

Wales and West Utilities

Report on Price Indices

March 2007

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I. Background

- I.1 ChandlerKBS was instructed by Wales and West Utilities (WWU) to review and comment on specific sections relating to price indices within the Office of Gas and Electricity Market's (Ofgem) report entitled "Gas Distribution Price Control Review Five Year Control". Ofgem appointed PB Rune Associates to comment on and recommend the level of expenditure required by WWU to carry out their activities. Ofgem will consider these recommendations when proposing expenditure allowances.
- I.2 A meeting was held between Dylan Davies of ChandlerKBS and Gary Barter and Bob Westlake of WWU on 28 February 2007 for the purpose of defining the exact scope of work. This report provides commentary of the following:
- Real Price Effects
 - The comparison of the Building Cost Information Service with other regional price adjustments indices
- I.3 In addition to the above, ChandlerKBS was also requested to comment on price trends regarding steel and PE pipe prices.

2. Real Price Effects

2.1 OFGEM is proposing to incorporate Real Price Effects (RPE's) when setting expenditure allowances for the regulatory period between 2008/9 and 2012/13. RPE's are used where certain prices are expected to rise faster than the Retail Price Index (RPI).

2.2 PB Rune Associates has estimated that general inflation will rise at a rate of 2.5% per annum. In addition to the RPI increase, PB Rune Associates recommend the following RPE's:

- Contractor's Rates 2.25%
- Materials 1.00%
- Direct Labour 1.00%

Base Inflation

2.3 ChandlerKBS has undertaken an independent assessment of likely inflation increases. Having studied the previous four year's inflation data, we conclude that RPI averages at 2.7%. The trend line forecast to 2009/10 identifies an RPI average of 3%. We conclude that a realistic percentage increase is 3% per annum. However, for the purposes of this report we will compare RPE estimates with the stated inflation rate of 2.5%.

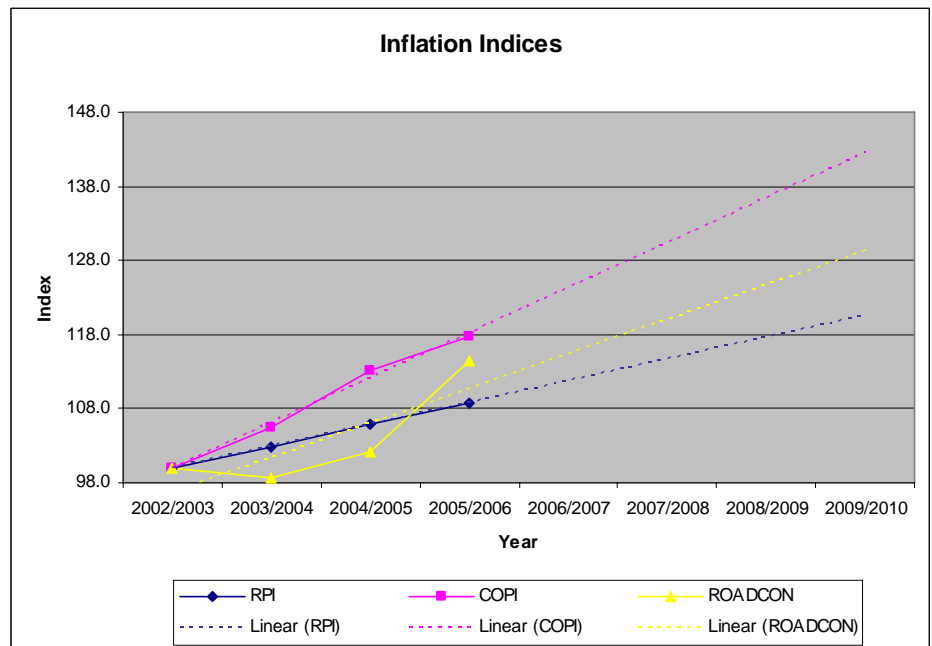
2.4 We agree with the general proposition that certain activities carried out by Gas Distribution Network (GDN) companies cannot be closely correlated with RPI.

2.5 There are a significant number of major projects that are likely to use the same labour, plant and material resource as WWU, both nationally and locally. Two such projects as examples are the Olympic Games 2012 and the St Athan Military Training Academy in the Vale of Glamorgan. Such projects will ensure a continued increase in wages in excess of general inflation.

