



DNCMF

June-18

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26 June 2018

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Your Gas Network

Agenda

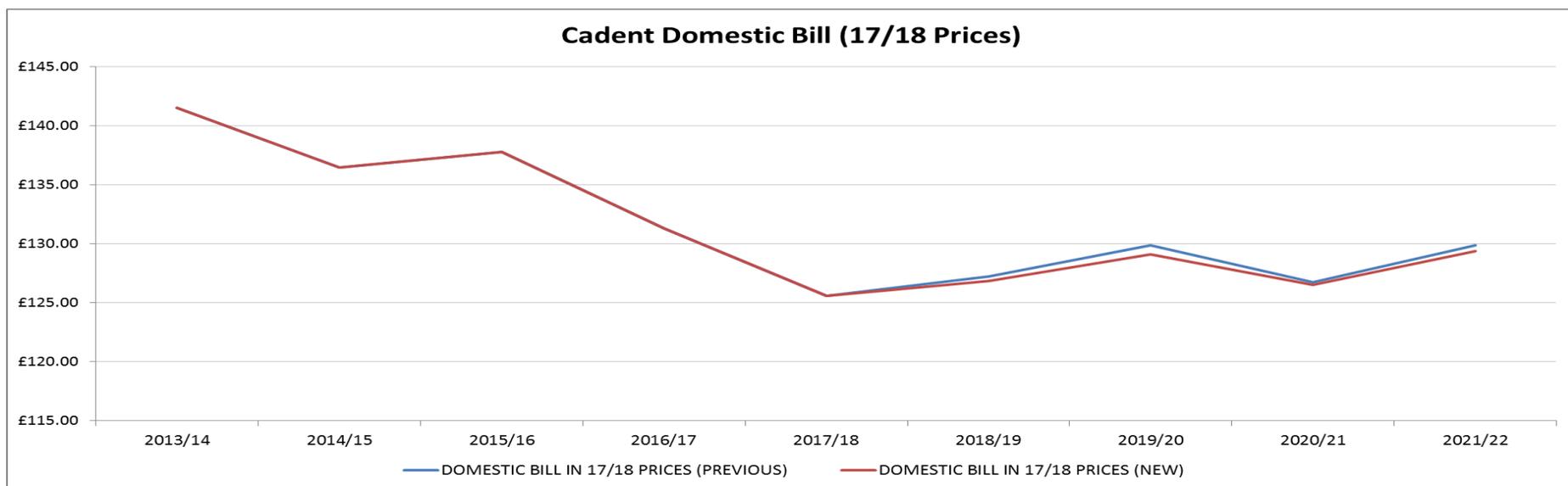
1. June 2018 MOD0186 report overview
2. Basis of RIIO GD-2 forecast
3. Overview of Ofgem RIIO-2 timelines
4. Risks and sensitivities
5. Demand impact on 2019/20 unit prices

Approach for June 2018 MOD0186

- Owing to the five year rolling forecast obligation, now showing positions two years into RIIO GD-2 (please note that traces between current and previous forecast only go out to 2021/22)
- Maintaining the approach of flexing 2020/21 base revenue for reasonably predictable items (mainly pass through)
- Otherwise, the June MOD0186 report is positioned in the middle of the RRP, so available updates are fairly limited. The main updates made:
 - Routine updates for inflation and gas prices
 - NTS unit price notifications
 - Final 17/18 Customer Satisfaction scores
 - Final 17/18 Network Innovation position
 - Final 17/18 revenue collection
 - Updated risks and sensitivities for Smart and Streetworks uncertainty mechanisms, and initial view of MOD0621 impact

Summary Position

HEADLINE MOVEMENT SINCE LAST REPORT	CADENT GAS LTD									
	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	
COLLECTABLE REVENUE (PREVIOUS)	1,823.3	1,793.5	1,853.6	1,821.8	1,797.6	1,875.8	1,972.9	1,958.6	2,075.7	
MOVEMENT ▲	-	-	-	-	2.9	0.6	(5.8)	6.8	2.0	
COLLECTABLE REVENUE (NEW)	1,823.3	1,793.5	1,853.6	1,821.8	1,800.5	1,876.4	1,967.0	1,965.4	2,077.7	
% MOVEMENT	-	-	-	-	+0.2%	+0.0%	(0.3%)	+0.3%	+0.1%	
DOMESTIC BILL IN 17/18 PRICES (PREVIOUS)	£141.51	£136.46	£137.76	£131.29	£125.59	£127.21	£129.86	£126.75	£129.85	
MOVEMENT ▼	-	-	-	-	-	(£0.37)	(£0.76)	(£0.21)	(£0.46)	
DOMESTIC BILL IN 17/18 PRICES (NEW)	£141.51	£136.46	£137.76	£131.29	£125.59	£126.84	£129.10	£126.53	£129.39	



