

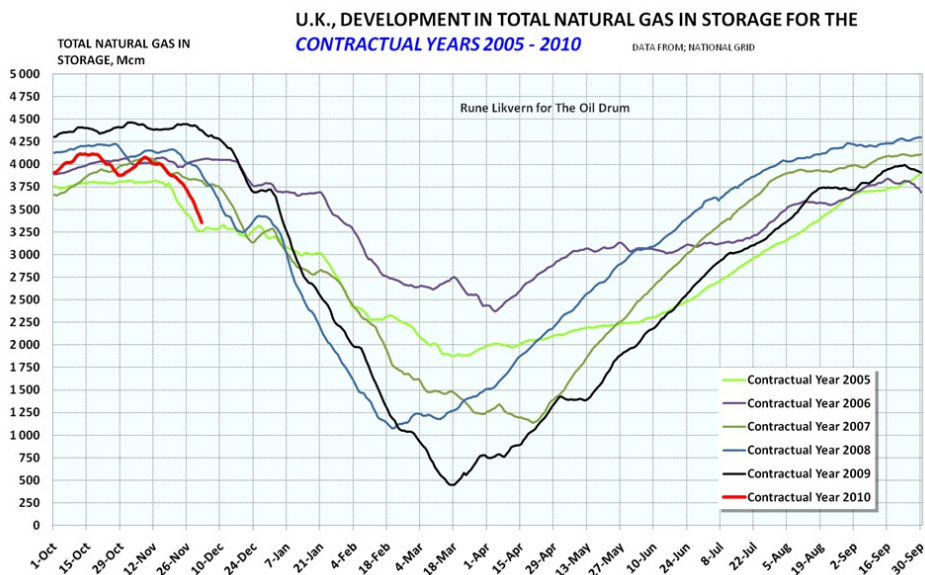


U.K. Natural Gas – An Early December 2010 Status Report

Posted by [Rune Likvern](#) on December 3, 2010 - 10:49am

The early arrival of unseasonal cold weather in the U.K. has increased demand for natural gas for heating which has called for heavy withdrawals of natural gas from storage and resulted in headlines like [Could Britain's gas stocks run out this winter?](#)

In this post I will present some recent developments in the gas supply statistics for the U.K.



The diagram shows development in total working natural gas in U.K. storage for the contractual years 2005 – 2010 as of December 2nd.

More below the fold.

DISCLAIMER: The author holds no positions in the oil/energy market that may be affected by the content of this post.

Several factors will continue to shape the demand for natural gas from storage this winter, such as;

- Decline of U.K. indigenous supplies. National Grid in their “Winter Outlook Report 2010/11” expects this decline to be around 9 % relative to last winter. During December - February last heating season U.K. indigenous marketable natural gas supplies averaged around 160 Mcm/d. A 9 % decline translates into an average decline of around 15 Mcm/d for the same period this heating season.

- Another reason for supply concern was that Statoil was not able to produce as much gas as anticipated at the [Ormen Lange](#) field offshore Norway. "We were granted a lower production permit", said Bjørnson. How or if this affects Norwegian natural gas deliveries to U.K. this winter is unclear.
- [Ruhm](#) gas field is shut down due to EU sanctions on Iran since an Iranian company is a partner in Ruhm. Ruhm produced around 6 Mcm/d in the first half of 2010.
- Growth in LNG imports
- The supply situation for Continental Europe (Flows in the Interconnector between Bacton and Zeebrugge.)
- Developments in LNG demand from the Atlantic and Pacific basins.
- And last but not least.....the weather, which has just seen a week on unseasonal very cold weather that is set to continue.

Use of natural gas storage facilities adds flexibility to the supply system.

