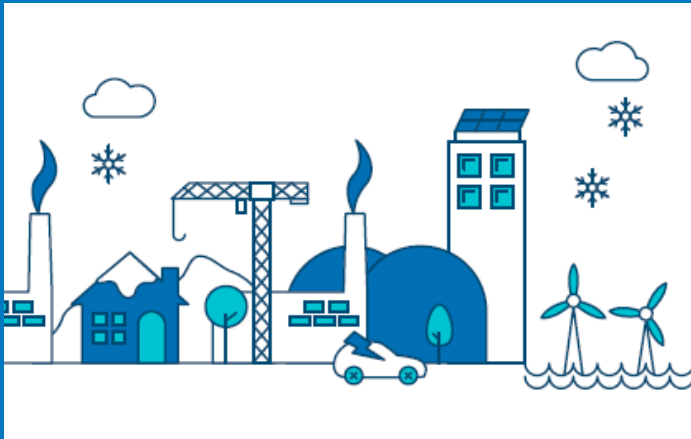


Gas Winter Outlook 2016/17



BIEE 17th October 2016

Simon Durk: Market Insights Manager

An interesting winter in prospect?

- Rough
- BBL
- IUK
- LNG
- Norway
- Power generation
- UKCS



Why do we prepare a winter outlook?

As the GB System Operator, part of our role is to provide credible analysis of how the energy sector might look based on the latest information available to us. This report draws together **analysis and feedback from across the industry** to present robust data and help optimise availability for the coming winter by **ensuring the market is fully informed**

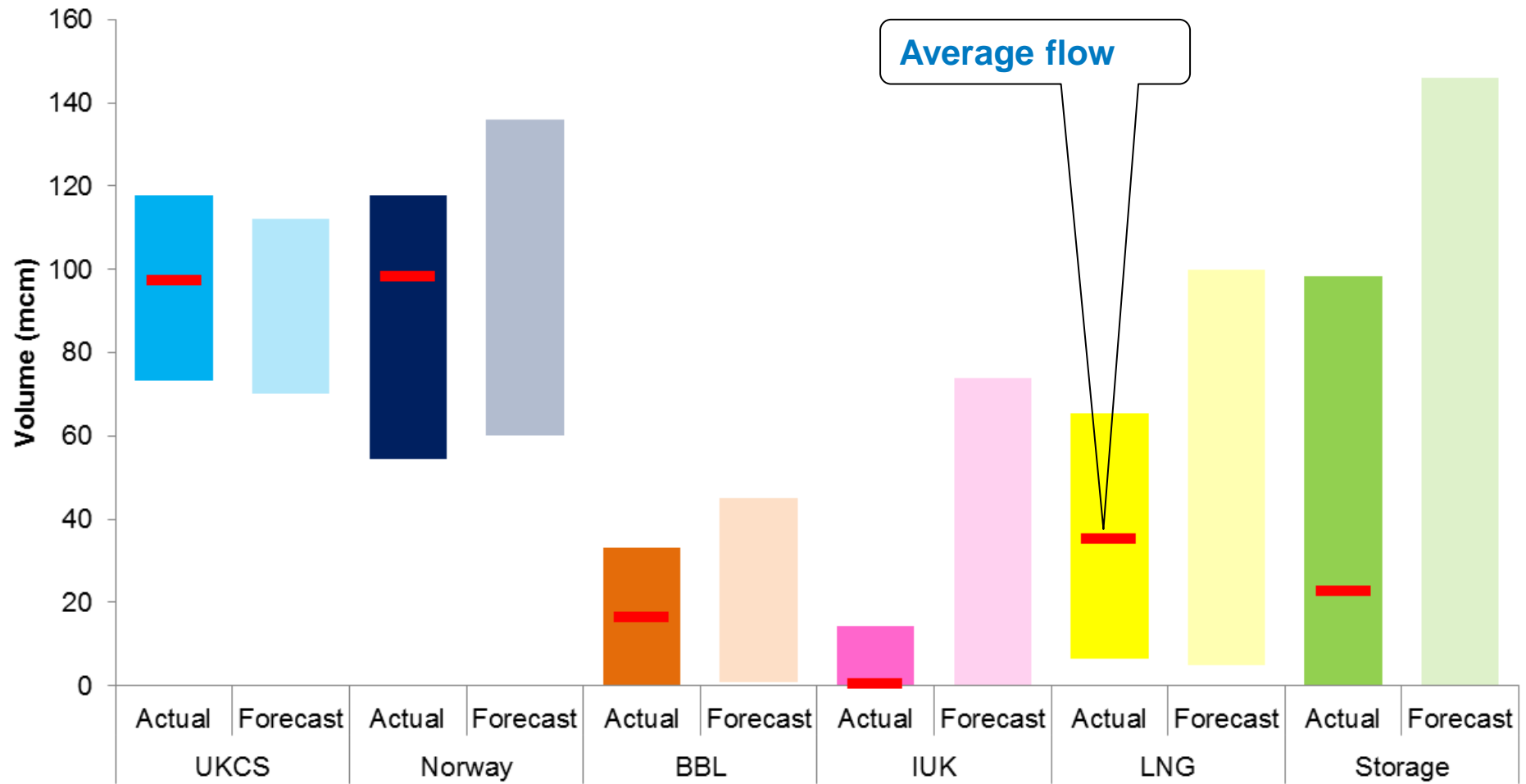
Winter Review - Demand

October to March Winter	Our forecast bcm	Actual bcm	Weather corrected bcm
NDM	29.6	27.7	29.6
DM + Industrial	5.4	4.6	4.7
Ireland	2.4	2.6	2.6
Total Power	9.5	10.4	10.4
Total demand	46.8	45.5	47.4