Summary Position by Network

NETWORK		2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
EAST OF ENGLAND (£M)		623.0	601.2	619.5	644.5	644.5	648.9	659.8
LONDON (£M)		445.8	436.4	418.8	433.6	476.0	470.1	515.6
NORTH WEST (£M)		460.2	460.4	434.6	453.8	485.9	486.9	519.0
WEST MIDLANDS (£M)		324.6	323.8	327.6	344.5	360.7	359.4	383.2
COLLECTABLE REVENUE (NEW)		1,853.6	1,821.8	1,800.5	1,876.4	1,967.0	1,965.4	2,077.7
EAST OF ENGLAND (£M)	▲	-	-	1.0	0.1	(1.7)	2.7	1.8
LONDON (£M)	▲	-	-	0.5	0.1	(1.4)	1.2	0.3
NORTH WEST (£M)	▲	-	-	0.7	0.3	(1.4)	2.1	1.8
WEST MIDLANDS (£M)	▲	-	-	0.6	0.2	(1.3)	0.7	(1.9)
MOVEMENT (£M)	▲	-	-	2.9	0.6	(5.8)	6.8	2.0
EAST OF ENGLAND (%)	▲	-	-	+0.2%	+0.0%	(0.3%)	+0.4%	+0.3%
LONDON (%)	▲	-	-	+0.1%	+0.0%	(0.3%)	+0.3%	+0.1%
NORTH WEST (%)	▲	-	-	+0.2%	+0.1%	(0.3%)	+0.4%	+0.3%
WEST MIDLANDS (%)	▲	-	-	+0.2%	+0.0%	(0.4%)	+0.2%	(0.5%)
MOVEMENT (%)	▲	-	-	+0.2%	+0.0%	(0.3%)	+0.3%	+0.1%

Collectable Revenue Trace

COLLECTABLE REVENUE TRACE		CADENT GAS LTD						
		2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
COLLECTABLE REVENUE (PREVIOUS)		1,853.6	1,821.8	1,797.6	1,875.8	1,972.9	1,958.6	2,075.7
INFLATION	▼	-	-	-	-	(2.0)	(2.6)	1.4
GAS PRICES	▲	-	-	-	-	0.4	4.7	0.0
BUSINESS RATES	▲	-	-	-	-	-	0.5	0.9
NTS UNIT PRICES	▲	-	-	-	-	-	4.9	3.5
CSAT	▼	-	-	-	-	(1.0)	-	-
NETWORK INNOVATION ALLOWANCE	▼	-	-	-	-	(0.2)	-	-
GD-2 BASE REVENUE	▼	-	-	-	-	-	(0.0)	(3.8)
REVENUE COLLECTION	▼	-	-	2.9	0.7	(3.0)	(0.7)	-
OTHER MINOR CHANGES	▼	-	-	-	(0.0)	(0.0)	0.0	0.0
COLLECTABLE REVENUE (NEW)		1,853.6	1,821.8	1,800.5	1,876.4	1,967.0	1,965.4	2,077.7
% MOVEMENT		-	-	+0.2%	+0.0%	(0.3%)	+0.3%	+0.1%

Inflation

INFLATION		2019/20	2020/21	2021/22
EAST OF ENGLAND (£M)	▼	(0.7)	(0.9)	0.4
LONDON (£M)	▼	(0.5)	(0.6)	0.3
NORTH WEST (£M)	▼	(0.5)	(0.6)	0.4
WEST MIDLANDS (£M)	▼	(0.4)	(0.5)	0.3
CADENT (£M)	▼	(2.0)	(2.6)	1.4
EAST OF ENGLAND (%)	▼	(0.1%)	(0.1%)	+0.1%
LONDON (%)	▼	(0.1%)	(0.1%)	+0.1%
NORTH WEST (%)	▼	(0.1%)	(0.1%)	+0.1%
WEST MIDLANDS (%)	▼	(0.1%)	(0.1%)	+0.1%
CADENT (%)	▼	(0.1%)	(0.1%)	+0.1%

