

Balancing Actions



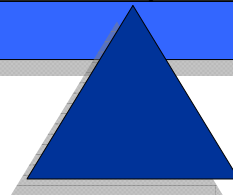
Balancing Responsibilities

National Grid's Role – Residual Balancer

- Ensure NTS balance is within safe operating limits
 - NG balancing trade actions at times of forecast imbalance
 - Cannot 'instruct' users
 - NG neutral to direct costs of system balancing, but
 - NG **incentivised** to ensure
 - Daily change in line pack < 2.8mcm
 - Impact of actions taken on price is minimised

Gas Supply

Gas demand



Shipper Balancing Responsibilities

Shippers Role

- Obligated to provide commercial input and output nominations to National Grid before the day (forecasts)
- Can chose to re-nominate throughout the gas day
- Incentivised to ensure nominations / re-nominations are accurate
- Incentivised rather than obliged to physically balance portfolio

NTS Connected Sites

- Obligated to provide physical entry profiles (DFN's)

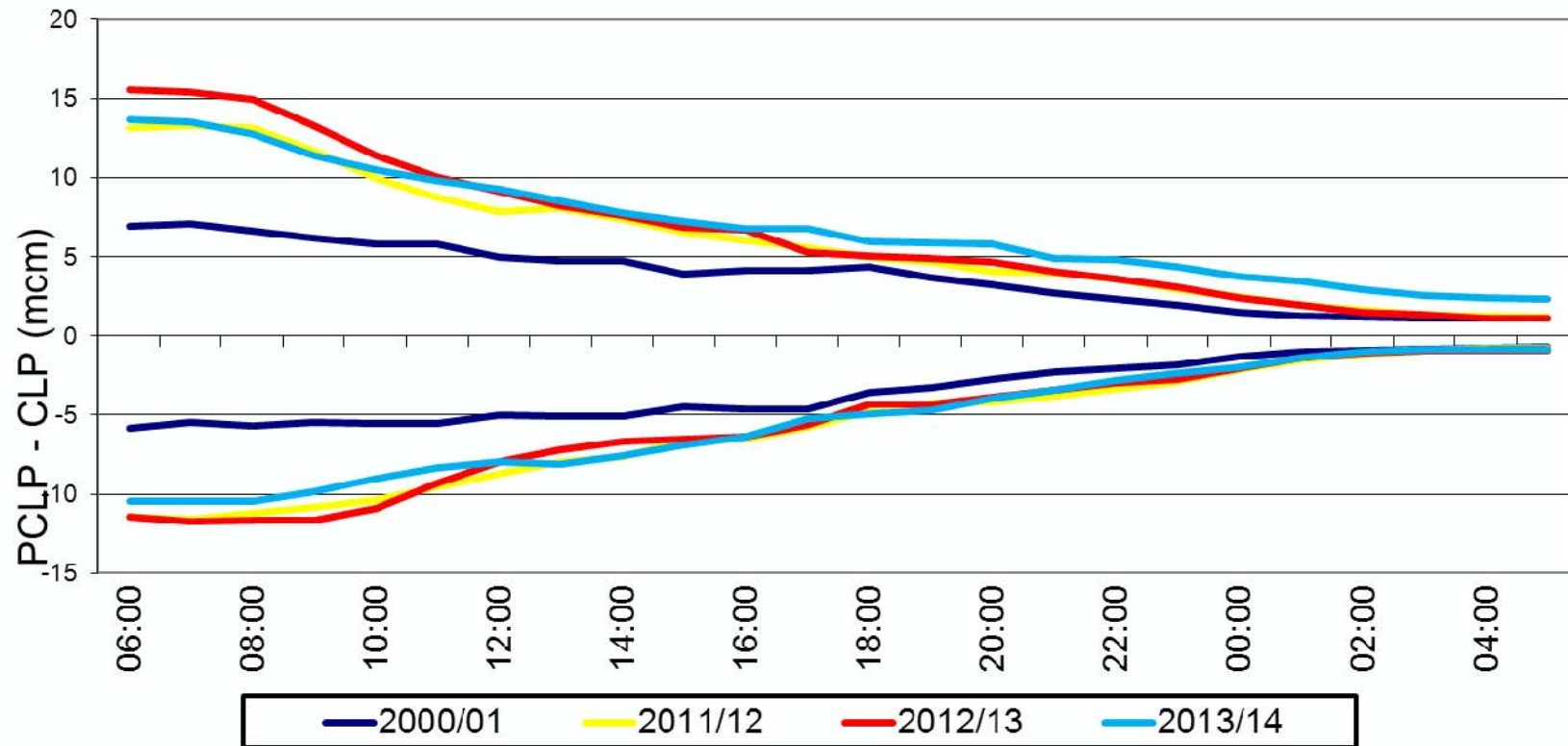
NTS Connected Sites

- Obligated to provide physical exit profiles (OPN's)