2.6 The Building Cost Information Service (BCIS), published by the Royal Institute of Chartered Surveyors (RICS), is currently anticipating that tender prices will rise considerably faster than general inflation. This is stated in BCIS newsletter dated February 2007. It predicts that tender prices will rise by 5.2% in the year to 4th quarter 2007, rising by a further 6.1% over the following year.

Contractor's Prices

- 2.7 PB Rune Associates investigated a range of indices for comparison. We understand that a number of the Gas Distribution Network (GDN) Companies have previously used the Price Adjustment Formula for Construction Contract Index which is published by the Department of Trade and Industry (commonly known as the Baxter Index) to account for RPE.
- 2.8 PB Rune Associates has estimated an RPE for contractor's prices at 2.25% per annum. This results in a total price increase of 4.75% per annum i.e. 2.5% RPI plus 2.25% RPE.
- 2.9 ChandlerKBS has independently reviewed the historical trends of the following indices:
 - Baxter Indices
 - Construction Output Price Index (COPI)
 - Public Sector Construction Works (ROADCON)
- 2.10 We have extrapolated the above indices to forecast inflation factors between 2006 and 2010. The summary of our findings are below:



- 2.11 The Baxter Indices or price adjustment formula calculates the increase, or decrease, in contractor's costs over any period to the nearest month using indices published in the Department of Trade and Industry's (DTI) "Monthly Bulletin of Indices". Various indices covering different types of activities within a construction contract or programme of work are weighted together to calculate an overall index.
- 2.12 The Baxter Indices are used to estimate the increase in prices on a specific contract.

- 2.13 In order to calculate the appropriate overall index using the Baxter Indices, WWU would need to segregate the proportions of projected expenditure between various work categories i.e. labour and supervision, aggregates and various pipe materials.
- 2.14 The Baxter Index over the last four years for labour and supervision is averaging at 6.65% per annum. The projected trend is 7.29%. This would result in an RPE of 4.79% i.e. 4.29% less RPI of 2.5%.
- 2.15 COPI measures price levels incurred on new build construction projects underway at the time of each index value. It is based on lagged values of tender price indices, cost indices of labour and materials, and on values of construction new orders for Great Britain. COPI is widely used within the water industry and is the preferred index adopted by its regulatory body (Ofwat). We understand that WWU contractor prices include surface reinstatement and imported backfill material whereas pipes and fittings are issued free to the Contractors.
- 2.16 COPI has averaged 5.1% per annum over the last four years. The projected trend is 6.0% increase per annum. This would result in an RPE of 3.5% i.e. 6.0% less RPI of 2.5%.
- 2.17 The ROADCON index is derived from public sector road projects. The Department of Trade and Industry compiles the Road Construction Tender Price Index from the bills of quantity received by the Highways Agency from its regional offices and from local authorities. The PB Rune Associates report has used ROADCON as a comparator to the Baxter Indices. ChandlerKBS plotted the historical indices and extrapolated the results to forecast future trends.
- 2.18 ROADCON has averaged 4.2% over the last four years. The projected trend is 4.2% increase per annum. This would result in an RPE of 1.7% i.e. 4.2% less RPI of 2.5%. This index is very volatile and is therefore not particularly suitable for forecasting. Due to the fact that the index is derived from road construction projects, and due to its inherent volatility, we do not consider ROADCON to be an adequate index producing RPE's in the Gas Distribution Sector.

- 2.19 Having considered the trends for COPI and the Baxter Index, and discounting ROADCOM, we conclude that a realistic annual increase for Contractor's rates is 6.6%. This would result in an RPE of 4.1% (based on an RPI of 2.5%) The comparison with the PB Rune Associates rate is as follows:

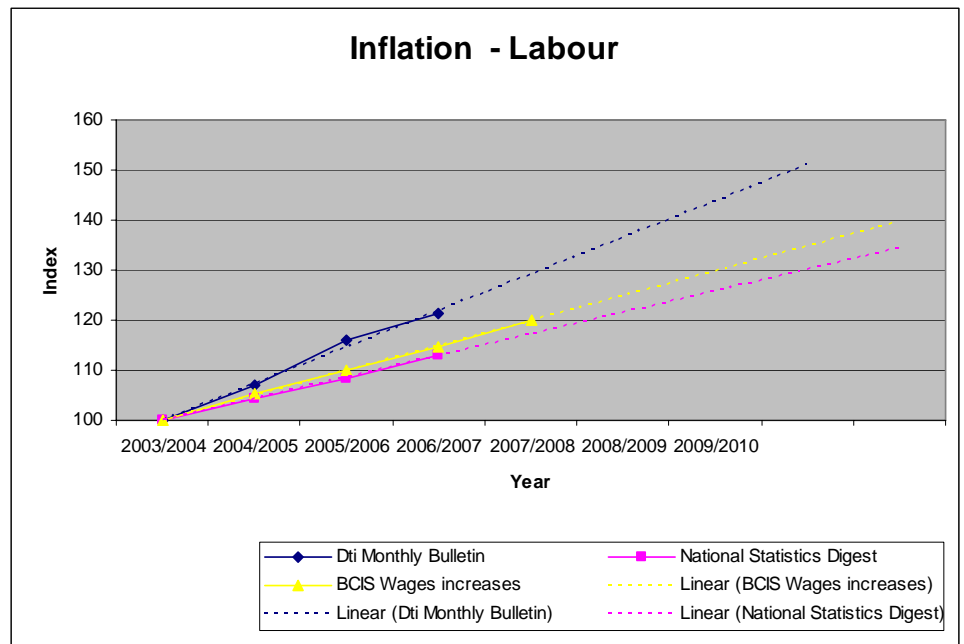
Real Price Effects – Contractor's Rates Year on Year (based on an RPI of 2.5%)

	PB Rune Associates	ChandlerKBS
Annual Increase	2.25%	4.1%
2005/06	100.0%	100.0%
2006/07	102.3%	104.1%
2007/08	104.6%	108.4%
2008/09	106.9%	112.8%
2009/10	109.3%	117.4%
2010/11	111.8%	122.3%
2011/12	114.3%	127.3%
2012/13	116.9%	132.5%

- 2.20 It should be noted that the COPI index includes an element of materials. If the material element was discounted, it is likely that the projected price increase relating to Construction Prices only would increase above 6.0%. The inclusion of a material element within COPI could in theory lead to an understatement of the inflation trend for Construction Prices.
- 2.21 The Baxter Index (labour and supervision) is showing a future trend of 7.29% per annum. As a benchmark, the Baxter Index over the last four years for labour and supervision is averaging at 6.65% per annum. This compares favourably with the ChandlerKBS assessment of 6.6%.
- 2.22 ChandlerKBS suggest that the RPE assessment made by PB Rune Associates of 2.25% significantly understates the current construction trend.

Direct Labour Costs

- 2.23 Generally, earnings in the construction industry rose at a considerably faster rate than the economy as a whole. The average increase in wage settlements in the construction industry has averaged between 3.9% and 4.7% per annum over the last four years.
- 2.24 PB Rune Associates has estimated an RPE for direct labour costs at 1%. This results in a total price increase of 3.5% per annum i.e. 2.5% RPI plus 1% RPE.
- 2.25 ChandlerKBS has used the following published indices for forecasting future direct labour cost increases:
 - Dti Monthly Bulletin
 - BCIS Wage Increases
 - National Statistics Digest
- 2.26 We have extrapolated the above indices to forecast inflation factors between 2006 and 2010. The summary of our findings are below:



- 2.27 Having reviewed the above indices, we conclude that a realistic annual increase for direct labour costs is 4.3%. The RPE is therefore 1.8% i.e. 4.3% less 2.5%. The comparison with PB Rune Associates rate is as follows:

Real Price Effects – Direct Labour Costs (based on an RPI of 2.5%)

	PB Rune Associates	ChandlerKBS
Annual Increase	1.0%	1.8%
2005/06	100.0%	100.0%
2006/07	101.0%	101.8%
2007/08	102.0%	103.6%
2008/09	103.0%	105.5%
2009/10	104.1%	107.4%
2010/11	105.1%	109.3%
2011/12	106.2%	111.3%
2012/13	107.2%	113.3%