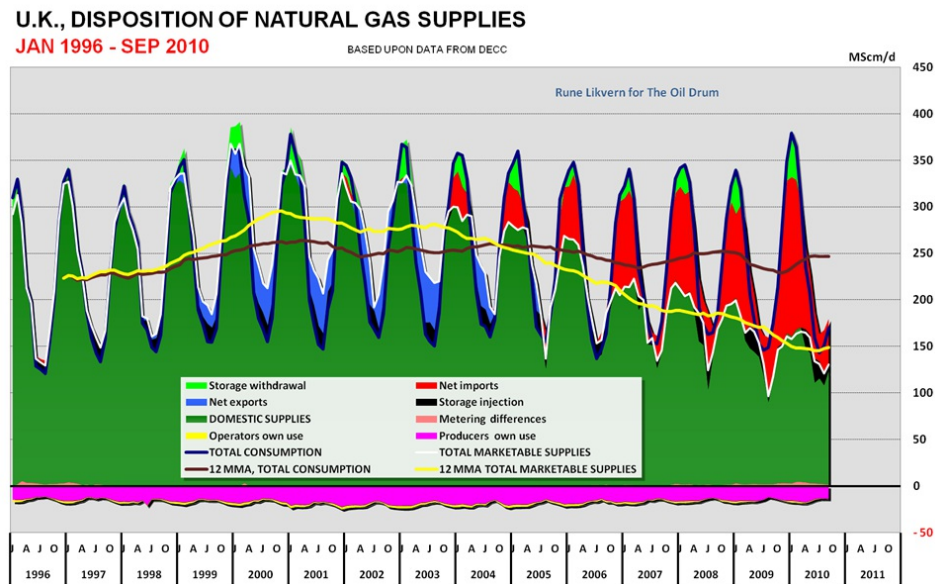


Figure 01: The diagram shows the structure of UK natural gas supplies from January 1996 and as of September 2010.

The dark red line in the diagram above shows how UK demand for natural gas declined due to the economic slowdown in 2009 and how demand recently has rebounded. UK demand is increasingly being met by pipelined imports from Norway and Continental Europe and in recent years by rapidly growing LNG (Liquefied Natural Gas) imports.

U.K., DEVELOPMENT IN NATURAL GAS USED FOR ELECTRICITY GENERATION JAN 2000 - SEP 2010
BASED UPON DATA FROM DECC, Table ET 5.3

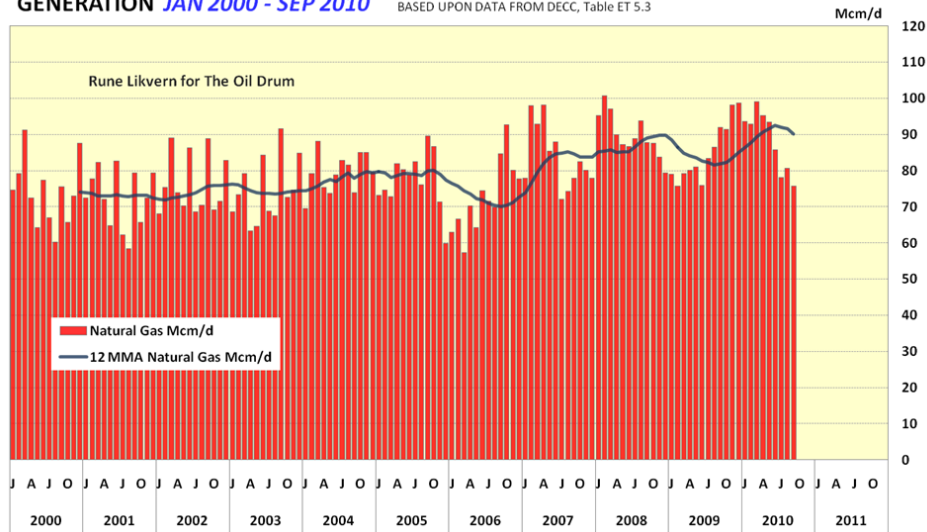


Figure 02: The diagram shows development in natural gas used for electricity generation in U.K. from January 2000 and as of September 2010.

Most of the recent years growth in UK natural gas consumption has been led by natural gas used for electricity generation. In 2000 around 34 % of UK's electricity production was based on natural gas. This has since grown to 43 %, burning around 37 % of UK's natural gas consumption.

