

Winter to date

Chris Train, Network Operations Director, 16th March 2010



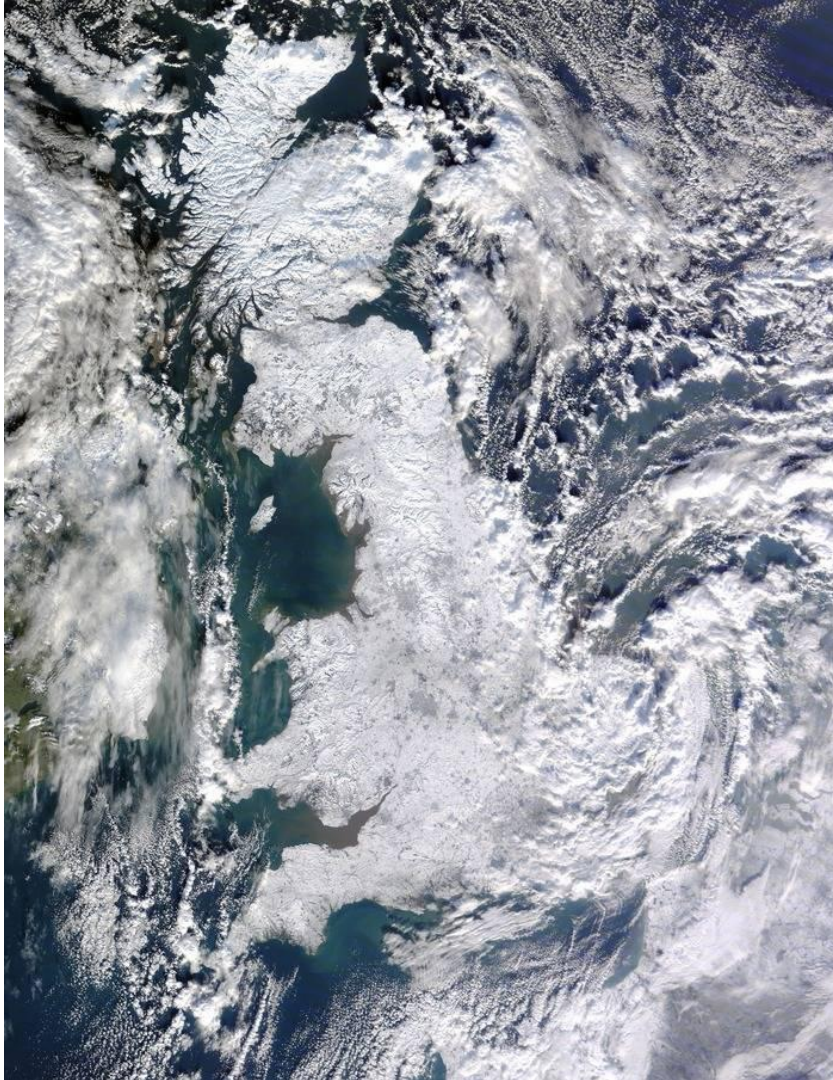
nationalgrid

The power of action.™

Agenda

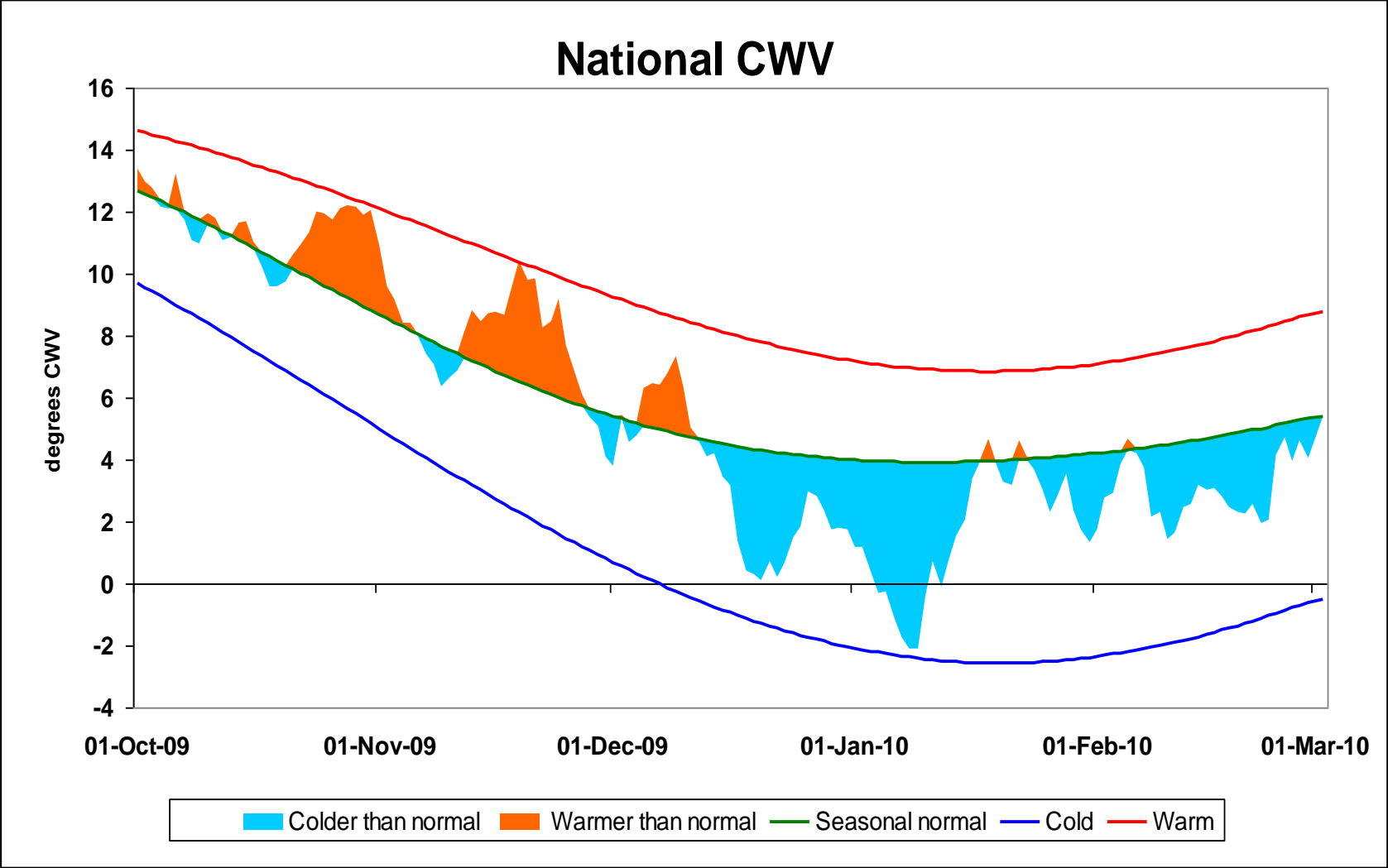
- ◆ Weather
- ◆ Gas
- ◆ Electricity
- ◆ Gas Power Interaction
- ◆ Summary

