

Adverse impact on cost base

Introduction

1. Section 5 of our report discusses whether the merger may be expected to have an adverse impact on Ofwat's ability to make cost base comparisons of capital maintenance and enhancement expenditure and challenge cost base estimates. This appendix presents the results of our analysis.

Loss of a benchmark

TABLE 1 Correlations between companies' 2005/06 water service turnover and EJGs for PR04

<i>I</i>	<i>Correlation</i>		
	<i>Reliability</i>	<i>Accuracy</i>	<i>Estimates</i>
<i>Infrastructure</i>			
Mains laying—grassland 100mm	-0.035	0.218	22
Mains laying—grassland 150mm	0.150	0.218	22
Mains laying—grassland 200mm	0.150	0.218	22
Mains laying—grassland 300mm	0.150	0.073	22
Mains laying—grassland 450mm	-0.073	0.071	20
Mains laying—grassland 600mm	-0.233	-0.033	17
Mains laying—rural/suburban highway 100mm	-0.035	-0.101	22
Mains laying—rural/suburban highway 150mm	0.150	0.073	22
Mains laying—rural/suburban highway 200mm	0.150	0.073	22
Mains laying—rural/suburban highway 300mm	0.150	0.073	22
Mains laying—rural/suburban highway 450mm	-0.073	0.071	20
Mains laying—rural/suburban highway 600mm	-0.233	-0.033	17
Mains laying—urban highway 100mm	-0.302	0.035	21
Mains laying—urban highway 150mm	-0.098	0.035	21
Mains laying—urban highway 200mm	-0.098	0.035	21
Mains laying—urban highway 300mm	-0.098	0.171	21
Mains laying—urban highway 450mm	-0.268	0.197	21
Mains laying—urban highway 600mm	-0.474	0.117	21
Mains laying by directional drilling—grassland 100mm	-0.724	-0.385	10
Mains laying by directional drilling—grassland 150mm	-0.288	-0.253	10
Mains laying by directional drilling—grassland 200mm	-0.217	-0.281	9
Mains laying by directional drilling—rural/suburban highway 100mm	-0.261	-0.114	14
Mains laying by directional drilling—rural/suburban highway 150mm	0.057	-0.018	13
Mains laying by directional drilling—rural/suburban highway 200mm	0.017	-0.174	10
Mains laying by directional drilling—urban highway 100mm	0.141	0.003	11
Mains laying by directional drilling—urban highway 150mm	0.141	0.003	11
Mains laying by directional drilling—urban highway 200mm	0.110	-0.163	9
Mains rehabilitation—surface applied internal coating 100mm	-0.326	-0.082	13
Mains rehabilitation—surface applied internal coating 150mm	-0.326	-0.082	13
Mains rehabilitation—surface applied internal coating 200mm	-0.360	-0.154	12
Mains rehabilitation—surface applied internal coating 300mm	-0.434	-0.007	12
Mains rehabilitation—pipe insertion 100mm	-0.398	-0.468	14
Mains rehabilitation—pipe insertion 150mm	-0.402	-0.537	14
Mains rehabilitation—pipe insertion 200mm	-0.432	-0.494	12
Mains rehabilitation—pipe insertion 300mm	-0.396	-0.627	7
Mains rehabilitation—pipe insertion 450mm	-0.063	-0.546	6
Mains rehabilitation—slip—lining 100mm	-0.770	-0.771	5
Mains rehabilitation—slip—lining 150mm	-0.770	-0.953	5
Mains rehabilitation—slip—lining 200mm	-0.770	-0.953	5
Mains rehabilitation—pipe bursting 100mm	-0.299	-0.099	18
Mains rehabilitation—pipe bursting 150mm	-0.399	-0.164	16
Mains rehabilitation—pipe bursting 200mm	-0.218	0.102	9
Communication pipes—long side New	-0.073	0.216	21
Communication pipes—long side Renew	0.038	-0.005	22
Communication pipes—short side New	-0.073	0.216	21
Communication pipes—short side Renew	0.038	-0.005	22
Household meters—internal New	-0.063	-0.036	20
Household meters—internal Renew	-0.078	0.009	19
Household meters—external (excluding boundary box) New	-0.018	0.092	22
Household meters—external (excluding boundary box) Renew	-0.018	0.092	22
Household meters—external (including boundary box) New	-0.018	0.092	22
Household meters—external (including boundary box) Renew	-0.232	-0.108	21
Average	-0.173	-0.099	16
Average weighted by number of estimates	-0.123	-0.021	