UNITED KINGDOM, DEVELOPMENT IN GROSS NAT GAS IMPORTS BY SOURCE JAN 2000 - SEP 2010
SOURCE: DECC

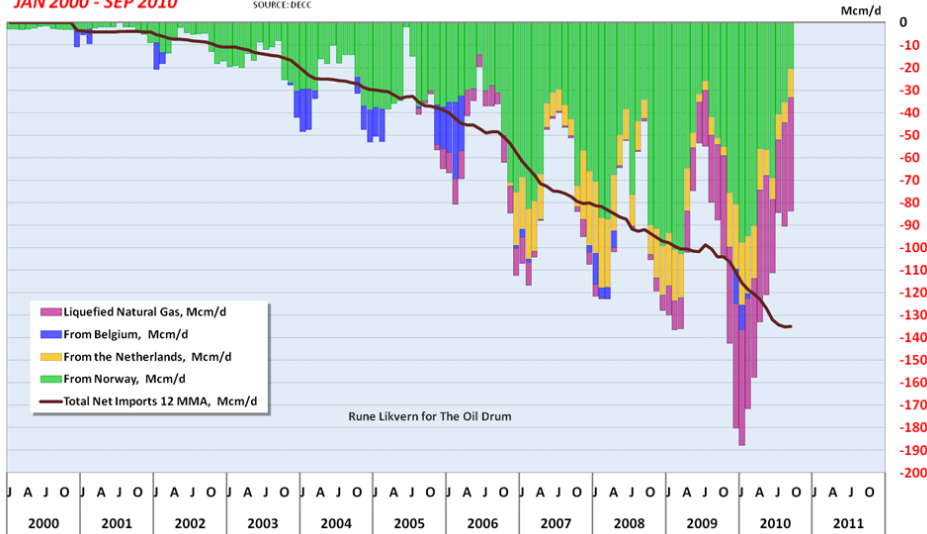


Figure 03: The diagram shows development in UK gross natural gas imports by type and source from January 2000 and as of September 2010. Belgium is not an exporter for natural gas, but a transit country for other natural gas exporters.

Presently around 40 % of U.K. natural gas consumption is met by imports.

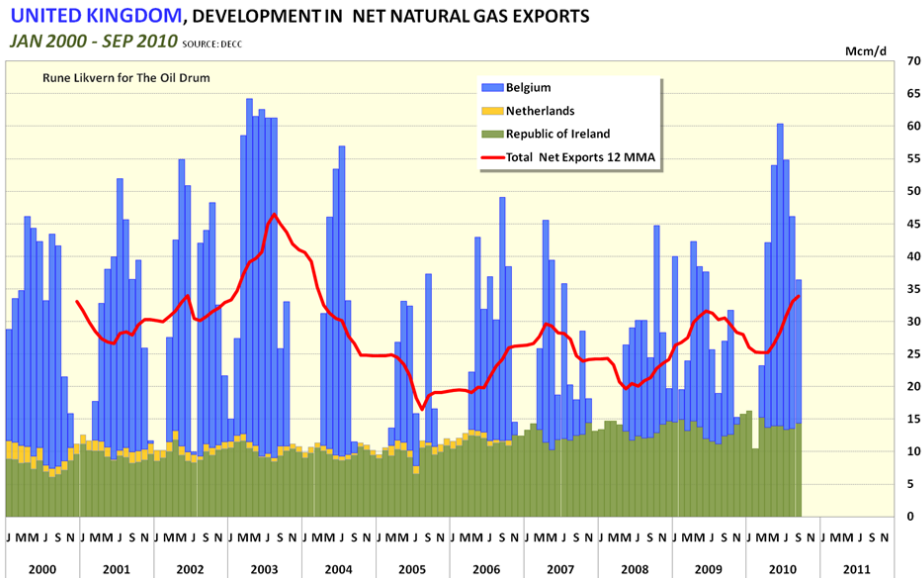


Figure 04: The diagram shows development in U.K. net natural gas exports by destination from January 2000 and as of September 2010.

As U.K. has been a net importer of natural gas it has also become established as a European hub for exports of natural gas. These exports are subject to seasonal variations as illustrated in the graph above.

With the recent growth in U.K. receiving capacities for LNG, natural gas exports to Continental Europe have increased. This is believed to be due to the price differential between the U.S. and the U.K. market. The U.S. market is presently well supplied due to unconventional gas (also shale gas) production, and with this the U.K. market has become more profitable than the U.S. market for sellers/shippers of LNG.

U.S. unconventional gas may thus now be attributed to help bring down LNG prices in the Atlantic basin which also has made it possible for buyers on Continental Europe to buy slots at the U.K. LNG receiving facilities and thus get some supplies of cheaper natural gas compared to suppliers of pipelined gas like Norway and Russia.

If LNG will remain a “cheap” alternative for natural gas in the Atlantic basin throughout this winter also very much depends on developments in LNG demand from the Pacific basin (China, Japan and South Korea to name a few). A strong demand for LNG from the Pacific basin may move U.K. natural gas pricing away from U.S. market pricing towards oil priced indexed natural gas prices. As of now natural gas (dayahead) trades around 60 p/therm (which is around \$9,50/MMBtu). Presently the U.K. LNG receiving facilities have a total send out capacity of around 130 Mcm/d.