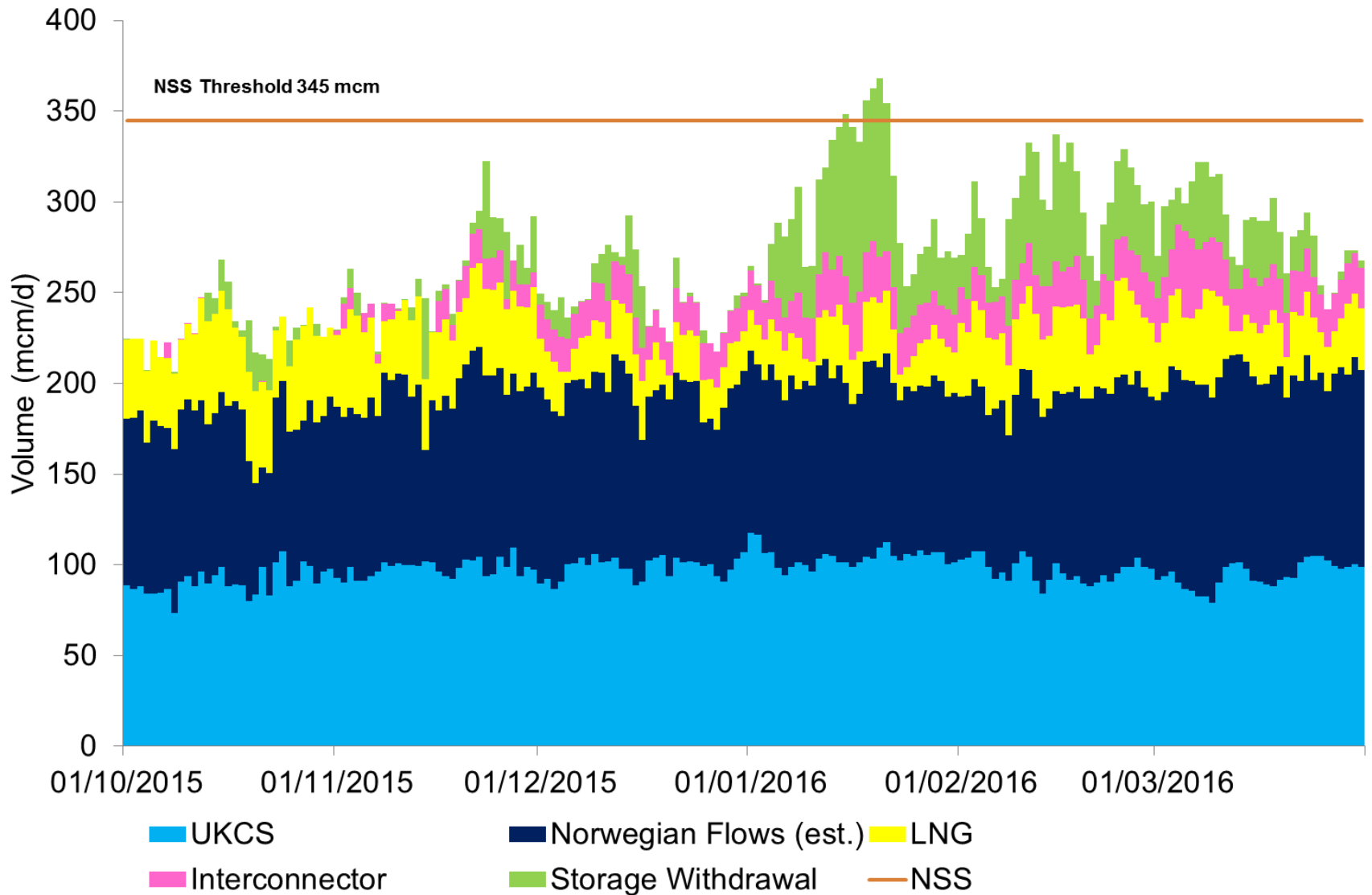
Winter Review - Supply

What we said in the <i>Winter Outlook Report</i>	What actually happened	Why was there a difference
<p>Supply patterns were likely to be similar to 2014/15</p> <p>Slightly higher supplies from the UKCS</p> <p>Uncertain continental flows.</p>	<p>Supply patterns were similar to 2014/15</p> <p>Slightly higher supplies from the UKCS</p> <p>Low flows from BBL in the first half of winter. IUK exported for most of the winter.</p>	<p>Little difference between our forecast and winter 2015/16.</p>
<p>No disruption to GB flows resulting from Russia Ukraine conflict. The only exception would be in very cold weather with disruption of Ukrainian transit.</p>	<p>There was no disruption to GB supplies.</p>	<p>There was no disruption to supplies, in line with our forecast.</p>

