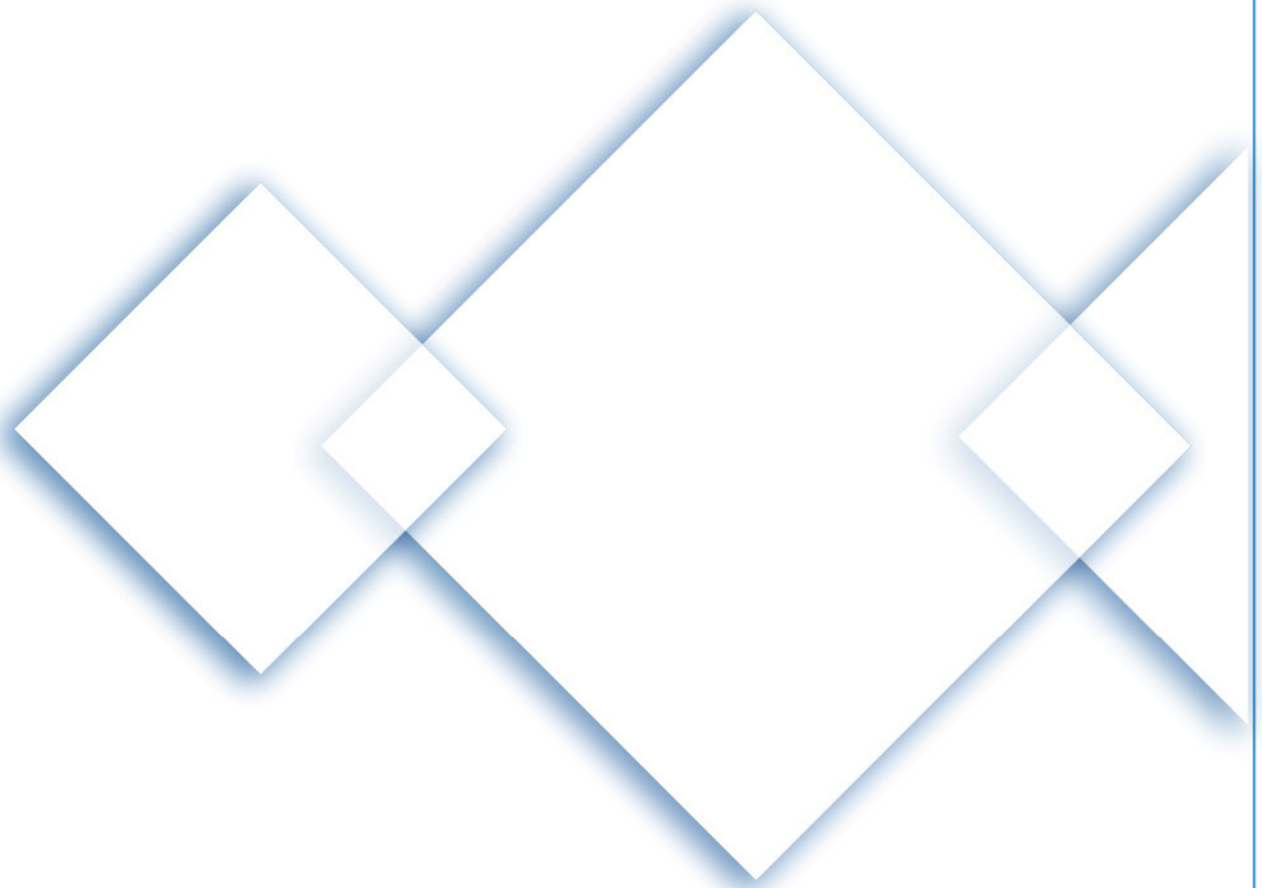
Capacity Auction Price Comparison

From 01-Dec-2008 to 31-Dec-2008



Capacity Summary Slide

- **Interruptible Capacity sold at Easington scaled back and restored within day on 01/12/2008.**
- **Large flows at Easington at the early to mid December 2008, above Long Term Sold levels and up to the levels of Discretionary Capacity Sold.**
- **Very large prices paid again at Easington for MSEC in December, and also high price paid for DRSEC at Easington in December.**



