

**Bilfinger Berger–Siemens– CAF
Consortium**

Our ref: **25.1.201/GC/3939**

BSC Consortium Office
9 Lochside Avenue
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02 November 2009

tie limited
CityPoint
65 Haymarket Terrace
Edinburgh
EH12 5HD

Phone: +44 (0) 131 [REDACTED]

For the attention of Steven Bell – Tram Project Director

Dear Sirs,

**Edinburgh Tram Network Infraco
Infraco Contract – Infraco Notification of tie Change (INTC) No 1
Extension of Time 1**

In accordance with the Memorandum of Understanding between tie, Bilfinger Berger and Siemens of 30 October 2009, we hereby submit our revised estimate in the sum of £3,524,000.

The substantiation for each of the individual Estimates is enclosed and can be summarised as follows:

Bilfinger Berger	£2,225,000
Siemens	<u>£1,299,000</u>
Total	<u>£3,524,000</u>

As agreed, we have also included a narrative with each of the submissions from Bilfinger Berger and Siemens detailing the different methods of valuation which in accordance with the aforementioned memorandum shall form the basis of evaluation of any further extensions of time.

We look forward to your formal acceptance of the enclosed Estimate and the methods of valuation to be used going forward.

Please note that the enclosed Estimate makes no allowance or provision in respect of any CAF costs, if any, and their treatment, which have still to be addressed.

Yours faithfully,

[REDACTED]
M Foerder
Project Director
Bilfinger Berger Siemens CAF Consortium

cc: JD, DG, KR, MB (Siemens)

Bilfinger Berger UK Limited

Infraco Notification of tie Change Nr 01 Estimate

02 November 2009

1. In accordance with the Memorandum of Understanding concluded between tie, Bilfinger Berger and Siemens on 30 October 2009, Bilfinger Berger hereby submit its revised Estimate in the sum of Two Million, Two Hundred and Twenty Five Thousand Pounds (£2,225,000).
2. This estimate has been prepared in accordance with the method of valuation agreed between the parties on 22, 23 and 30 October 2009. The parties have agreed that Bilfinger Berger prolongation costs are to be calculated using Schedule 4, Appendix F, Spreadsheet 2 and Siemens prolongation costs are to be calculated based on Actual Cost or estimated Actual Cost.
3. The methods of valuation set out in this Estimate shall form the basis of evaluation of any further extensions of time.
 - 3.1. Bilfinger Berger Preliminaries are identified on Schedule 4, Appendix F, Spreadsheet 2 and include all 'Preliminaries and General Items' and 'Method Related Charges'.
 - 3.2. All Bilfinger Berger Preliminaries identified as 'Time-Related' on Schedule 4, Appendix F, Spreadsheet 2 have been recovered within this Estimate except items 34 and 49 which have been specifically excluded by agreement of the parties for this Infraco Notification of tie Change 1 Estimate only.
 - 3.3. Escalation has been applied to all Bilfinger Berger Preliminaries which are extended beyond the Section D completion date.
4. All Bilfinger Berger Preliminaries will be recoverable for any further Extensions of Time in accordance with this Estimate.
5. Escalation will apply to all Preliminaries and Construction costs which extend beyond 16 July 2011 (original Section D completion date) at a rate of 2.76% per annum. The calculation of escalation on Preliminaries for any further Extensions of Time will be calculated as set out in this Estimate. The calculation of escalation on Construction costs will be calculated based on the same principles as set out in this Estimate.

CEC00208535_0002

Prolongation Estimate - V26 to V31										02 November 2009
Bilfinger Berger Preliminaries										
Sectional Completion EoT										
Item	Section	V26 Start	V26 Finish	V26 Duration	V31 Start	V31 Finish	V31 Duration	Prolongation	Total Cost	
1	Section A (Depot)	02 June 2008	25 March 2010	94.80	27 June 2008	01 June 2010	100.60	5.80	149,074.54	
2	Section B (Test Track)	14 May 2008	23 April 2010	101.60	14 May 2008	01 July 2010	111.40	9.80	-	
3	Section C (Testing and Commissioning)	14 May 2008	17 January 2011	139.80	14 May 2008	10 March 2011	147.40	7.60	2,059,139.76	
4	Section D (Revenue Commencement Date)	17 January 2011	16 July 2011	26.00	10 March 2011	06 September 2011	26.00	0.00	-	
									2,208,214.30	
									Escalation	21,614.36
									Total Prolongation Cost	2,229,828.66
									Bilfinger Berger Agreement for INTC 01	£ 2,225,000.00

Detailed Breakdown											
Section A (Depot)											
Item	Contract Prelims	V26 Start	V26 Finish	V26 Duration	V31 Start	V31 Finish	V31 Duration	Total Cost (V26)	Weekly Rate	Prolongation	Total Cost
5	Depot Subcontractor Section A Supervision	02 June 2008	25 March 2010	94.8	27 June 2008	01 June 2010	100.6	1,147,710	12,106.65	5.8	70,218.54
6	Depot Subcontractor Section A Establish Site Services Welfare etc.	02 June 2008	25 March 2010	94.8	27 June 2008	01 June 2010	100.6	-	-	5.8	-
7	Depot Subcontractor Section A Scaffolding & Misc Plant	02 June 2008	25 March 2010	94.8	27 June 2008	01 June 2010	100.6	717,319	7,566.65	5.8	43,886.59
8	Depot Subcontractor Section A Insurance & Bond	02 June 2008	25 March 2010	94.8	27 June 2008	01 June 2010	100.6	243,888	2,572.66	5.8	14,921.44
9	Depot Subcontractor Section A Establish and Maintain Compound	02 June 2008	25 March 2010	94.8	27 June 2008	01 June 2010	100.6	43,787	461.89	5.8	2,678.98
10	Depot Subcontractor Section A Non productive Labour	02 June 2008	25 March 2010	94.8	27 June 2008	01 June 2010	100.6	283,893	2,994.65	5.8	17,369.00
									2,436,697.69		149,074.54
Section C (Testing and Commissioning)											
Item	(Airport to Haymarket)	V26 Start	V26 Finish	V26 Duration	V31 Start	V31 Finish	V31 Duration	Total Cost (V26)	Weekly Rate	Prolongation	Total Cost
11	BB High Level - Section A	14 May 2008	09 November 2010	130.0	14 May 2008	20 December 2010	135.8	-	-	5.80	-
12	BB High Level - Section A	14 May 2008	09 November 2010	130.0	14 May 2008	20 December 2010	135.8	2,722,909	20,945	5.80	121,483.63
13	BB High Level - Section A			169.0			176.6	564,161	3,338	7.60	25,370.54
14	BB - Section A (5C (depot to 5B), 5B)	23 May 2008	13 October 2010	124.8	13 June 2008	09 December 2010	130.0	5,388,369	43,176	5.20	224,515.38
15	Section A (2A, 5A)	14 May 2008	13 October 2010	126.2	14 May 2008	09 December 2010	134.4	2,508,922	19,881	8.20	163,020.27
16	Section A (2A, 5A)	14 May 2008	13 October 2010	126.2	14 May 2008	09 December 2010	134.4	-	-	8.20	-
17	Section A (2A, 5A)	14 May 2008	13 October 2010	126.2	14 May 2008	09 December 2010	134.4	2,689,180	21,309	8.20	174,732.76
18	Section A (2A, 5A)	14 May 2008	13 October 2010	126.2	14 May 2008	09 December 2010	134.4	197,862	1,568	8.20	12,856.36
19	Section A (5C (depot to sect 7), 7)	14 May 2008	18 March 2010	96.4	14 May 2008	28 June 2010	110.8	-	-	14.40	-
20	Section A (5C (depot to sect 7), 7)	14 May 2008	18 March 2010	96.4	14 May 2008	28 June 2010	110.8	1,432,030	14,855	14.40	213,913.26
21	Section A (5C (depot to sect 7), 7)	14 May 2008	18 March 2010	96.4	14 May 2008	28 June 2010	110.8	-	-	14.40	-
									15,503,433.24	Sub Total	935,892.20
Item	(Haymarket to Newhaven)	V26 Start	V26 Finish	V26 Duration	V31 Start	V31 Finish	V31 Duration	Total Cost (V26)	Weekly Rate	Prolongation	Total Cost
22	BB High Level - Section B	01 August 2008	17 January 2011	128.4	05 August 2008	10 March 2011	135.6	-	-	7.2	-
23	BB High Level - Section B	01 August 2008	17 January 2011	128.4	05 August 2008	10 March 2011	135.6	1,485,223	11,567	7.2	83,283.54
24	BB High Level - Section B			169.0			176.6	564,161	3,338	7.6	25,370.54
25	BB - Section B (1B)	01 August 2008	11 March 2011	136.2	01 August 2008	11 March 2011	136.2	-	-	0.0	-
26	BB - Section B (1B)	01 August 2008	11 March 2011	136.2	01 August 2008	11 March 2011	136.2	1,853,813	13,611	0.0	-
27	Section B (1C, 1D)	05 January 2009	10 September 2010	88.0	05 January 2009	04 October 2010	91.2	2,294,666	26,076	3.2	83,442.41
28	Section B (1A)	03 November 2008	15 September 2010	97.6	31 October 2008	22 November 2010	107.4	-	-	9.8	-
29	Section B (1A)	03 November 2008	15 September 2010	97.6	31 October 2008	22 November 2010	107.4	2,270,208	23,260	9.8	227,951.21
30	Section B (1A)	03 November 2008	15 September 2010	97.6	31 October 2008	22 November 2010	107.4	2,153,870	22,068	9.8	216,269.71
									10,621,940.52	Sub Total	636,317.42
Item	Consortium Prelim Costs	V26 Start	V26 Finish	V26 Duration	V31 Start	V31 Finish	V31 Duration	Total Cost (V26)	Weekly Rate	Prolongation	Total Cost
Contractual Requirements Section A											
31	Contractor's bond	14 May 2008	16 July 2011	165.6	14 May 2008	06 September 2011	173.0	1,317,094	7,953	7.40	58,855.64
32	All other insurance required by the Contract	14 May 2008	16 July 2011	165.6	14 May 2008	06 September 2011	173.0	1,633,046	9,861	7.40	72,974.29
33	Accommodation for the Engineer's and Client's Staff; establish and remove offices	14 May 2008	17 January 2011	139.8	14 May 2008	10 March 2011	147.4	-	-	7.60	-
34	Accommodation for the Engineer's and Client's Staff; maintain and operate offices	14 May 2008	17 January 2011	139.8	14 May 2008	10 March 2011	147.4	-	-	7.60	-
35	Services for Engineer's and Client's Staff; maintain and operate transport vehicles			169.0			176.6	206,171	1,220	7.60	9,271.61
36	Equipment for use by the Engineer's and Client's Staff; maintain and operate photographic equipment			169.0			176.6	19,031	113	7.60	855.85
37	Consortium Supervision			169.0			176.6	2,686,374	15,896	7.60	120,807.35

Prolongation Estimate - V26 to V31							02 November 2009				
Bilfinger Berger Preliminaries											
Sectional Completion EoT											
Item	Section	V26 Start	V26 Finish	V26 Duration	V31 Start	V31 Finish	V31 Duration	Prolongation	Total Cost		
38	Consortium Office Hire			169.0			176.6	202,048	7.60	-	
39	Consortium Office Maintenance			169.0			176.6	591,300	7.60	-	
40	Consortium Surveying Instruments Maintenance			169.0			176.6	25,978	154	7.60	1,168.23
41	Consortium IT Equipment			169.0			176.6	304,986	1,805	7.60	13,715.35
42	Consortium Testing			169.0			176.6	609,974	3,609	7.60	27,430.79
43	Consortium Establish/Remove Offices	14 May 2008	17 January 2011	139.8	14 May 2008	10 March 2011	147.4	-	-	7.60	-
44	Consortium Establish/Remove Surveying Equipment	14 May 2008	17 January 2011	139.8	14 May 2008	10 March 2011	147.4	-	-	7.60	-
45	Consortium costs incurred during facilitated negotiation phase	14 May 2008	17 January 2011	139.8	14 May 2008	10 March 2011	147.4	-	-	7.60	-
Contractual Requirements - Section B											
46	Contractor's bond	14 May 2008	16 July 2011	165.6	14 May 2008	06 September 2011	173.0	670,743	4,050	7.40	29,972.81
47	All other insurance required by the Contract	14 May 2008	16 July 2011	165.6	14 May 2008	06 September 2011	173.0	881,247	5,322	7.40	39,379.40
48	Accommodation for the Engineer's and Client's Staff; establish and remove offices	14 May 2008	17 January 2011	139.8	14 May 2008	10 March 2011	147.4	-	-	7.60	-
49	Accommodation for the Engineer's and Client's Staff; maintain and operate offices	14 May 2008	17 January 2011	169.0	14 May 2008	10 March 2011	147.4	-	-	-21.60	-
50	Services for Engineer's and Client's Staff; maintain and operate transport vehicles			169.0			176.6	111,015	657	7.60	4,992.40
51	Equipment for use by the Engineer's and Client's Staff; maintain and operate photographic equipment			169.0			176.6	10,248	61	7.60	460.84
52	Consortium Supervision			169.0			176.6	1,446,509	8,559	7.60	65,050.11
53	Consortium Office Hire			169.0			176.6	108,795	644	7.60	4,892.56
54	Consortium Office Maintenance			169.0			176.6	318,392	1,884	7.60	14,318.24
55	Consortium Surveying Instruments Maintenance			169.0			176.6	13,988	83	7.60	629.05
56	Consortium IT Equipment			169.0			176.6	164,223	972	7.60	7,385.19
57	Consortium Testing			169.0			176.6	328,448	1,943	7.60	14,770.43
58	Consortium Establish/Remove Offices	14 May 2008	17 January 2011	139.8	14 May 2008	10 March 2011	147.4	-	-	7.60	-
59	Consortium Establish/Remove Surveying Equipment	14 May 2008	17 January 2011	139.8	14 May 2008	10 March 2011	147.4	-	-	7.60	-
							11,649,611.56	Sub Total	486,930.14		

NOTES

- * All in accordance with Spreadsheet No 2 - Appendix F Schedule Part 4.
- * Accommodation for Client and Engineers Staff (Item 34 & 49) have been excluded from INTC 01 only as the costs are deemed to be covered in INTC 18. For the purposes of valuation of any future EoT claims these prolongation costs will be applicable.
- * Consortium Supervision (Item 38 & 52) is for 14 Nr Bilfinger Berger consortium staff only
- * All Items in the above table with a V26 Duration of 169 weeks are as identified in Schedule 4 where 169 weeks is the basis for the calculation of the rate. All other items are included in Schedule 4 as a lump sum item and therefore the weekly rate is calculated based on the Programme duration.