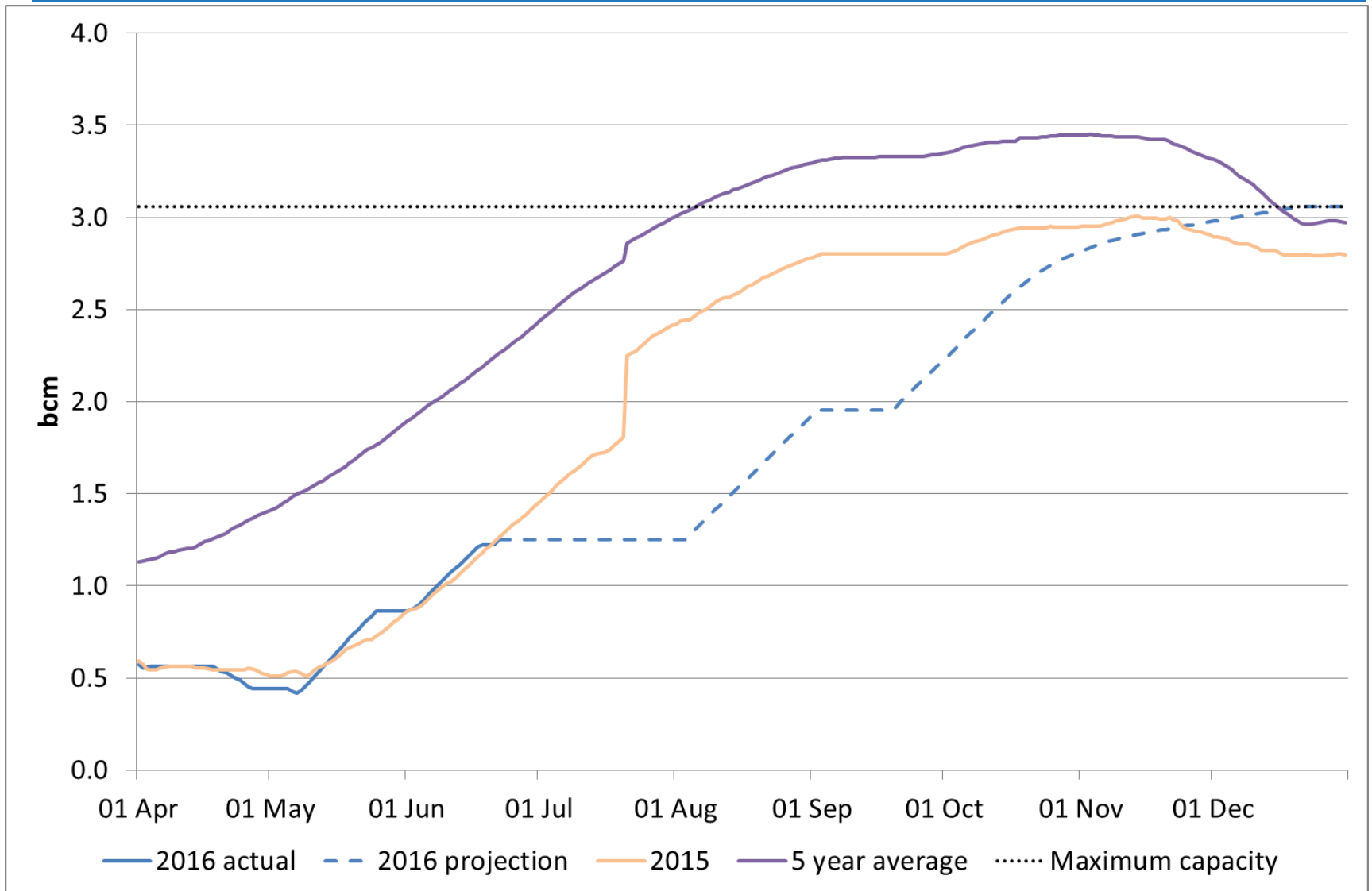
Actual and forecast supplies by source



Daily gas supply by source



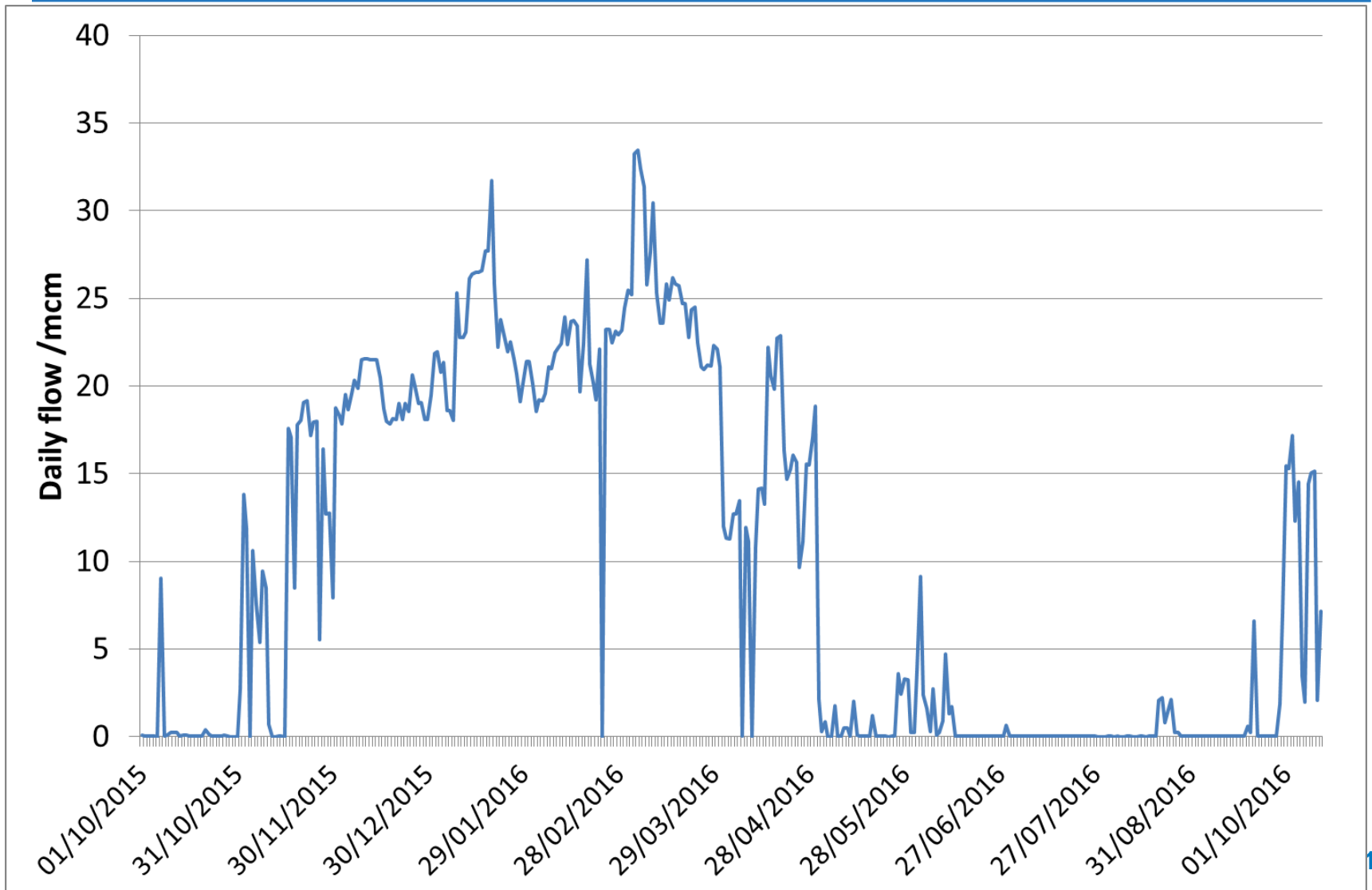
Projected stock level at Rough



BBL and Groningen

- Groningen is the largest field in Europe
- 53 bcm in 2013
- Low calorific value gas (L-Gas) used for residential heating and export to DE, FR, BE
- Not suitable for BBL export
- High Calorific gas (H-Gas) can be converted
- Restrictions due to earthquakes
- 27 bcm in 2015-16
- **24 bcm in 2016-17**