Throughput and Neutrality

October 2008

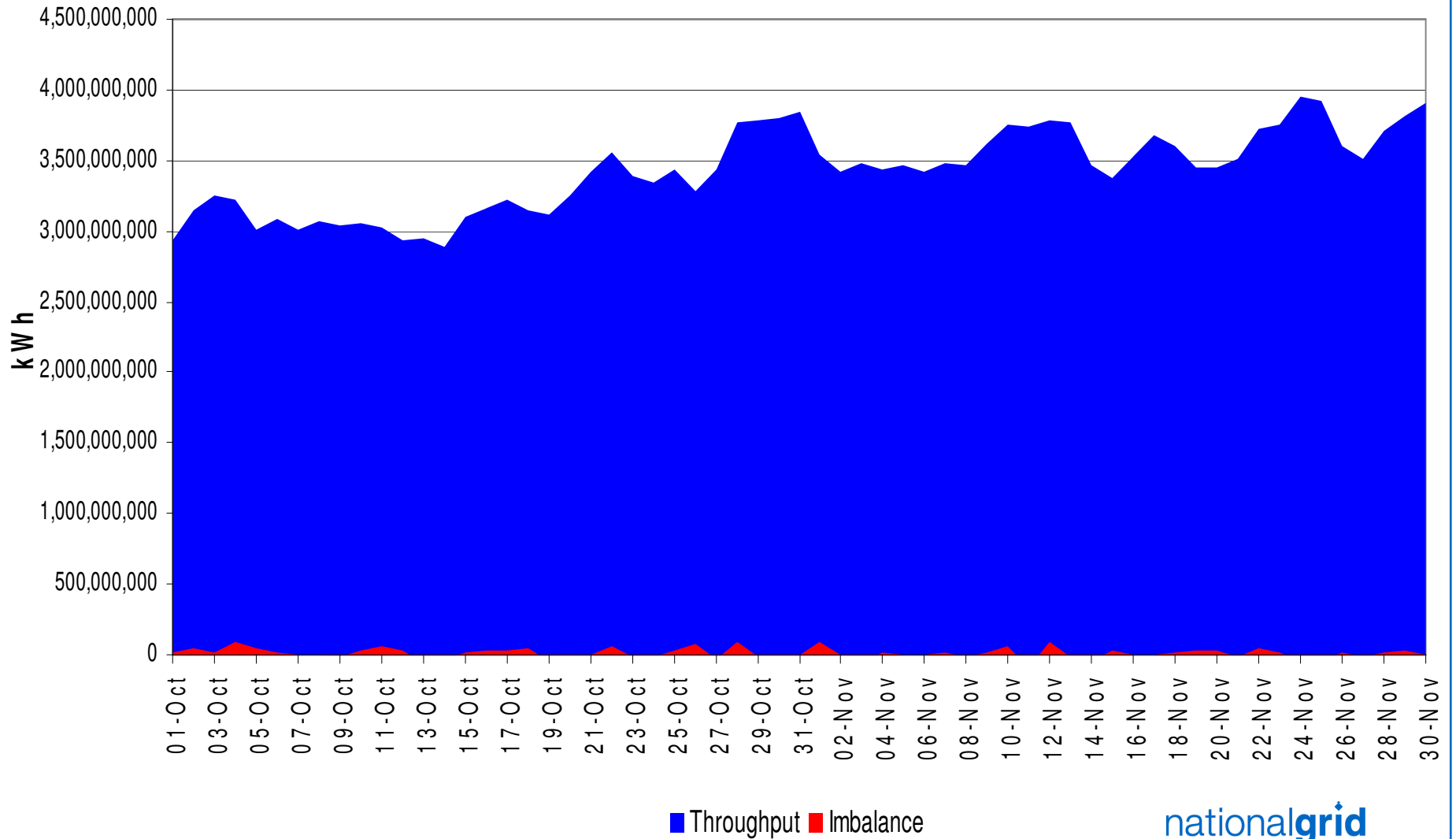
The Throughput and Neutrality information is dependant on Entry closeout and therefore the data is only available for the period up until 31-October-2008.