<i>Non-infrastructure</i>			
New treatment works type SW2, output 30MI/d	-0.167	-0.333	7
Replacement filtration system, output 30MI/d	-0.337	-0.534	11
New abstraction borehole treatment works, output 8MI/d	-0.372	-0.306	11
Fitting new plumbosolvency control, output 8MI/d	-0.266	0.213	13
Alterations to water treatment works, output 30MI/d	-0.495	0.382	6
Installation of a nitrate removal plant, output 10MI/d	-0.431	-0.148	6
Cryptosporidium protection, output 2.5MI/d	-0.142	-0.123	10
New service reservoir, capacity 4MI	-0.167	-0.327	11
New service reservoir, capacity 15MI	-0.299	-0.216	14
Refurbishment of service reservoir, capacity 6MI	-0.222	-0.025	19
Replacement of variable speed pumps, output 6 to 9MI/d	0.000	0.045	14
Replacement of variable speed pump motors, rated 110kW	-0.320	-0.402	18
Replacement of borehole pump-sets, output 4MI/d	-0.297	-0.427	19
Replacement of borehole pump-sets, output 10MI/d	-0.245	-0.449	13
New fixed-speed pump-set, output 10MI/d	-0.371	-0.598	18
New fixed-speed pump-set, output 30MI/d	-0.309	-0.381	18
Replacement MCC, 15kW total installed capacity	-0.270	-0.618	18
Replacement MCC, 90kW total installed capacity	-0.230	-0.473	20
Average	-0.274	-0.262	14
Average weighted by number of estimates	-0.268	-0.303	
Overall average	-0.202	-0.141	16
Overall average weighted by number of estimates	-0.156	-0.084	

Source: Ofwat and CC calculations.

TABLE 2 Rank of estimates submitted by SEW and MKW for 36 standard costs where SEW's EJJ was close to the benchmark for PR04

Number	Cost base Standard cost (in group order)	EJJ		Difference (grades)			Rank	
		Benchmark	SEW	Accuracy	Reliability	Total	MKW	SEW
<i>Infrastructure</i>								
<i>Mains laying—nominal bore 100mm</i>								
cb1	Grassland	A2	B2	1	0	1		
cb7	Rural/suburban highway	A2	B2	1	0	1		5
cb13	Urban highway	A2	B2	1	0	1		
<i>Mains laying—nominal bore 150mm</i>								
cb2	Grassland	A2	B2	1	0	1		
cb8	Rural/suburban highway	A2	B2	1	0	1		2
cb14	Urban highway	A2	B2	1	0	1	5	
<i>Mains laying—nominal bore 200mm</i>								
cb3	Grassland	A2	B2	1	0	1		
cb9	Rural/suburban highway	A2	B2	1	0	1		4
cb15	Urban highway	A2	B2	1	0	1		
<i>Mains laying—nominal bore 300mm</i>								
cb4	Grassland	A2	B2	1	0	1		4
cb10	Rural/suburban highway	A2	B2	1	0	1		2
cb16	Urban highway	A2	B2	1	0	1		4
<i>Mains laying—nominal bore 450mm</i>								
cb5	Grassland	A2	B2	1	0	1	3	
cb11	Rural/suburban highway	A2	B2	1	0	1		5
cb17	Urban highway	A2	B2	1	0	1	4	
<i>Mains laying—nominal bore 600mm</i>								
cb6	Grassland	A2	B2	1	0	1		
cb12	Rural/suburban highway	A2	B2	1	0	1		5
cb18	Urban highway	A2	B2	1	0	1	5	
<i>Mains rehabilitation—nominal bore 100mm*</i>								
cb38	Pipe bursting	B2	B3	0	1	1		4
<i>Mains rehabilitation—nominal bore 150mm*</i>								
cb39	Pipe bursting	B2	B3	0	1	1		5
<i>Mains rehabilitation—nominal bore 200mm*</i>								
cb40	Pipe bursting	B2	B3	0	1	1		3
<i>Communication pipes</i>								
cb41	New—long side	A1	A2	0	1	1		
cb43	New—short side	A1	A2	0	1	1		
cb42	Renewal—long side	A1	A2	0	1	1		
cb44	Renewal—short side	A1	A2	0	1	1		
<i>Non—infrastructure</i>								
<i>New household meters</i>								
cb45	Internal	A1	A2	0	1	1		
cb47	External (excluding boundary box)	A1	A2	0	1	1	4	
cb49	External (including boundary box)	A1	A2	0	1	1	2	
<i>Renewal of household meters†</i>								
cb46	Internal	A1	A2	0	1	1		3
cb48	External (excluding boundary box)	A1	A2	0	1	1	4	
<i>Water treatment works*</i>								
cb203	Replacement filtration system, output 30MI/d	B3	C3	1	0	1		
cb216	Fitting new plumbosolvency control, output 8MI/d	B3	A2	-1	1	0	2	1
cb217	Alterations to water treatment works, output 30MI/d	B2	B3	0	1	1		5
<i>Water pumping stations‡</i>								
cb210	Replacement of variable speed pump motors, rated 110kW	B2	B3	0	1	1		
cb211	Replacement of borehole pump—sets, output 4MI/d	B2	B3	0	1	1		1
cb212	Replacement of borehole pump—sets, output 10MI/d	B2	B3	0	1	1		

Source: Ofwat, Hastings and CC calculations.

*Group includes two other standard costs.

†Group includes one other standard cost.