BBL Daily flows



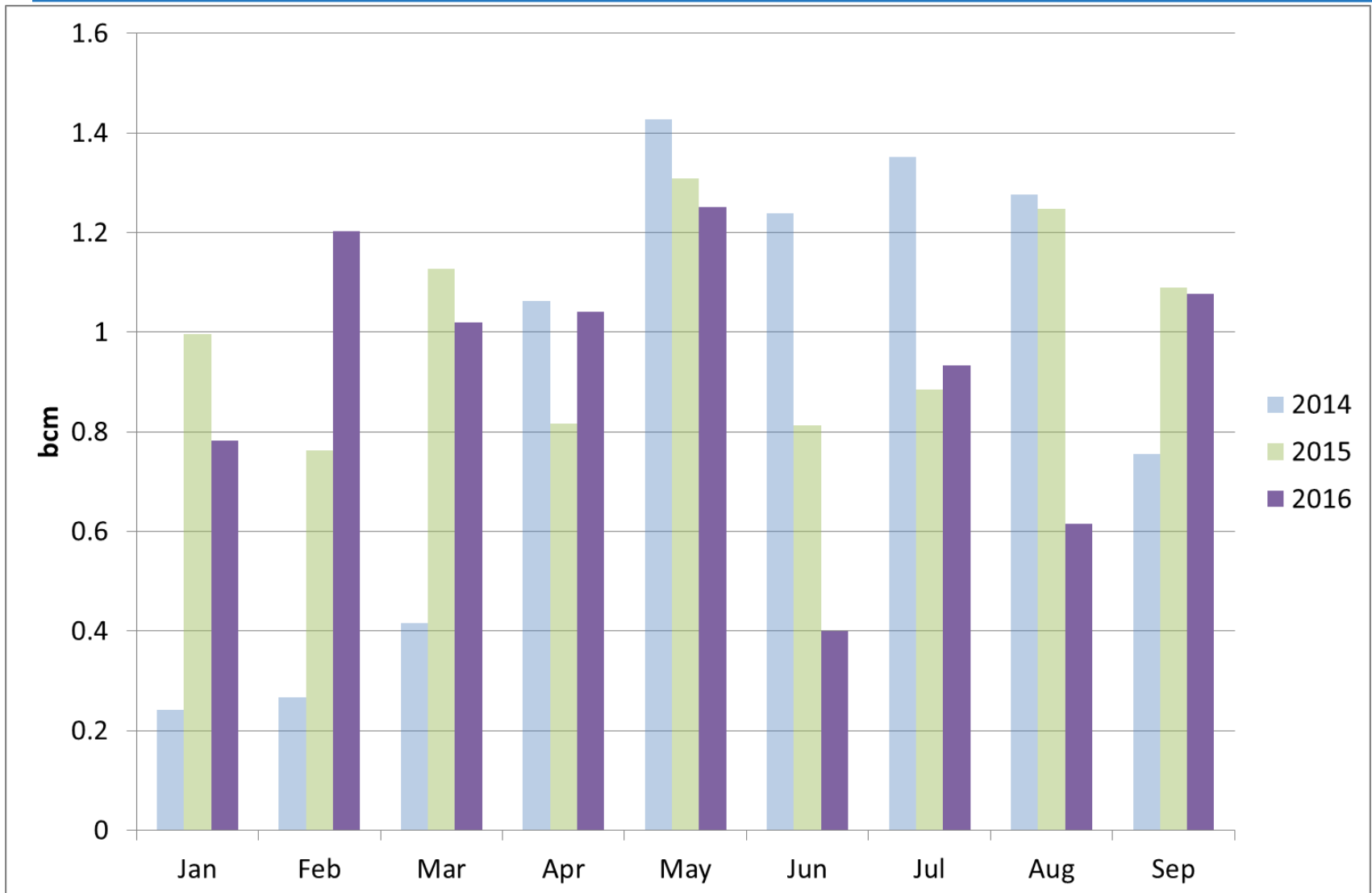
Preliminary view of supplies

	2015/16		2016/17	
(mcm/d)	Observed Range	350 + Range	Forecast Range	Cold day
UKCS	73 - 118	104 - 112	70 - 118	107
Norway	55 - 118	99 - 109	60 - 136	110
BBL	0 - 33	22 - 31	0 - 45	40
IUK	0 - 14	0 - 0	0 - 74	45
LNG	6 - 59	33 - 35	5 - 100	50
Storage	0 - 98	82 - 98	0 - 132	N/A
Total NSS				352