Weather



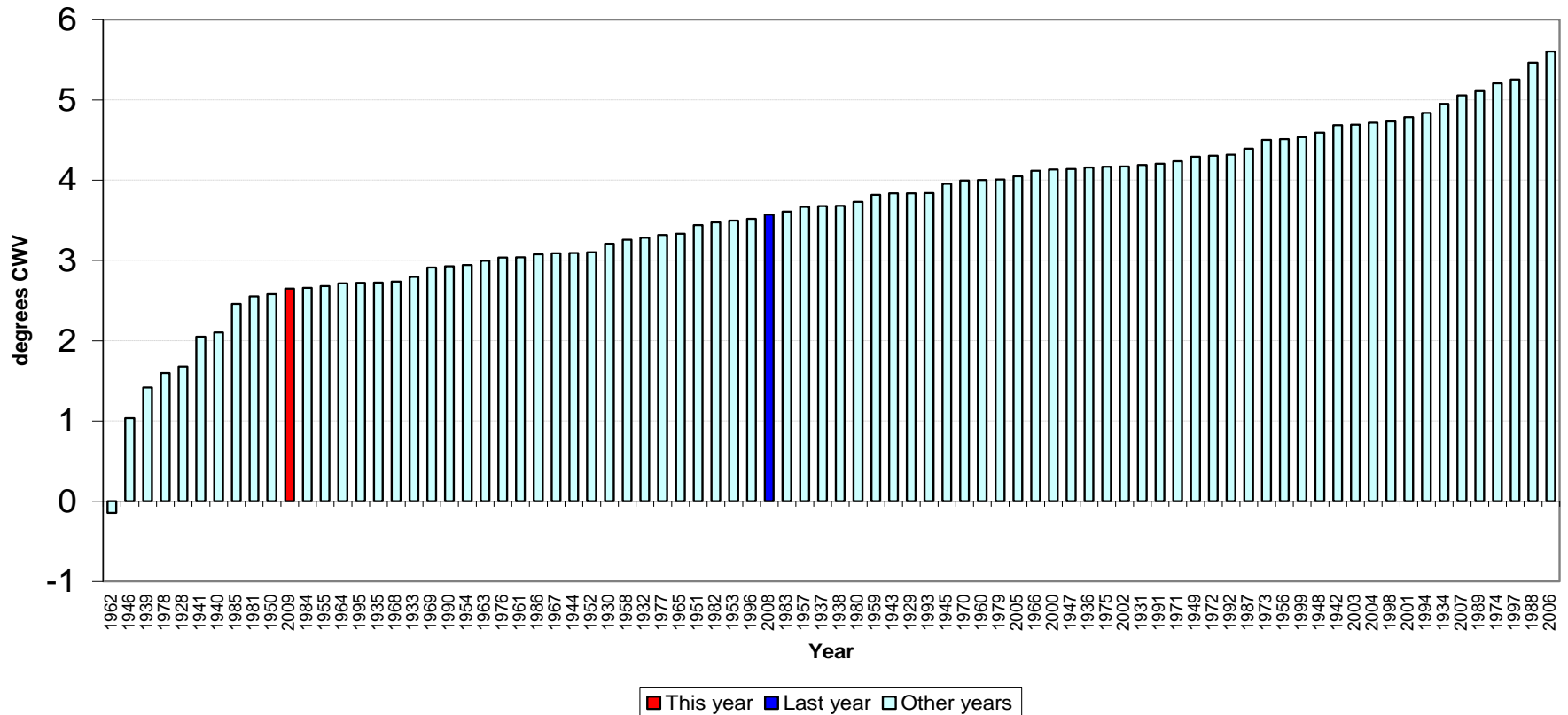
the power of action.