- Note that positions shown are relative to the Mar-18 forecast
- Low level re-profiling of RPI within the HM Treasury forecasts

HMT RPI FORECASTS	2018	2019	2020	2021	2022
LATEST FORECAST (MAY-18)	3.4%	3.0%	3.0%	3.2%	3.2%
PREVIOUS (FEB-18)	3.5%	3.0%	3.0%	3.1%	3.1%
CHANGE	(0.1%)	-	-	+0.1%	+0.1%

Gas Prices

GAS PRICES		2019/20	2020/21	2021/22
EAST OF ENGLAND (£M)	▲	0.1	1.6	0.0
LONDON (£M)	▲	0.1	0.9	0.0
NORTH WEST (£M)	▲	0.1	1.2	0.0
WEST MIDLANDS (£M)	▲	0.1	1.0	(0.0)
CADENT (£M)	▲	0.4	4.7	0.0
EAST OF ENGLAND (%)	▲	+0.0%	+0.2%	+0.0%
LONDON (%)	▲	+0.0%	+0.2%	+0.0%
NORTH WEST (%)	▲	+0.0%	+0.2%	+0.0%
WEST MIDLANDS (%)	▲	+0.0%	+0.3%	(0.0%)
CADENT (%)	▲	+0.0%	+0.2%	+0.0%

- Note that positions shown are relative to the Mar-18 forecast
- Seeing a sharp increase in gas price forecasts for 2018/19
- This increases the shrinkage elements of allowed revenue two years out
- We saw marked volatility in the early part of 17/18 which later subsided, so will continue to monitor on a monthly basis
- June MOD0186 does not yet take account of final 17/18 volume positions or updated forecasts which come out of the RRP process – these will feature in the September report

NTS Unit Prices

NTS UNIT PRICES		2019/20	2020/21	2021/22
EAST OF ENGLAND (£M)	▲	-	1.9	2.1
LONDON (£M)	▲	-	1.0	1.4
NORTH WEST (£M)	▲	-	1.7	1.8
WEST MIDLANDS (£M)	▲	-	0.3	(1.8)
CADENT (£M)	▲	-	4.9	3.5
EAST OF ENGLAND (%)	▲	-	+0.3%	+0.3%
LONDON (%)	▲	-	+0.2%	+0.3%
NORTH WEST (%)	▲	-	+0.4%	+0.4%
WEST MIDLANDS (%)	▲	-	+0.1%	(0.5%)
CADENT (%)	▲	-	+0.3%	+0.2%

- Note that positions shown are relative to the Mar-18 forecast
- Continuing to see volatility between indicative and final price setting (NB this is a BAU process impact rather than a MOD0621 effect)
- Given the additional uncertainties posed by the NTS charging review, meeting with their Charging Team in July / August to see how we can work together to drive timely and accurate unit price forecasts
- Forecast does not yet take account of Oct-18 volume bookings (these will feature in the September report), but there may be pressure here too following the cold weather experienced in early 2018

Customer Satisfaction

CSAT		2019/20	2020/21	2021/22
EAST OF ENGLAND (£M)	▼	(0.1)	-	-
LONDON (£M)	▼	(0.4)	-	-
NORTH WEST (£M)	▼	(0.2)	-	-
WEST MIDLANDS (£M)	▼	(0.3)	-	-
CADENT (£M)	▼	(1.0)	-	-
EAST OF ENGLAND (%)	▼	(0.0%)	-	-
LONDON (%)	▼	(0.1%)	-	-
NORTH WEST (%)	▼	(0.0%)	-	-
WEST MIDLANDS (%)	▼	(0.1%)	-	-
CADENT (%)	▼	(0.1%)	-	-

- Note that positions shown are relative to the Mar-18 forecast
- Reflects final 2017/18 position
- Our previous forecast assumed that we would achieve maximum target levels in all categories and networks with the exception of Connections in London
- Final scores for 17/18 did not quite achieve this level, but we saw improvement in 75% of scores / networks
- Expect to have an update on the Stakeholder Engagement incentive in the September report