Prelim Escalation
Bilfinger Berger
02 November 2009

Prolongation Cost	£ 486,930.14 (see Prolongation Estimate)
Weeks	7.6 (see Prolongation Estimate)
Prelim Cost Per Week	<u>£ 64,069.76</u>
Escalation % p.a.	2.76%
Original Rate Applicable for 3 year Contract duration (mid-point)	4.41% (see attached Escalation Percentages)
Deduced Nett Prelim Cost per week	<u>£ 61,366.33</u>

Delay Weeks	1	2	3	4	5	6	7	8
Project Week No	167	168	169	170	171	172	173	174
Deduced Nett Prelim Cost per week	£ 61,366.33	£ 61,366.33	£ 61,366.33	£ 61,366.33	£ 61,366.33	£ 61,366.33	£ 61,366.33	£ 61,366.33
Escalation applicable for delay period (%)	8.86%	8.92%	8.97%	9.02%	9.08%	9.13%	9.18%	9.24%
Escalation applicable for delay period (£)	£ 5,439.42	£ 5,471.99	£ 5,504.56	£ 5,537.13	£ 5,569.70	£ 5,602.27	£ 5,634.85	£ 5,667.42
Total Prelim Cost Per Week	£ 66,805.75	£ 66,838.32	£ 66,870.89	£ 66,903.46	£ 66,936.04	£ 66,968.61	£ 67,001.18	£ 67,033.75
Additional Escalation	£ 2,735.99	£ 2,768.57	£ 2,801.14	£ 2,833.71	£ 2,866.28	£ 2,898.85	£ 2,931.42	£ 2,963.99
Apportioned to EoT 1 (7.6 Wks)	1	1	1	1	1	1	1	0.6
Additional Escalation (Applicable to this Delay)	£ 2,735.99	£ 2,768.57	£ 2,801.14	£ 2,833.71	£ 2,866.28	£ 2,898.85	£ 2,931.42	£ 1,778.40

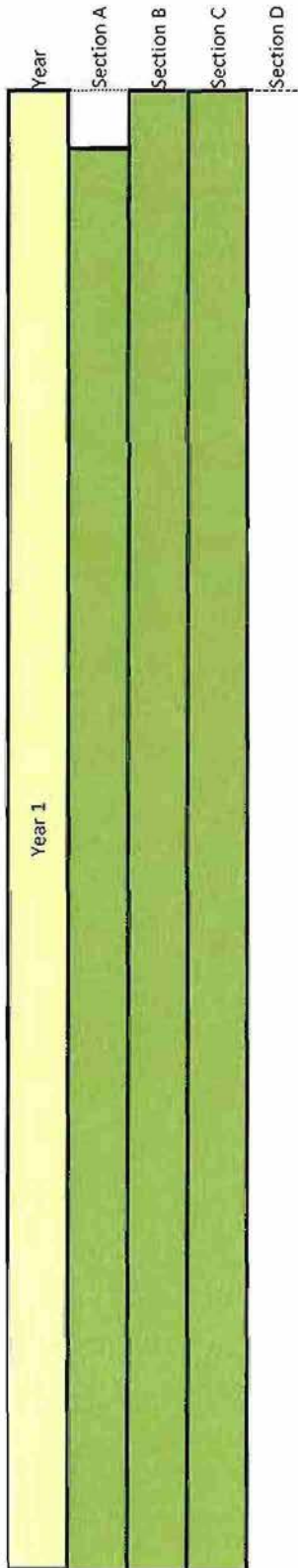
Prelim amount subject to escalation	<u>£ 486,930.14</u>
Additional Prelim escalation for EoT 1	<u>£ 21,614.36</u>

Escalation Percentages

Inflation p.a.

2.76%

Original Contract Periods



Week No	W/E Date	Percentage
1	18/05/2008	0.05%
2	25/05/2008	0.11%
3	01/06/2008	0.16%
4	08/06/2008	0.21%
5	15/06/2008	0.27%
6	22/06/2008	0.32%
7	29/06/2008	0.37%
8	06/07/2008	0.42%
9	13/07/2008	0.48%
10	20/07/2008	0.53%
11	27/07/2008	0.58%
12	03/08/2008	0.64%
13	10/08/2008	0.69%
14	17/08/2008	0.74%
15	24/08/2008	0.80%
16	31/08/2008	0.85%
17	07/09/2008	0.90%
18	14/09/2008	0.96%
19	21/09/2008	1.01%
20	28/09/2008	1.06%
21	05/10/2008	1.11%
22	12/10/2008	1.17%
23	19/10/2008	1.22%
24	26/10/2008	1.27%
25	02/11/2008	1.33%
26	09/11/2008	1.38%
27	16/11/2008	1.43%
28	23/11/2008	1.49%
29	30/11/2008	1.54%
30	07/12/2008	1.59%
31	14/12/2008	1.65%
32	21/12/2008	1.70%
33	28/12/2008	1.75%
34	04/01/2009	1.80%
35	11/01/2009	1.86%
36	18/01/2009	1.91%
37	25/01/2009	1.96%
38	01/02/2009	2.02%
39	08/02/2009	2.07%
40	15/02/2009	2.12%
41	22/02/2009	2.18%
42	01/03/2009	2.23%
43	08/03/2009	2.28%
44	15/03/2009	2.34%
45	22/03/2009	2.39%
46	29/03/2009	2.44%
47	05/04/2009	2.49%
48	12/04/2009	2.55%
49	19/04/2009	2.60%
50	26/04/2009	2.65%
51	03/05/2009	2.71%
52	10/05/2009	2.76%

Escalation Percentages

Inflation p.a.

2.76%

Original Contract Periods

Year	Section A	Section B	Section C	Section D	Week No	W/E Date	Percentage	
Year 2					53	17/05/2009	2.81%	
					54	24/05/2009	2.87%	
					55	31/05/2009	2.92%	
					56	07/06/2009	2.97%	
					57	14/06/2009	3.03%	
					58	21/06/2009	3.08%	
					59	28/06/2009	3.13%	
					60	05/07/2009	3.18%	
					61	12/07/2009	3.24%	
					62	19/07/2009	3.29%	
					63	26/07/2009	3.34%	
					64	02/08/2009	3.40%	
					65	09/08/2009	3.45%	
					66	16/08/2009	3.50%	
					67	23/08/2009	3.56%	
					68	30/08/2009	3.61%	
					69	06/09/2009	3.66%	
					70	13/09/2009	3.72%	
					71	20/09/2009	3.77%	
					72	27/09/2009	3.82%	
					73	04/10/2009	3.87%	
					74	11/10/2009	3.93%	
					75	18/10/2009	3.98%	
					76	25/10/2009	4.03%	
					77	01/11/2009	4.09%	
					78	08/11/2009	4.14%	
					79	15/11/2009	4.19%	
					80	22/11/2009	4.25%	
					81	29/11/2009	4.30%	
					82	06/12/2009	4.35%	
					83	13/12/2009	4.41%	(Mid-point of original contract duration and basis of Escalation)
					84	20/12/2009	4.46%	
					85	27/12/2009	4.51%	
					86	03/01/2010	4.56%	
					87	10/01/2010	4.62%	
					88	17/01/2010	4.67%	
					89	24/01/2010	4.72%	
					90	31/01/2010	4.78%	
					91	07/02/2010	4.83%	
					92	14/02/2010	4.88%	
					93	21/02/2010	4.94%	
					94	28/02/2010	4.99%	
					95	07/03/2010	5.04%	
					96	14/03/2010	5.10%	
					97	21/03/2010	5.15%	
					98	28/03/2010	5.20%	
					99	04/04/2010	5.25%	
					100	11/04/2010	5.31%	
					101	18/04/2010	5.36%	
					102	25/04/2010	5.41%	
					103	02/05/2010	5.47%	
					104	09/05/2010	5.52%	

Escalation Percentages

Inflation p.a.

2.76%

Original Contract Periods

Year	Section A	Section B	Section C	Section D	Week No	W/E Date	Percentage
Year 3					105	16/05/2010	5.57%
					106	23/05/2010	5.63%
					107	30/05/2010	5.68%
					108	06/06/2010	5.73%
					109	13/06/2010	5.79%
					110	20/06/2010	5.84%
					111	27/06/2010	5.89%
					112	04/07/2010	5.94%
					113	11/07/2010	6.00%
					114	18/07/2010	6.05%
					115	25/07/2010	6.10%
					116	01/08/2010	6.16%
					117	08/08/2010	6.21%
					118	15/08/2010	6.26%
					119	22/08/2010	6.32%
					120	29/08/2010	6.37%
					121	05/09/2010	6.42%
					122	12/09/2010	6.48%
					123	19/09/2010	6.53%
					124	26/09/2010	6.58%
					125	03/10/2010	6.63%
					126	10/10/2010	6.69%
					127	17/10/2010	6.74%
					128	24/10/2010	6.79%
					129	31/10/2010	6.85%
					130	07/11/2010	6.90%
					131	14/11/2010	6.95%
					132	21/11/2010	7.01%
					133	28/11/2010	7.06%
					134	05/12/2010	7.11%
					135	12/12/2010	7.17%
					136	19/12/2010	7.22%
					137	26/12/2010	7.27%
					138	02/01/2011	7.32%
					139	09/01/2011	7.38%
					140	16/01/2011	7.43%
					141	23/01/2011	7.48%
					142	30/01/2011	7.54%
					143	06/02/2011	7.59%
					144	13/02/2011	7.64%
					145	20/02/2011	7.70%
					146	27/02/2011	7.75%
					147	06/03/2011	7.80%
					148	13/03/2011	7.86%
					149	20/03/2011	7.91%
					150	27/03/2011	7.96%
					151	03/04/2011	8.01%
					152	10/04/2011	8.07%
					153	17/04/2011	8.12%
					154	24/04/2011	8.17%
					155	01/05/2011	8.23%
					156	08/05/2011	8.28%

Escalation Percentages

Inflation p.a.

2.76%

Original Contract Periods

Year	Section A	Section B	Section C	Section D	Week No	W/E Date	Percentage
Year 4					157	15/05/2011	8.33%
					158	22/05/2011	8.39%
					159	29/05/2011	8.44%
					160	05/06/2011	8.49%
					161	12/06/2011	8.55%
					162	19/06/2011	8.60%
					163	26/06/2011	8.65%
					164	03/07/2011	8.70%
					165	10/07/2011	8.76%
					166	17/07/2011	8.81%
					167	24/07/2011	8.86%
					168	31/07/2011	8.92%
					169	07/08/2011	8.97%
					170	14/08/2011	9.02%
					171	21/08/2011	9.08%
					172	28/08/2011	9.13%
					173	04/09/2011	9.18%
					174	11/09/2011	9.24%
					175	18/09/2011	9.29%
					176	25/09/2011	9.34%
					177	02/10/2011	9.39%
					178	09/10/2011	9.45%
					179	16/10/2011	9.50%
					180	23/10/2011	9.55%
					181	30/10/2011	9.61%
					182	06/11/2011	9.66%
					183	13/11/2011	9.71%
					184	20/11/2011	9.77%
					185	27/11/2011	9.82%
					186	04/12/2011	9.87%
					187	11/12/2011	9.93%
					188	18/12/2011	9.98%
					189	25/12/2011	10.03%
					190	01/01/2012	10.08%
					191	08/01/2012	10.14%
					192	15/01/2012	10.19%
					193	22/01/2012	10.24%
					194	29/01/2012	10.30%
					195	05/02/2012	10.35%
					196	12/02/2012	10.40%
					197	19/02/2012	10.46%
					198	26/02/2012	10.51%
					199	04/03/2012	10.56%
					200	11/03/2012	10.62%
					201	18/03/2012	10.67%
					202	25/03/2012	10.72%
					203	01/04/2012	10.77%
					204	08/04/2012	10.83%
					205	15/04/2012	10.88%
					206	22/04/2012	10.93%
					207	29/04/2012	10.99%
					208	06/05/2012	11.04%

Prolongation starts at this point

Escalation Percentages

Inflation p.a.

2.76%

Original Contract Periods

Year	Section A	Section B	Section C	Section D	Week No	W/E Date	Percentage
Year 5					209	13/05/2012	11.09%
					210	20/05/2012	11.15%
					211	27/05/2012	11.20%
					212	03/06/2012	11.25%
					213	10/06/2012	11.31%
					214	17/06/2012	11.36%
					215	24/06/2012	11.41%
					216	01/07/2012	11.46%
					217	08/07/2012	11.52%
					218	15/07/2012	11.57%
					219	22/07/2012	11.62%
					220	29/07/2012	11.68%
					221	05/08/2012	11.73%
					222	12/08/2012	11.78%
					223	19/08/2012	11.84%
					224	26/08/2012	11.89%
					225	02/09/2012	11.94%
					226	09/09/2012	12.00%
					227	16/09/2012	12.05%
					228	23/09/2012	12.10%
					229	30/09/2012	12.15%
					230	07/10/2012	12.21%
					231	14/10/2012	12.26%
					232	21/10/2012	12.31%
					233	28/10/2012	12.37%
					234	04/11/2012	12.42%
					235	11/11/2012	12.47%
					236	18/11/2012	12.53%
					237	25/11/2012	12.58%
					238	02/12/2012	12.63%
					239	09/12/2012	12.69%
					240	16/12/2012	12.74%
					241	23/12/2012	12.79%
					242	30/12/2012	12.84%
					243	06/01/2013	12.90%
					244	13/01/2013	12.95%
					245	20/01/2013	13.00%
					246	27/01/2013	13.06%
					247	03/02/2013	13.11%
					248	10/02/2013	13.16%
					249	17/02/2013	13.22%
					250	24/02/2013	13.27%
				251	03/03/2013	13.32%	
				252	10/03/2013	13.38%	
				253	17/03/2013	13.43%	
				254	24/03/2013	13.48%	
				255	31/03/2013	13.53%	
				256	07/04/2013	13.59%	
				257	14/04/2013	13.64%	
				258	21/04/2013	13.69%	
				259	28/04/2013	13.75%	
				260	05/05/2013	13.80%	

Siemens plc
Infracore Notice of tie Change No. 1:
Final Revised Estimate pursuant to
Mediation's conclusion
Memorandum of Understanding

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1. Introduction

- 1.1. Siemens herewith provides its revised Estimate in respect of Infraco Notice of tie Change No. 1 in accordance with paragraph 2 of the Memorandum of Understanding concluded between tie, Bilfinger Berger and Siemens on 30 October 2009. Therein, subject to acceptance by tie of the revised Estimate to be provided by Bilfinger Berger and Siemens to tie by 1700 hours on 2 November 2009, the parties agreed and compromised its Dispute in respect of Infraco Notice of tie Change No. 1 in the sum **£3,534,000.00**. Further the parties agreed that the Bilfinger Berger element as being **£2,225,000** and the Siemens element as being **£1,299,000**.
- 1.2. This Estimate details and fully substantiates the derivation of the Siemens' element of the value of Infraco Notice of tie Change No. 1 in the sum of £1,299,000 which was agreed by the parties as the fair and proper valuation of the Siemens' element of this tie Change. Further, this Estimate has been prepared in accordance with the methods of valuation agreed between the parties during the Mediation sessions on 22, 23 and 30 October 2009 and applies these methods of valuation to the calculations herein. Further Siemens herein details the rates used to value its Estimate.
- 1.3. As expressly agreed between the parties this Estimate is produced and derived on the basis of 'Actual Cost/estimated Actual Cost' in accordance with clause 80.6.3 and 80.6.4 of the Infraco Contract and the parties agreed that this is the appropriate basis for valuation of this Estimate. This Estimate makes no provision in respect of CAF, given that tie has previously confirmed in writing that the CAF element of this Estimate, if incurred, would be separately compensated by tie on Actual Cost basis.
- 1.4. The present Estimate for the Siemens element, together with the Estimate produced by Bilfinger Berger for their element, fully substantiates the agreed settlement value of Infraco Notice of tie Change No. 1 in the sum of £3,524,000 as recorded in the Memorandum of Understanding.
- 1.5. Siemens duly acknowledges that tie shall formally respond in writing by 1700 hours on 3 November 2009 to the present revised Estimate.
- 1.6. It is acknowledged by Siemens that subject to acceptance by tie of this revised Estimate the methods of valuation set out herein shall form the basis of evaluation of any further extension of time. However, for the avoidance of doubt, Siemens expressly advises that whilst it has agreed to disregard certain costs in order to achieve a commercial settlement of Infraco Notice of tie Change No. 1, this concession applies to the calculation of prolongation costs only, and Siemens advises that there is no provision for Siemens' staff and/or resources within Appendix A2 or Appendix F of Schedule Part 4 in relation to tie Changes or more generally. Further, Siemens expressly advises that this

Siemens Revised Estimate Pursuant to Memorandum of Understanding

Estimate does not contemplate all possible costs and charges that may arise from or in respect of future extensions of time. To this extent and at the explicit request of tie during the Mediation, Siemens has sought at section 13 of this Estimate to identify additional or differing heads of claims that may apply to future extensions of time.

- 1.7. For the avoidance of doubt and subject to the formal agreement of tie to this revised Estimate it shall be deemed that the Estimate herein has been produced in accordance with clause 80.4 of the Infraco Contract and is deemed to accord therewith.