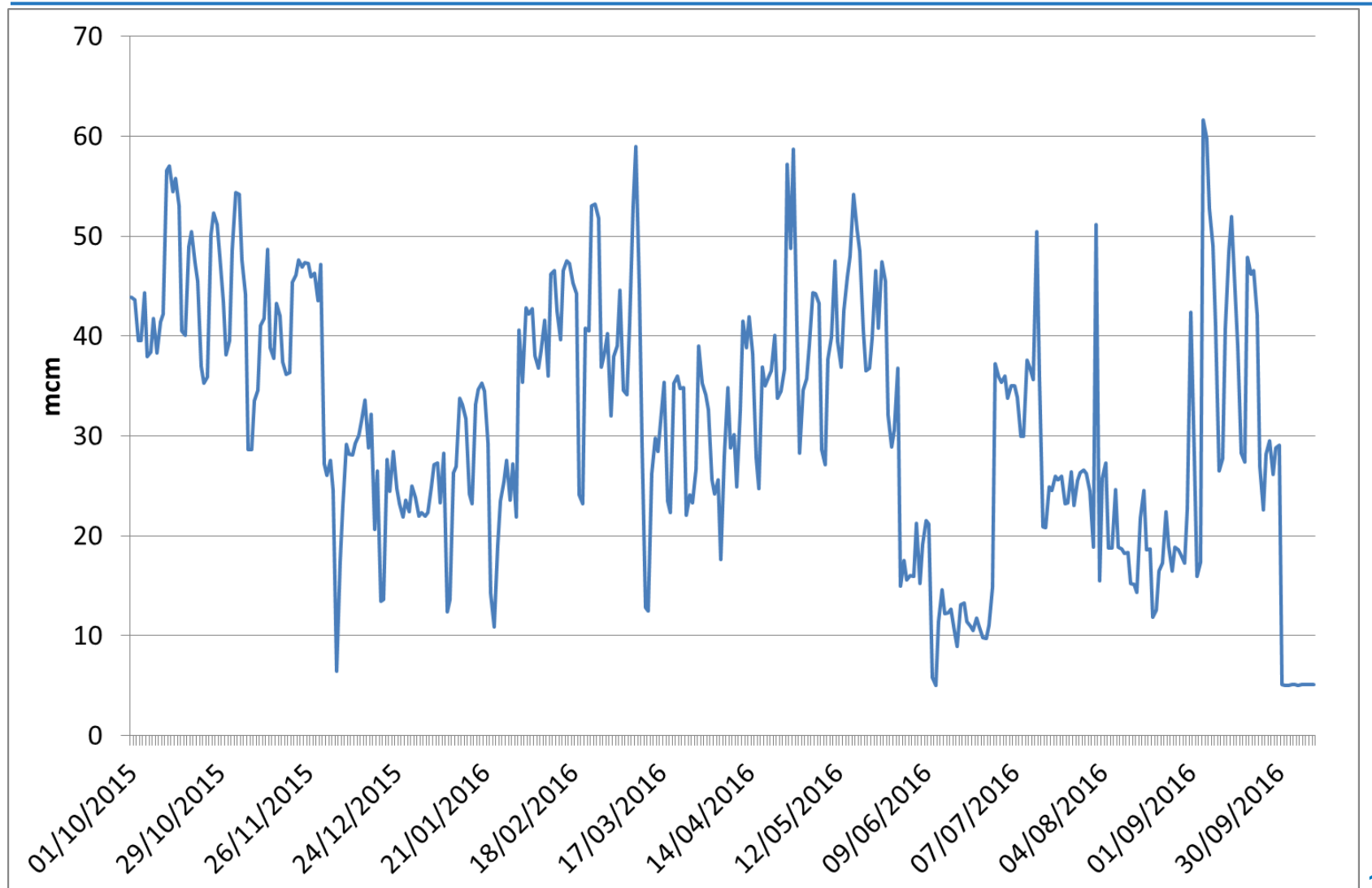
Norway

- Total Norwegian exports at a five year low but...
- Norwegian summer deliveries to GB at a record high