Revenue Collection

REVENUE COLLECTION		2017/18	2018/19	2019/20	2020/21	2021/22
EAST OF ENGLAND (£M)	▼	1.0	0.1	(1.0)	(0.1)	-
LONDON (£M)	▼	0.5	0.1	(0.6)	(0.1)	-
NORTH WEST (£M)	▼	0.7	0.3	(0.8)	(0.3)	-
WEST MIDLANDS (£M)	▼	0.6	0.2	(0.7)	(0.2)	-
CADENT (£M)	▼	2.9	0.7	(3.0)	(0.7)	-
EAST OF ENGLAND (%)	▲	+0.2%	+0.0%	(0.2%)	(0.0%)	-
LONDON (%)	▲	+0.1%	+0.0%	(0.1%)	(0.0%)	-
NORTH WEST (%)	▲	+0.2%	+0.1%	(0.2%)	(0.1%)	-
WEST MIDLANDS (%)	▲	+0.2%	+0.1%	(0.2%)	(0.1%)	-
CADENT (%)	▲	+0.2%	+0.0%	(0.2%)	(0.0%)	-

- Note that positions shown are relative to the Mar-18 forecast
- Final revenue collection in 17/18 landed higher than the previous forecast due to the impact of the cold weather in Q4 on commodity revenue
- In the intervening period since setting 17/18 prices, our NIA forecast reduced, so we finished the year having slightly over collected by £4.3m / 0.2% against allowed revenue
- Early indication for 18/19 shows no material risk to capacity income which represents 97% of the total, but may still face the typical +/- 5% risk presented by the weather impact on commodity revenue
- Further network level analysis to be completed for September report

RIO GD-2 Base Revenue Forecast

NETWORK	2021/22					2022/23				
	EE	LO	NW	WM	CADENT	EE	LO	NW	WM	CADENT
2020/21 BASE REVENUE (2009/10 PRICES)	496.2	347.2	360.6	270.0	1,474.0	496.2	347.2	360.6	270.0	1,474.0
ADJ BUSINESS RATES ALLOWANCE TO 2020/21 LEVEL	(2.2)	16.5	10.1	6.2	30.5	(2.2)	16.5	10.1	6.2	30.5
ADJ LICENCE FEES ALLOWANCE TO 2020/21 LEVEL	(0.1)	(0.1)	(0.1)	(0.1)	(0.4)	(0.1)	(0.1)	(0.1)	(0.1)	(0.4)
ADJ EXIT CAPACITY ALLOWANCE TO EXPECTED FORECAST LEVEL	(4.1)	(1.7)	(1.7)	(0.4)	(8.0)	(3.6)	(1.8)	(3.2)	(1.4)	(10.0)
ADJ SHRINKAGE COST ALLOWANCE TO 2020/21 LEVEL	(3.0)	(1.7)	(2.1)	(1.8)	(8.6)	(3.0)	(1.7)	(2.1)	(1.8)	(8.6)
RESET TAX ALLOWANCE AT 17%	(6.3)	(4.3)	(4.5)	(3.4)	(18.6)	(6.3)	(4.3)	(4.5)	(3.4)	(18.6)
CONTINUATION OF 10 YEAR COST OF DEBT INDEXATION	(31.6)	(24.3)	(22.6)	(17.2)	(95.7)	(34.6)	(26.6)	(24.7)	(18.9)	(104.9)
BASE REVENUE ASSUMPTION (2009/10 PRICES)	448.8	331.6	339.7	253.2	1,373.3	446.2	329.3	336.1	250.6	1,362.1

- For the GD-2 forecasts, maintaining the approach of flexing 2020/21 base revenue per the GD-1 Final Proposals for items that could reasonably be predicted
- Reset allowances for pass through items based on current view
- Tax allowances updated to current anticipated levels against the 21% included in the GD-1 Final Proposals
- Cost of debt is based on continuation of the 10 year index against the original 2.92% included in the RIO GD-1 Final Proposals