2. Chronology of Events

- 2.1. The parties to the "Infraco Contract relating to the Edinburgh Tram Network" are tie Limited (hereinafter referred to as "tie") and a consortium consisting of Bilfinger Berger (UK) Limited, Siemens plc and Construcciones y Auxiliar de Ferrocarriles S.A (hereinafter jointly referred to as "the Infraco" and singularly as "Bilfinger Berger", "Siemens" and "CAF").
- 2.2. Tie and the Infraco executed a contract (hereinafter referred to as "the Infraco Contract") dated 14 May 2008. Pursuant to a Minute of Variation dated 14 May 2008, CAF became a member of the Infraco. The terms of the Infraco Contract are relied upon by Siemens in their entirety in this submission.
- 2.3. By letter dated 21 May 2008¹ the Infraco issued, inter alia, 'tie Change notification No. 1' [(INTC)1]. Section 2 of the pro-forma gave details of the change as follows:

"Schedule Part 4, Pricing Assumption, paragraph 3.4.4, assumes that the Design Delivery Programme as defined in the SDS Agreement is the same as the Schedule Part 15 Programme. We have entered the Issued for Construction (IFC) dates from the Design Delivery Programme into the Schedule Part 15 Programme and there are differences from the Base Case Assumption resulting in a Notified Departure."
- 2.4. By letter dated 28 August 2008² tie made an interim assessment of the delay as being 5 days.
- 2.5. On 18 March 2009³ Tie confirmed in writing that the programmes submitted by the Infraco confirmed a 38 business day extension of time.
- 2.6. Notwithstanding the exchanges between the parties and notwithstanding the agreement of the time impact of Infraco Notice of tie Change No. 1, a dispute or difference arose between the parties as to the evaluation of the financial effect, actual and/or forecast, of the incorporation into the Contract of the V31 Programme in lieu of the V26 Programme.
- 2.7. On 11 August 2009 tie provided Notification in respect of the Dispute between the parties in accordance with Clause 111 of the Contract. Following the failure to resolve the Dispute at the subsequent meeting between the parties, on 20 August 2009 the parties served written Position Papers in accordance with paragraph 9.2 of Schedule Part 9 of the Contract. On 4 September 2009 tie referred the dispute to Mediation in accordance with paragraph 10.1 of Schedule Part 9 of the Contract.

¹ Reference 25.1.201/TM/138

² Reference INF CORR 126

³ Reference INF CORR 1049

- 2.8. The Mediation between the parties was conducted on 22, 23 and 30 October 2009. On the conclusion of the Mediation Bilfinger Berger, Siemens and tie executed a 'Memorandum of Understanding' attached hereto. Therein, subject to acceptance by tie of the revised Estimate to be provided by Bilfinger Berger and by Siemens, the parties compromised the Dispute in respect of Infraco Notice of tie Change No. 1 in the sum £3,534,000.00 of which the Siemens' element is £1,299,000.00.
- 2.9. In accordance with paragraph 2 of the Memorandum of Understanding Siemens herewith provide its revised Estimate in respect of Infraco Notice of tie Change No. 1.
- 2.10. In this Estimate Siemens set out the both the methodology and revised rates utilised to calculate its agreed entitlement in respect of Infraco Notice of tie Change No. 1. These rates are attached hereto as Appendices to the present Estimate. Siemens seek agreement from tie to the rates set out therein for the purpose of evaluation of future extensions of time. These rates makes no provision for future increases in resources or the valuation thereof in the event of further delay to the regular progress of the Infraco Works. Further, this Estimate does not seek to contemplate or provide for all heads of claim that may apply to future extensions of time. Siemens respectfully request that tie take due cognisance of this fact.

3. Siemens' Proposed Methods of Valuation

- 3.1. For the avoidance of doubt Siemens herein sets out the methods of valuation utilised by Siemens in deriving its revised final Estimate in the sum of £1,299,000.00 as recognised between Bilfinger Berger, Siemens and tie in the Memorandum of Understanding.
- 3.2. The parties agreed that ascertainment of Siemens' entitlement in respect of Infraco Notice of tie Change No. 1, including its 'preliminaries and general items', is expressly based upon the 'Actual Cost'/'estimated Actual Cost' of the Siemens and Siemens subcontractors' additional time related resources and other costs and charges properly incurred and required as a result of the prolongation of the Infraco Works attributable to Infraco Notice of tie Change No. 1.
- 3.3. To this end Siemens has valued the Actual Cost/estimated Actual Cost of the prolongation of the works by a period of delay incurred as a consequence of the change from Infraco Programme V26 to V31. For most affected resources the prolongation will be a period of 38 business days. This expressly accords with the "*tie Commentary on Siemens submission*" dated 15 June 2009 which states that:

"Siemens has insisted that the core team used by them in the Consortium Office should be extended by the full 38 business days which is the full delay impact to Infraco as a result of the delayed design programme. Tie accepts that core Consortium staff would be required for the longer period of 38 days..."

Siemens Revised Estimate Pursuant to Memorandum of Understanding

- 3.4. For certain resources, in particular those related to the BAM subcontract, the prolongation period has differed which is reflected in the detailed Estimate. Further, for resources deployed on a part-time basis the period of extension has been reduced in the same proportion as the allocation of the resource.
- 3.5. The extent of Siemens' additional costs is therefore calculated for the additional period that the Siemens staff and Siemens sub-contractors will be effectively retained on the project beyond the original completion date and at the anticipated percentages of deployment.
- 3.6. For the avoidance of doubt, in the derivation and valuation of its Estimate Siemens has expressly applied a head office overheads and profit percentage on-cost of 17% to its Actual Cost/estimated Actual Cost for systems and trackwork and the sums herein are inclusive of this on-cost except where Siemens would expressly advise to the contrary. Siemens advises by way of clarification that this is consistent both with Appendix G to the Infraco Contract for valuating any tie Changes on Actual Cost/estimated Actual Cost, and the definition of 'cost' at Clause 2.15 to Schedule Part 1 of the Infraco Contract which defines "cost" and "direct cost" to include:
- "all expenditure properly incurred or to be incurred whether on or off the Site including overheads, finance and other charges properly allocatable thereto"*
- 3.7. For the avoidance of doubt however, and notwithstanding the express wording of Appendix G, Siemens expressly recognises and concedes in the valuation of extensions of time that it is not appropriate to make addition of 7.4% to its Actual Costs in respect of prolongation to cover 'Consortium Preliminaries', given that the individual cost elements of such 'Consortium Preliminaries' form part of the main heads of claim provided for in the Consortium's Estimate.
- 3.8. In the calculation of 'Actual Cost'/'estimated Actual Cost' for Infraco Notice of tie Change No.1, Siemens has included costs properly incurred in respect of its principal sub-contractor, namely BAM Rail b.v. Siemens expressly acknowledges that tie has requested certainty in respect of future extension of time claims and more particularly the extent of further Siemens sub-contractors costs that may be contained therein. This matter is addressed more fully in section 13 of this Estimate.
- 3.9. It is expressly acknowledged and understood by the parties present at the Mediation, namely tie, Siemens and Bilfinger Berger that the method of valuation adopted by Siemens differs from that applied by Bilfinger Berger. Further, it is expressly understood that the Siemens' and Bilfinger Berger valuations [and as may be applicable, the CAF valuation] can be so presented as separate components constituting the Consortium's total Estimate. For the avoidance of doubt the Bilfinger Berger valuation is based upon the rates and prices in Appendix F to Schedule Part 4 of the Infraco Contract, and as

these rates and prices do not apply for Siemens or CAF, the Siemens' [and where applicable CAF] method of valuation is based upon Actual Cost/estimated Actual Cost.

- 3.10. Further, it is mutually agreed and understood that neither the Siemens' method of valuation nor the Bilfinger Berger method of valuation makes any provision for CAF.
- 3.11. In order to achieve a mutually satisfactory resolution of this Dispute and in order to agree mutually acceptable rules of valuation also valid for future extensions of time, Siemens have sought to address concerns expressed by tie in respect of perceived 'double recovery' which would be contrary to Clause 121 of the Infraco Contract and also inconsistent with fair and proper rules of valuation. To this end Siemens has reduced the number of personnel previously claimed on a 'time related' basis in previous revisions of this Estimate. However, for the avoidance of doubt, Siemens expressly advises that whilst it has agreed to disregard certain costs in order to achieve a commercial settlement of Infraco Notice of tie Change No. 1, this concession applies to the calculation of extension of time costs only, and Siemens advises by way of clarification that there is no provision for Siemens' staff and/or resources within Appendix A2 or Appendix F of Schedule Part 4 in relation to tie Changes or more generally.
- 3.12. Further clarification of the Siemens [including their main subcontractor BAM] rates and calculations and methods of valuation applicable to extensions of time is provided in the following sections.

4. Siemens' Explanation as to Rates to be Applied

- 4.1. This narrative explains the procedure adopted by Siemens in calculating the Actual Cost/estimated Actual Cost anticipated to be incurred by Siemens as a result of the implementation of the Infraco Programme resulting from Design Programme V31 in lieu of Design Programme V26.
- 4.2. After extensive scrutiny of the earlier versions of this Estimate, in the Mediation between the parties concluded on 30 October 2009, and subject to acceptance by tie of the revised final Estimate to be herewith provided by the Consortium, the parties agreed and compromised its Dispute in respect of Infraco Notice of tie Change No. 1 and agreed Siemens' entitlement as being **£1,299,000**. In light of the agreement reached at Mediation and pursuant to the express wording of the Memorandum of Understanding Siemens has amended its calculations as herein attached. Siemens revised entitlement in the sum of **£1,299,000.00** is summarised at Appendix 1 to this Estimate. This narrative addresses the procedure and logic, and more particularly the rules of valuation used in calculating the Siemens' agreed entitlement.

Siemens Revised Estimate Pursuant to Memorandum of Understanding

- 4.3. The present revised submission follows the same sub-headings used previously which were:
 - 4.3.1. Extended Cost of General Project Management.
 - 4.3.2. Extended Cost of Operation: Siemens Overall Project Management Team.
 - 4.3.3. Extended Cost of Siemens Project Management: Rail Electrification Business Unit.
 - 4.3.4. Extended Cost of Siemens' Project Management: Signals/Communication.
 - 4.3.5. Extended Cost of Siemens' Project Management Depot Workshop Equipment.
 - 4.3.6. Extended Cost of Siemens Track Work (TRW) Project Management.
 - 4.3.7. Extending Cost of the BAM Sub-Contract.
 - 4.3.8. Additional Cost of Money and Additional Escalation Costs.
- 4.4. It has been accepted by **tie** that, as a result of the implementation of Design Programme V31, an extension to the Infraco Contract Completion Date of 38 working days has been incurred. More particularly the sectional completion date for Section D of the Infraco Works has been extended from 16 July 2011 to 06 September 2011.
- 4.5. It should be noted that for this project, Siemens has three Cost Base methods of calculation used to derive the 'base cost' per employee. Additional Siemens has produced a fourth 'Cost Base' to provide the basis of valuation for employees and positions not yet mobilised. The 'Cost Bases' are:
 - 4.5.1. Personnel already mobilized at the time of producing the present Estimate, based in the UK, and paid under UK tax laws, calculated using base salary, national insurance etc **[Method 1]**; Siemens commissioned BDO Stoy Hayward LLP to undertake a review of the hourly rates for UK based personnel utilised by Siemens in its calculations of anticipated cost. BDO reported its findings in writing on 30 June 2009 [attached hereto at Appendix No. 10]. Therein, BDO confirmed that having formed an understanding of how the Siemens' rates had been compiled and having checked the integrity and accuracy of the Siemens' rates, it had not identified any errors.
 - 4.5.2. Siemens has further reduced these rates to reflect total 'annual available hours' rather than annual 'productive hours' as described at Section 4.6 below.
 - 4.5.3. Personnel based in Germany and costed on a departmental basis. These costs are issued by the cost centre and costed to each project upon which its

personnel are employed [**Method 2**]; Siemens have compiled these rates in accordance with its internal guideline for calculation of hourly rates in 'Sales and Functional Departments'.

- 4.5.4. Personnel based in the UK at locations other than Edinburgh Park Project Office and costed on a departmental basis. These costs are issued by the cost centre and costed to each project upon which its personnel are employed [**Method 3**]; Siemens commissioned BDO Stoy Hayward LLP to undertake a review of the rates for UK personnel costed on a departmental basis. BDO reported its findings in writing on 16 October 2009 [attached hereto at Appendix No. 11]. Therein, BDO confirm that having formed an understanding of how the Siemens' rates had been compiled and having checked the integrity and accuracy of the Siemens' rates, it had not identified any errors apart from those as expressly noted in BDO's report which arise due to the inevitable assumptions made in compiling department budgets.
- 4.5.5. Personnel/Positions not yet Mobilised [**Method 4**]; in the interest of provide a complete valuation model and basis of costing future extensions time, Siemens has produced a Cost Base model for positions not yet mobilised but whose later incorporation to the project has been planned and is deemed necessary for the proper execution of the Infracore Works. This cost base does not seek to be exhaustive or conclusive, but rather based on reasonable budget or target costing for recruiting these resources. Rather, Siemens is attempting to provide tie with a more accurate model and methodology for valuation of future extensions of time.
- 4.6. In light of the objection to the utilisation of 'productive hours' from tie in the calculation of hourly rates for continuous extensions of time (which are deemed to include both a proportion of productive and unproductive time), Siemens has reduced the overall calculation, at the bottom of each worksheet, by the ratio between 'total productive hours' per annum, and the total 'annual available hours'. This results in a reduction in the Siemens 'hourly rates' of **25.4%** for UK resources, or **22%** for resources based in Germany, when applied to extension of time claims. For convenience this reduction is shown in the worksheets attached to this Estimate as a single percentage reduction in total cost as opposed to a reduction in hourly rates.
- 4.7. Notwithstanding the revised costs presented herein, Siemens would advise tie that it operates an 'exchange rate risk compensation scheme' for its German employees expatriated to the UK and paid in Sterling. These Siemens' employees executed contracts of employment based upon exchange rates applicable at the time of deployment. As a matter of record there has been a significant reduction in the value of Sterling since contract commencement. As part of the 'exchange rate compensation scheme' Siemens reimburses its expatriate employees for 70% of losses incurred as a

result of exchange rate movement. Siemens has not claimed these costs in this Estimate. However, Siemens advise **tie** that these costs form a legitimate head of claim and should be recognised in any future extension of time calculation.

- 4.8. Siemens' Rates are provided in the worksheets attached as Appendices to the present revised Estimate.

5. Method of Valuation, estimated Actual Cost: Extended costs of System Project Management

- 5.1. The total costs calculated for System Project Management are detailed in **Worksheet I** and **Worksheet II**, respectively for the on-shore [in Edinburgh Park] and off-shore [back office Germany] functional members of Siemens overall project management team staffed by the Siemens Business Unit I MO TK PM, in charge of the overall management of the Siemens scope (as opposed to the project management of the individual technical lots and/or disciplines, performed and separately costed by other Siemens Business Units). These costs are respectively calculated in accordance with Method 1 and Method 2 as described above.
- 5.2. For the avoidance of doubt the rates provided herein are exclusive of head office overheads and profits percentage which is applied at the bottom of the individual worksheets at a rate of 17% as allowed by Appendix G of Schedule Part 4 to the Infraco Contract for all tie Changes priced on Actual Cost/estimated Actual Cost, and no separate or duplicate calculation is provided in respect of such on-cost.
- 5.3. The Siemens' overall System Project Management' head of claim is comprised in two worksheets namely:-
- 5.4. **Extended General Project Management** on Shore [EGPM] i.e. The Siemens General Project Management Team resident at Edinburgh Park as summarised on **Worksheet I**.
- 5.5. In calculating the EGPM costs Siemens has listed each of the personnel affected or anticipated to be affected and used the daily cost, according to audited rates for the Oct 2008 - Sep 2009 Siemens financial year .
- 5.6. In calculating this base rate Siemens has used the following methodology.
- 5.6.1. From the payroll costs Siemens have initially calculated a Total Employment Cost which is inclusive of Actual salary costs, estimated overtime costs, National Insurance contributions, pension contributions and bonus (described as RRE). Further, in certain instances personnel are relocated from overseas, incurring an agreed 'Expatriate Allowance'. This personnel also incurs statutory accident insurance and social security insurance. The summation of these figures, gives

Siemens what is described as Total Employment Costs for each of the listed personnel.

