Cambridge Water PR09 Capital Maintenance Econometric Return commentary

The purpose of this note is to provide a commentary to the CMER as submitted to Ofwat on 22nd February 2008 and audited by Andrew Keiller, Mott MacDonald. His report will be sent to Ofwat separately.

The CMER is one of the two measures of the efficiency of companies' capital investment. It reviews the amounts historically spent on capital maintenance and compares it to the number, size & value of the company's assets. From this a decision about the efficiency can be made with relatively low spending companies being deemed to be efficient.

The other efficiency measuring tool is the Cost Base.

We have fully reviewed all the data previously submitted in the Final Business Plan for Price Review 2004 (referred to as the FBP in this document), submitted in April 2004,and the June Returns from 2003 through to 2007 (referred to as JR03, JR04, JR05, JR06 and JR07). This review highlighted a few changes we would wish to make as detailed below.

<u>Changes to standing data</u>
We request that the following items of data, copied from the FBP or JRs, are revised as detailed below.

Table 1: Changes to standing data

Number	Table	Line	Column	Current figure	Revised figure	Reason
1	CM1	3	1	0	8	Raw water aqueducts omitted from the FBP.
2	CM1	18	1	1	0	Lords Bridge PS was included in the FBP, but was not available for use and so under current definition, should not have been included
3	CM1	18	6	4	3	Total for row to adjust above change
4	CM1	21	2	6	5	Our current view of the position at 31/3/03 is 5.
5	CM1	21	3	4	3	Our current view of the position at 31/3/03 is 3.
6	CM1	21	4	1	3	Our current view of the position at 31/3/03 is 3.
7	CM3	7	1	12	1	The FBP included contact tanks and a surge vessel site in FBP, but current definition means we should exclude them.
8	CM3	7	6	32	21	Total adjustment for above change
9	CM3	11	1	7	6	Barrington was included in the FBP, but was a decommissioned site with no pumps installed. The current definition requires us to remove this site.
10	CM3	11	6	18	17	Total adjustment for above change
11	CM4	8	1	99.0	94.9	94.9% represents 56/59 sites. In the FBP we weighted the coverage by the capacity of the sites giving the higher coverage figure, but the current definition requires this revised calculation.
12	CM4	9	1	58	59	Our current view of the number of outstations at 31/3/2003 is 59.

CMER-ICS, 1.12 for CAM (Cambridge Water plc)

CM1 - Water resources and treatment (WR&T) 2002-03 explanatory factors

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	Description	Units & format	Value 2002-03							CG
1	Total number of dams and impounding reservoirs	nr	0							A1
2	Total capacity of dams and impounding reservoirs	Ml	0							A1
3	Total length of raw water aqueducts	km	0							A1
4	Total number of intake and source pumping stations	nr	4							A1
5	Total capacity of intake and source pumping stations	kw	228							A1
6	Water treated at own works to own customers	Ml/d	73.23							
7	Distribution input	Ml/d	73.29							A2
8	Total connected properties at year end	000	127.1							A1
			Asset life					Total		
			Short	Medium	Long	Infra				
9	The gross mea value of water resources and treatment assets as at 31 March 2003	£m	3.1	2.9	6.7	271.7		284.4		A1
			Size band - Surface water (SW)					Total	Average size	
			1	2	3	4	5			
10	Number of SW simple disinfection & SW1 works	nr	0	0	0	0	0	0	0	A1
11	Number of SW2 works	nr	0	0	0	0	0	0	0	A1
12	Number of SW3 works	nr	0	0	0	0	0	0	0	A1
13	Number of SW4 works	nr	0	0	0	0	0	0	0	A1
14	Water treated at all SW simple disinfection & SW1 works	Ml/d	0	0	0	0	0	0		A1
15	Water treated at all SW2 works	Ml/d	0	0	0	0	0	0		A1
16	Water treated at all SW3 works	Ml/d	0	0	0	0	0	0		A1
17	Water treated at all SW4 works	Ml/d	0	0	0	0	0	0		A1
			Size band - Ground water (GW)					Total	Average size	
			1	2	3	4	5			
18	Number of GW simple disinfection & GW1 works	nr	1	3	0	0	0	4	2	A1
19	Number of GW2 works	nr	0	9	1	1	0	11	5	A1
20	Number of GW3 works	nr	0	0	0	0	0	0	0	A1
21	Number of GW4 works	nr	0	6	4	1	0	11	6	A1
22	Water treated at all GW simple disinfection & GW1 works	Ml/d	0	3	0	0	0	3		A2
23	Water treated at all GW2 works	Ml/d	0	15	4	4	0	23		A2
24	Water treated at all GW3 works	Ml/d	0	0	0	0	0	0		A2
25	Water treated at all GW4 works	Ml/d	0	9	15	25	0	48		A2

Table CM1

CMER-ICS, 1.12 for CAM (Cambridge Water plc)

CM2 - Water distribution infrastructure (WDI) 2002-03 explanatory factors

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			Value 2002-03					CG
	Description	Units & format						
1	Total length of unlined iron or unlined steel mains	km	795.55					A3
2	Mains bursts per 1,000km	nr	152					A2
3	Total connected properties at year end.	000	127.1					A1
			Size band				Total	
			1	2	3	4		
4	Potable water mains (nominal bore)	km	1,603	398	251	0	2,252	A2
5	Other water mains (nominal bore)	km	0	5	4	0	8	A1
			Pipe material					
			Lead	Galv. iron	Other			
6	Number of communication pipes	nr	38,839	4,349	57,473			A3

Table CM2

Table CM2 - Water Distribution Infrastructure (WDI) 2002/03 explanatory factors

Line 1 was derived from the company GIS. Following discussion with our Reporter about the level of confidence we could place on the lined/unlined status of some of our older mains, we have decided to give this a CG of A3.