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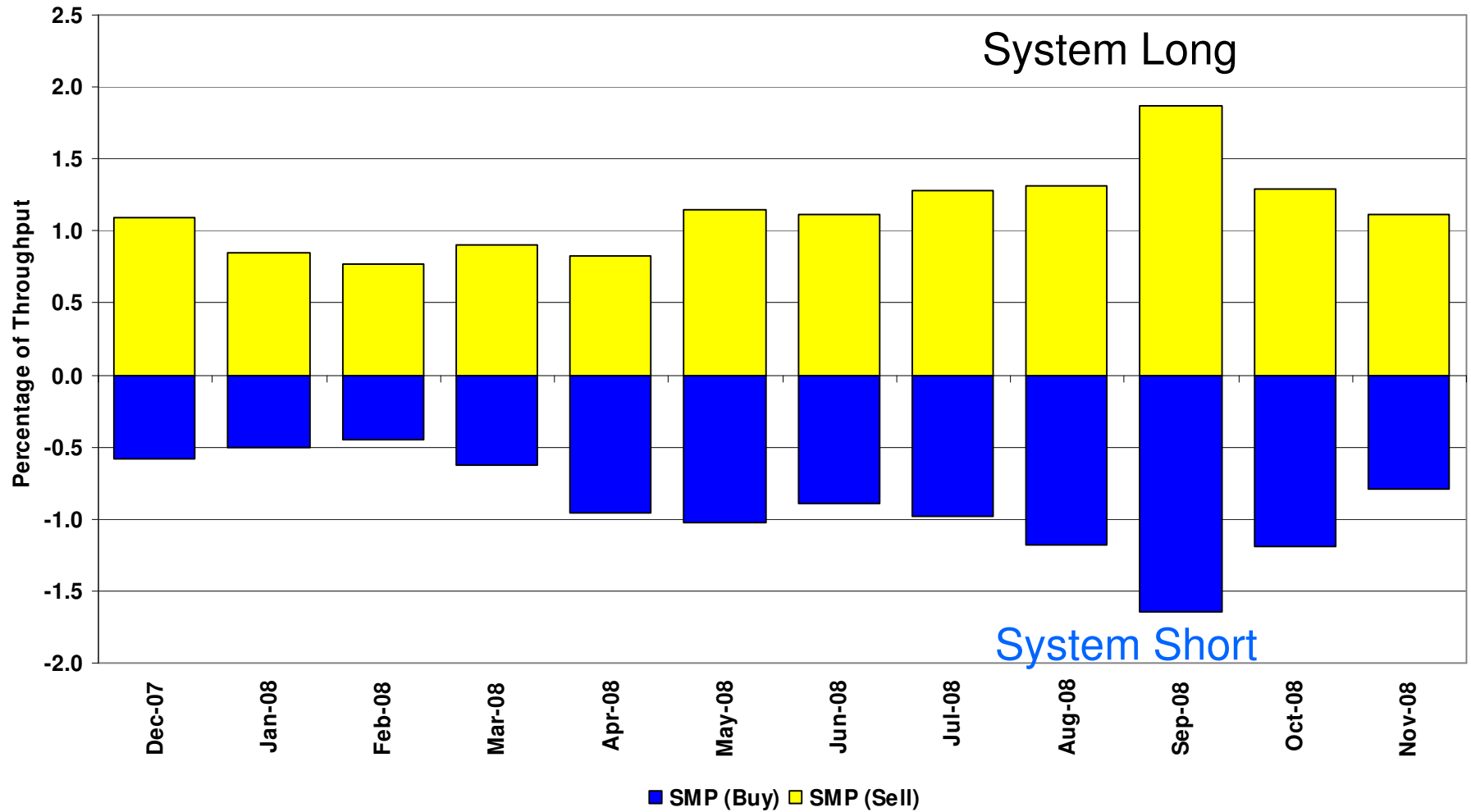
System Level Imbalance vs System Throughput