- 5.6.2. In addition to the Total Employment Cost, certain affected personnel have, as part of their agreed employment package, the supply of a company car and these costs (such as Car Allowance sum, Tax and NI, car admin charge levied to each affected person) are included under the heading of Total Benefits Cost. Where applicable, such costs as 'Death in Service' allowance, 'fire marshall/first aider' allowance and 'Flexible Benefits Scheme' are included under this heading. It is noted that mileage compensation is reimbursed to each employee as 'expenses' and not as total benefits costs.
- 5.6.3. These levied payroll costs are totalled and divided by the number of annual working productive hours, namely 1406 per employee, allowed by Siemens in their costs calculation. The working productive hours are calculated by taking the gross available working hours (52 weeks at 36.25 hrs per week) and deducting non productive hours encompassing bank holidays, holidays, sick days, training and administration.
- 5.6.4. Dividing the calculated levied employment costs by the productive hours enables Siemens to arrive at a base hourly rate per employee. This base hourly rate is then multiplied by 7.25 (the number of hours worked), to obtain a 'day rate' per affected employee.
- 5.6.5. Using this method, Siemens have arrived at the base 'day rate' per employee for the financial year 2009 [Siemens Group financial year in this regard is October 2008 to September 2009]. These rates are for a productive day; in order to price an ongoing extension of time of the Project the rates in respect of affected Siemens Edinburgh based UK personnel [Method 1] within this head of claim have been further reduced by 25.4% [in the manner described at paragraph 4.6 above] to reflect the total 'annual available hours', namely 1885 hours, as opposed to the total annual 'productive hours'. 'Method 2' Germany based employee costs have been similarly reduced by 22%.
- 5.6.6. The effect of the implementation of Design Programme V31 is to extend the completion of the Contract to 6 September 2011. To extrapolate the base Day Rate to that applicable at the end of the Contract, Siemens has applied an anticipated UK average inflation rate of 2.76% per annum for the period between the baseline year at which the base rate was assessed and the date beyond which the resource is estimated to be expended. This inflation on-cost is based on the average inflation for the period 2006 to 2008. In respect of its German based staff and costs Siemens has derived an anticipated inflation rate of 2.80% based on the average wage inflation as calculated by the Federal Statistical Office in Germany.

- 5.7. **Extended General Project Management Off-Shore: Worksheet II** represents further Siemens general project management based in the back office in Germany, allocated to the Edinburgh project to various percentages of time, and affected by the extension of time.
- 5.8. The method and approach used by Siemens in calculating this amount is equivalent to that as described in paragraph 5.5 above.

6. Method of Valuation, estimated Actual Cost: Extended costs of Operation, Siemens Overall Project Management Team

- 6.1. According to the Siemens/Bilfinger Berger Consortium Agreement's "List of Responsibilities" (LoR) and as part of certain Bilfinger Berger's general management services provided to the whole Consortium, Bilfinger Berger establishes and maintains the Consortium Project Office in Edinburgh Park. This responsibility includes, but is not limited to the provision of office and site accommodation, provision of space and furniture, outdoor parking space, utility and local taxes bills, shared office equipment, copiers/scanners, document control portal (BIW), fixed telephony, and general maintenance and security of all the Edinburgh Park premises. For tie Changes including project Extensions of Time, this item is recovered by Bilfinger Berger as a specific line item of Bilfinger Berger's contribution to the "Consortium Preliminaries", which is priced in Spreadsheet 2 of Appendix F to Schedule Part 4.
- 6.2. Notwithstanding the above, in the aforementioned Consortium LoR, there are specific cost items to be carried out by each Consortium Party for itself (and which in the case of Siemens do constitute Actual Cost not included, and not recovered, in the above mentioned Spreadsheet 2). Specifically, the Siemens Project Office is paying a monthly fee for its own point-to-point broadband SNX connection to Siemens' corporate WAN. Additionally Siemens is incurring costs in connection with its own mobile telephony, outsourced copy facilities, small purchases and other office incidental costs directly related to the duration of the works.
- 6.3. Finally, pursuant to this head of claim, in accordance with the Consortium's LoR, Siemens is funding its own bonds and insurances, which must be maintained for the entire duration of the Infracore Works, including any extension thereto, including any period of extension of time.
- 6.4. The above Siemens Costs are summarised in the spreadsheet entitled "**Worksheet III: Siemens Project Management, Extended Cost of Operation**".
- 6.5. With respect to these items, Siemens has verified the total actual cost expended in connection with the project for the period 2008 to 2009. Thereafter Siemens has reduced this sum to an average cost per working day as a function of time, and has used

this figure (with baseline year 2009, applying estimated escalation thereafter) as a basis for calculation of the estimated Actual Cost anticipated to be incurred for each extended working day of the project.

7. Method of Valuation, estimated Actual Cost: Rail Electrification Business Unit, Siemens Project Management

- 7.1. Siemens will incur additional cost in connection therewith for each day of extension of the project as a consequence of an extension of the project and as a result of sustaining an average level of effort of the "Electrification" project management team in their **Rail Electrification Business Unit**, in charge of the design, manufacturing/procurement, installation, testing and commissioning, approvals and handover of the Overhead Line Equipment, Traction Power Substations, and other such electrification items of the Siemens scope for this contract.
- 7.2. The above Electrification project management team includes both employees working in the city of Erlangen, Germany, and operatives working in the UK - primarily in Edinburgh Park Office, but also including a minimum back office support in York. The corresponding Actual Cost estimates are summarised in **Worksheets VI and VII**, respectively for the "offshore" (Germany) and the "onshore" (UK) costs incurred by the Rail Electrification Business Unit of Siemens.
- 7.3. The Rail Electrification employees in Edinburgh Park Office are essentially dedicated 100% to this project, and accordingly their actual total cost of employment is allocated in full for the period of delay in the calculation of the sums included in respect thereof in the Estimate.
- 7.4. The actual cost for employees in other sites, whether in the UK or in Germany, is applied on a percentage basis only, which percentages vary between 20% and 80%, depending on the position. This reflects the anticipated mitigation that should be achieved by Siemens in the period of extension of time, by effectively allocating to other projects and bids a portion of the cost of the Rail Electrification project management personnel sitting in other, central Siemens site(s) from which several projects and bids are simultaneously managed.
- 7.5. With respect to the **Worksheet VI (offshore cost Rail Electrification, in Germany)**, costed in Euros and calculated in accordance with Method 2, the following logic has been applied:
 - 7.5.1. The labour rates shown are calculated by using standard hourly rates supplied and instructed for use by the Siemens Group for the Oct 2008 - Sep 2009 Siemens financial year [Method 2], which for the purposes of the current project is deemed to constitute the 2009 baseline. These rates form the basis of the estimated actual cost which will be allocated to the project for any period of time applying the

corresponding escalation. Using these hourly rates, a multiple of 8 is applied to arrive at a daily rate. This multiple differs from that of 7.25 hours as applied to the rates for employees based in the United Kingdom because German based staff work an 8 hour day.

- 7.5.2. This base day rate is then escalated into future years to adequately reflect the estimated actual cost for the resources affected by the delay to the project reflected in the Estimate. In respect of its German based staff and costs Siemens has derived an anticipated inflation rate of 2.80% based on the average wage inflation as calculated by the Federal Statistical Office in Germany.
- 7.5.3. In the present Estimate, Siemens has applied this escalation to the extended period of 38 working days in the period June to September 2011, to arrive at a total value for each of the listed personnel. For each position deployed or working less than full time on the project the amount of days has been reduced by the same percentage by which the personnel is anticipated to be not charged to this project.
- 7.5.4. Siemens has made a reasonable allowance for travel and expenses for the listed Rail Electrification offshore personnel as a whole, as an average for every additional day engaged upon the project. For this item, Siemens has verified the total actual cost spent by the corresponding project team for the Siemens fiscal year October 2008 to September 2009, and derived therefrom an average cost per working day as a function of time, and has used this figure (with baseline year 2009, applying escalation thereafter as above described) as a basis to calculate the estimated Actual Cost which it is anticipated will be incurred for each extended working day of the project.
- 7.5.5. Finally, the total "offshore" (Germany) cost calculated in Euros has been converted to Sterling using an estimated conversion of 1.2 Euro per pound sterling. This calculation may require adjustment dependant upon possible variation in or agreement in respect of the exchange rate. Alternatively, if tie so prefers, a mutually acceptable adjustment formula can be agreed upon which can be applied retrospectively and any difference resulting would represent a credit to tie or to Siemens as appropriate thereby reflecting any change from the exchange rate assumptions inherent in this Estimate.
- 7.6. With respect to the **Worksheet VII (onshore cost Rail Electrification, in UK)**, costed in Sterling and calculated in accordance with Method 3, identical valuation principles have been applied, except that:
- 7.6.1. In the calculation of estimated actual cost Siemens has applied an inflation rate of 2.76% per annum for the period from 2008 to 2011 for its UK based staff. This inflation on-cost is based on the average inflation for the period 2006 to 2008.

7.6.2. The assumption of any exchange rate logically does not apply.

8. Method of Valuation, estimated Actual Cost: Rail Automation Business Unit (Signalling/Communications/SCADA), Siemens Project Management

- 8.1. As a consequence of the extended duration of the project Siemens anticipates incurring additional cost for each day of extension of the project by sustaining an average level of effort of a **"Signalling + Comms + SCADA" project management team** in its Rail Automation Business Unit. This unit is charged with responsibility for the design, manufacturing/procurement, installation, testing and commissioning, approvals and handover of the Tramway Signalling, Telecommunications, and SCADA elements of the Siemens scope for this contract, which depending on each specific subsystem include a combination of trackside, onboard, and control centre elements.
- 8.2. The above "Signalling + Comms + SCADA" project management team includes both operatives working in Germany (in the city of Braunschweig) and employees working in the UK (in this case, a lesser presence in Edinburgh Park Office, and a higher amount of resources in York and other UK locations). The corresponding Actual Cost estimates are summarised in the **Worksheets VIII and IX**, respectively for the "offshore" (Germany) and the "onshore" (UK) costs incurred by the Rail Electrification Business Unit of Siemens.
- 8.3. Essentially the same logic and valuation methods apply as already described for the Business Unit "Rail Electrification", save as, the specific positions, rates and percentages of allocation over time are those of the **"Rail Automation" Business Unit**.

9. Method of Valuation, estimated Actual Cost: Depot Workshop Equipment, Siemens Project Management

- 9.1. As a consequence of the extended duration of the project Siemens anticipates it will incur extra cost for each day of extension of the project by sustaining a certain amount (part time only) of effort of a single **Depot and Workshop Equipment Project Manager, also acting as Vehicle Interface Manager**, in its Berlin offices. In addition to central coordinator of all Siemens interfaces related to the CAF vehicle, the Depot Project Manager is in charge of managing the design, procurement, installation, testing and commissioning, approvals and handover of the Depot/Workshop Equipment items for the Siemens scope of work.
- 9.2. Essentially the same logic and valuation methods apply as already described for the Business Units "Rail Electrification" and "Rail Automation", save as, the specific (single) position, rate and percentage of allocation over time are those of the **"DWE Project**

Management Centre of Expertise (TK) in Berlin, which is a subgroup of the TK Business Unit.

- 9.3. In this case, a partial allocation of the total cost of employment is included in the present Estimate, since this employee is effectively allocated by Siemens to other projects and bids and it is anticipated that his workload during a project time extension of the Edinburgh Tram Project will only be engaged on a part time basis.
- 9.4. The corresponding Actual Cost estimate is summarised in the **Worksheet IV**.
- 9.5. Being a cost incurred in Euro, the estimated exchange rate of £1/€1.2 has been assumed in the conversion to Sterling, and the same general comment already stated about possible adjustments to the exact exchange rate applies.

10. Method of Valuation, estimated Actual Cost: Track Work, Siemens Project Management

- 10.1. As a consequence of the extended duration of the project Siemens anticipates it will incur extra cost for each day of extension of the project by sustaining an average level of effort of the **Siemens "Trackwork project management team"** in charge of management of the BAM subcontract, including the management of the design, manufacturing/procurement, installation, testing and commissioning, approvals and handover of the Trackwork for the contract.
- 10.2. The "Trackwork Siemens project management team" includes employees working full time in the Edinburgh Park Office. The corresponding Actual Cost estimates are summarised in **Worksheet V**.
- 10.3. Essentially the same logic and valuation methods apply as already described for the Business Units "Rail Electrification", "Rail Signalling", etc.
- 10.4. Hourly rates are substantiated on the basis of Method 1.
- 10.5. As agreed with tie during the Mediation negotiation of Infraco Notice of tie Change No. 1 in October 2009, the time extension for these positions shall principally be the time extension of the Trackwork Subcontract, rather than the overall Infraco Contract.
- 10.6. In the particular case of Infraco Notice of tie Change No. 1 costed in the current Estimate, the Trackwork Subcontract has been extended by 5.6 weeks "only" (or 29 working days) which extension, in the BAM Subcontract Programme, occurs between October and November 2010. **Worksheet V** reflects this extension period for the Trackwork Siemens project management team. Accordingly, the baseline rates are escalated to 2010 only (as opposed to 2011).

10.7. The estimated Actual Cost for carrying the Trackwork Siemens project management time over an extended period of time logically does not include the compensation that Siemens will have to award to its trackwork subcontractor, BAM Rail b.v. for the same time extension. This cost is justified and documented separately, and attached to the Siemens Estimate as an additional Actual Cost, upon which Siemens has applied the contractually stipulated on-cost of 17% in respect of head office overhead and profit.

11. Method of Valuation, estimated Actual Cost: Cost of Extending the BAM Subcontract

- 11.1. BAM Rail b.v. is a subcontractor to Siemens who has been also affected by Infraco Notice of tie Change No. 1 and the change in the Infraco Programme as a result of implementing the Design Programme V31 in lieu of Design programme V26.
- 11.2. In support of their case, BAM has submitted a **BAM Estimate** which identifies its costs and programme changes in the context of the BAM subcontract. The corresponding documents are enclosed as **Appendixes** to the Siemens' Estimate, including the corresponding narratives explaining BAM's entitlement as well as their adopted methods of valuation.
- 11.3. The impact on BAM was compounded by its limited ability to mitigate the impact of the change in programme, given that the BAM Subcontract was signed just a few days after the Infraco Contract and given that BAM had effectively and rapidly achieved a high degree of mobilization of their core team to Edinburgh Park Office. As a matter of record, the BAM project management team in Edinburgh as well as BAM design team overseas were fully in place within the first few weeks of the Programme, and several months before the impact of Infraco Notice of tie Change No.1 and the resulting Infraco baseline Programme Rev 1 (based on SDS Programme v31) could be fully ascertained and agreed between BSC and tie under the Infraco Contract, and incorporated within the BAM Subcontract.
- 11.4. Notwithstanding the above, during various sessions of the Mediation (October 2009) during which tie, Siemens and BAM carried out a detailed scrutiny and discussion of the BAM claim, it became apparent that BAM did not have at contract instigation a perfect knowledge of the "startup delay" in SDS Design between Programmes v26 and v31. This fact further limited BAM's ability to mitigate, among others, the initial disruption incurred by its Design Team.
- 11.5. In recognition of this fact, and in acknowledgement of the omission by Siemens to notify BAM in a more timely manner, in particular in the period between the issue of Infraco Notice of tie Change No.1 and the provision of Infraco Programme V31 details to BAM, Siemens has agreed to compensate BAM at Siemens own expense the sum of £ 55,000

(fifty five thousand pounds), of BAM's Estimate arising from Infraco Notice of tie Change No. 1. Thus whilst Siemens' liability to BAM in this matter has been agreed in the sum of £380,000, Siemens shall fund the shortfall between this sum and tie's final proposed settlement value of the BAM's head of claim in the sum of £ 325,000 which sum was expressly proposed and agreed by tie in Mediation.