Gas Supply

Gas demand

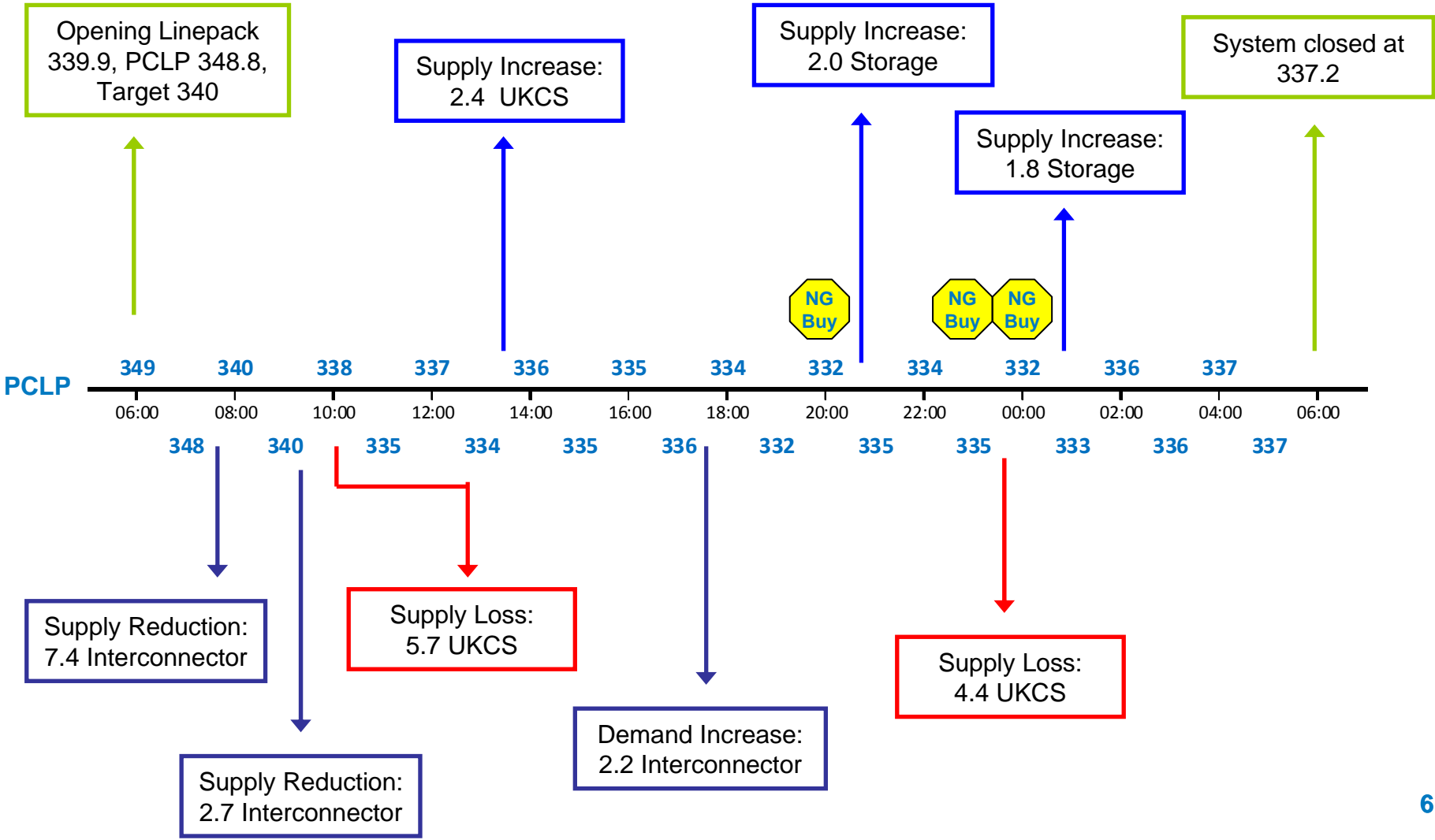
Projected Closing Linepack v Closing Linepack