Materials Costs

- 2.28 ChandlerKBS has used the Baxters index as a means of measuring trends with regard to material costs.
- 2.29 PB Rune Associates has estimated an RPE for material cost of 1% per annum. The total price increase estimated is therefore 3.5% i.e. 2.5% RPI plus 1% RPE.
- 2.30 The cost of steel and plastic pipes has been rising at an average of between 5.0% and 6.4% per annum for the last four years. In late 2006 alone, there was a price increase for plastic pipes of circa 22%.
- 2.31 From reviewing available data, we conclude that an RPE of 3.2% is more reflective of expected price rises. This will result in a total price increase of 5.7% per annum.
- 2.32 Having reviewed the above indices, we conclude that a realistic annual increase for Material Costs is 3.2%. The comparison with PB Rune Associates rate is as follows

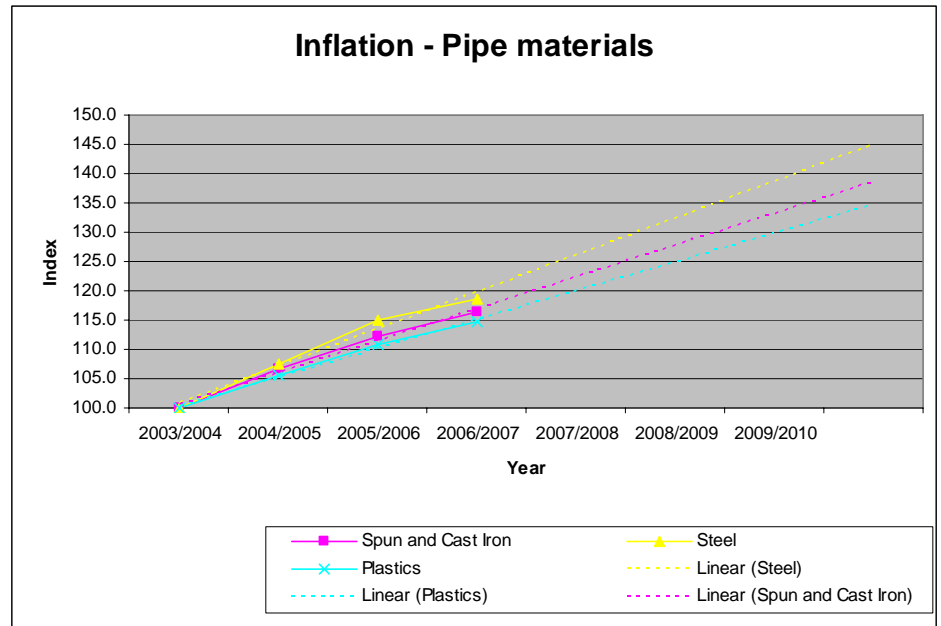
Real Price Effects – Materials Cost (based on an RPI of 2.5%)

	PB Rune Associates	ChandlerKBS
Annual Increase	1.00%	3.2%
2005/06	100.0%	100.0%
2006/07	101.0%	103.2%
2007/08	102.0%	106.5%
2008/09	103.0%	109.9%
2009/10	104.1%	113.4%
2010/11	105.1%	117.1%
2011/12	106.2%	120.8%
2012/13	107.2%	124.7%

2.33 In addition to the above, ChandlerKBS was requested to review price trends with regard to the following work categories:

- Pipes and Accessories - Plastic
- Pipes and Accessories - Steel

2.34 We plotted the historical indices and extrapolated the results to forecast future trends. The resultant graph is shown below:



2.35 We recommend the following increases in pipe prices (not RPE);

- Spun and Cast Iron 5.57%
- Steel 6.43%
- Plastic 5.00%
- Labour and Supervision 7.29%

2.36 In relation to pipes, the proportion of cost segregated between labour and materials will depend on the pipe diameter. These proportions will influence the final costs when the different RPE factors are incorporated. A large diameter pipe will contain a higher proportion of material cost when compared to a small diameter pipe.