11.6. The exact arguments of entitlement of BAM and their method of valuation are described in their own, attached Estimate. These are not repeated herein in the main body of the present narrative but are deemed to be incorporated, by reference, as an integral part of the present Siemens Estimate and its supporting methods of valuation.

11.7. In summary, and very much in line with the methods of valuation of Siemens' own "Technical Lots",

11.7.1. BAM has estimated the Actual Cost of certain resources (Project Management, Administration, Design, Construction; and also Plant) at specific, documented rates and applied these costs to the extended time period at specific percentages of time depending on the actual workload anticipated for each resource and depending on the possible mitigation during the extension of time.

11.7.2. BAM has also applied an escalation model for the additional escalation anticipated to be incurred due to the postponed execution of its activities and scope of work. Further, BAM has discounted any escalation in cost items, including early purchases, that were effectively secured as a result of the advanced payment made by Siemens to BAM and will not be consequently impacted by inflation.

11.7.3. Finally, BAM has applied to all its estimated actual cost a head office overhead and profit on-cost of 22.85% as allowed under the BAM Subcontract for all contract changes.

12. Method of Valuation estimated Actual Costs: Cost of Money and Escalation Costs

12.1. These costs are summarised on the spreadsheet headed "Worksheet VII: Cost of Money and Revised Escalation Costs". In light of comments from tie and our own internal review we have revisited our submission in respect of 'Cost of Money and Escalation Costs'. In particular we have recognised the need to provide a cost model which better reflects the anticipated cash flow during the period of the Infraco Contract.

12.2. With regard to the both 'Cost of Money' and 'Financing Costs', Siemens has applied the following logic:

12.2.1. Siemens has adopted a mathematical model for the calculation of both escalation costs and financing costs. This model seeks to accurately represent

the primary sums subject to on-cost and the payment profile to be anticipated in respect of monies due. Further, the model seeks to reflect the mitigation measures taken or likely to be taken by Siemens. Whilst Siemens does not profess complete accuracy in its cost model, Siemens does consider that the methodology adopted represents a fair and reasonable ascertainment of its anticipated costs pursuant to these heads of claim.

- 12.2.2. Siemens' share of the 'Lump Sum Firm and Fixed Price' as set out in Schedule Part 4, Appendix A of the Infraco Contract amounts to £96,797,432.
- 12.2.3. Siemens has utilised the Milestone Payment Schedule at Schedule Part 5 to the Infraco Contract. From this Schedule Siemens has been able to identify the amounts due in respect of payment milestones and the due date for payment in respect thereof.
- 12.2.4. In respect of each milestone Siemens has compared the due date for payment with the revised date identified in Programme Revision 1. This exercise has enabled Siemens to quantify the movement in calendar days in respect of each milestone as a result of (INTC) 1. This period provides the additional 'interest bearing days' during which escalation costs and financing costs are considered to accrue.
- 12.2.5. Siemens has apportioned the value of each milestone into its constituent components namely 'direct cost' and 'overheads and profit'. The 'overhead and profit' component has been calculated as 17% of the total value of each payment milestone. The 'direct cost' component is subject to additional escalation costs as a result of the delay to the Works. The 'overheads and profit' component is subject to additional financing costs. The 'direct costs' component is not deemed to be subject to additional financing costs as a result of the mitigation measures being taken by Siemens including but not limited to the later procurement of materials. However, the 'overhead and profit component' is subject to additional financing costs because mitigation is not possible in respect thereof.
- 12.2.6. Rate for 'Financing Costs'; to evaluate Siemens' financing costs the Weighted Average Cost of Capital (WACC) for Siemens plc UK has been applied. The WACC for Siemens plc UK, as notified by Siemens Corporate Finance, is currently 8.5% per annum.
- 12.2.7. Rate for Escalation; Siemens has applied an inflation rate of 2.76 % per annum. This inflation on-cost is based on the average UK inflation for the period 2006 to 2008.

- 12.2.8. Escalation has not been applied to the trackwork payment milestones as these are accounted for in the BAM cost submission appended to this Estimate.
- 12.2.9. Further certain amounts in Siemens' share of the Lump Sum Firm and Fixed Price have not been considered when evaluating financing costs as these have already either been paid in accordance with the contractual Payment Schedule or are deemed to be have so paid on time by tie as and when such monies fall due. Accordingly the sum of £43,151,045.00 has been excluded from the calculation of financing costs.
- 12.2.10. The sum due to Siemens which is considered to be subject to financing costs is £7,675,703.00.
- 12.3. The sum due to Siemens which is considered to be subject to financing costs is £7,675,703.00.
- 12.4. The sum due to Siemens which is considered to be subject to escalation costs is £45,151,194.00.
- 12.5. To these sums Siemens have added Overhead and Profit at a rate of 17% in accordance with the agreed percentage addition as recorded at clause 1.3 (b), Schedule Part 4, Appendix G.

13. Siemens Estimated Actual Costs not included in EoT1 but anticipated to have an impact in future Extension of Time

- 13.1 During the EoT1 Mediation, tie expressly requested Siemens to identify and describe, in the [present] final revised Estimate, any anticipated elements of Siemens estimated Actual Cost for future extensions of time, that might be different from those used for valuation the present Estimate, but for whatever reason might need to be either added or removed from the methods of valuation for future EoT's. Specifically, the intention of this request was for both Parties to narrow down as much as possible any incertitude in the anticipated value of the Siemens portion of future extension of time Estimates.
- 13.2 Siemens herewith responds to the above request of tie, as follows:

SIEMENS SUBCONTRACTORS:

- 13.3 In the calculation of 'Actual Cost'/'estimated Actual Cost' for Infracore Notice of tie Change No.1 (hereafter "EoT1 delay"), Siemens has included costs properly incurred in respect of its principal sub-contractor, namely BAM Rail b.v., in charge of the Trackwork scope of Siemens. As has been explained in the present narrative, BAM was indeed directly impacted by said time extension because they had achieved a very early, and very significant, degree of mobilization before the consequences of the EoT1 initial delay could be fully ascertained and mitigated.

Siemens Revised Estimate Pursuant to Memorandum of Understanding

- 13.4 Siemens expressly acknowledges that tie has requested certainty in respect of future extension of time claims and more particularly the extent of further Siemens sub-contractors costs that may be contained in future Siemens Actual Cost Estimates. In this regard Siemens confirms that the number of sub-contractors will be limited and that the majority of works will be undertaken by Siemens without resort to sub-contractors.
- 13.5 Siemens however respectfully requests that tie acknowledges that Siemens may incur some additional costs in the event of delay by having to owe compensation to the following subcontractors once they would have been mobilized:
- Subcontractor for the physical installation of OLE and Traction Power Substations: not yet nominated (could be Border Rail and Plant Ltd, or else)
 - CORE: nominated subcontractor for certain HV/MV/LV installations
 - Subcontractor for physical installation of signalling, telecoms, SCADA and urban traffic controllers: not yet nominated.

It shall be noted that the list above is as accurate as reasonably forecasted at the time of writing the present narrative, but Siemens respectfully requests tie's understanding that the exact list may vary depending on actual, demonstrable subcontracting conditions.

- 13.6 Siemens expressly clarifies that no impact on any of these subcontractors was claimed in the present and final Estimate for Infraco Notice of tie Change No.1, given that the corresponding delay was identified much before mobilizing any Siemens subcontractor (save as BAM). Accordingly Siemens effectively "mitigated out" any direct cost impact on future fully mobilized subcontractors. The only logical provision in the present EoT1 Estimate has been the proportion of additional escalation for the subcontracted works that will be deferred to a later execution period, and which has been accounted for in the proposed overall escalation model and method of valuation.

OTHER SIEMENS BUSINESS UNITS POTENTIALLY IMPACTED BY FUTURE TIME EXTENSIONS

- 13.7 Siemens herewith confirms that two additional Business Units, not considered in the valuation of the EoT1 Estimate, are however anticipated to be engaged at later stages of the project, and will thus be likely included in the Actual Cost Estimates of future extensions of time:
- **Siemens Traffic Solutions**, in charge of the scope of Urban Traffic Controllers. They were not impacted in the EoT1 delay, nor included in its Estimate, because their incorporation to the project has only commenced in the second half of 2009 with the recent issuance of tie Change Orders for a startup mobilization and initial intervention stock for Princes Street. Siemens confirms that for delays incurred after their mobilization, the average anticipated management structure deployed by this Business Unit will be of three persons (one project

manager, one commercial coordinator, one technical coordinator) which will be allocated full time to the project until the conclusion of their scope.

- **Siemens Maintenance Services.** They were not included in the evaluation of EoT1 because neither did they have achieved any degree of mobilization, nor was the EoT1 delay significant for reassessing their future cost (through additional escalation etc.). Nevertheless, they may be impacted by future project time extensions, in a proportion to their by then valid degree of mobilization. Also and albeit deemed negligible in EoT1 and thus not estimated, future extensions of time will have an appreciable impact in the form of additional escalation of the Maintenance scope of works, which will have to be priced accordingly.

ADDITIONAL (OR REDUCED) PERSONNEL POSITIONS FOR FUTURE TIME EXTENSIONS

- 13.8 Time extensions impacting the Siemens activities in approximately the last 15 months of the project are likely to involve a handful of additional experts that were not accounted for in the EoT1 Estimate, and that will be mobilized for specialized testing and commissioning as well as -as already explained- in preparing the performance of the later maintenance scope.
- 13.9 Conversely, future time extensions incurred towards the last period of the project are less likely to impact several resources (such as those related to engineering and design) which have been included in the EoT1 Estimate, as they should normally be demobilized earlier than the moment of such impact.
- 13.10 Last but not least, certain tie Changes may imply the agreement on additional or acceleration resources not considered in the valuation of EoT1. Any project time extension demonstrably affecting the period of mobilization of said additional resources would need to account for the estimated Actual Cost of prolonging the same.

OTHER POTENTIAL IMPACTS IN SIEMENS ACTUAL COST ESTIMATES FOR FUTURE TIME EXTENSIONS

- 13.11 Again deemed negligible and thus not considered in the valuation of EoT1 delay, there are some potential additional Actual Cost factors that may have to be considered and included in future Siemens Actual Cost Estimates for further extensions of time:
- **Additional “costs-over-time” incurred after equipment procurement:** as explained by Siemens in all monthly reports to tie, and as a mitigation to the ongoing programme delay, Siemens is reasonably postponing large parts of its procurement to a later “just in time” date, because the extra cost of the anticipated additional escalation (which has been valued in the present Estimate) is lower than the extra cost that would be incurred in extending supplier warranties, extended risk of loss, theft or damage, extended long term

storage costs and possibly intermediate extra inspection cycles, and possible risk of obsolescence (for very long delays). Although these factors are unlikely to be significant in future extensions of time, they might play a role in specific cases, or in very long time extensions. If this would be the case, Siemens reserves the right to include such effects on a demonstrable cost basis.

- **Extended costs of staffing and operating a project warehouse in Edinburgh:** although deemed negligible/fully mitigated for the EoT1 delay, and thus not valuated in the same, it is anticipated that it will be an additional actual cost element for Siemens during any extension of time that would extend the operating period of such facilities. From actual quotations, Siemens expects that the monthly operating cost of the planned warehousing facilities in Edinburgh will be in the range of £35,000 per month including rental, salaries and security, operating warehouse plant, etc. The impact could be reduced if tie would allow, at no cost for Siemens, an early usage of the warehouse of the ETN Tramway that will be built in Gogar.

Appendix 1: Summary of Siemens' element of the Estimate

02-Nov-2009

Systems Project Management		£409,499
Siemens Project Office Operating Cost		£15,944
Electrification		£133,979
Signals/Communication		£134,014
Depot Workshop Equipment		£15,539
Track Work Project Management		£90,961
BAM claim (trackwork subcontractor)		£325,000
Overheads and Profit –on BAM	17.0%	£55,250
Total Track Work		£471,211
Cost of Money & Escalation Costs		£118,814
Total Siemens (Systems and Trackwork)		£1,299,000

**Appendix 2: Worksheet I
Extended General Project
Management,
Siemens I MO TK PM,
onshore**

**Appendix 3: Worksheet II
Extended General Project
Management,
Siemens I MO TK PM,
offshore**

Appendix 4: Worksheet III: Siemens Project Management, extended operating cost

Worksheet III: Siemens Project Management, Extended Operating Cost

Partner/(sub)contractor: **GBP**
 Siemens I MO TK PM (Industry - Mobility, Turnkey Systems, Project Management)

Scenario:
 EoT 1 (extension of time of 7.6 weeks, i.e. 7d Jun + 23d Aug + 8d Sep 2011)

Inflation rates: Yr. Value
 1: Average inflation UK 2.76%
 2: Average salary inflation, Germany 2.80%

Pos	Title / Function	Infl. Rate (1,2,3,...)	Y2009		Y2010		Y2011												Y2012			
			Day Rate (GBP)	Cost (GBP)	Month Rate (GBP)	Cost (GBP)	Month Rate (GBP)	J	F	M	A	M	J	J	A	S	O	N	D	Cost (GBP)	Month Rate (GBP)	Cost (GBP)
8	EXTENDED COST OF OPERATION, SIEMENS PROJECT MANAGEMENT TEAM																					
10	Non-activity costs carried by Siemens Project Office in Edinburgh Park (Siemens WAN broadband connection, Mobile Communications, Outsourced Copies, small Siemens purchases), per extended day of project	1	248		254	262								7	23	8					9,937	269
11	Bonds & Guarantees (avg cost per extended day of project)	1	92		95	97								7	23	8					3,691	100
12	TOTAL/day of extension (at baseline year): GBP		339.62																			

GRAND TOTAL COSTS, SCENARIO EoT 1 (extension of time of 7.6 weeks, 13,628 GBP)

TOTAL : 13,628

add 17% Overhead and Profit (to all Estimates on Actual Cost) 2,317 GBP

GRAND TOTAL PRICE Extended Cost of Operation, Siemens Project Management 15,944 GBP

CEC00208535_0042

Appendix 5: Worksheet IV, Siemens Depot and Workshop Equipment (DWE) Management

Worksheet IV: Siemens Depot & Workshop Equipment (DWE) Management

Partner/(sub)contractor: Siemens I MO TK (Turnkey Systems) Depot Currency: EUR

Scenario: EoT 1

Inflation rates: Yr. Value
 1: Average inflation UK 2.76%
 2: Average salary inflation, Germany 2.80%

Pos	Title / Function	Infl. Rate (1,2,3,...)	Y2009		Y2010		Y2011												Y2012		Comments	Calc. Method			
			Day Rate (Euro)	Cost (Euro)	Day Rate (Euro)	Cost (Euro)	Day Rate (Euro)	J	F	M	A	M	J	J	A	S	O	N	D	Cost (Euro)			Day Rate (Euro)	Cost (Euro)	% of Time
1	DWE Project Manager / Vehicle Interface Manager	2	768.00		790		812												18,505	834		60%		2	
2		2																							
3	Travel & Expenses - for all team above, prorata per extended day of project	2	48.00		49		51												1,928	52		n/a		n/a	
4																									

TOTAL/day of extension (at baseline yr), all productive time: 816.00 GBP

GRAND TOTAL COSTS, SCENARIO EoT 1:		
15,937	EUR	
13,281	GBP	

TOTAL : 20,432
 Non Productive Time Adjustment, Germany: -4,495 -22.00%
 Adjusted Total 15,937

add 17% Overhead and Profit (to all Estimates on Actual Cost)
 2,258 GBP

GRAND TOTAL PRICE DWE Management		
15,539	GBP	

CEC00208535_0044

Appendix 6: Worksheet V: Siemens Trackwork (TRW) Management

Worksheet V: Siemens Trackwork (TRW) Management

GBP

Siemens IMO TK (Turnkey Systems) Trackwork

Scenario:

EoT 1

Inflation rates: Yr. Value

- 1: Average inflation UK 2.76%
- 2: Average inflation Germany 2.80%
- 4: Average salary inflation, Germany