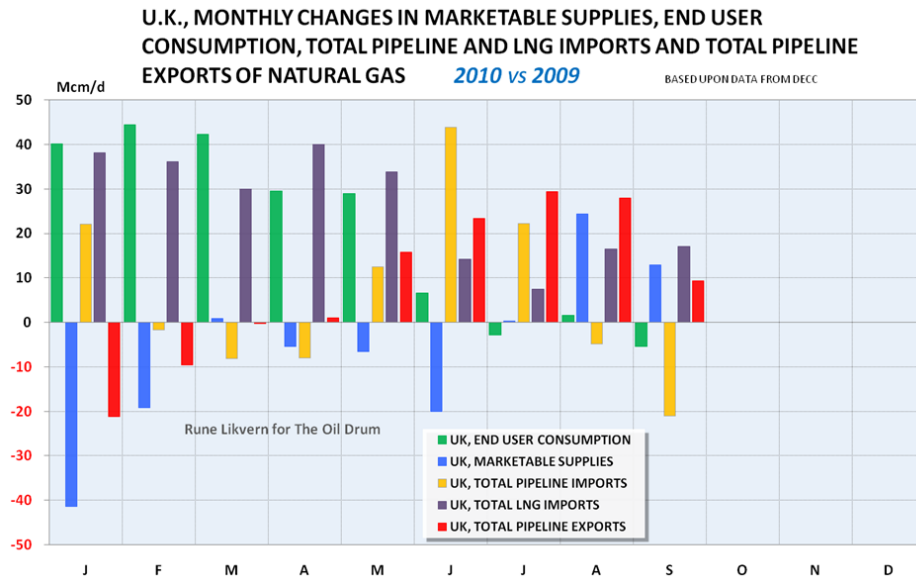


Figure 05: The diagram shows changes from 2009 to 2010 in U.K end user natural gas consumption, marketable supplies, total pipeline imports and exports and LNG imports.

Over the years the U.K. trends are declining indigenous supplies, growing consumption (now driven primarily by natural gas used for electricity generation as coal fired electricity generation will be retired) and as of this summer growing secondary exports of LNG to Continental Europe.

The chart below shows the flows through the Interconnector (Bacton - Zeebrugge for the contractual years 2008 - 2010).

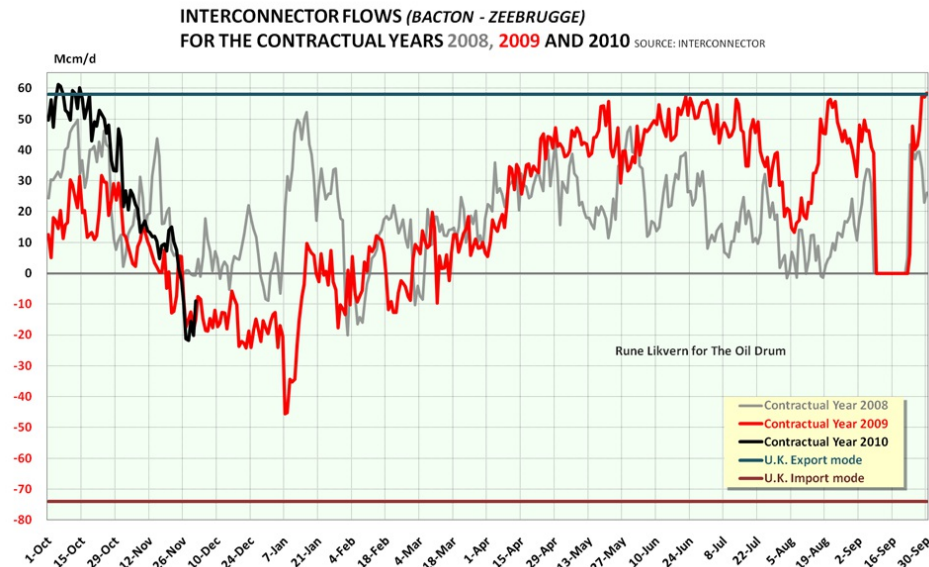


Figure 06: The diagram shows flows in the Interconnector between Bacton and Zeebrugge for the contractual years 2008 - 2010. Positive value is flow from U.K. to Belgium.

The U.K. storage system has 3 classes of storage facilities: LRS (Long Range Storage), MRS (Medium Range Storage) and SRS (Short Range Storage). Simultaneous operation of these facilities may add 120 + Mcm/d to the supply.