From 01-Oct-2008 to 30-Nov-2008



System Level Imbalance as a % of Throughput

From 01-Dec-2007 to 30-Nov-2008



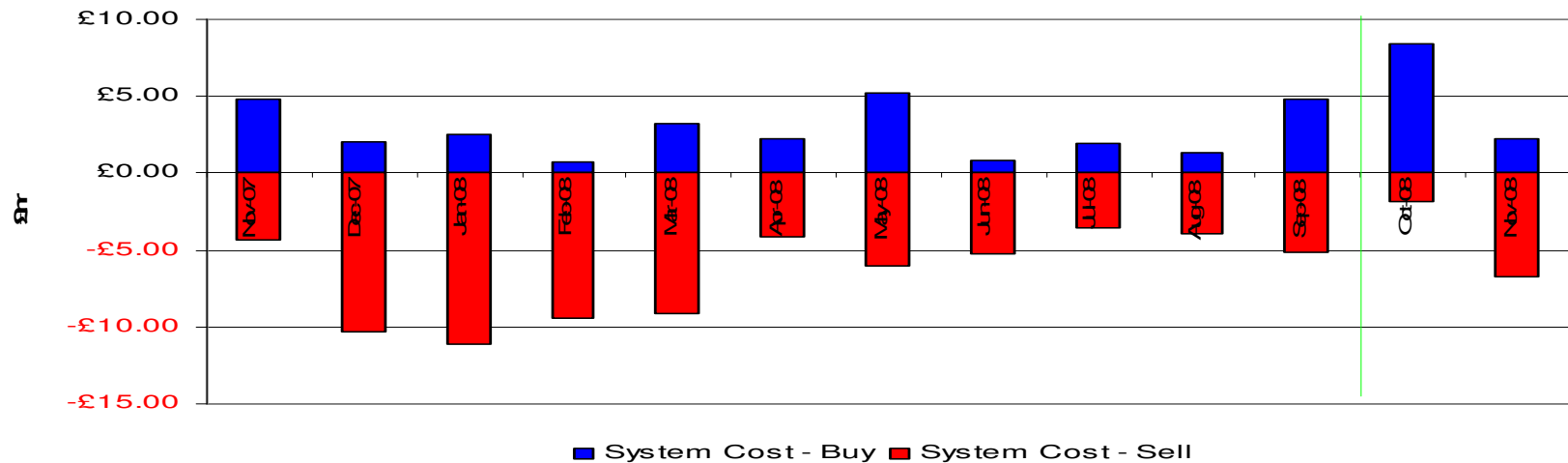
Transporter Actions on OCM Mechanism Revenues / Costs

From 01-Oct-2008 to 30-Nov-2008

| | Quantity (TWh) | Average Price (p/KWh) | Average Price (p/therm) | Cost (£m) |
|-------------|----------------|-----------------------|-------------------------|-----------|
| System Buy | 0.498 | 2.1367 | 62.60 | £10.64 |
| System Sell | -0.506 | 1.6936 | 49.62 | -£8.57 |