Lines 2 & 3 reconcile with JR03.

Lines 4, 5 & 6 reconcile with the FBP. The CG of A2 for line 4 reconciles with our June Return CGs for GIS mains length data. The line 5 CG reconciles with CM1 line 3, which is better than that for normal GIS mains length data due to our high level of confidence in our knowledge of the mains that are non-potable and their relatively young age. This latter point is because they do not suffer from problems associated with transferring data from paper plans or taking them over from previous water suppliers, as is the case with most of our network.

CMER-ICS, 1.12 for CAM (Cambridge Water plc)

CM3 - Water distribution non-infrastructure (WDNI) 2002-03 explanatory factors

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			Value 2002-03							CG
	Description	Units & format								
1	Distribution input	Ml/d	73.29							A2
2	Average pumping head (distribution)	m.hd	37.8							A2
3	Number of non-household meters	nr	9,207							
4	Number of household meters	nr	56,083							
5	Total connected properties at year end	000	127.1							A1
			Asset life					Total		
			Short	Medium	Long					
6	The gross mea value of water distribution non-infrastructure assets as at 31 March 2003	£m	7.4	11.6	30.4			49.4		A1
			Size band					Total	Average size	
			1	2	3	4	5			
7	Number of service reservoirs	nr	12	14	2	4	0	32	27	A1
8	Capacity of service reservoirs	Ml	0.5	37.2	16.4	78.9	0.0	133.0		A2
9	Number of water towers	nr	5	6	0	1		12	3	A1
10	Capacity of water towers	Ml	1.3	4.7	0.0	3.2		9.2		A2
11	Number of booster pumping stations	nr	7	2	6	3	0	18	238	A1
12	Capacity of booster pumping stations	kw	15	26	291	794	0	1,126		A1

Table CM3

Table CM3 - Water Distribution Non-Infrastructure (WDNI) 2002/03 explanatory factors

Lines 1 & 2 reconcile with JR03.

Lines 3 & 4 reconcile with the FBP.

Line 5 reconciles with CM1 line 8.

Line 6 contains the split of the MEAV by asset life, derived from the data used for MEAVs in the PR04 submission. The CG of A1 reflects the work we have previously carried out on MEAVs and the level of audit and scrutiny that it has historically had.

Following advice from Ofwat on 14th February 2008, we have included land in the MEAVs under long life, contrary to CMER clarification advice note 18. If we had excluded land then the following cells would change:

Table 5: Changes to CM3 MEAVs resulting from exclusion of land

Line	Column	Current - including land £m	Alternative - excluding land £m
6	3	30.4	30.3
6	5	49.4	49.3

Line 7 reconciles with the FBP, but see data change requests 7 & 8. The CG of A1 reflects our knowledge of the numbers of assets we own.

CMER-ICS, 1.12 for CAM (Cambridge Water plc)

CM4 - Water management and general (WM&G) 2002-03 explanatory factors

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			Value 2002-03					CG
	Description	Units & format						
1	Potable water mains (nominal bore)	km	2,251.55					A2
2	Number of households billed for water.	000	108.686					
3	Non-households billed water	000	9.890					
			Asset life				Total	
			Short	Medium	Long	Infra		
4	The gross mea value of water management and general assets as at 31 March 2003	£m	3.3	0.0	3.9	0.0	7.2	A1
			Value 2002-03					
5	The gross mea value at 31 March 2003 - Vehicles	£m	0.994					
6	The gross mea value at 31 March 2003 - Telemetry systems	£m	1.024					
7	The gross mea value at 31 March 2003 - Computers	£m	1.245					
8	% of system covered by telemetry systems	%	99.0					
9	Number of telemetry outstations	nr	58					

Table CM4

Table CM4 - Water Management and General (WM&G) 2002/03 explanatory factors

Line 1 reconciles with the FBP.

Lines 2 & 3 reconcile with JR03.

Line 4 contains the split of the MEAV by asset life, derived from the data used for MEAVs in the PR04 submission. The CG of A1 reflects the work we have previously carried out on MEAVs and the level of audit and scrutiny that it has historically had.

Following advice from Ofwat on 14th February 2008, we have included land in the MEAVs under long life, contrary to CMER clarification advice note 18. If we had excluded land then the following cells would change:

Table 9: Changes to CM4 MEAVs resulting from exclusion of land

Line	Column	Current - including land £m	Alternative - excluding land £m
4	3	3.9	3.7
4	5	7.2	6.9

Lines 5 to 9 reconcile with the FBP - see data change requests 11 & 12 above.

CMER-ICS, 1.12 for CAM (Cambridge Water plc)

CM10 - Capital maintenance expenditure - Water (outturn prices)

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Line	Description	Unit	2003-04	2004-05	2005-06	2006-07
1	Water resources and treatment: Water resource facilities	£m	0.020	0.000	0.087	0.136
2	Water resources and treatment: Water treatment works	£m	0.234	0.264	0.301	0.287
3	Water distribution infrastructure: Water distribution mains	£m	1.227	1.310	1.423	1.657
4	Water distribution non-infrastructure: Water distribution mains	£m	0.093	0.088	0.363	0.250
5	Water distribution non-infrastructure: Service reservoirs and water towers	£m	0.055	0.006	0.001	0.022
6	Water distribution non-infrastructure: Pumping stations	£m	0.033	0.025	0.008	0.057
7	Water management and general	£m	0.859	3.769	0.749	0.400

Table CM10

Table CM10 - Capital Maintenance Expenditure - Water (outturn prices)

Lines 1 to 7 reconcile with JR04, JR05, JR06 and JR07.