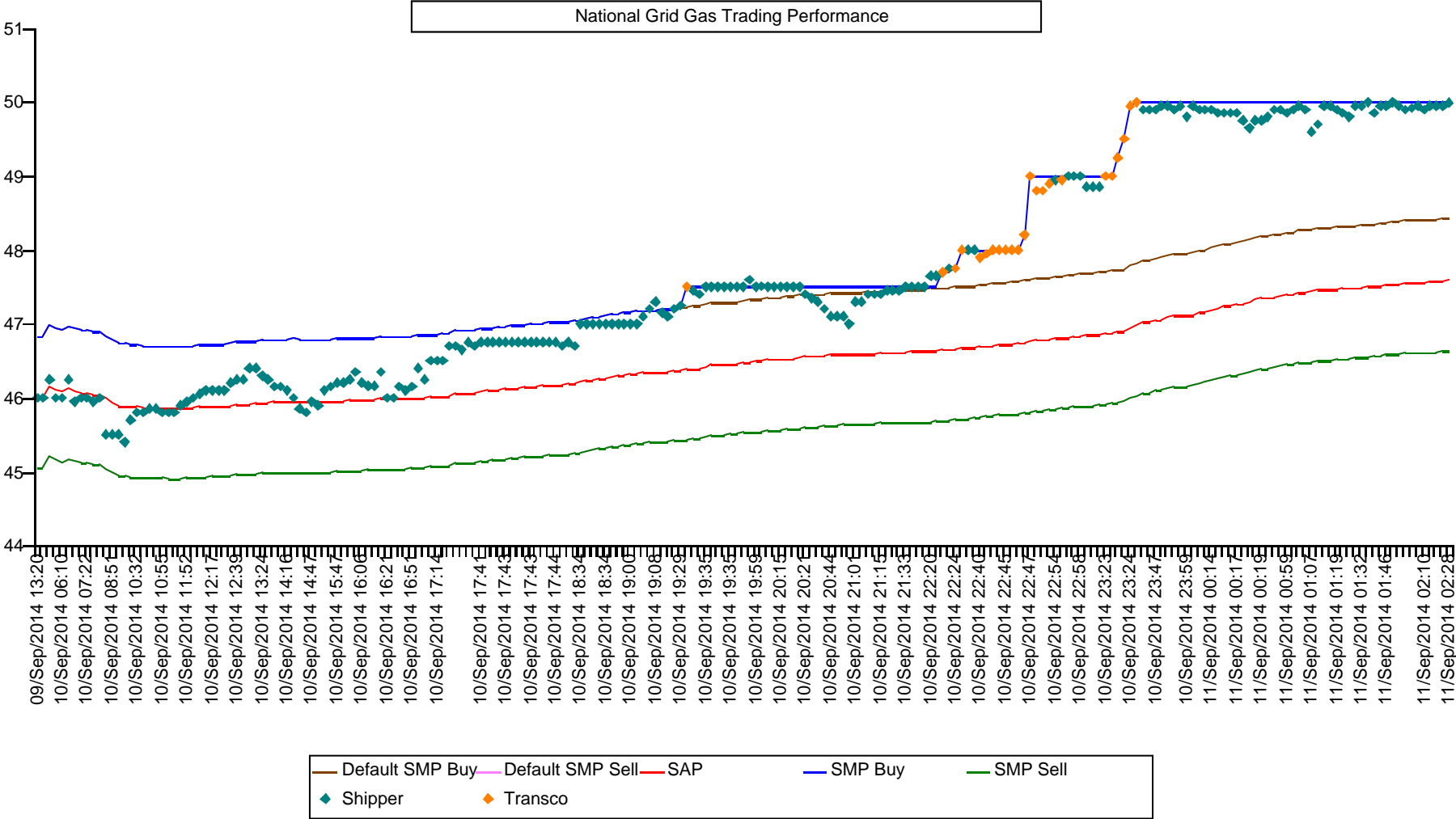
Linepack Target

- National Grid are incentivised to keep linepack changes to below 2.8mcm day on day.
- The volume of linepack required could differ each day due to:
 - Changes in Supply and Demand ranges
 - Maintenance Activities
 - Pressure requirements at the offtakes of our customers
 - Operational Risk Envelope