Net Position 0.008 Sell

£2.07



Imbalance Gas Revenues / Costs

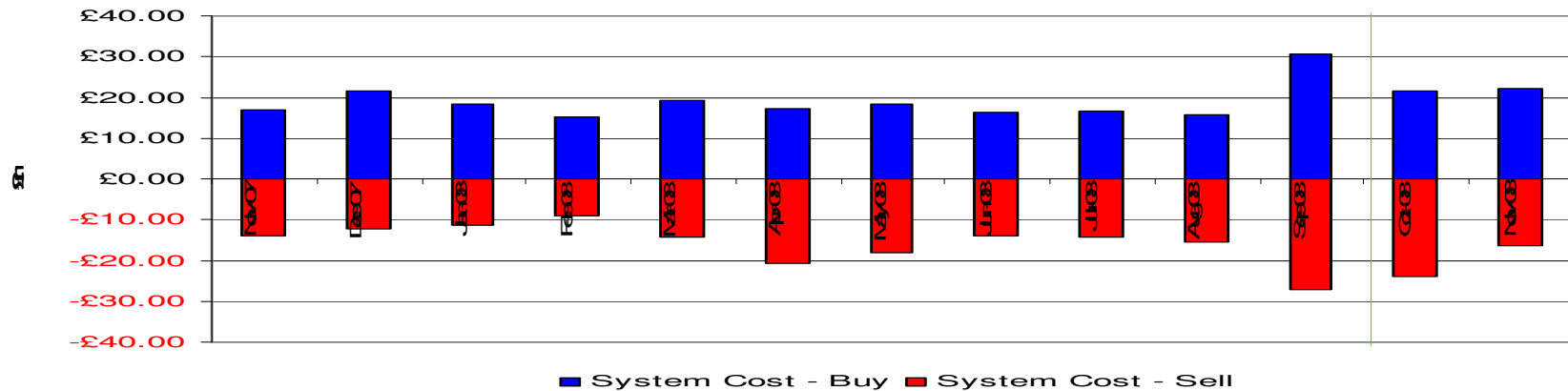
From 01-Oct-2008 to 30-Nov-2008

| System | Quantity (TWh) | Average Price (p/KWh) | Average Price (p/therm) | Cost £m |
|-------------|----------------|-----------------------|-------------------------|---------|
| System Buy | 2.51 | 1.7379 | 50.92 | £43.61 |
| System Sell | -2.06 | 1.9451 | 56.99 | -£40.12 |