Pos	Title / Function	Infl. Rate (1,2,3,...)	Y2009		Y2010												Y2011		Y2012		% of Time	comments	Calc. Method						
			Day Rate (GBP)	Cost (GBP)	Day Rate (GBP)	J	F	M	A	M	J	J	A	S	O	N	D	Cost (GBP)	Day Rate (GBP)	Cost (GBP)				Day Rate (GBP)	Cost (GBP)				
1	Trackwork (TRW)																												
2	Senior Trackwork Manager	1	1,020.25		1,048																	100%							1
3	Commercial Trackwork Manager	1	865.12		889																	100%							1
4	Team Assistant Trackwork	1	142.62		147																	100%							1
5	Senior trackwork field supervisor	1	792.00		814																	100%							1
6	Junior trackwork field supervisor	1	550.00		565																	100%							4
7																													
8	Travel & Expenses - for all team above, prorata per extended day of project	1	127.10		131																	n/a							n/a
9																													

TOTAL/day of extension (at baseline year): GBP 3,497.09

GRAND TOTAL COSTS, SCENARIO EoT 1:
77,744 GBP

add 17% Overhead and Profit (to all Estimates on Actual Cost)
13,217 GBP

GRAND TOTAL PRICE TW Management
90,961 GBP

TOTAL : 104,215
Non Productive Time Adjustment, UK: -26,471 -25.40%
Adjusted Total 77,744

Appendix 7: Worksheet VI, Siemens Rail Electrification, offshore portion (Germany)

Worksheet VI: Siemens Rail Electrification, offshore portion (Germany)

Partner(sub)contractor: Siemens AG, Mobility, Rail Electrification EUR

Scenario: EoT 1 (extension of time of 7.6 weeks, i.e. 7d Jun + 23d Aug + 8d Sep 2011)

Inflation rates: Yr. Value
 1: Average inflation, UK 2.76%
 2: Average inflation, Germany 2.80%

Pos	Title / Function	Infl. Rate (1,2,3,...)	Y2009		Y2010		Y2011												Y2012		% of Time	comments	Calc. Method	
			Day Rate (EUR)	Cost (EUR)	Day Rate (EUR)	Cost (EUR)	Day Rate (EUR)	J	F	M	A	M	J	J	A	S	O	N	D	Cost (EUR)				Day Rate (EUR)
1	REL Project Manager - offshore	2	888		913		938												28,528	965		80%		2
2	REL Commercial manager - offshore	2	888		913		938												28,528	965		80%		2
3	Project Manager - OLE	2	888		913		938												28,528	965		80%		2
4	Logistics - offshore	2	704		724		744												14,136	765		50%		2
5	Team Assistant - offshore	2	704		724		744												14,136	765		50%		2
6																								
7	Travel & Expenses - for all team above, prorata per extended day of project	2	128		132		135												5,140	139		n/a		n/a

GRAND TOTAL, SCENARIO EoT 1 (extension of time of 7.6 weeks, i.		
92,817	EUR	
77,347	GBP	

TOTAL :	118,996	
Non Productive Time Adjustment, Germany:	-26,179	-22.00%
Adjusted Total	92,817	

add 17% Overhead and Profit (to all Estimates on Actual Cost)
 13,149 GBP

GRAND TOTAL PRICE REL OFFSHORE		
90,496	GBP	

CEC00208535_0048

Appendix 8: Worksheet VII, Siemens Rail Electrification, onshore portion (UK)

Worksheet VII: Siemens Rail Electrification, onshore portion (UK)

Partner/(sub)contractor: **GBP**

Siemens plc, Mobility Rail Electrification (REL)

Scenario:

EoT 1

Inflation rates: Yr. Value

1: Average inflation UK 2.76%

2: Average inflation Germany 2.80%

Pos	Title / Function	Infl. Rate (1,2,3,...)	Y2009		Y2010		Y2011												Y2012		Comments / Explanation	% of Time	Comments	Calc. Method							
			Day Rate (GBP)	Cost (GBP)	Day Rate (GBP)	Cost (GBP)	Day Rate (GBP)	J	F	M	A	M	J	J	A	S	O	N	D	Cost (GBP)					Day Rate (GBP)	Cost (GBP)					
1	EL/RA onshore Project Director	1	896.46		921		947							4.7	13.8	4.8									21,583	973		50% of time charged to REL. Shares function with RA, charged separately	60%	John Newton - shared 40/60 between business units RA and REL	3
2	OLE Project Manager	1	473.72		487		500							3	23	8									19,009	514			100%		3
4	Team Assistant	1	254.91		262		269							1.8	11.8	4.9									5,114	277			50%		3
5	Travel & Expenses - for all team above, prorata per extended day of project	1	102.49		105		108							1	23	8									4,113	111			n/a		n/a

GRAND TOTAL COSTS, SCENARIO EoT 1:
37,165 GBP

TOTAL : 49,819
Non Productive Time Adjustment, UK: -12,654 -25.40%
Adjusted Total 37,165

add 17% Overhead and Profit (to all Estimates on Actual Cost)
6,318 GBP

GRAND TOTAL PRICE REL ONSHORE
43,483 GBP

CEC00208535_0050

Appendix 9: Worksheet VIII, Siemens Rail Automation, offshore portion (Germany)

Worksheet VIII: Siemens Rail Automation (RA), offshore portion (Germany)

Partner/(sub)contractor: Euro

Siemens AG, Mobility Rail Automation

Scenario:

EoT 1

Inflation rates: Yr. Value

1: Average inflation, UK 2.76%

4: Average inflation, Germany 2.80%

Pos	Title / Function	Infl. Rate (1,2,3,...)	Y2009		Y2010		Y2011												Y2012		% of Time	Comments	Calc. Method				
			Day Rate (Euro)	Cost (Euro)	Day Rate (Euro)	Cost (Euro)	Day Rate (Euro)	J	F	M	A	M	J	J	A	S	O	N	D	Cost (Euro)				Day Rate (Euro)	Cost (Euro)		
1	Siemens AG, Germany																										
2	Senior Project Manager	2	936		962		989						5.6	16	8.8						30,070	1,017		80%		2	
3	Projektkaufmann / Signalling Commercial & Contract Manager	2	936		962		989						4.6	16	8.3						24,808	1,017		66%		2	
4	Qualitätsmanager / Qualitymanager	2	936		962		989						2.2	7.6	7.6						12,404	1,017		33%		2	
5	Team Assistant	2	936		962		989						3.5	11.3	4.0						18,794	1,017		50%		2	
6																											
7	Travel & Expenses - for all team above, prorata per extended day of project	2	139		143		147						7	23	8						5,569	151		n/a		n/a	

GRAND TOTAL COSTS, SCENARIO EoT 1:		
71,483	Euro	
59,569	GBP	

TOTAL :	91,644	
Non Productive Time Adjustment, Germany:	-20,162	-22.00%
Adjusted Total	71,483	

add 17% Overhead and Profit (to all Estimates on Actual Cost)
10,127 GBP

GRAND TOTAL PRICE RA OFFSHORE		
69,696	GBP	

Appendix 10: Worksheet IX, Siemens Rail Automation, onshore portion (UK)

Appendix 11: Worksheet X, Additional Cost of Money and Additional Escalation, Siemens scope

Worksheet X: Siemens original scope, Additional Cost of Money & Extended Escalation Costs

GBP

Siemens I MO TK (Turnkey Systems)

Scenario:

EoT 1

Inflation rates:

Yr. Value

1: Average inflation UK

2.76%

4: Average salary inflation, Germany

2.80%

Pos	Title / Function	Infl. Rate (1,2,3,...)	TOTAL (GBP)	Cost (GBP)	Y2010		Y2011		Y2012	
					Month Rate (GBP)	Cost (GBP)	Month Rate (GBP)	Cost (GBP)	Month Rate (GBP)	Cost (GBP)
137	Cost of Money									
138										
139	Cost of Money		26,688		26,688		26,688	26,688	26,688	
140										
141	Escalation Costs		74,863		74,863		74,863	74,863	74,863	

GRAND TOTAL COSTS, SCENARIO EoT 1:	101,551	GBP
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101,551

add 17% Overhead and Profit (to all Estimates on Actual Cost)

17,264 GBP

GRAND TOTAL PRICE Cost of Money & Escalation Costs	118,814	GBP
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CEC00208535_0056

Project: Edinburgh Train Network
 Subject: Milestone Payment Schedule
 Currency: GBP

123,184,334 BB
 95,977,942 S
 219,162,336 Total

123,184,334.03
 95,977,941.83
 219,162,336.85

Contract Award Rev 0 14-Apr-08
 Contract Award actual 15-May-08

-£0.00

received on time -43,151,045.29

L1	L2	L3	L4	L5	Activity ID	Activity Name			Contractor	Contract Value	direct costs	OH & Profit	Finish date Contract Date (Rev. 0)	Finish date Rev. 1	no impact	interest bearing days	25.688.07 2.12%	74,862.65 2.76%
					Section C	Incentivisation	Prelims	0	S	1,200,000.00	1,025,841.03	174,358.97	17-Jan-11	10-Mar-11		52	526.17	4032.88
					Section D	Incentivisation	Prelims	0	S	1,200,000.00	1,025,841.03	174,358.97	16-Jul-11	06-Sep-11		52	526.17	4,032.88
					A16010	Set Track (285m) - 60%	Track	1A	S	228,473.45	195,276.45	33,197.00	15-Feb-10	09-Jun-10		114	219.83	
					A16010	Set Track (285m) - 40%	Track	1A	S	152,315.63	130,184.30	22,131.33	15-Feb-10	09-Jun-10		114	146.42	
					A15930	Set Track (160m)	Track	1A	S	229,910.24	196,504.48	33,405.76	19-Aug-09	09-Jun-10		294	589.97	
					A15850	Set Track (50m)	Track	1A	S	0.00	0.00	0.00	20-Mar-09	07-Jul-09		103	0	
					A15860	Place upper concrete and cure	Track	1A	S	71,846.75	67,407.47	10,439.27	31-Mar-09	10-Jul-09		101	61.19	
					A15770	Set Track (125m)	Track	1A	S	0.00	0.00	0.00	11-Feb-09	20-May-09		88	0	
					A15780	Place upper concrete and cure	Track	1A	S	179,617.52	153,519.25	26,098.27	16-Feb-09	26-May-09		99	149.94	
					A15690	Set Track (100m)	Track	1A	S	0.00	0.00	0.00	28-Nov-08	03-Feb-09		67	0	
					A15700	Place upper concrete and cure	Track	1A	S	142,204.94	127,542.68	20,662.26	4-Dec-08	06-Feb-09		64	76.74	
					A15610	Set Track (150m)	Track	1A	S	0.00	0.00	0.00	15-Mar-10	21-May-10		67	0	
					A15620	Place upper concrete and cure	Track	1A	S	215,540.90	184,222.99	31,317.91	18-Mar-10	26-May-10		69	125.41	
					A15360	Set Track (260m) - 50%	Track	1A	S	165,247.85	141,237.47	24,010.37	22-Oct-09	09-Mar-10		158	192.29	
					A15350	Set Track (260m) - 50%	Track	1A	S	165,247.85	141,237.47	24,010.37	22-Oct-09	09-Mar-10		158	192.29	
					A15270	Set Track (330m) - 50%	Track	1A	S	237,094.92	202,645.23	34,449.69	16-Aug-10	08-Nov-10		84	167.94	
					A15270	Set Track (330m) - 50%	Track	1A	S	237,094.92	202,645.23	34,449.69	16-Aug-10	08-Nov-10		84	167.94	
					A15190	Set Track (470m) - 50%	Track	1A	S	337,690.69	288,615.98	49,074.72	10-May-10	29-Jul-10		80	227.79	
					A15190	Set Track (470m) - 50%	Track	1A	S	337,690.69	288,615.98	49,074.72	10-May-10	29-Jul-10		80	227.79	
					A16150	Set Track (30m)	Track	1A	S	0.00	0.00	0.00	25-Aug-09	06-Jan-10		136	0	
					A16160	Place upper concrete and cure	Track	1A	S	43,100.05	38,844.48	6,255.56	20-Aug-09	13-Jan-10		138	50.16	
					A15050	Set Track (230m) - 50%	Track	1A	S	165,247.85	141,237.47	24,010.37	4-Jul-09	30-Oct-09		114	158.85	
					A15050	Set Track (230m) - 50%	Track	1A	S	165,247.85	141,237.47	24,010.37	4-Jul-09	30-Oct-09		114	158.85	
					A14910	Set Track (230m) - 50%	Track	1A	S	165,247.85	141,237.47	24,010.37	21-Jul-10	17-Sep-10		58	80.82	
					A14910	Set Track (230m) - 50%	Track	1A	S	165,247.85	141,237.47	24,010.37	21-Jul-10	17-Sep-10		58	80.82	
					A14880	Set Track (390m) - 50%	Track	1A	S	280,202.97	239,489.72	40,713.25	26-May-10	19-Apr-10		-37	-87.42	
					A14880	Set Track (390m) - 50%	Track	1A	S	280,202.97	239,489.72	40,713.25	26-May-10	19-Apr-10		-37	-87.42	
					A12500	Set Track (50m)	Track	1B	S	0.00	0.00	0.00	28-Jan-09	06-May-09		98	0	
					A12510	Place upper concrete and cure	Track	1B	S	49,884.26	42,636.12	7,248.14	2-Feb-09	11-May-09		98	41.22	
					A12580	Set Track (50m)	Track	1B	S	0.00	0.00	0.00	23-Feb-08	02-Jun-09		99	0	
					A12590	Place upper concrete and cure	Track	1B	S	49,884.26	42,636.12	7,248.14	26-Feb-09	05-Jun-09		99	41.64	
					A12660	Set Track (50m)	Track	1B	S	0.00	0.00	0.00	19-Mar-09	30-Jun-09		103	0	
					A12670	Place upper concrete and cure	Track	1B	S	49,884.26	42,636.12	7,248.14	24-Mar-09	03-Jul-09		101	42.48	
					A12740	Set Track (250m)	Track	1B	S	198,590.43	169,735.41	28,855.02	6-May-09	19-Aug-09		105	175.83	
					A13130	Set Track	Track	1B	S	175,540.87	150,034.93	25,505.94	17-Jun-09	09-Oct-09		114	168.74	
					A12820	Set Track (250m)	Track	1B	S	198,590.43	169,735.41	28,855.02	4-Aug-09	04-Dec-09		122	204.30	
					A13210	Set Track	Track	1B	S	175,540.87	150,034.93	25,505.94	14-Sep-09	28-Jan-10		136	201.31	
					A12900	Set Track (250m)	Track	1B	S	198,590.43	169,735.41	28,855.02	5-Nov-09	23-Mar-10		138	231.09	
					A13290	Set Track	Track	1B	S	175,540.87	150,034.93	25,505.94	1-Mar-10	04-May-10		64	94.73	
					A12980	Set Track (100m)	Track	1B	S	79,436.17	67,694.16	11,742.01	26-Mar-10	10-Jun-10		76	50.91	
					A13370	Set Track	Track	1B	S	70,215.95	60,013.63	10,202.32	20-Apr-10	09-Jul-10		78	45.00	
					A13060	Set Track (300m)	Track	1B	S	238,306.52	203,662.49	34,644.02	16-Jun-10	27-Aug-10		72	144.88	
					A13450	Set Track	Track	1B	S	210,648.52	180,041.47	30,607.05	3-Aug-10	13-Oct-10		71	125.11	
					A16230	Set Track (300m) - 50%	Track	1C	S	195,346.12	166,962.49	28,383.62	5-Jan-10	22-Apr-10		107	176.25	
					A16230	Set Track (300m) - 50%	Track	1C	S	195,346.12	166,962.49	28,383.62	5-Jan-10	22-Apr-10		107	176.25	
					A16350	Set Track	Track	1C	S	0.00	0.00	0.00	28-May-10				-40326	0
					A16360	Place upper concrete and cure	Track	1C	S	344,754.33	294,061.82	50,692.51	3-Jun-10	05-Jul-10		32	93.03	
					A16310	Place upper concrete and cure	Track	1C	S	78,830.53	67,295.58	11,534.95	29-Jun-10	29-Jul-10		30	19.89	
					A16420	Place upper concrete and cure	Track	1C	S	66,950.60	58,932.14	10,018.46	20-Jul-10	08-Oct-10		30	46.51	
					A16500	Place upper concrete and cure	Track	1C	S	106,190.54	90,761.14	15,429.39	2-Jun-10	27-May-10		-6	-5.37	
					A16560	Street Surface finishes	Track	1C	S	91,934.36	78,576.37	13,357.99	8-Jul-10	28-Jun-10		10	-7.75	
					A16620	Set Track (150m)	Track	1C	S	69,519.27	59,416.16	10,103.09	29-Sep-10	29-Sep-10		0	0.00	
					A16630	Place upper concrete and cure	Track	1C	S	294,847.08	252,056.05	42,791.03	4-Oct-10	4-Oct-2010		1	1.76	
					A16710	Place upper concrete and cure	Track	1C	S	294,178.63	251,434.72	42,743.90	3-Mar-10	18-May-10		76	186.53	
					A16790	Place upper concrete and cure	Track	1C	S	294,178.63	251,434.72	42,743.90	17-Jun-10	28-Sep-10		103	255.50	
					A16860	Set Track (360m)	Track	1C	S	706,026.97	603,443.56	102,583.41	3-Feb-10	03-Mar-10		28	166.70	
					A8380	Place upper concrete and cure	Track	1D	S	50,165.13	42,876.18	7,288.95	24-Feb-09	30-Mar-09		34	14.38	
					A8470	Street Surface finishes	Track	1D	S	44,420.58	37,966.31	6,454.27	20-Mar-09	24-Apr-09		35	13.11	
					A8740	Place upper concrete and cure	Track	1D	S	14,355.25	12,269.45	2,085.81	26-Jun-09	29-Jun-09		3	0.36	
					A8820	Street Surface finishes	Track	1D	S	14,018.93	11,862.86	2,156.08	22-Jul-09	18-Nov-09		119	14.07	
					A8890	Set Track (30m)	Track	1D	S	14,355.25	12,269.45	2,085.81	22-Sep-09	06-Jan-10		106	12.83	
					A8970	Place upper concrete and cure	Track	1D	S	14,018.93	11,862.86	2,156.08	14-Oct-09	28-Jan-10		108	12.53	
					A13810	Set Track (950m) - 1st Half	Track	1D	S	989,070.65	827,010.61	162,059.84	17-Jun-09	18-Jun-09		1	3.23	
					A13810	Set Track (950m)	Track	1D	S	468,197.46	400,168.77	68,028.69	17-Jun-09	18-Jun-09		1	3.95	
					A8630	Place upper concrete and cure	Track	1D	S	16,938.40	17,041.37	2,697.03	2-Mar-09	03-Apr-09		32	5.38	
					A6710	Street Surface finishes	Track	1D	S	16,965.10	16,209.46	2,755.61	26-Mar-09	30-Apr-09		35	5.60	
					A6990	Place upper concrete and cure	Track	1D	S	19,936.40	17,041.37	2,897.03	2-Jul-09	16-Jul-09		14	2.35	
					A7060	Place upper concrete and cure	Track	1D	S	19,472.42	16,643.10	2,829.33	23-Jul-09	19-Nov-09		119	19.5	