December to February CWV



2009/10 winter severity CWV

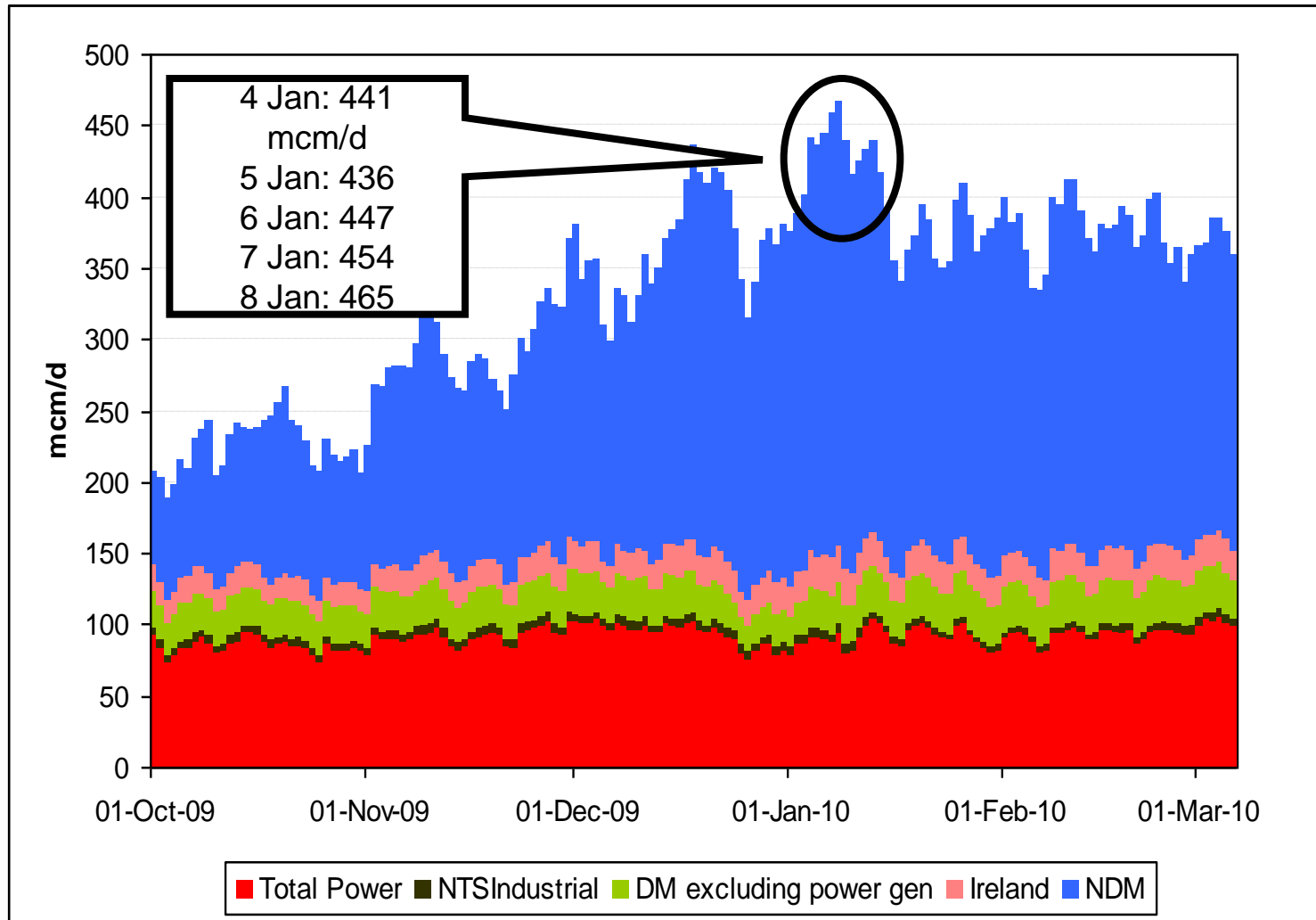
Mean National Composite Weather for December to February