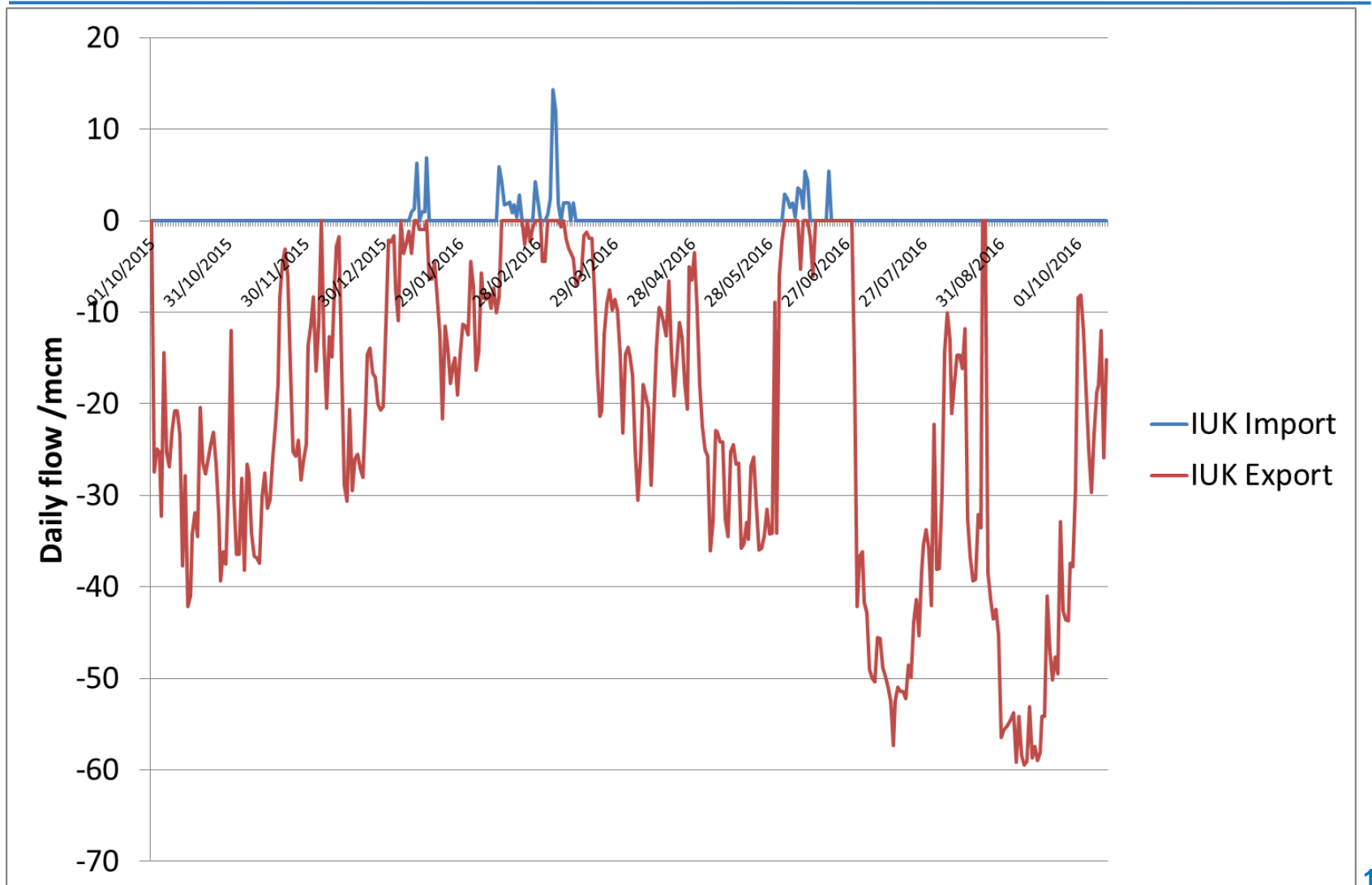
LNG Monthly flows



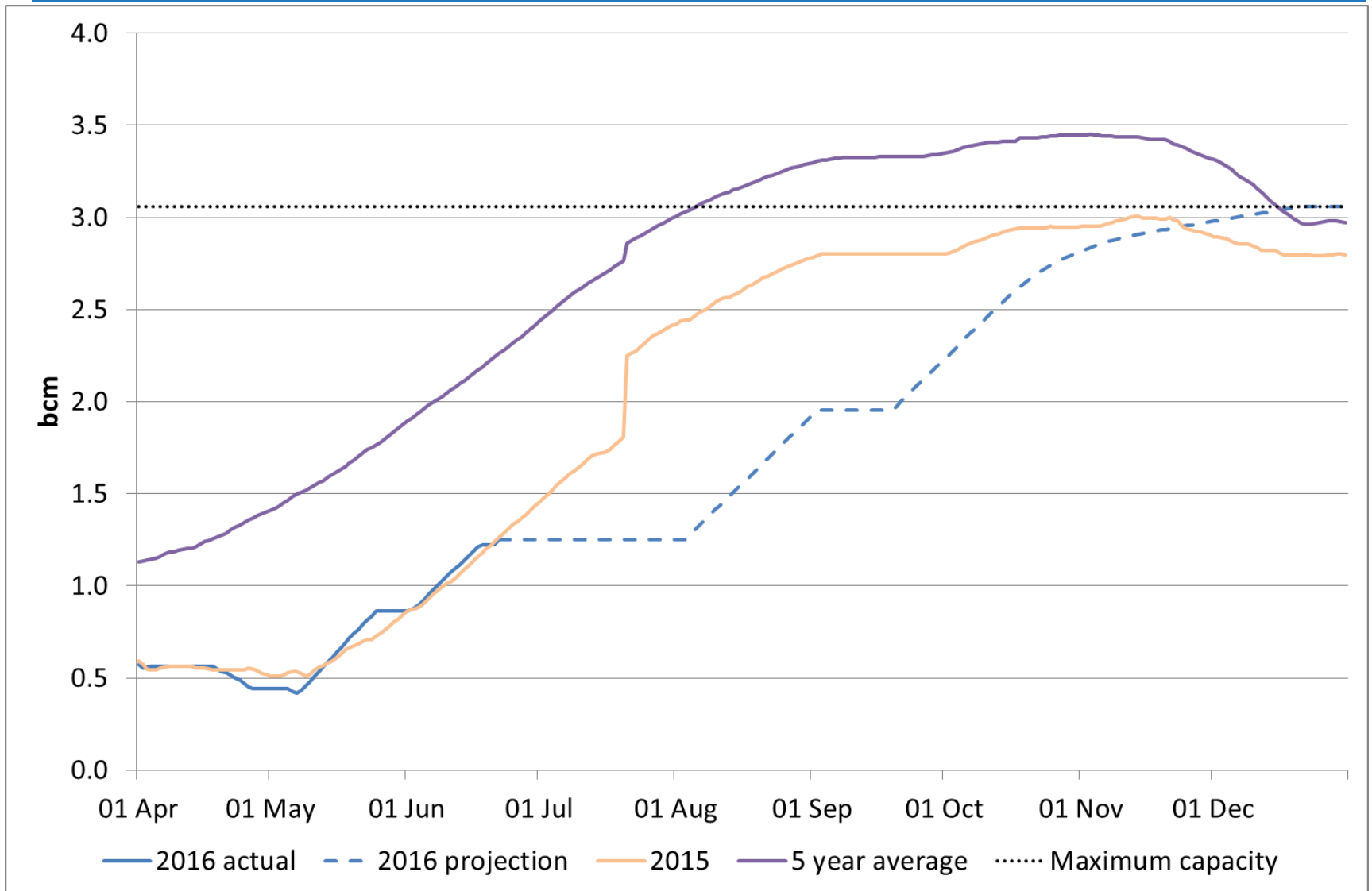
LNG Daily flows



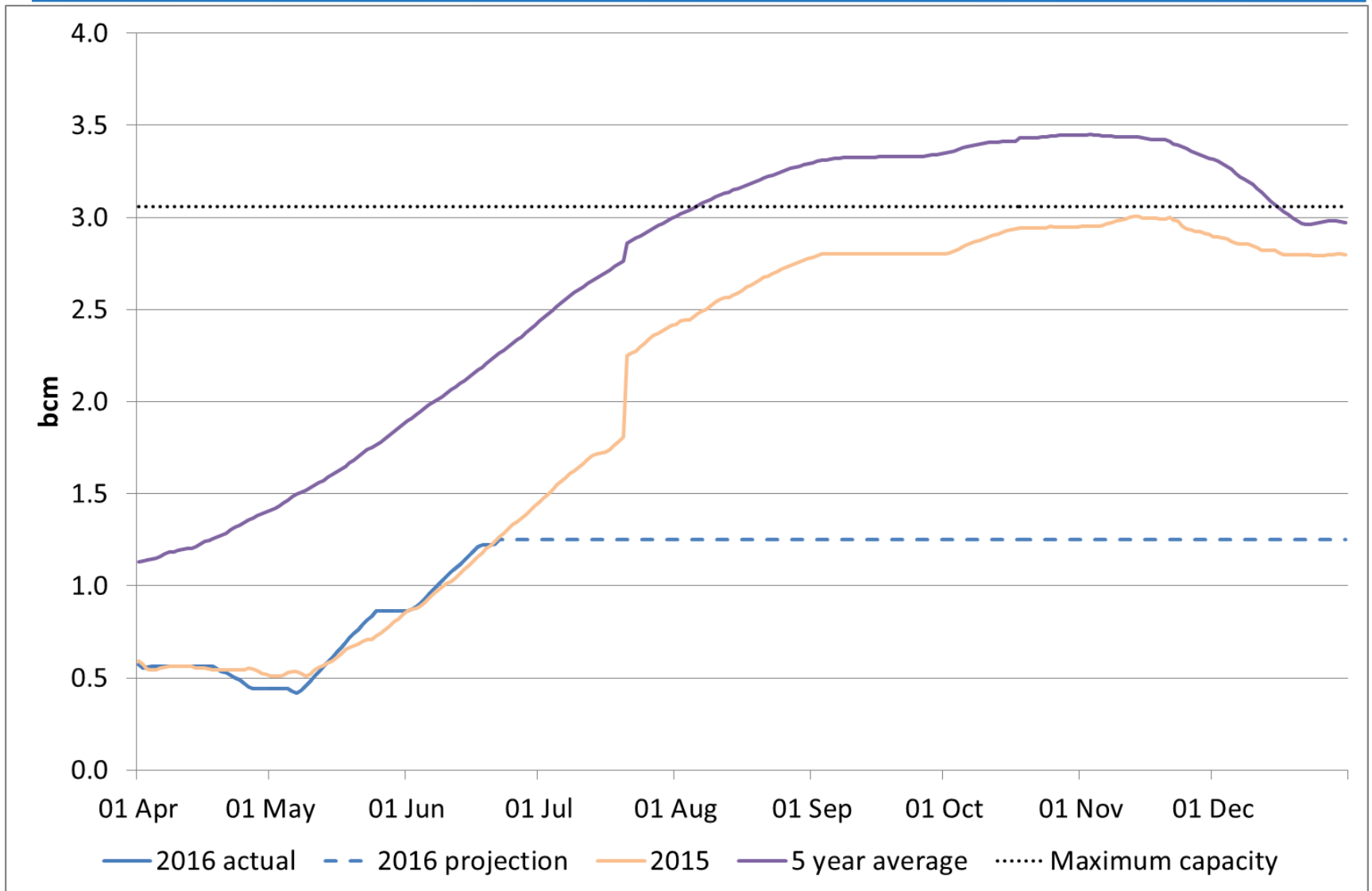
IUK flows



Projected stock level at Rough



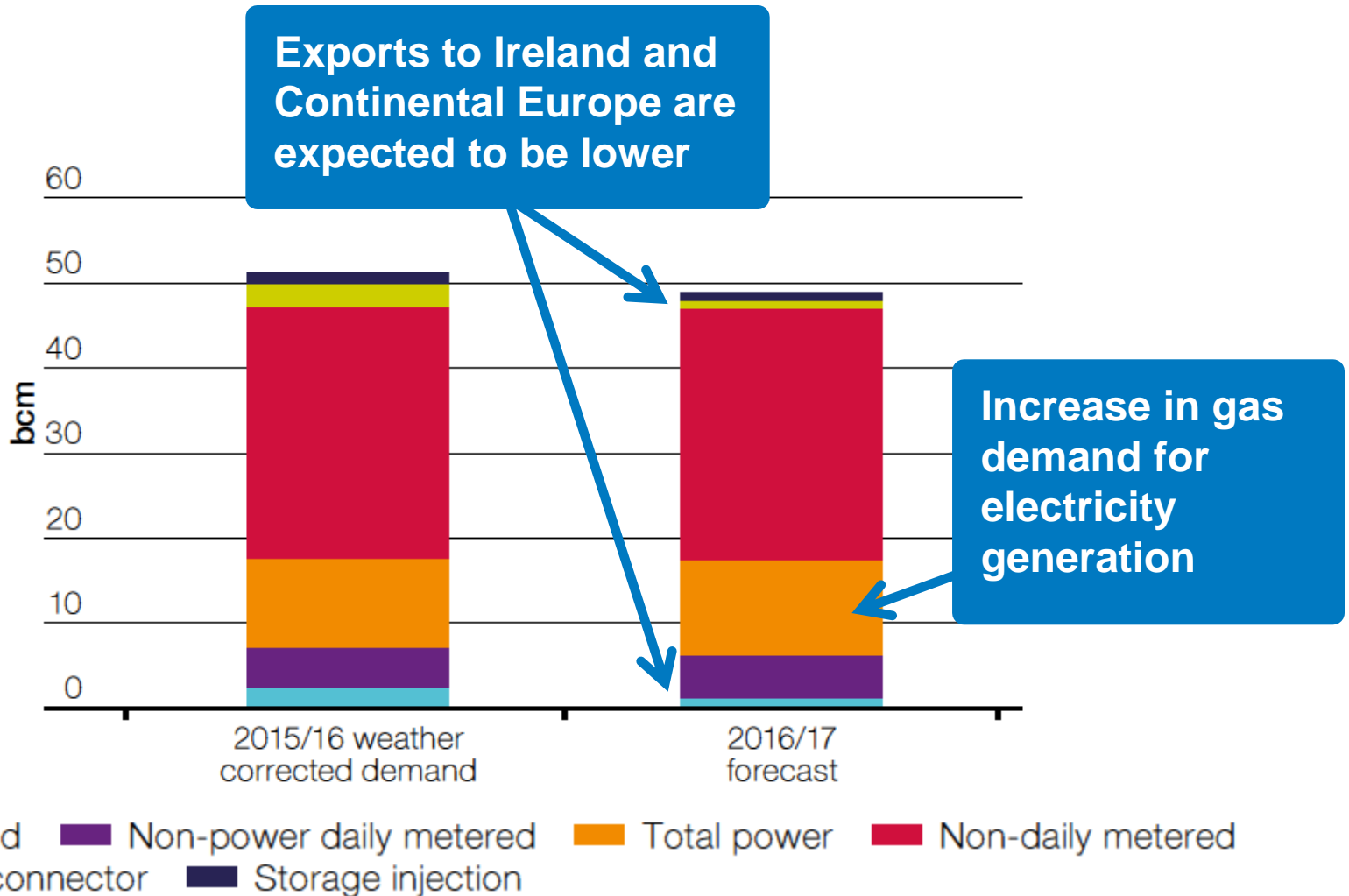
Projected stock level at Rough



Gas outlook



Gas demand is expected to be lower than last year



Final view of supplies

	2015/16		2016/17	
(mcm/d)	Observed Range	350 + Range	Forecast Range	Cold day
UKCS	73 - 118	104 - 112	70 - 118	107
Norway	55 - 118	99 - 109	60 - 136	115
BBL	0 - 33	22 - 31	0 - 45	35
IUK	0 - 14	0 - 0	0 - 74	45
LNG	6 - 59	33 - 35	5 - 100	50
Storage	0 - 98	82 - 98	0 - 132	
Total NSS				352