Net Position

0.45 Buy

£3.49

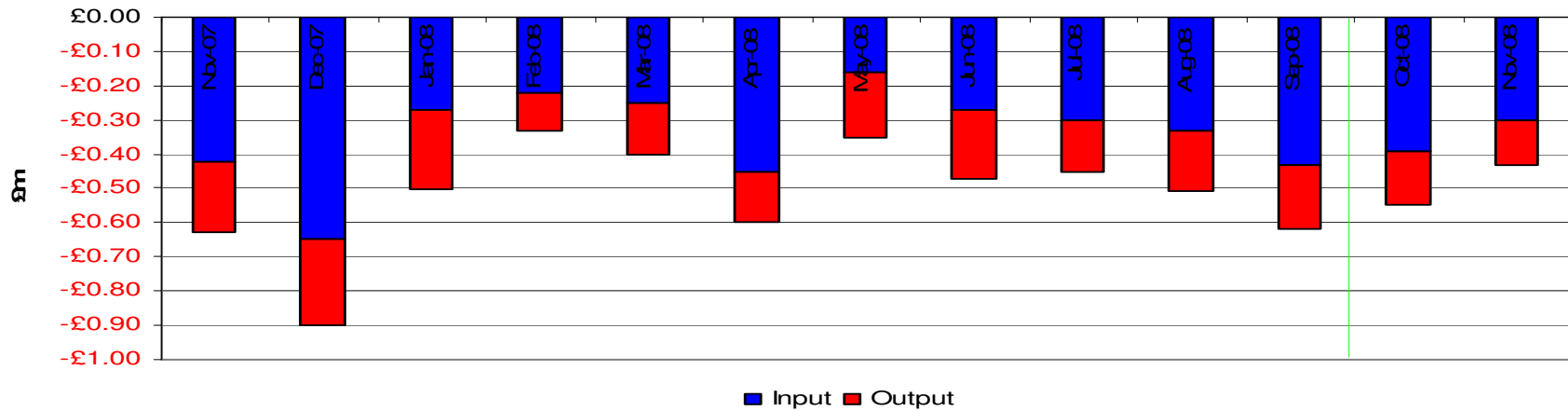


Scheduling Revenues

From 01-Oct-2008 to 30-Nov-2008

| | |
|--------|---------|
| | Cost £m |
| Input | -£0.69 |
| Output | -£0.28 |

Total -£0.97



Balancing Costs

From 01-Oct-2008 to 30-Nov-2008

£m

OCM/Flex Gas

2.07

Imbalance Gas

3.49

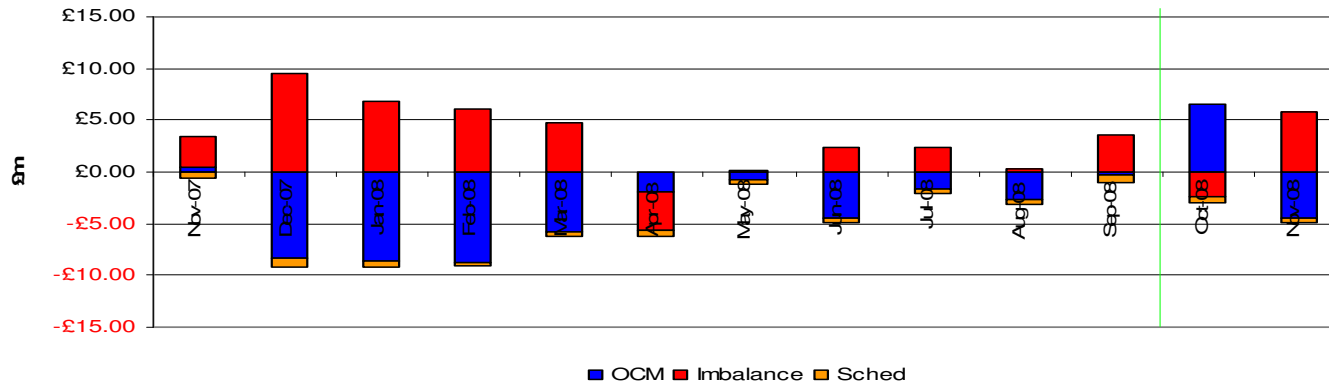
Scheduling

-0.98

Balancing Cost

4.58

(0.0022p/KWh or 0.0642p/Therm of Throughput)



Energy Neutrality : Gas Year Comparison

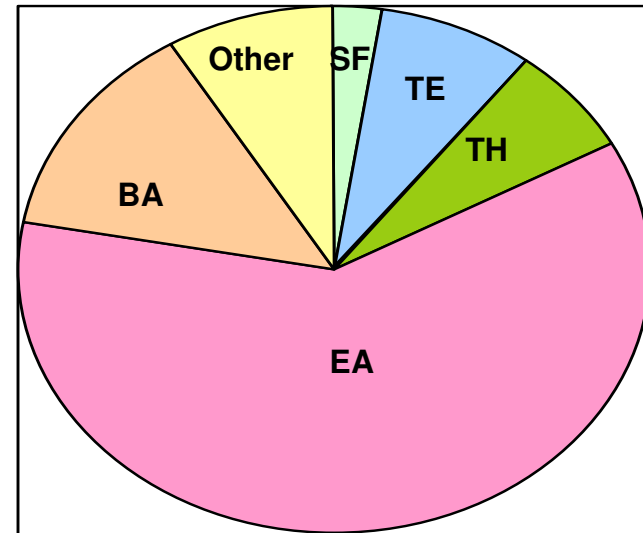
(For October to November)

| | Gas Year 2007/2008 | Gas Year 2008/2009 |
|---|---------------------------|---------------------------|
| Neutrality by Throughput (p/therm) | 0.0044 | 0.0642 |