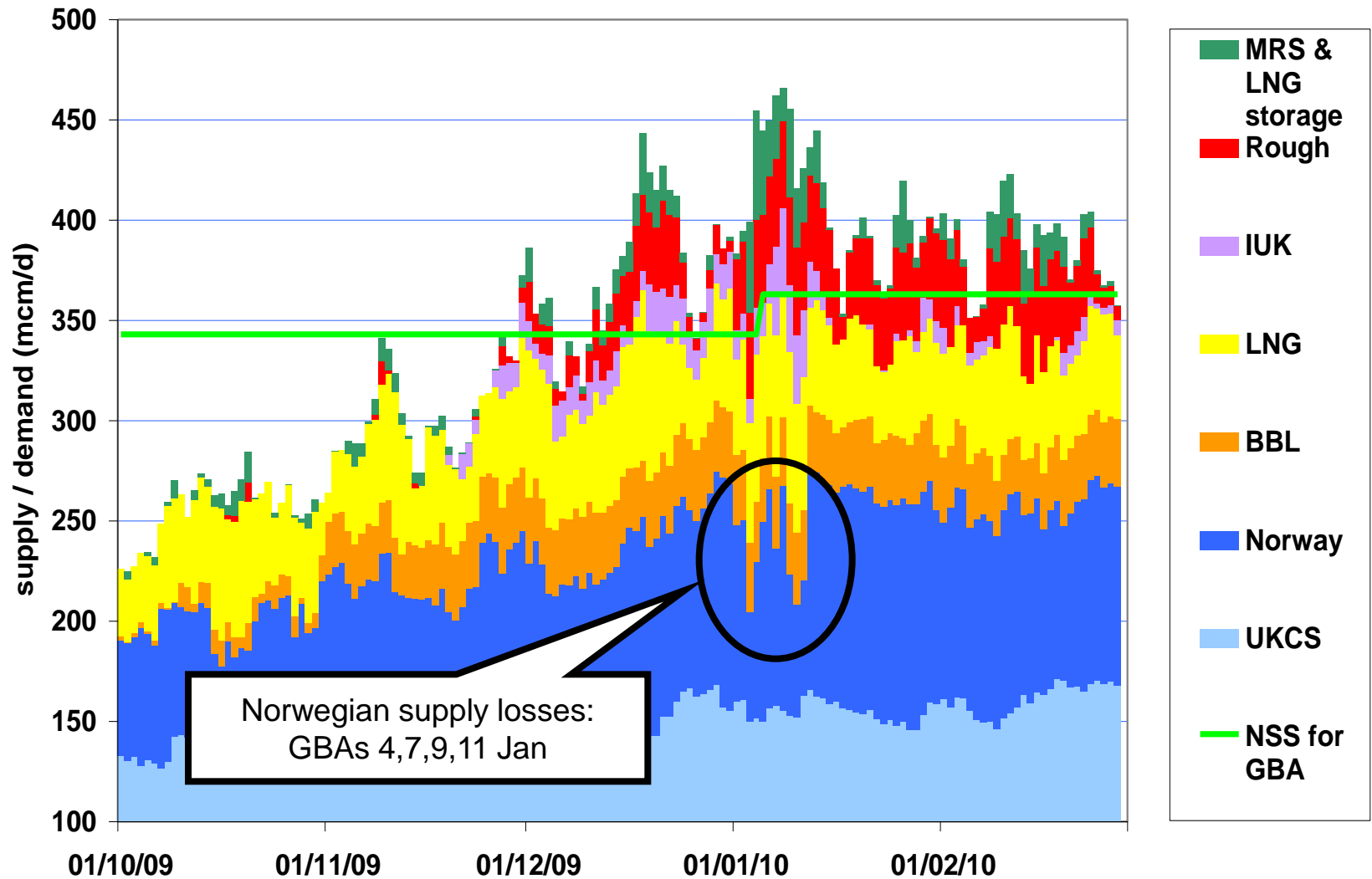
Gas



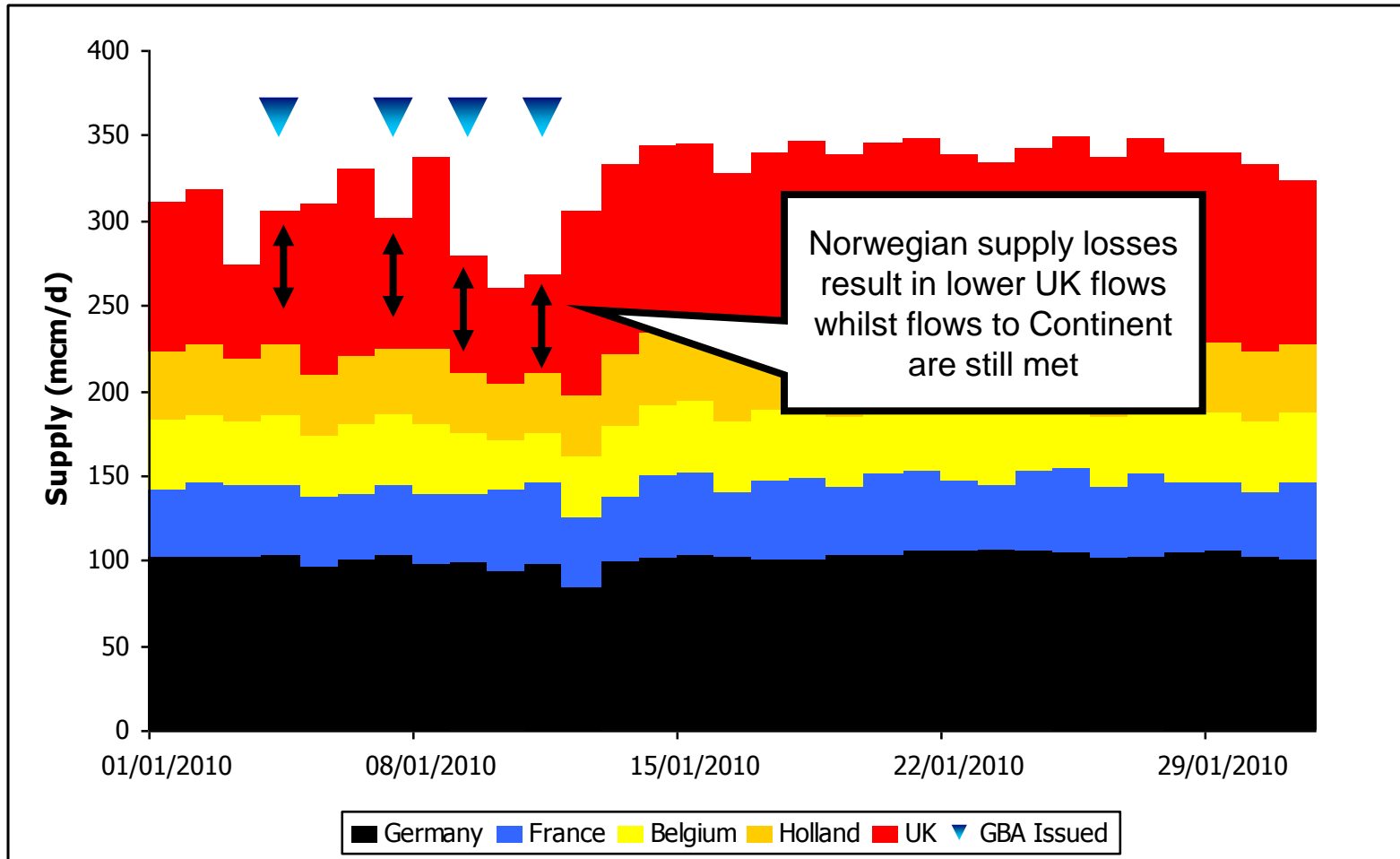
2009/10 Total demand



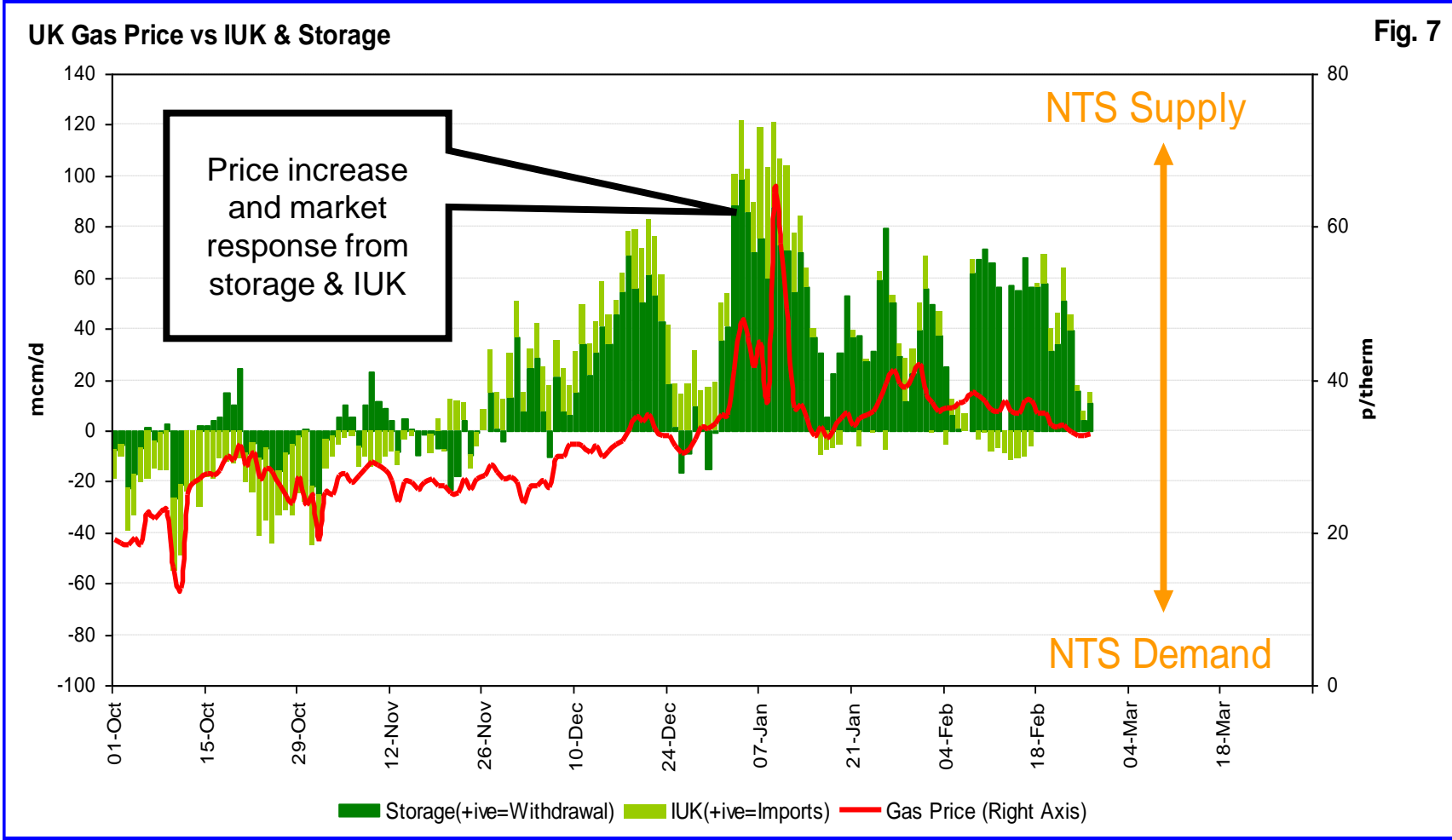