RIIO GD-2 Allowed Revenue Forecast

NETWORK	2021/22					2022/23				
	EE	LO	NW	WM	CADENT	EE	LO	NW	WM	CADENT
BASE REVENUE ASSUMPTION (2009/10 PRICES)	448.8	331.6	339.7	253.2	1,373.3	446.2	329.3	336.1	250.6	1,362.1
SMART METERING UNCERTAINTY (2009/10 PRICES)	11.2	7.5	8.0	5.4	32.1	-	-	-	-	-
INFLATION (CONTINUATION OF RPI INDEXATION)	203.2	149.8	153.6	114.3	620.9	217.4	160.4	163.7	122.1	663.6
BASE REVENUE (NOMINAL)	663.2	489.0	501.2	372.9	2,026.3	663.6	489.7	499.8	372.6	2,025.7
GD-1 LAGGED PASS THROUGH ADJUSTMENT	(12.8)	20.1	9.0	4.9	21.2	(14.0)	20.0	8.7	4.6	19.3
GD-1 LAGGED NET EXIT CAPACITY INCENTIVE ADJUSTMENT	7.9	3.7	5.2	1.9	18.8	5.8	2.8	4.1	1.6	14.2
GD-1 LAGGED NET EXIT CAPACITY COST ADJUSTMENT	(8.3)	(4.2)	(3.7)	(1.7)	(17.9)	(6.6)	(2.6)	(3.0)	(0.5)	(12.6)
GD-1 LAGGED SHRINKAGE INCENTIVE ADJUSTMENT	0.7	0.4	0.5	0.3	1.9	1.1	0.3	0.6	0.4	2.4
GD-1 LAGGED SHRINKAGE COST ADJUSTMENT	(4.0)	(2.3)	(2.8)	(2.4)	(11.6)	(4.7)	(2.6)	(3.3)	(2.9)	(13.5)
GD-1 LAGGED BROAD MEASURE INCENTIVE ADJUSTMENT	5.0	3.5	3.6	2.7	14.9	5.1	3.5	3.7	2.7	15.0
GD-1 LAGGED ENVIRONMENTAL EMISSIONS INCENTIVE ADJUSTMENT	4.0	2.4	2.7	2.2	11.3	7.0	2.8	3.8	2.4	16.0
GD-1 LAGGED DRS ADJUSTMENT	-	-	-	-	-	-	-	-	-	-
IN YEAR NETWORK INNOVATION ADJUSTMENT	4.2	3.1	3.2	2.3	12.8	4.2	3.1	3.1	2.3	12.8
MAXIMUM ALLOWED REVENUE (NOMINAL)	659.8	515.6	519.0	383.2	2,077.7	661.3	516.9	517.6	383.3	2,079.1

- Outside of the base revenue estimate, our forecasts assume continuation of RPI based inflation indexation, and lagged pass through and output incentive adjustments from RIIO GD-1
- Although the GD-1 Network Innovation Allowance mechanism may not exist in its current form, we have assumed roll forwards. This may ultimately become a substitution between output incentives and base revenue (totex)

Ofgem RIIO-2 Timelines

OFGEM RIIO TIMELINE (PER FRAMEWORK DOCUMENT)		2018/19				2019/20				2020/21				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
KEY MILESTONES	FRAMEWORK CONSULTATION	■												
	FRAMEWORK DECISION		■											
	SECTOR SPECIFIC CONSULTATION				■									
	SECTOR SPECIFIC DECISION					■								
	INITIAL BUSINESS PLAN SUBMISSION						■							
	FINAL BUSINESS PLAN SUBMISSION								■					
	GD BUSINESS PLAN ANALYSIS							■						
	DRAFT DETERMINATION										■			
	FINAL DETERMINATION												■	
	LICENCE DEVELOPMENT								■					
	LICENCE MODIFICATION													■

- Based on RIIO-2 Framework Consultation so subject to change
- Framework decision document expected Q2 2018/19, but Ofgem have signalled that this will include a limited number of firm decisions
- Business plan submission timetable to be confirmed...this may be a single submission

Risks and Sensitivities

- We are showing the following items as risks to our June-18 forecast:

RISKS & SENSITIVITIES	2018/19	2019/20	2020/21	2021/22	2022/23
REDUCTIONS IN NETWORK INNOVATION EXPENDITURE	-	(3.0)	(3.1)	-	-
SMART METERING UM: REDUCED WORKLOAD	-	-	-	(11.6)	-
SMART METERING UM: TIMING OF DETERMINATION	-	-	44.8	(46.3)	-
STREETWORKS UM: EAST OF ENGLAND ONLY	-	11.1	1.8	-	-
NTS EXIT CAPACITY COST: INDICATIVE IMPACT OF MOD0621 (LAGGED GD-1 IMPACT)	-	-	-	(33.5)	(48.6)
NTS EXIT CAPACITY COST: INDICATIVE IMPACT OF MOD0621 (ALLOWANCE RESET)	-	-	-	(11.9)	3.2