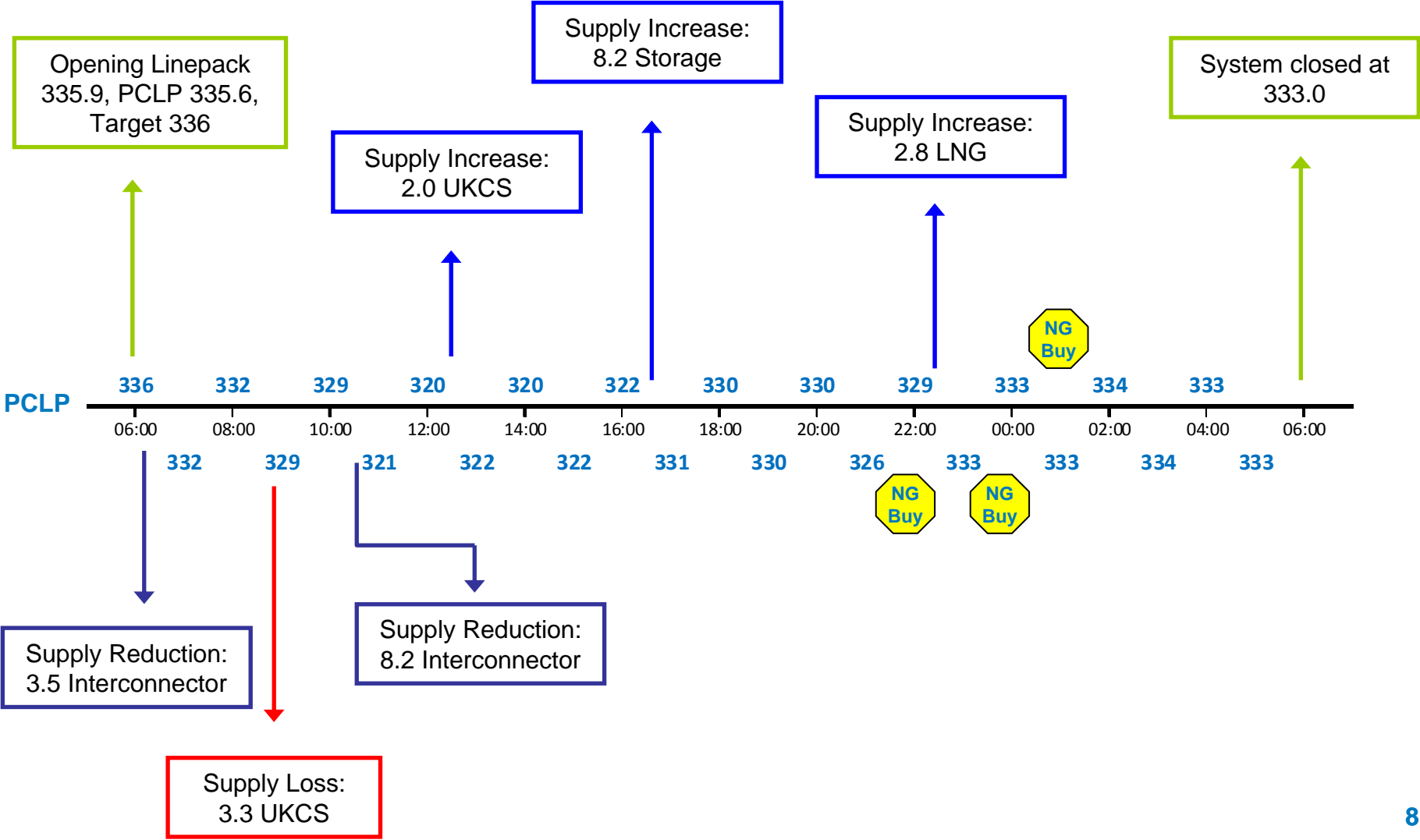
10th September 2014



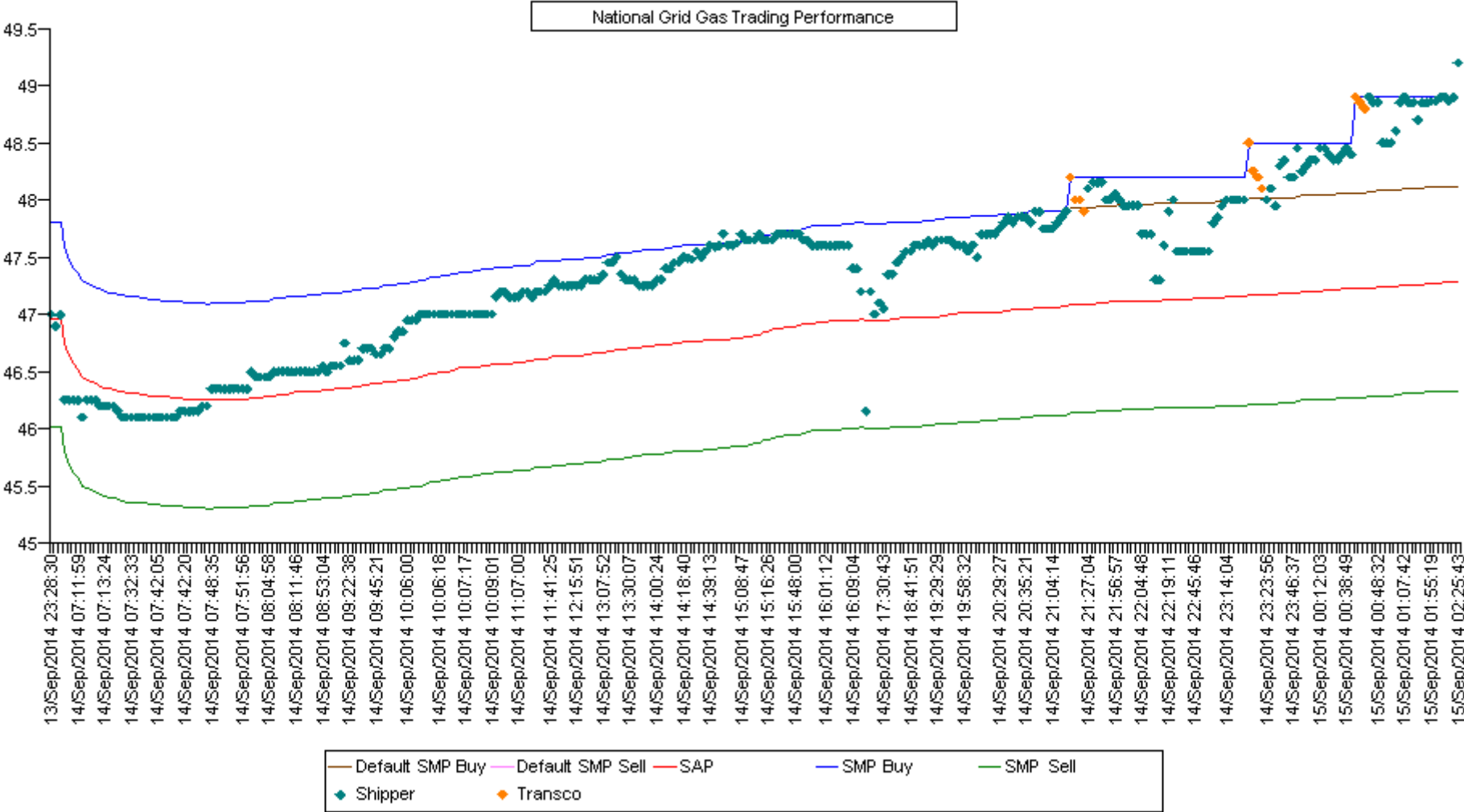
10th September – OCM Trading



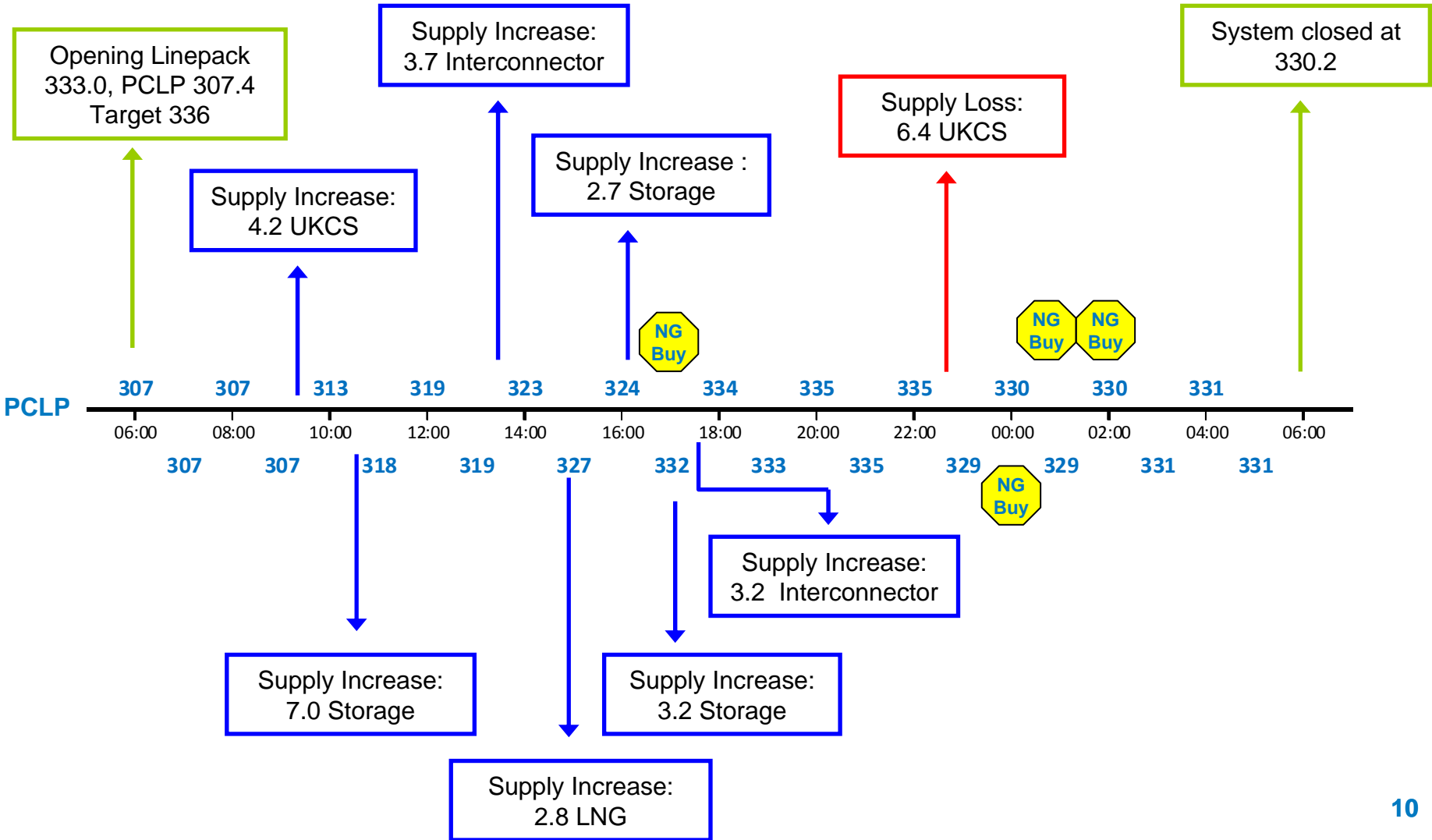
14th September 2014



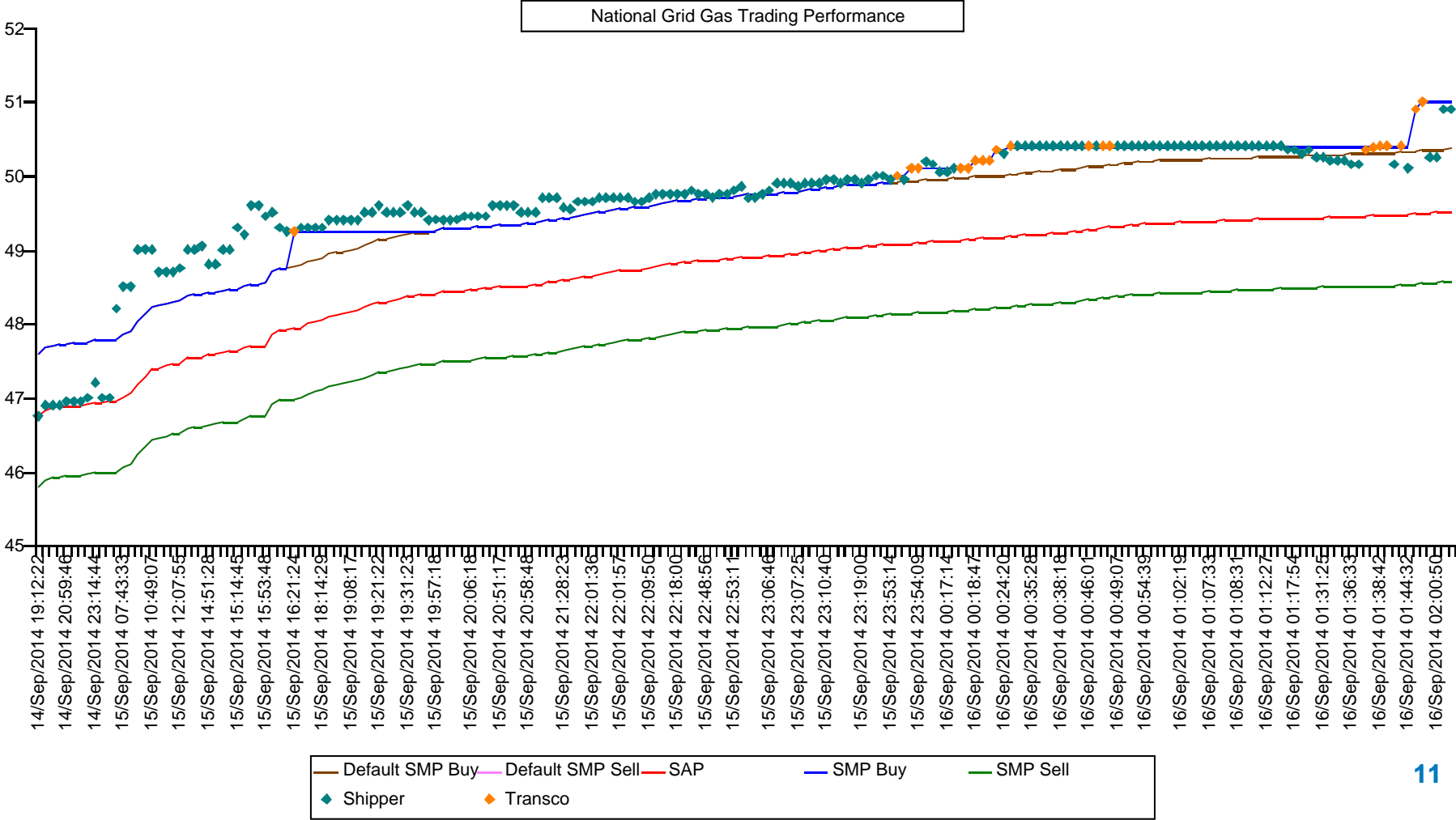
14th September – OCM Trading



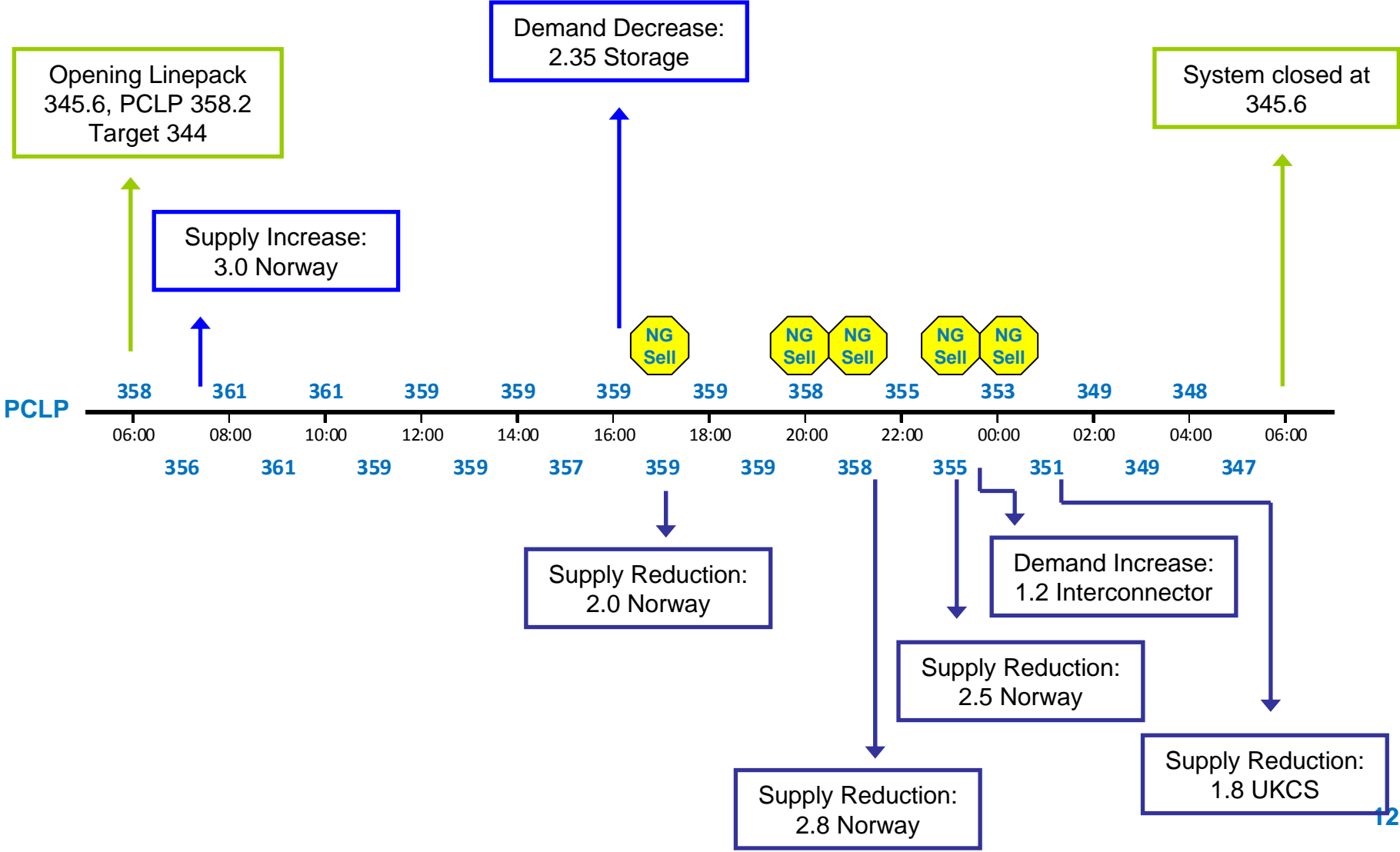
15th September 2014