L1	L2	L3	L4	L5	Activity ID	Activity Name			Contractor	Contract Value	direct costs	OH & Profit	finish date	finish date	interest	2.12%	2.76%	
													Contract Date (Rev. 0)	Rev. 1	no impact	bearing days	Financing Costs	Escalation costs
					A7430	Place upper concrete and cure	Track	1D	S	89,384.71	59,323.17	10,081.54	10-Jul-09	24-Jul-09	15		8.19	
					A7490	Set Track	Track	1D	S	67,763.46	57,917.48	8,845.97	16-Sep-09	02-Oct-09	16		9.14	
					A7590	Place upper concrete and cure	Track	1D	S	19,141.00	16,899.83	2,241.17	16-Nov-09	07-Apr-10	142		22.92	
					A7660	Place upper concrete and cure	Track	1D	S	18,693.69	15,977.51	2,716.18	14-Jan-10	04-May-10	110		17.34	
					A8010	Place upper concrete and cure	Track	1D	S	43,066.42	36,808.90	6,257.51	18-Feb-10	12-Mar-10	21		7.62	
					A8080	Place upper concrete and cure	Track	1D	S	42,980.46	35,949.11	6,111.35	12-Mar-10	03-Jun-10	83		29.44	
					A3150	Set Track (410m)	Track	1D	S	381,799.71	331,452.74	50,346.97	26-Nov-09	16-Nov-09	-10		-32.70	
					I129	Track Laying - 1 Third	Track	2A	S	632,336.05	540,458.16	91,877.89	22-Oct-08	19-Jan-09	89		474.55	
					I129	Track Laying - 1 Third	Track	2A	S	632,336.05	540,458.16	91,877.89	22-Oct-08	19-Jan-09	89		474.55	
					I129	Track Laying	Track	2A	S	316,188.02	270,229.08	45,958.94	22-Oct-08	19-Jan-09	69		237.28	
					I059	Track Laying ROJ - MUR - 1 Half	Track	5A	S	408,805.37	349,406.30	59,399.07	11-Jan-10	22-Apr-10	101		348.18	
					I059	Track Laying ROJ - MUR	Track	5A	S	734,477.12	625,877.88	108,599.24	11-Jan-10	22-Apr-10	101		284.88	
					530	Track laying	Track	5A	S	1,610,977.28	1,376,903.69	234,073.62	9-Sep-10	04-Nov-10	56		760.71	
					1619	Track laying - 50%	Track	5B	S	805,048.93	688,076.01	116,972.92	13-Feb-09	10-Mar-09	25		169.71	
					1619	Track laying	Track	5B	S	805,048.93	688,076.01	116,972.92	13-Feb-09	10-Mar-09	25		169.71	
					1659	Track laying - 50%	Track	5B	S	431,828.31	368,913.09	62,915.22	25-Jan-09	16-Mar-09	56		200.18	
					1659	Track laying - 50%	Track	5B	S	431,828.31	368,913.09	62,915.22	25-Jan-09	16-Mar-09	56		200.18	
					919	Track laying - 25%	Track	5B	S	460,891.27	393,824.16	66,967.11	15-Jan-09	08-Feb-09	25		97.16	
					919	Track laying - 25%	Track	5B	S	460,891.27	393,824.16	66,967.11	15-Jan-09	08-Feb-09	25		97.16	
					919	Track laying - 25%	Track	5B	S	460,891.27	393,824.16	66,967.11	15-Jan-09	08-Feb-09	25		97.16	
					919	Track laying	Track	5B	S	460,891.27	393,824.16	66,967.11	15-Jan-09	08-Feb-09	25		97.16	
					879	Track laying	Track	5B	S	1,155,885.55	987,936.37	167,949.18	10-Nov-08	16-Dec-08	27		263.16	
					839	Track laying	Track	5B	S	618,516.10	528,646.24	89,869.86	8-Sep-09	11-Sep-09	3		15.65	
					839	Track laying	Track	5B	S	618,516.10	528,646.24	89,869.86	8-Sep-09	11-Sep-09	3		15.65	
					789	Track laying sub-section 06 Edin Park Central to	Track	5C	S	478,795.25	409,219.02	69,576.23	4-Dec-08	12-Feb-09	70		282.51	
					789	Track laying sub-section 06 Edin Park Central to	Track	5C	S	718,179.37	613,828.53	104,350.85	4-Dec-08	12-Feb-09	70		423.91	
					478	Track Laying	Track	5C	S	899,124.74	766,516.87	128,607.87	21-May-10	10-Aug-10	81		604.55	
					769	Track Laying - 50%	Track	5C	S	442,562.37	378,256.44	64,305.93	21-Jul-09	27-Oct-09	98		365.72	
					769	Track Laying	Track	5C	S	442,562.37	378,256.44	64,305.93	21-Jul-09	27-Oct-09	98		365.72	
					204	Track Laying Depot	Track	6A	S	218,458.09	186,716.32	31,741.77	5-Jun-09	07-Jul-09	32		58.95	
					204	Track Laying Depot	Track	6A	S	218,458.09	186,716.32	31,741.77	5-Jun-09	07-Jul-09	32		58.95	
					304	Track Laying Depot	Track	6A	S	218,458.09	186,716.32	31,741.77	5-Jun-09	07-Jul-09	32		58.95	
					419	Track Laying - 40%	Track	7A	S	1,874,471.71	1,603,152.57	272,329.14	21-Oct-09	10-Feb-10	112		1770.28	
					419	Track Laying - 40%	Track	7A	S	1,874,471.71	1,603,152.57	272,329.14	21-Oct-09	10-Feb-10	112		1771.43	
					389	Track Laying IPR to AIR - 50%	Track	7A	S	744,023.30	635,917.35	108,105.95	3-Dec-09	24-Mar-10	111		896.39	
					389	Track Laying IPR to AIR - 50%	Track	7A	S	744,023.30	635,917.35	108,105.95	3-Dec-09	24-Mar-10	111		896.39	
					A17060	Install Fibre Optic Cables	SCC	1A	S	222,504.72	190,174.98	32,329.75	2-Jul-10	26-Aug-10	55		790.92	
					A17070	Install Signalling Wayside Equipment	SCC	1A	S	5,980.57	5,122.71	857.86	21-Jun-10	13-Aug-10	53		2.68	
					A4315	Package Test Tramstop	SCC	1A	S	34,152.23	29,172.85	4,959.38	14-Sep-10	23-Nov-10	70		154.42	
					A3910	Install Fibre Optic Cables	SCC	1A	S	382,708.12	327,100.94	55,607.18	23-Dec-10	24-Feb-11	63		203.31	
					A3920	Install Signalling Wayside Equipment	SCC	1A	S	10,308.94	8,811.06	1,497.88	13-Dec-10	14-Feb-11	63		41.97	
					A4350	Package Test Tramstop	SCC	1A	S	34,132.23	29,172.85	4,959.38	5-Jun-10	28-May-10	143		41.18	
					A4390	Package Test Tramstop	SCC	1A	S	34,132.23	29,172.85	4,959.38	5-Jul-10	05-Jul-10	0		0.00	
					A4430	Package Test Tramstop	SCC	1A	S	34,132.23	29,172.85	4,959.38	24-Dec-10	16-2-2011	54		15.54	
					A3780	Install Electrical Cables	SCC	1B	S	151,303.21	129,318.98	21,984.23	13-Aug-10	20-Oct-10	68		86.78	
					A3790	Install Fibre Optic Cables	SCC	1B	S	151,303.21	129,318.98	21,984.23	13-Aug-10	20-Oct-10	68		86.78	
					A3800	Install Signalling Wayside Equipment	SCC	1B	S	151,303.21	129,318.98	21,984.23	31-Aug-10	05-Nov-10	66		84.20	
					A3765	Installation of poles and building fixings	SCC	1B	S	151,303.21	129,318.98	21,984.23	13-Jul-10	20-Sep-10	69		88.03	
					A4470	Package Test Tramstop	SCC	1B	S	34,132.23	29,172.85	4,959.38	10-Aug-10	19-Oct-10	70		20.15	
					A4510	Package Test Tramstop	SCC	1B	S	34,132.23	29,172.85	4,959.38	28-May-10	10-Aug-10	74		21.30	
					A3860	Install Electrical Cables	SCC	1C	S	151,303.21	129,318.98	21,984.23	21-Oct-10	03-Feb-11	105		133.96	
					A3870	Install Fibre Optic Cables	SCC	1C	S	151,303.21	129,318.98	21,984.23	21-Oct-10	03-Feb-11	105		133.96	
					A3880	Install Signalling Wayside Equipment	SCC	1C	S	151,303.21	129,318.98	21,984.23	22-Nov-10	03-Mar-11	101		128.66	
					A3845	Installation of poles and building fixings	SCC	1C	S	151,303.21	129,318.98	21,984.23	9-Sep-10	15-Nov-10	67		85.48	
					A2680	Package Test Tramstop	SCC	1C	S	18,905.98	14,449.56	2,456.42	23-Feb-10	18-Oct-10	237		33.79	
					A4550	Package Test Tramstop	SCC	1C	S	18,905.98	14,449.56	2,456.42	22-Nov-10	14-Jan-11	53		7.56	
					A4630	Package Test Tramstop	SCC	1C	S	18,905.98	14,449.56	2,456.42	23-Nov-09	10-Feb-10	79		11.28	
					A4590	Package Test Tramstop	SCC	1C	S	18,905.98	14,449.56	2,456.42	17-Mar-10	17-Mar-10	0		0.00	
					A3820	Install Electrical Cables	SCC	1C	S	151,303.21	129,318.98	21,984.23	19-May-10	13-Jul-10	65		70.17	
					A3830	Install Fibre Optic Cables	SCC	1D	S	151,303.21	129,318.98	21,984.23	19-May-10	13-Jul-10	65		70.17	
					A3840	Install Signalling Wayside Equipment	SCC	1D	S	151,303.21	129,318.98	21,984.23	7-Jun-10	29-Jul-10	57		66.34	
					A3805	Installation of poles and building fixings	SCC	1D	S	151,303.21	129,318.98	21,984.23	16-Apr-10	11-Jun-10	56		71.45	
					A4670	Package Test Tramstop	SCC	1D	S	103,097.22	88,066.00	14,971.22	27-Apr-10	22-Apr-10	0		0.00	
					A4080	Install Electrical Cables	SCC	2A	S	133,667.58	114,245.80	19,421.79	5-Oct-09	23-Nov-09	29		32.49	
					A4070	Install Fibre Optic Cables	SCC	2A	S	133,667.58	114,245.80	19,421.79	5-Oct-09	23-Nov-09	29		32.69	
					A4080	Install Signalling Wayside Equipment	SCC	2A	S	133,667.58	114,245.80	19,421.79	21-Oct-09	19-Nov-09	29		32.69	
					A4045	Installation of poles and building fixings	SCC	2A	S	133,667.58	114,245.80	19,421.79	3-Sep-09	02-Oct-09	29		32.69	
					3rd Party	Third Party Sign-off	SCC	2A	S	25,000.00	21,367.52	3,632.48	0-Jan-00		0		0.00	
					A4110	Package Test Tramstop	SCC	2A	S	40,499.91	34,615.31	5,884.60	9-Nov-09	03-Mar-10	114		38.93	
					A4100	Install Electrical Cables	SCC	5A	S	133,667.58	114,245.80	19,421.79	11-Oct-10	18-Nov-10	38		42.83	
					A4110	Install Fibre Optic Cables	SCC	5A	S	133,667.58	114,245.80	19,421.79	11-Oct-10	18-Nov-10	38		42.83	
					A4120	Install Signalling Wayside Equipment	SCC</											