Winter 2009/10 supplies



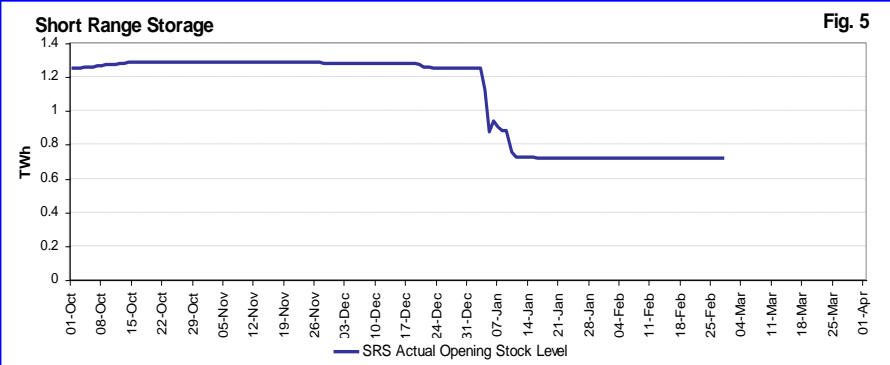
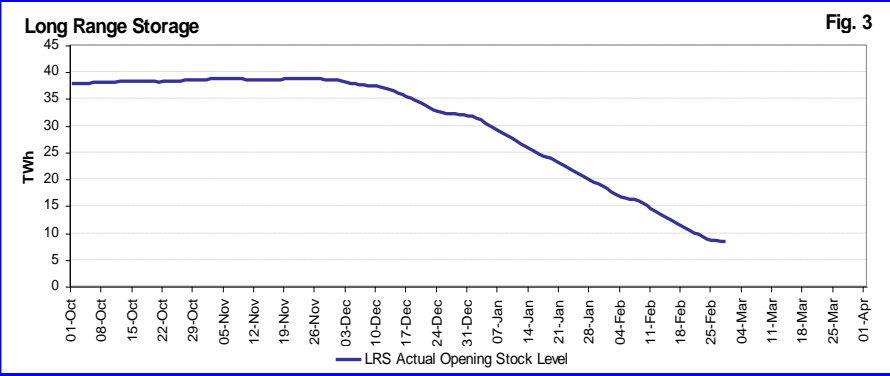
Norwegian flows to UK & Continent