‡Group includes four other standard costs.

Reduction in the dispersion of companies' submitted standard cost estimates

TABLE 3 Standard cost estimates submitted

Standard cost	Estimates submitted		
	Total	By MKW (grade)	By SEW (grade)
<i>Water infrastructure</i>			
Mains laying—grassland 100mm	22	A1	B2
Mains laying—grassland 150mm	22	A1	B2
Mains laying—grassland 200mm	22	A1	B2
Mains laying—grassland 300mm	22	A1	B2
Mains laying—grassland 450mm	20	A1	B2
Mains laying—grassland 600mm	17	C3	B2
Mains laying—rural/suburban highway 100mm	22	A1	B2
Mains laying—rural/suburban highway 150mm	22	A1	B2
Mains laying—rural/suburban highway 200mm	22	A1	B2
Mains laying—rural/suburban highway 300mm	22	A1	B2
Mains laying—rural/suburban highway 450mm	20	A1	B2
Mains laying—rural/suburban highway 600mm	17	C3	B2
Mains laying—urban highway 100mm	21	A1	B2
Mains laying—urban highway 150mm	21	A1	B2
Mains laying—urban highway 200mm	21	A1	B2
Mains laying—urban highway 300mm	21	A1	B2
Mains laying—urban highway 450mm	19	A1	B2
Mains laying—urban highway 600mm	16	C3	B2
Mains laying by directional drilling—grassland 100mm	10	B2	B3
Mains laying by directional drilling—grassland 150mm	10	B2	-
Mains laying by directional drilling—grassland 200mm	9	B2	-
Mains laying by directional drilling—rural/suburban highway 100mm	14	B2	B3
Mains laying by directional drilling—rural/suburban highway 150mm	13	B2	-
Mains laying by directional drilling—rural/suburban highway 200mm	10	B2	-
Mains laying by directional drilling—urban highway 100mm	11	B2	-
Mains laying by directional drilling—urban highway 150mm	11	B2	-
Mains laying by directional drilling—urban highway 200mm	9	B2	-
Mains rehabilitation—surface applied internal coating 100mm	13	A1	B3
Mains rehabilitation—surface applied internal coating 150mm	13	A1	B3
Mains rehabilitation—surface applied internal coating 200mm	12	A1	B3
Mains rehabilitation—surface applied internal coating 300mm	12	A1	B3
Mains rehabilitation—pipe insertion 100mm	14	-	C3
Mains rehabilitation—pipe insertion 150mm	14	-	C3
Mains rehabilitation—pipe insertion 200mm	12	-	C3
Mains rehabilitation—pipe insertion 300mm	7	-	C3
Mains rehabilitation—pipe insertion 450mm	6	-	-
Mains rehabilitation—slip—lining 100mm	5	-	B3
Mains rehabilitation—slip—lining 150mm	5	-	B3
Mains rehabilitation—slip—lining 200mm	5	-	B3
Mains rehabilitation—pipe bursting 100mm	18	A1	B3
Mains rehabilitation—pipe bursting 150mm	16	A1	B3
Mains rehabilitation—pipe bursting 200mm	9	A1	B3
Communication pipes—long side, new	21	A1	A2
Communication pipes—long side, renew	22	A2	A2
Communication pipes—short side, new	21	A1	A2
Communication pipes—short side, renew	22	A2	A2
Household meters—internal, new	20	-	A1
Household meters—internal, renew	19	-	A2
Household meters—external (excluding boundary box), new	22	A1	A2
Household meters—external (excluding boundary box), renew	22	A1	A2
Household meters—external (including boundary box), new	22	A1	A2
Household meters—external (including boundary box), renew	21	A1	B2
<i>Water non—infrastructure</i>			
New treatment works type SW2, output 30MI/d	7	-	C3
Replacement filtration system, output 30MI/d	11	-	C3
New abstraction borehole treatment works, output 8MI/d	11	B2	C3
Fitting new plumbosolvency control, output 8MI/d	13	B2	A2
Alterations to water treatment works, output 30MI/d	6	-	B3
Installation of a nitrate removal plant, output 10MI/d	6	B2	-
Cryptosporidium protection, output 2.5MI/d	10	C3	-
New service reservoir, capacity 4MI	14	C3	C3
New service reservoir, capacity 15MI	11	-	C3
Refurbishment of service reservoir, capacity 6MI	19	B3	C3
Replacement of variable speed pumps, output 6 to 9MI/d	14	B2	-
Replacement of variable speed pump motors, rated 110kW	18	B2	B3
Replacement of borehole pump-sets, output 4MI/d	19	B2	B3
Replacement of borehole pump-sets, output 10MI/d	18	B2	B3
New fixed—speed pump-set, output 10MI/d	18	B2	C3
New fixed—speed pump-set, output 30MI/d	13	-	C3
Replacement MCC, 15kW total installed capacity	18	B3	C3
Replacement MCC, 90kW total installed capacity	20	B2	C3

Source: Ofwat, CC calculations.