3. Regional Factors

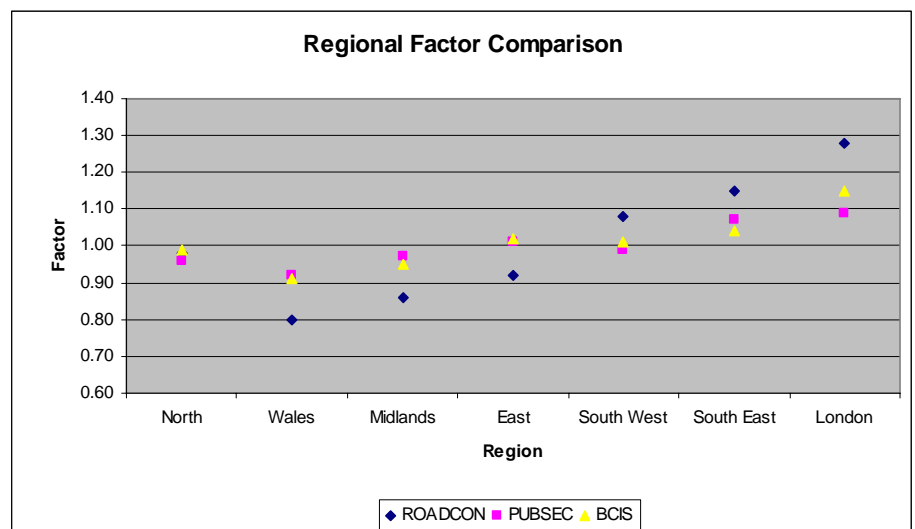
3.1 Location can have a significant effect on tender price levels. PB Rune Associates has based their recommendation on the Quarterly Review of Building Prices as published by the Building Construction Information Service (BCIS) of the Royal Institution of Chartered Surveyors (RICS). PB Rune Associates has recommended that the re-based BCIS index (Northern Ireland, Jersey and Scottish Highland excluded) are applied to RPI. ChandlerKBS has carried out a detailed analysis using the methodology adopted by PB Rune Associates and we conclude that the derived regional factor of 0.96 for WWU is correct.

3.2 ChandlerKBS was requested to compare BCIS with other published regional indices. For the purposes of this review, it was necessary to compare geographical areas rather than counties. Our review included the following:

- BCIS
- ROADCON
- Public Sector Index

3.3 The regional factors in 2006 were as follows:

	ROADCON	Public Sector	BCIS
North	0.98	0.96	0.99
Wales*	0.80	0.92	0.91
Midlands*	0.86	0.97	0.95
East	0.92	1.01	1.02
South West*	1.08	0.99	1.01
South East	1.15	1.07	1.04
London	1.28	1.09	1.15
* Average	0.91	0.96	0.96



* We understand that these areas are within WWU operational regions

- 3.4 The Public Sector and BCIS indices are very similar, whereas the ROADCON index is markedly different.
- 3.5 As mentioned earlier, we do not consider that ROADCON is representative of the Gas Distribution Industry and is considered to be volatile.
- 3.6 BCIS regional indices are currently used by the water industry and Ofwat.
- 3.7 We conclude that BCIS regional index is the most appropriate for use within the Gas Distribution Industry in general, and by Wales and West Utilities in particular.

4. Conclusions

- 4.1 We have based our assessment on the same published data as that used by PB Rune Associates.
- 4.2 Our assessment identifies that a realistic rise in general inflation (RPI) is 3.00% per annum.
- 4.3 We agree with PB Rune Associates that certain activities carried out by the GDN's cannot be closely correlated with RPI.
- 4.4 We question the use of RPE's as an adjustment factor to RPI. We suggest that the RPI plus RPE formula should be replaced by a single index.
- 4.5 If the RPI plus RPE formula is not be replaced by a single index, we recommend that the following RPE's are adopted (based on an RPI of 2.5%);

	PB Rune Associates	ChandlerKBS
Contractor's Rates	2.25%	4.10%
Materials	1.00%	3.20%
Direct Labour	1.00%	1.80%

- 4.6 With regard to regional factors, we conclude that the BCIS regional index is most appropriate for WWU.

CONTACT SHEET

This document was prepared by:

Dylan Davies

ChandlerKBS
Chandlers House
Terra Nova Way
Penarth Marina
Cardiff
CF64 1SA

Tel: 029 2035 2300

Fax: 029 2035 2400

Email: ddavies@chandlerkbs.com

www.chandlerkbs.com