Capacity Neutrality – Revenues From DSEC & DAI

From 01-Apr-2008 to 30-Nov-2008

| ASEP | Revenue |
|---------------|--------------------|
| St Fergus | £16,945.72 |
| Teesside | £58,733.21 |
| Barrow | £930.00 |
| Theddlethorpe | £47,235.40 |
| Easington | £435,088.12 |
| Bacton | £96,747.98 |
| Other | £61,988.15 |
| TOTAL | £717,668.57 |



Capacity Neutrality – Prompt Buy Backs

From 01-Apr-2008 to 30-Nov-2008

| ASEP | Cost | No.of days | Volume (kWh) |
|---------------|-------------|-------------------|-------------------------|
| St Fergus | £0 | 0 | 0 |
| Teesside | £0 | 0 | 0 |
| Barrow | £0 | 0 | 0 |
| Theddlethorpe | £0 | 0 | 0 |
| Easington | £0 | 0 | 0 |
| Bacton | £0 | 0 | 0 |
| TOTAL | £0 | 0 | 0 |

Capacity Neutrality – Revenues From Overruns

From 01-Apr-2008 to 30-Nov-2008

| Month | Revenue |
|----------------|---------------------|
| April 2008 | -£74,782.95 |
| May 2008 | -£285,586.70 |
| June 2008 | -£18,191.35 |
| July 2008 | -£299.65 |
| August 2008 | -£13,489.27 |
| September 2008 | -£275,737.07 |
| October 2008 | -£5,841.38 |
| November 2008 | -£2,663.34 |
| Total | -£676,591.71 |

Capacity Neutrality – Capacity Management Agreement

From 01-Apr-2008 to 30-Nov-2008

| Month | Cost |
|----------------|--------------------|
| April 2008 | £0.00 |
| May 2008 | £0.00 |
| June 2008 | £0.00 |
| July 2008 | £0.00 |
| August 2008 | £0.00 |
| September 2008 | £0.00 |
| October 2008 | £3,441.00 |
| November 2008 | £138,820.42 |
| Total | £142,261.42 |

Capacity Neutrality – Net Cost/Revenue

From 01-Apr-2008 to 30-Nov-2008

| | |
|--------------------------------------|-----------------------|
| DSEC/DAI Revenue | -£717,668.57 |
| Buy back costs | +£0.00 |
| Capacity Management Agreement | +£142,261.42 |
| Overrun Revenue | -£676,591.71 |
| Net Revenue | -£1,251,998.87 |

Session Summary 1

Weather

- ◆ Coldest and driest December since 2001.
- ◆ Volatile weather throughout December, with one particularly mild spell in the week leading up to Christmas preceding a cold snap at the end of the month.
- ◆ The start of January is expected to continue to be cold as in the end of December, but it is expected that temperatures will be milder later in the month.

Demand

- ◆ High range of Demands in December, swing of 100 mcm in 11 days due to seasonally mild period mentioned above.
- ◆ Demand forecasting performance remains good.

Supply and Storage

- UKCS and Norwegian supplies remain steady throughout December.
- ◆ Storage stocks are still healthy. Some withdrawal at from MRS and LRS, offset by MRS injection.

Session Summary 2

Market and Prices

- ◆ Prices reasonably steady throughout, at around 60p/therm for most of December.
- ◆ National Grid very much a net seller in December, following similar pattern to last year.

Capacity

- ◆ Interruptible Capacity sold scaled back and restored within day at Easington on 01/12/2008.
- ◆ Large flows at Easington in early to mid December, up to the levels of Discretionary Capacity sold.

February Forum – 11/02/2009

Operational Data Reporting Period

- ◆ 01st January – 23rd January

Throughput & Neutrality Reporting Period

- ◆ 1st December – 31st December