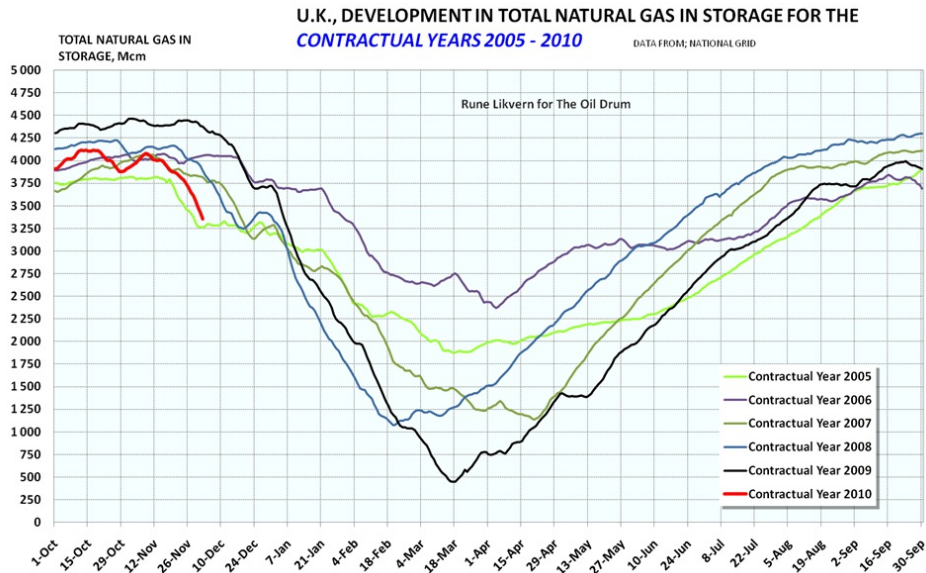


Figure 07: The diagram shows development in total working natural gas in U.K. storage for the contractual years 2005 - 2010. The thicker red line shows status for contractual year 2010.

For the contractual year 2010 (which started October 1st 2010 and ends October 1st 2011) increased use of storage withdrawals have been used to balance demand.

As of December 2nd there was a total of 1 020 Mcm or 23 % less natural gas in U.K. storage relative to the same date in 2009. Last heating season (2009) ended with a total of 470 Mcm natural gas in storage.

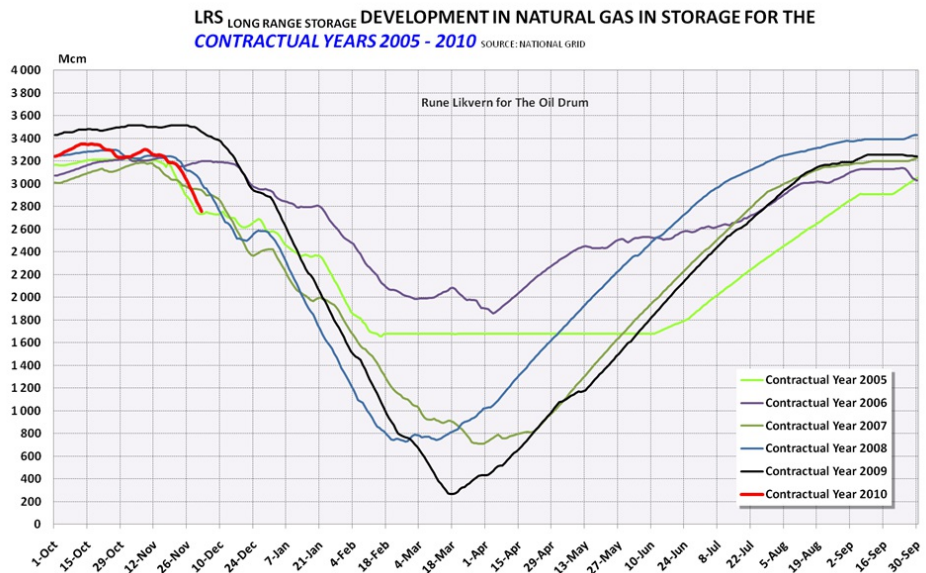


Figure 08: The diagram shows developments for natural gas in storage in LRS (Long Range Storage) for the contractual years 2005 - 2010.

Last heating season had a low of around 240 Mcm natural gas in LRS (Rough). During this refilling season storage levels ended below last year.