Anticipated updates in September

- **The September report will include a true up to the 2018 RRP:**
 - **Impact of actual / forecast totex performance**
 - **Clarity on Smart UM forecast**
 - **Cost of debt forecast update**
 - **Finalisation of output incentives not included in the June update:**
 - **Shrinkage**
 - **Environmental Emissions**
 - **Complaints**
- **Likely to also have revised positions for:**
 - **Stakeholder engagement**
 - **Oct-19 exit capacity bookings to inform incentive position**

Demand Impact on 2019/20 prices

- A look at how AQs and SOQs have “rolled” since assumptions taken for 2018/19 price setting
- Draft Load Factors available from Demand Estimation Sub Committee (DESC)
 - These would impact rolling SOQ determination from Oct-18, but not impact charging until Apr-19 due to new Project Nexus process which materially fixes chargeable SOQs for the formula year based on a December snapshot
 - These include the proposed new EUC code definitions per UNC modification 0644
 - As at Jun-18, we don't have an SOQ impact analysis, but requested support from Xoserve – this should probably be an output of the 0644 process
 - We should also consider whether an SOQ impact should be a standard DESC output each year to help inform interested stakeholders. Under the former AQ Review process, we received MI across the summer which allowed networks to provisionally model the impact ahead of implementation, so we have an information gap at present

Movement in Aggregate Rolling AQs

AQ (GWH)	Jan-18	Feb-18	Mar-18	Apr-18	May-18
EE	89,735	90,960	90,970	91,129	91,562
LO	48,539	48,592	48,560	48,501	48,654
NW	58,721	58,491	58,690	58,688	59,226
WM	42,236	42,115	42,073	42,050	42,263
TOTAL	239,232	240,158	240,293	240,368	241,705
AQ MONTH ON MONTH MOVEMENT	Jan-18	Feb-18	Mar-18	Apr-18	May-18
EE		1.4%	0.0%	0.2%	0.5%
LO		0.1%	(0.1%)	(0.1%)	0.3%
NW		(0.4%)	0.3%	(0.0%)	0.9%
WM		(0.3%)	(0.1%)	(0.1%)	0.5%
TOTAL		0.4%	0.1%	0.0%	0.6%
AQ CUMULATIVE MOVEMENT	Jan-18	Feb-18	Mar-18	Apr-18	May-18
EE		1.4%	1.4%	1.6%	2.0%
LO		0.1%	0.0%	(0.1%)	0.2%
NW		(0.4%)	(0.1%)	(0.1%)	0.9%
WM		(0.3%)	(0.4%)	(0.4%)	0.1%
TOTAL		0.4%	0.4%	0.5%	1.0%

Movement in Aggregate Rolling SOQs

SOQ (GWH)	Jan-18	Feb-18	Mar-18	Apr-18	May-18
EE	722	720	719	719	722
LO	421	421	420	419	420
NW	464	464	464	464	467
WM	353	353	353	352	353
TOTAL	1,960	1,957	1,956	1,955	1,961
SOQ MONTH ON MONTH MOVEMENT	Jan-18	Feb-18	Mar-18	Apr-18	May-18
EE		(0.3%)	(0.1%)	0.0%	0.4%
LO		(0.0%)	(0.1%)	(0.2%)	0.1%
NW		(0.0%)	0.0%	0.0%	0.6%
WM		(0.2%)	(0.0%)	(0.2%)	0.3%
TOTAL		(0.1%)	(0.1%)	(0.1%)	0.3%
SOQ CUMULATIVE MOVEMENT	Jan-18	Feb-18	Mar-18	Apr-18	May-18
EE		(0.3%)	(0.3%)	(0.3%)	0.0%
LO		(0.0%)	(0.2%)	(0.3%)	(0.3%)
NW		(0.0%)	(0.0%)	0.0%	0.6%
WM		(0.2%)	(0.2%)	(0.4%)	(0.1%)
TOTAL		(0.1%)	(0.2%)	(0.3%)	0.1%

Movement in Rolling AQs / SOQs

- **Based on monthly information provided by Xoserve**
- **Just for the sites and meters portfolio (93% of total) so excluding CSEPs (5%) and Unique Sites (2%)**
- **Will look to include CSEPs and Unique Sites in the September update to provide a more holistic view**
- **The directional movement in AQ vs SOQ, particularly in February, is counter intuitive, but aware that a number of UIG data fixes have been implemented in the same period**
- **Given experiences during the 18/19 price setting process (UIG data fixes), emphasises the need for confidence on the impact of Oct-18 load factors ahead of the Dec-18 snap shot that will inform 2019/20 prices**