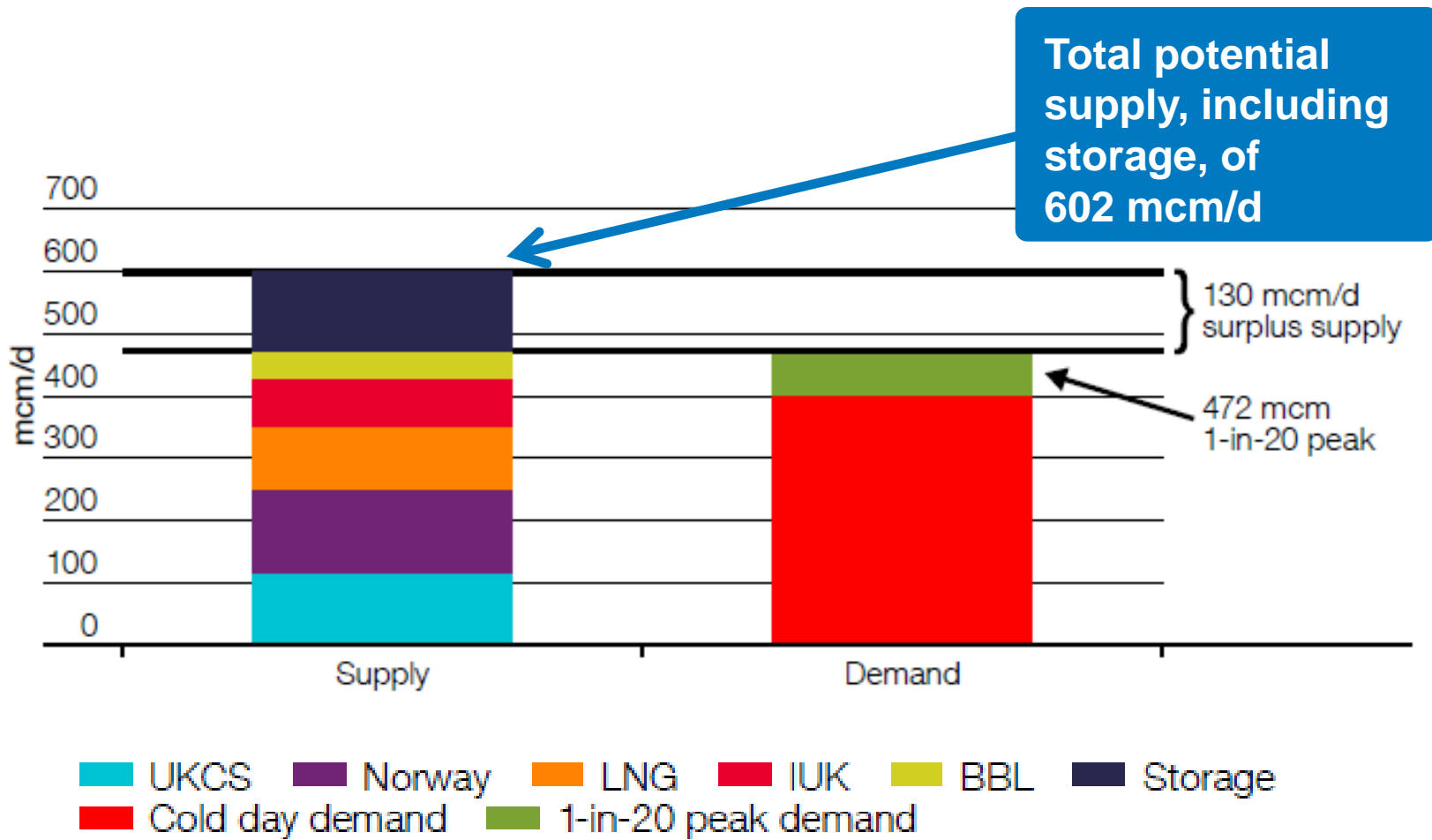
Margins Notice

Date & Day Number	Demand Forecast	NSS Assumption
16/10/2016 (D-1)	215	352
17/10/2016 (D-2)	215	352
18/10/2016 (D-3)	220	352
19/10/2016 (D-4)	231	352
20/10/2016 (D-5)	231	352

Storage	
Min Use	Max Use
#N/A	99
#N/A	99
#N/A	99
#N/A	99
#N/A	94

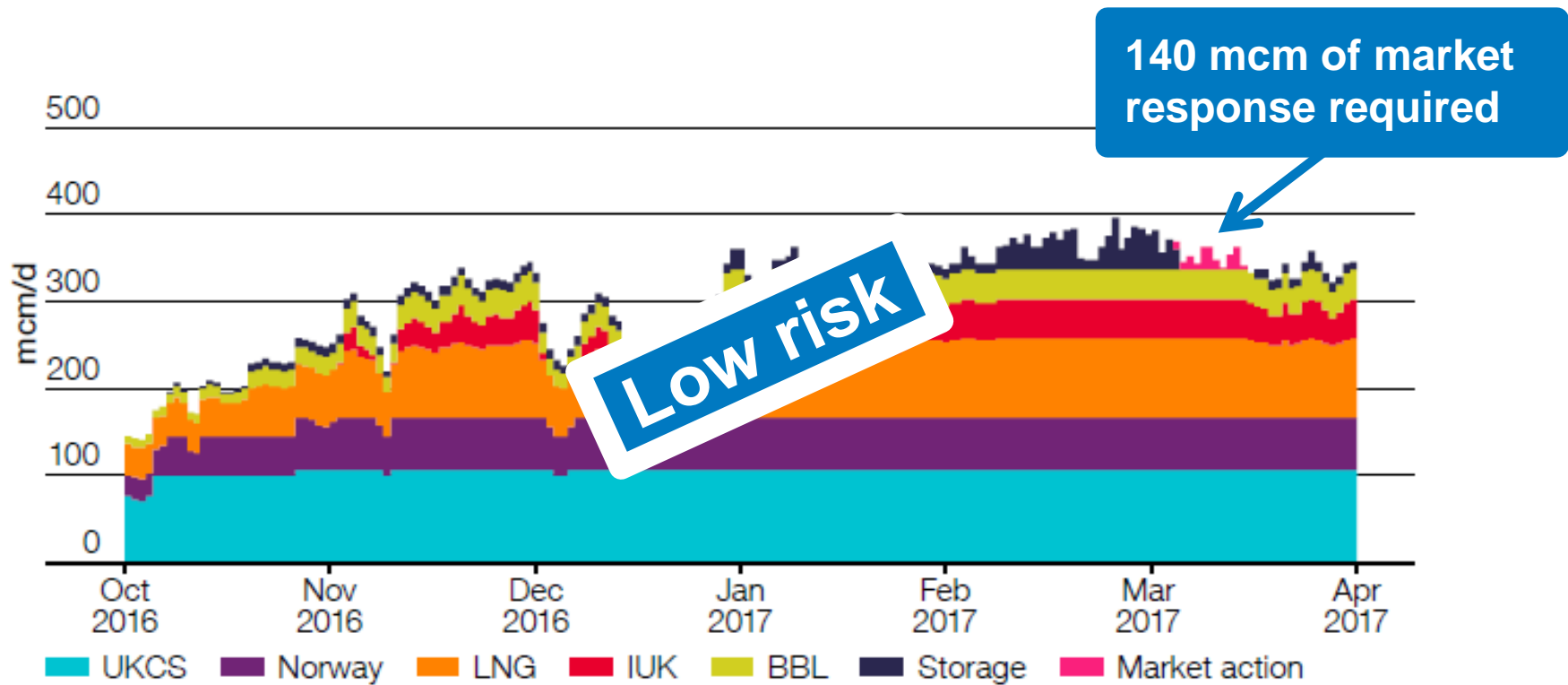
Total	
Min Use	Max Use
#N/A	451
#N/A	451
#N/A	451
#N/A	451
#N/A	446

Sufficient gas supply available to meet demand



Our stress tests indicate a low risk to security of supply

Cold winter with Rough unavailable and a Norwegian outage



The new demand side response mechanism is now live



New demand side response (DSR) mechanism went live on 1 October.

Allows large gas consumers to offer to reduce the amount of gas they use during times of system stress.

Makes additional gas available for system balancing.

On the Watch List

- Storage use
- IUK
- Groningen and BBL
- Gas/Coal Switching
- ~~■ Ukraine~~
- ~~■ El Niño~~

Questions?