Storage & IUK flows



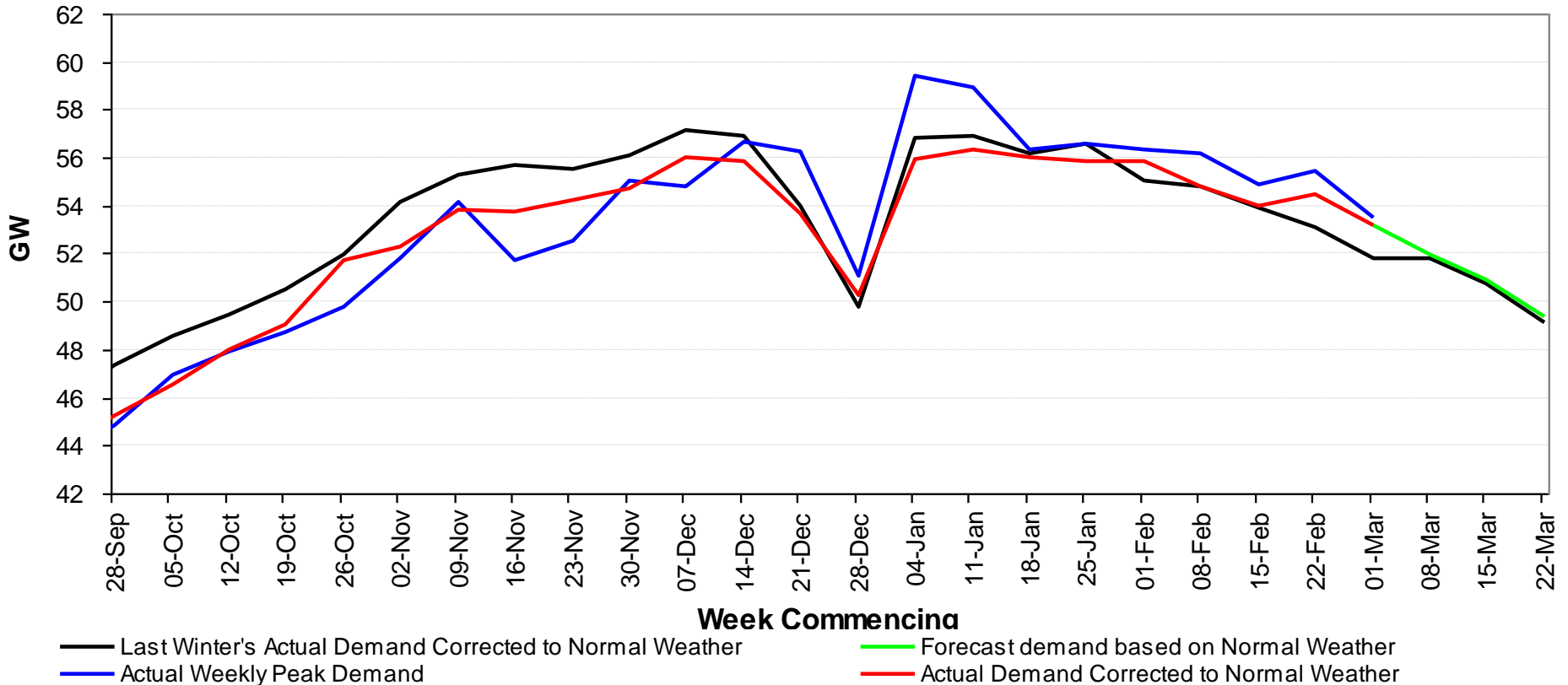
Storage use



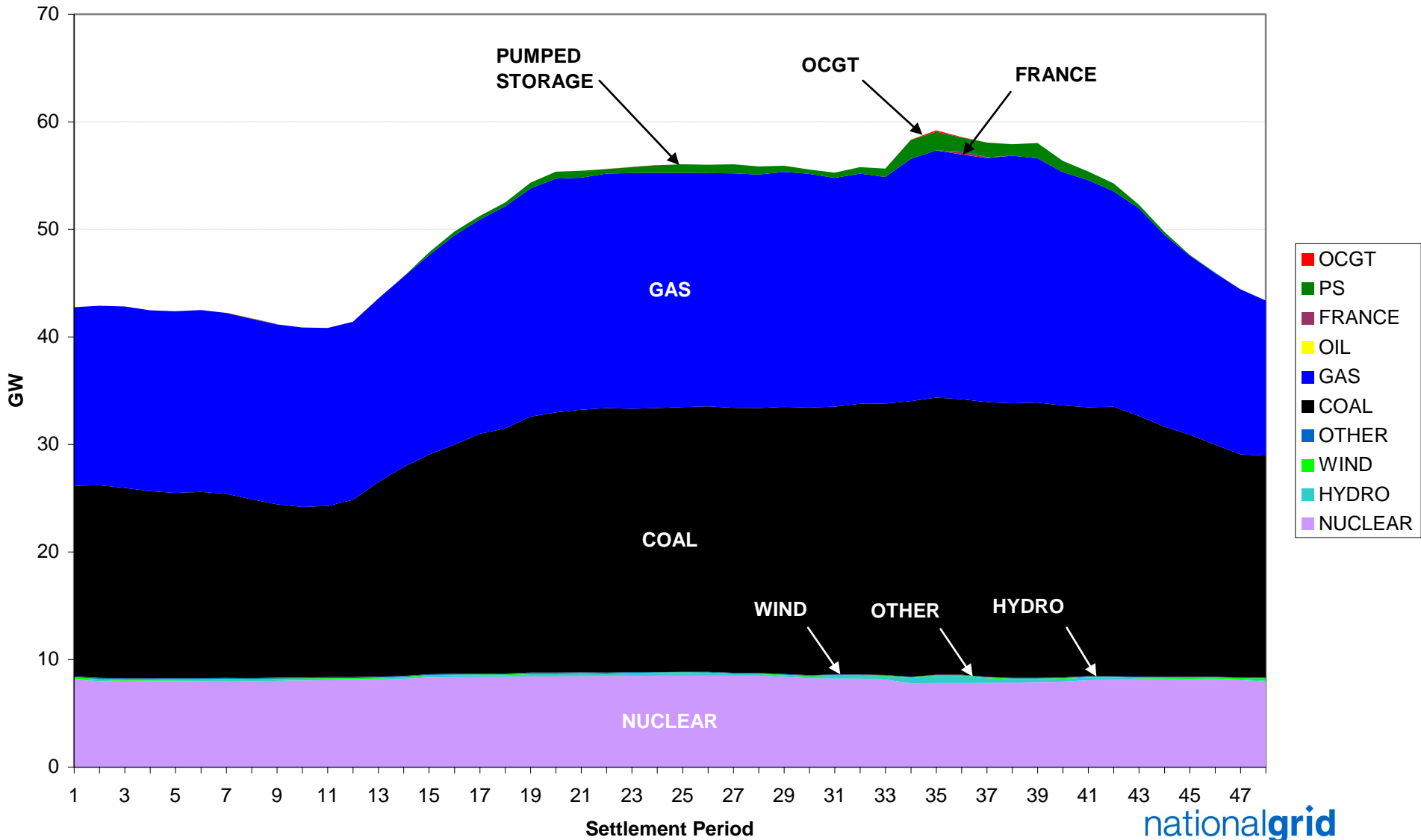
Electricity



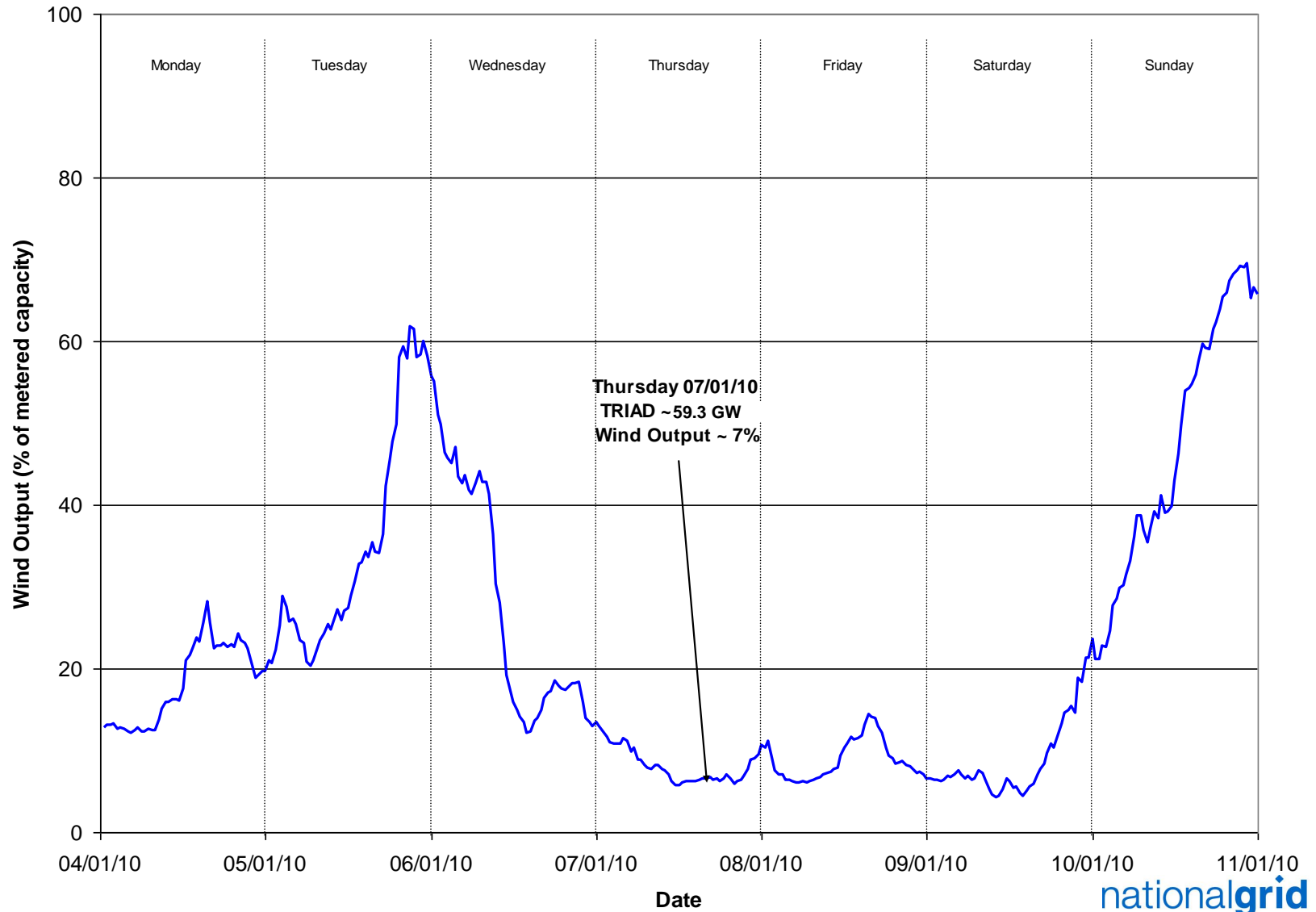
Weekly peak demand



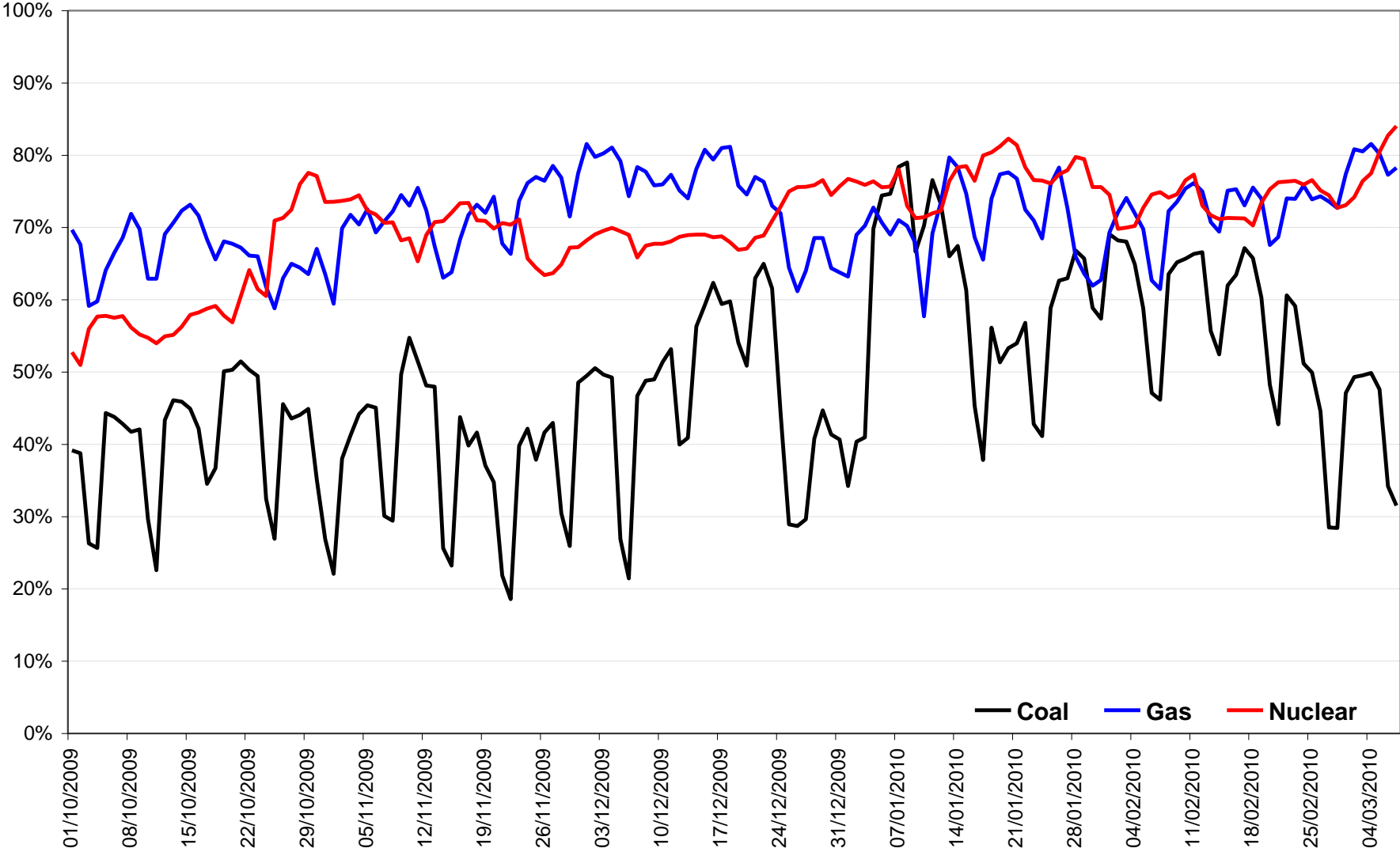
Peak day generation mix



Wind power output during the high demand



Generation load factor

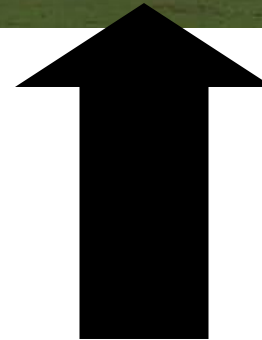


This winter and historic generation load factors

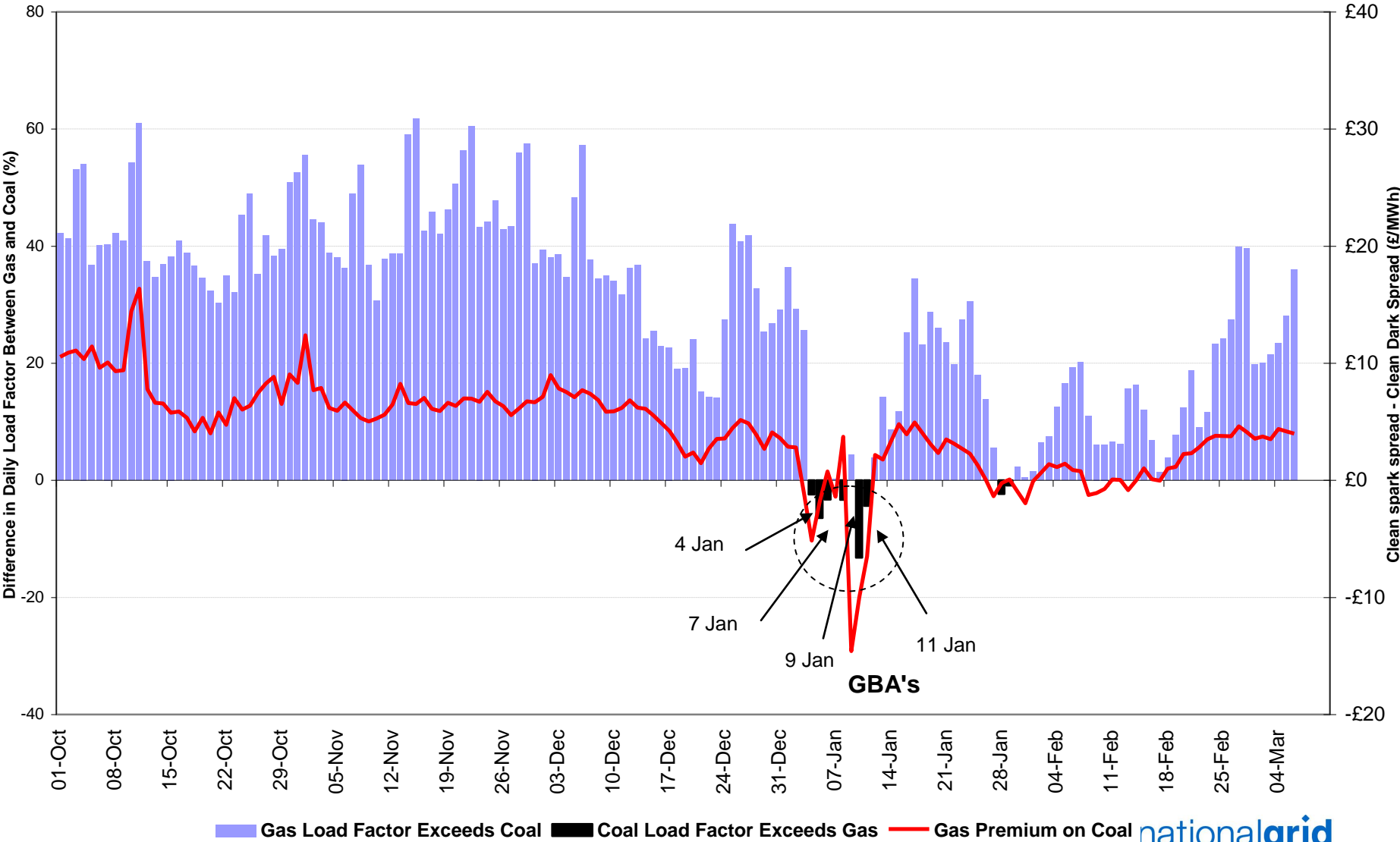
Winter Load Factor	2007/08	2008/09	2009/10*
Coal - LCPD opted out	52%	45%	22%
Coal - LCPD opted in	65%	68%	58%
Gas	69%	61%	71%
Hydro	50%	46%	33%
Imports from France	44%	38%	14%
Exports to France	17%	16%	48%
Nuclear	61%	65%	71%
OCGT	1%	1%	0%
Oil	2%	6%	0%
Wind	25%	35%	28%
Pumped Storage	16%	18%	15%

* up to 7 March 2010

Gas and power interaction in January 2010



Gas vs coal generation levels