As of December 2nd there was a total of 700 Mcm or 20 % less natural gas in LRS relative to same date last year.

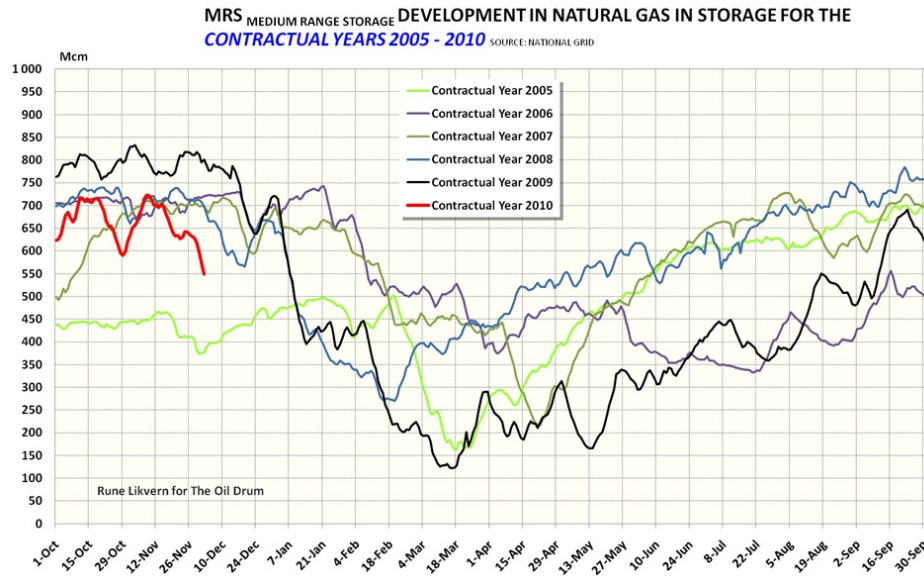


Figure 09: The diagram shows developments for natural gas in storage in MRS (Medium Range Storage) for the contractual years 2005 - 2010.

MRS reached a total level of 120 Mcm natural gas in storage as a low last heating season. Total levels for MRS have also stayed below last year's.

As of December 2nd there was a total of 250 Mcm or 31 % less natural gas in MRS relative to same date last year.

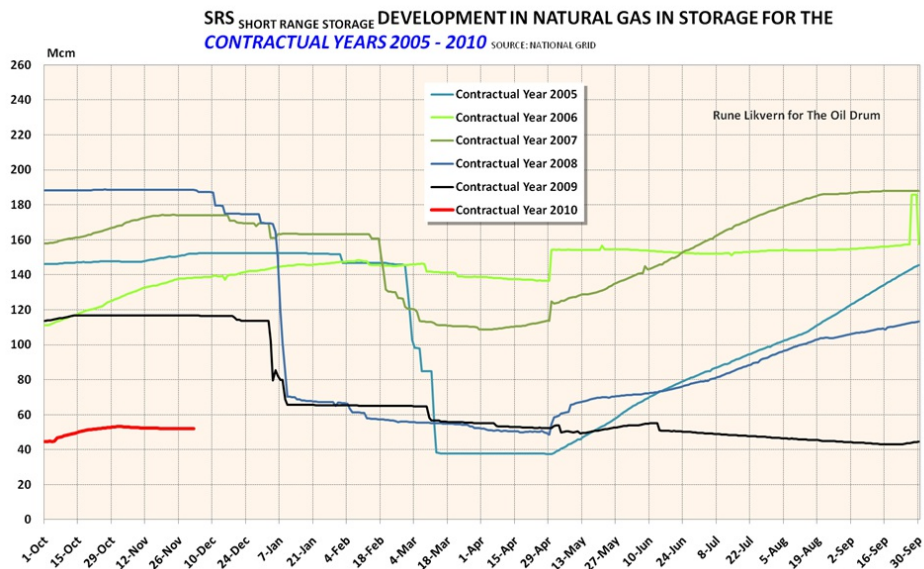


Figure 10: The diagram shows developments for natural gas in storage in SRS (Short Range Storage) for the contractual years 2005 - 2010.

SRS has not reached previous year's levels. How this may affect a GBA' (Gas Balancing Alert) remains unclear.

As of now it is of course impossible to forecast if present U.K. natural gas in storage will be adequate throughout this heating season. Gas demand and also storage withdrawals are very much influenced by weather and plans for later this winter now call for more use of coal and less

I will revisit this subject later this winter to update on the situation as it unfolds.



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