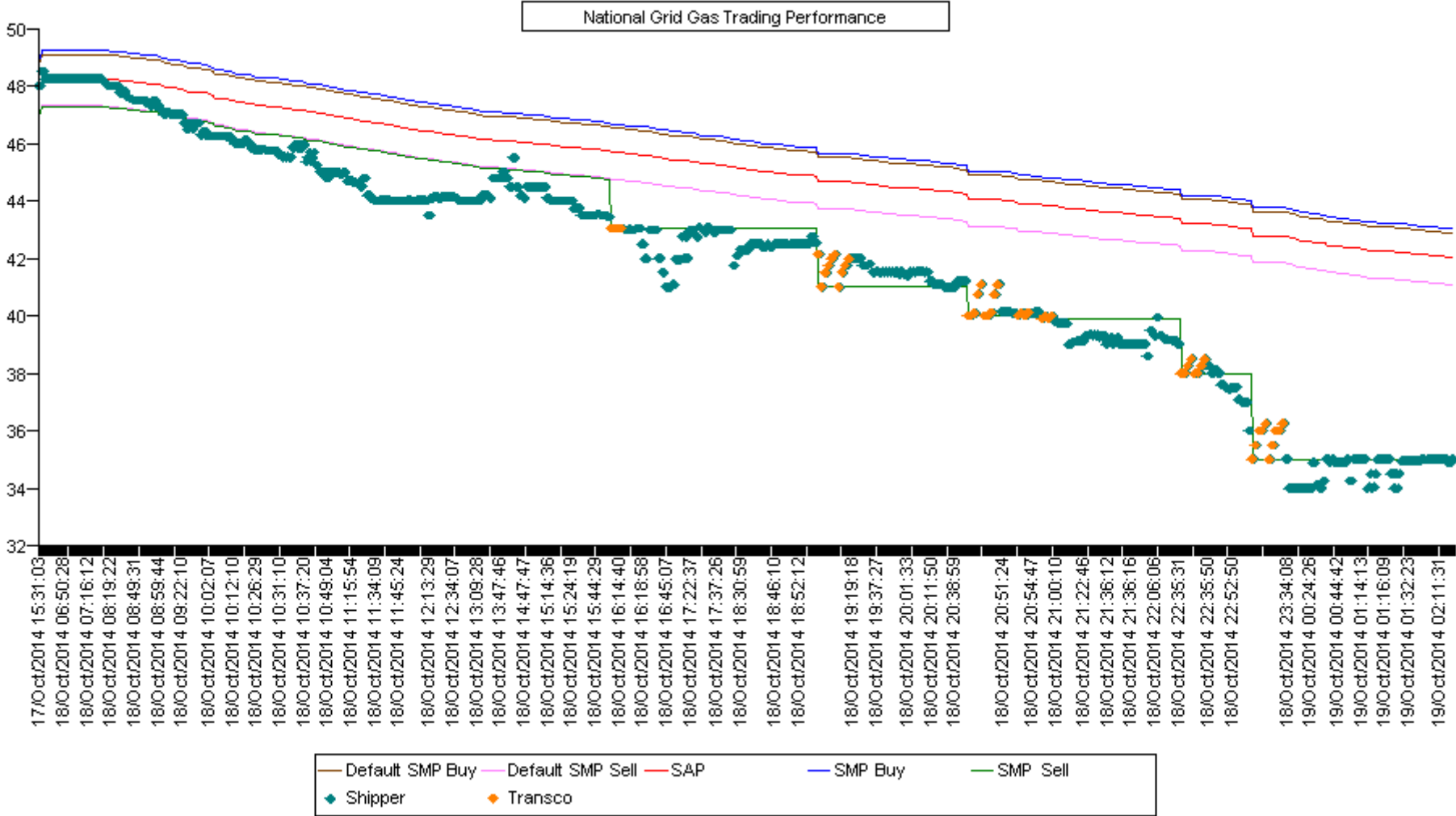
15th September – OCM Trading



18th October 2014



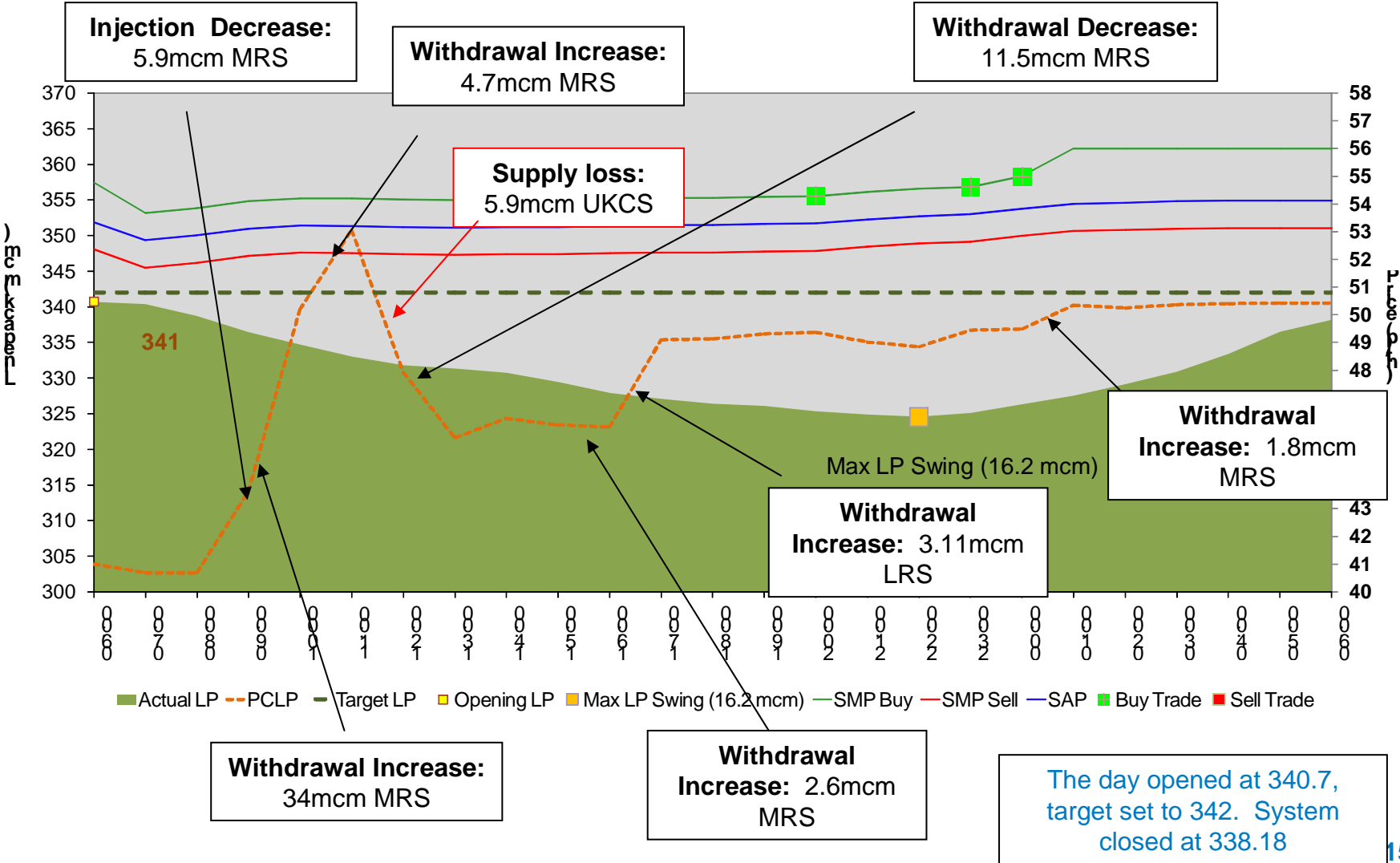
18th October – OCM Trading



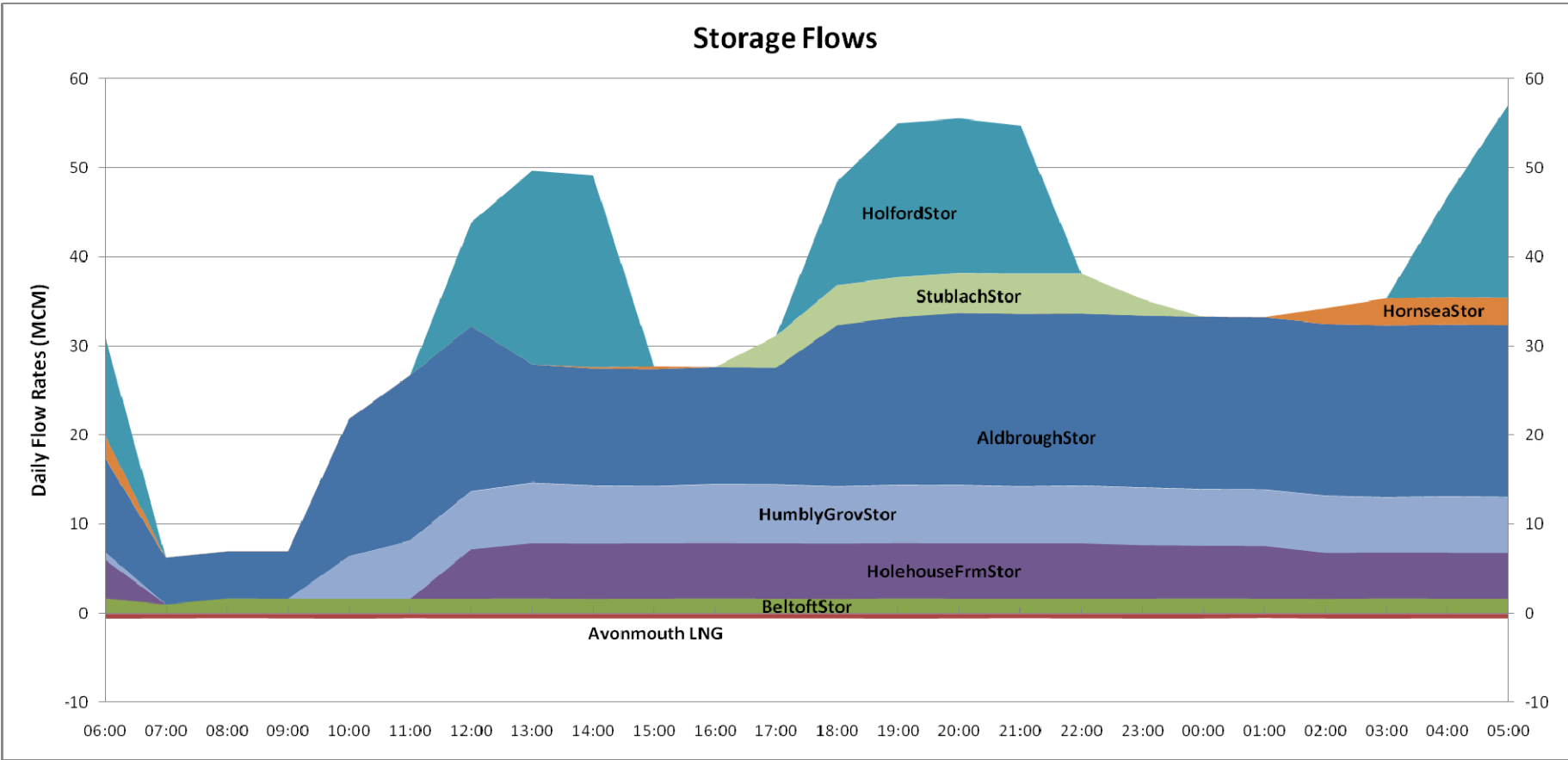
Interesting Day Gas Day 29th October 2014



High level timeline



Storage Physical Flows



Shipper Imbalance