Gas Load Factor Exceeds Coal Coal Load Factor Exceeds Gas Gas Premium on Coal **nationalgrid**

The power of action.

2009/10 Winter Summary

- ◆ Gas experienced its highest demand day ever at 465 mcm/d plus 9 of 20 highest demand days on record;
 - ◆ But high demands were partly due to high power station demands – not just cold weather;
- ◆ Peak electricity demand of 59.3 GW (incl exports) occurred on 7th January 2010;
 - ◆ Peak demand this winter was similar to the peak of winter 2009/10 of 6th Jan 2009 (59.2 GW);
- ◆ “Snow Disruption” effect of low demand on Wed 6th January suppressed about 2 GW of demand as schools were closed and people stayed at home.

- ◆ Diversity of gas supply has ensured that demand has been met:-
 - ◆ Imports > UKCS on high demand days
 - ◆ Any supply losses made up by additional imports and/or storage
 - ◆ High Norwegian imports throughout winter
 - ◆ Highest ever LNG imports
 - ◆ High BBL and IUK on highest demand days
 - ◆ Significant storage recycling of Medium Range Storage sites
- ◆ Electricity demand was met with comfortable surpluses prevailing over most of winter;
 - ◆ No electricity system warnings were issued over winter;
 - ◆ On the peak demand day, we had about 3GW’s of additional generation available as well as a number of pumped storage units;

- ◆ The gas and power market has responded to supply/demand/price.

Useful Links

Contact us : -

Energy.operations@uk.ngrid.com

Regular Winter Summary Information : -

<http://www.nationalgrid.com/uk/Electricity/Info/winterupdates/>

<http://www.nationalgrid.com/uk/Gas/OperationalInfo/monthlyupdates/>

Look out for our: -

Summer Outlook Report during 1st half of April

Initial Winter 2010/11 Consultation around late June