Top 10 Shipper Light Imbalance at End of Day Trading (MCM)										
Shipper/Hour bar	Shipper 1	Shipper 2	Shipper 3	Shipper 4	Shipper 5	Shipper 6	Shipper 7	Shipper 8	Shipper 9	Shipper 10
16:00	-0.16	3.31	-2.07	4.35	0.27	3.10	-0.77	-0.16	-4.93	-0.02
17:00	-0.16	3.31	-4.24	4.35	-0.03	3.66	-4.55	-0.16	-3.40	-0.11
18:00	-12.54	-4.60	0.89	1.58	-0.99	2.71	-0.02	-0.16	-0.14	-0.11
19:00	-10.61	-4.60	1.16	1.21	-0.99	2.37	-0.02	-0.16	-0.14	-0.11
20:00	-9.28	-2.64	1.61	0.68	-0.96	1.87	-1.36	-0.16	-0.14	-0.11
21:00	-11.95	-3.10	0.30	0.69	-1.27	2.38	-0.76	-0.16	-0.14	-0.11
22:00	-9.59	-0.95	-0.10	0.65	-1.66	1.46	-0.29	-0.16	0.00	-0.12
23:00	-9.01	-0.69	-0.14	0.50	-1.59	1.29	-0.26	-0.16	0.00	-0.12
00:00	-6.14	0.68	-0.28	0.47	-1.36	-0.04	-0.23	-0.16	0.00	-0.09
01:00	-5.94	2.58	-1.62	-0.36	-0.57	-0.27	-0.48	-0.16	-0.01	-0.06
02:00	-5.94	-1.25	-0.04	-0.89	-0.58	-0.59	-0.21	-0.16	-0.01	-0.06
03:00	-5.93	-1.31	-0.75	-0.72	-0.35	-0.59	-0.21	-0.16	-0.09	0.00
04:00	-5.92	-1.43	-0.76	-0.66	-0.59	-0.59	-0.21	-0.16	-0.14	-0.13

OCM Trading