L1	L2	L3	L4	L5	Activity ID	Activity Name	Contractor	Contract Value	direct costs	OH & Profit	Contract Date (Rev. 0)	finish date Rev. 1	no impact	interest bearing days	2.12% Finishing Costs	2.76% Escalation costs
					A5100	Install Station Control Equipment + AFC Equipment	SCC	8,099.98	8,023.06	1,176.92	22-Jun-10	02-Nov-10		103	7.04	53.92
					A6270	Installation of SIG-interlocking cubicle	SCC	8,099.98	8,023.06	1,176.92	16-Jun-10	28-Sep-10		104	7.16	54.44
						Third Party Sign-off	SCC	25,000.00	21,767.52	3,832.48	9-Jan-09			0	0.00	
					A5150	Package Test Tramstop	SCC	10,124.98	8,653.83	1,471.15	9-Oct-09	27-Jan-10		114	9.73	74.80
					A5120	Install LV Power Supply and LV Power Equipment	SCC	10,124.98	8,653.83	1,471.15	24-Aug-09	02-Dec-09		100	8.54	65.44
					A5130	Install Telecon Equipment	SCC	10,124.98	8,653.83	1,471.15	21-Sep-09	13-Jan-10		114	9.73	74.80
					A5140	Install Station Control Equipment + AFC Equipment	SCC	10,124.98	8,653.83	1,471.15	20-Sep-09	20-Jan-10		114	9.73	74.80
					A4140	Install Electrical Cables	SCC	133,667.58	114,245.80	19,421.79	9-Feb-10	10-Mar-10		29	32.69	290.53
					A4150	Install Fibre Optic Cables	SCC	133,667.58	114,245.80	19,421.79	9-Feb-10	10-Mar-10		29	32.69	290.53
					A4180	Install Signalling Wayside Equipment	SCC	133,667.58	114,245.80	19,421.79	7-Apr-10	07-Mar-10		-31	-24.94	267.80
					A4125	Installation of poles and building fixings	SCC	133,667.58	114,245.80	19,421.79	16-Nov-09	16-Dec-09		30	33.81	259.17
					A5190	Package Test Tramstop	SCC	10,124.98	8,653.83	1,471.15	20-May-10	31-Aug-10		103	8.79	67.40
					A5180	Install LV Power Supply and LV Power Equipment	SCC	10,124.98	8,653.83	1,471.15	7-Apr-10	19-Jul-10		103	8.79	67.40
					A5170	Install Telecon Equipment	SCC	10,124.98	8,653.83	1,471.15	6-May-10	17-Aug-10		103	8.79	67.40
					A5180	Install Station Control Equipment + AFC Equipment	SCC	10,124.98	8,653.83	1,471.15	13-May-10	24-Aug-10		103	8.79	67.40
					A5230	Package Test Tramstop	SCC	10,124.98	8,653.83	1,471.15	2-Feb-10	14-May-10		101	8.62	68.09
					A5200	Install LV Power Supply and LV Power Equipment	SCC	10,124.98	8,653.83	1,471.15	8-Dec-09	31-Mar-10		113	9.85	73.94
					A5170	Install Telecon Equipment	SCC	10,124.98	8,653.83	1,471.15	19-Jan-10	29-Apr-10		100	8.54	65.44
					A5220	Install Station Control Equipment + AFC Equipment	SCC	10,124.98	8,653.83	1,471.15	20-Jan-10	07-May-10		101	8.82	68.09
					A5270	Package Test Tramstop	SCC	8,099.98	6,923.06	1,176.92	24-Jul-09	03-Nov-09		102	6.97	53.40
					A5240	Install LV Power Supply and LV Power Equipment	SCC	8,099.98	6,923.06	1,176.92	12-Jan-09	22-Sep-09		102	6.97	53.40
					A5250	Install Telecon Equipment	SCC	8,099.98	6,923.06	1,176.92	10-Jun-09	20-Oct-09		102	6.97	53.40
					A5260	Install Station Control Equipment + AFC Equipment	SCC	8,099.98	6,923.06	1,176.92	17-Jul-09	27-Oct-09		102	6.97	53.40
					A6290	Installation of SIG-interlocking cubicle	SCC	8,099.98	6,923.06	1,176.92	11-Jun-09	22-Sep-09		103	7.04	53.92
					A5310	Package Test Tramstop	SCC	10,124.98	8,653.83	1,471.15	14-Apr-10	25-Jul-10		103	8.79	67.40
					A5280	Install LV Power Supply and LV Power Equipment	SCC	10,124.98	8,653.83	1,471.15	2-Mar-10	14-Jun-10		104	8.88	68.05
					A5190	Install Telecon Equipment	SCC	10,124.98	8,653.83	1,471.15	30-Mar-10	12-Jul-10		104	8.88	68.05
					A5300	Install Station Control Equipment + AFC Equipment	SCC	10,124.98	8,653.83	1,471.15	7-Apr-10	19-Jul-10		103	8.79	67.40
					51	M & E Works	SCC	133,272.58	113,508.19	19,364.39	24-May-09	24-May-09		0	0.00	
					52	OLE Supports	OLE	133,272.58	113,508.19	19,364.39	6-May-09	06-May-09		0	0.00	
					373	Catenary Cables	OLE	133,272.58	113,508.19	19,364.39	13-May-09	13-May-09		0	0.00	
					A4200	Install Signalling Wayside Equipment	SCC	267,335.18	228,491.59	38,843.57	9-Jul-10	18-Sep-10		89	155.54	1,192.16
					A16980	Install Signalling Wayside Equipment	SCC	267,335.18	228,491.59	38,843.57	25-Jan-10	16-Mar-10		89	152.71	1,183.89
					A5350	Package Test Tramstop	SCC	10,124.98	8,653.83	1,471.15	31-Aug-09	03-Dec-09		100	8.54	65.44
					A5320	Install LV Power Supply and LV Power Equipment	SCC	10,124.98	8,653.83	1,471.15	17-Jul-09	27-Oct-09		102	8.71	68.75
					A5130	Install Telecon Equipment	SCC	10,124.98	8,653.83	1,471.15	17-Aug-09	24-Nov-09		99	8.45	64.78
					A5340	Install Station Control Equipment + AFC Equipment	SCC	10,124.98	8,653.83	1,471.15	24-Aug-09	02-Dec-09		100	8.54	65.44
					A5390	Package Test Tramstop	SCC	10,124.98	8,653.83	1,471.15	15-Dec-09	06-Apr-10		114	9.73	74.80
					A5360	Install LV Power Supply and LV Power Equipment	SCC	10,124.98	8,653.83	1,471.15	2-Nov-09	24-Feb-10		114	9.73	74.80
					A5370	Install Telecon Equipment	SCC	10,124.98	8,653.83	1,471.15	1-Dec-09	24-Mar-10		113	9.65	73.94
					A5380	Install Station Control Equipment + AFC Equipment	SCC	10,124.98	8,653.83	1,471.15	8-Dec-09	31-Mar-10		113	9.65	73.94
					A2545	Installation of workshop equipment	SCC	375,985.01	321,354.71	54,630.30	25-Feb-10	30-Apr-10		64	202.91	1,558.18
					A4220	Install Electrical Cables	SCC	375,985.01	321,354.71	54,630.30	25-Sep-09	16-Nov-09		52	184.86	1,263.58
					A4230	Install Fibre Optic Cables	SCC	375,985.01	321,354.71	54,630.30	25-Sep-09	16-Nov-09		52	184.86	1,263.58
					A4240	Install Signalling Wayside Equipment	SCC	375,985.01	321,354.71	54,630.30	13-Oct-09	03-Dec-09		61	161.69	1,239.28
					A4205	Installation of poles and building fixings - 50%	SCC	375,985.01	321,354.71	54,630.30	26-Aug-09	15-Oct-09		50	158.52	1,214.89
					A4205	Installation of poles and building fixings - 50%	SCC	375,985.01	321,354.71	54,630.30	26-Aug-09	15-Oct-09		50	158.52	1,214.89
					A2550	Inspection and Testing	SCC	256,530.88	219,257.16	37,273.72	25-Mar-10	01-Jun-10		68	147.09	1,127.40
					A4260	Install Electrical Cables	SCC	133,667.58	114,245.80	19,421.79	6-Apr-10	14-Jun-10		69	77.77	596.08
					A4270	Install Fibre Optic Cables	SCC	133,667.58	114,245.80	19,421.79	6-Apr-10	14-Jun-10		69	77.77	596.08
					A4280	Install Signalling Wayside Equipment	SCC	133,667.58	114,245.80	19,421.79	12-May-10	19-Jul-10		68	76.84	587.44
					A4245	Installation of poles and building fixings	SCC	133,667.58	114,245.80	19,421.79	15-Feb-10	22-Apr-10		66	74.38	576.16
					A5430	Package Test Tramstop	SCC	10,124.98	8,653.83	1,471.15	9-Mar-10	21-Jun-10		104	8.88	68.05
					A5400	Install LV Power Supply and LV Power Equipment	SCC	10,124.98	8,653.83	1,471.15	26-Jan-10	07-May-10		101	8.62	68.09
					A5410	Install Telecon Equipment	SCC	10,124.98	8,653.83	1,471.15	23-Feb-10	07-Jun-10		104	8.88	68.05
					A5420	Install Station Control Equipment + AFC Equipment	SCC	10,124.98	8,653.83	1,471.15	2-Mar-10	14-Jun-10		104	8.88	68.05
					A5470	Package Test Tramstop	SCC	8,099.98	6,923.06	1,176.92	25-Jun-10	05-Oct-10		102	6.97	53.40
					A5440	Install LV Power Supply and LV Power Equipment	SCC	8,099.98	6,923.06	1,176.92	13-May-10	24-Aug-10		103	7.04	53.92
					A5450	Install Telecon Equipment	SCC	8,099.98	6,923.06	1,176.92	11-Jun-10	21-Sep-10		102	6.97	53.40
					A5480	Install Station Control Equipment + AFC Equipment	SCC	8,099.98	6,923.06	1,176.92	18-Jun-10	28-Sep-10		102	6.97	53.40
					A6360	Installation of SIG-interlocking cubicle	SCC	8,099.98	6,923.06	1,176.92	5-May-10	17-Aug-10		104	7.10	54.44
					A17020	Overhead Catenary Line	OLE	185,429.30	158,486.58	26,942.72	5-Jul-10	27-Aug-10		53	82.87	635.16
					A17030	Overhead Catenary Line	OLE	185,429.30	158,486.58	26,942.72	5-Jul-10	27-Aug-10		53	82.87	635.16
					A5520	Testing and Commissioning	OLE	264,225.80	242,928.12	41,297.68	24-Sep-10	08-Oct-10		14	33.55	257.17
					A3890	Overhead Catenary Line	OLE	318,938.40	272,596.92	46,341.48	17-Jan-11	07-Mar-11		49	131.78	1,010.03
					A3890	Overhead Catenary Line	OLE	318,938.40	272,596.92	46,341.48	17-Jan-11	07-Mar-11		49	131.78	1,010.03
					A3770	Overhead Catenary Line - One Half	OLE	254,280.80	217,316.94	36,963.86	16-Aug-10	21-Oct-10		65	212.28	1,626.84
					A3770	Overhead Catenary Line - One Half	OLE	381,391.20	325,975.41	55,415.82	16-Aug-10	21-Oct-10		65	212.28	1,626.84
					A5570	Testing and Commissioning	OLE	284,225.80	242,928.12	41,297.68	13-Aug-10	27-Aug-10		14	33.55	257.17
					A3850	Overhead Catenary Line - One Half	OLE	528,815.50	451,979.72	76,835.78	29-Oct-10	11-Feb-11		105	468.21	3,588.59
					A3850	Overhead Catenary Line	OLE	362,543.72	301,319.42	61,224.30	29-Oct-10	11-Feb-11		105	312.14	2,392.39
					A5600	Installation of TPS Equipment	OLE	56,845.18	48,585.62	8,259.56	15-Oct-10	29-Oct-10		14	6.71	51.43
					A5590	Install LV Power Supply and LV Power Equipment	OLE	56,845.18	48,585.62	8,259.56	10-Sep-10	24-Sep-10		14	6.71	51.43
					A5610	Install Telecon and Scada	OLE	56,845.18	48,585.62	8,259.56	15-Oct-					

L1	L2	L3	L4	L5	Activity ID	Activity Name	Contractor	Contract Value	direct costs	OH & Profit	Contract Date (Rev. 0)	Contract Date (Rev. 1)	no impact	interest bearing days	2.12% Financing Costs	2.70% Escalation costs
					A3810	Overhead Catenary Line	OLE	493,401.20	421,710.43	71,690.77	21-May-10	15-Jul-10		65	228.83	1,753.85
					A4050	Overhead Catenary Line	OLE	317,965.77	271,765.81	46,200.16	25-Sep-09	26-Oct-09		31	83.12	637.05
					A5650	Installation of TPS Equipment	OLE	71,056.48	60,732.03	10,324.45	8-Dec-09	05-Jan-10		28	16.78	128.59
					A5640	Install LV Power Supply and LV Power Equipment	OLE	71,056.48	60,732.03	10,324.45	2-Nov-09	16-Nov-09		14	8.39	64.29
					A5670	Testing and Commissioning	OLE	71,056.48	60,732.03	10,324.45	11-Jan-10	25-Jan-10		14	8.39	64.29
					A5680	Install Telecom and Scada	OLE	71,056.48	60,732.03	10,324.45	8-Dec-09	05-Jan-10		28	16.78	128.59
					A4090	Overhead Catenary Line - One Half	OLE	363,956.63	311,074.04	52,882.59	9-Nov-10	20-Dec-10		41	125.83	964.41
					A5950	Installation of TPS Equipment	OLE	71,056.48	60,732.03	10,324.45	9-Nov-10	20-Dec-10		41	125.83	964.41
					A5940	Install LV Power Supply and LV Power Equipment	OLE	71,056.48	60,732.03	10,324.45	23-Jul-10	25-Jun-10		-29	-18.78	128.59
					A5670	Testing and Commissioning	OLE	71,056.48	60,732.03	10,324.45	18-Jun-10	20-May-10		-29	-17.38	133.18
					A5680	Install Telecom and Scada	OLE	71,056.48	60,732.03	10,324.45	13-Aug-10	15-Jul-10		-29	-17.38	133.18
					A4130	Overhead Catenary Line - One Sixth	OLE	282,721.04	241,641.91	41,079.13	1-Apr-10	04-May-10		33	78.67	602.98
					A4130	Overhead Catenary Line - One Sixth	OLE	282,721.04	241,641.91	41,079.13	1-Apr-10	04-May-10		33	78.67	602.98
					A4130	Overhead Catenary Line - One Sixth	OLE	282,721.04	241,641.91	41,079.13	1-Apr-10	04-May-10		33	78.67	602.98
					A4130	Overhead Catenary Line - One Sixth	OLE	282,721.04	241,641.91	41,079.13	1-Apr-10	04-May-10		33	78.67	602.98
					A4130	Overhead Catenary Line - One Sixth	OLE	282,721.04	241,641.91	41,079.13	1-Apr-10	04-May-10		33	78.67	602.98
					A4130	Overhead Catenary Line - One Sixth	OLE	282,721.04	241,641.91	41,079.13	1-Apr-10	04-May-10		33	78.67	602.98
					A4130	Overhead Catenary Line - One Sixth	OLE	282,721.04	241,641.91	41,079.13	1-Apr-10	04-May-10		33	78.67	602.98
					A4130	Overhead Catenary Line - One Sixth	OLE	282,721.04	241,641.91	41,079.13	1-Apr-10	04-May-10		33	78.67	602.98
					A4130	Overhead Catenary Line - One Sixth	OLE	282,721.04	241,641.91	41,079.13	1-Apr-10	04-May-10		33	78.67	602.98
					A4130	Overhead Catenary Line - One Sixth	OLE	282,721.04	241,641.91	41,079.13	1-Apr-10	04-May-10		33	78.67	602.98
					64	OLE Supports	OLE	32,259.34	27,572.08	4,687.25	9-Apr-09	07-Apr-09		-2	-0.54	4.17
					75	Catenary Cables	OLE	32,259.34	27,572.08	4,687.25	22-Apr-09	20-Apr-09		-2	-0.54	4.17
					265	OLE Supports and Catenary over Tracks	OLE	32,259.34	27,572.08	4,687.25	11-May-09	21-Apr-09		-20	-5.44	41.70
					A5940	Installation of TPS Equipment	OLE	71,056.48	60,732.03	10,324.45	11-Jun-10	13-May-10		-28	-17.38	133.18
					A5930	Install LV Power Supply and LV Power Equipment	OLE	71,056.48	60,732.03	10,324.45	6-May-10	07-Apr-10		-28	-17.38	133.18
					A5920	Testing and Commissioning	OLE	71,056.48	60,732.03	10,324.45	1-Jul-10	03-Jun-10		-28	-17.38	133.18
					A5910	Install Telecom and Scada	OLE	71,056.48	60,732.03	10,324.45	11-Jun-10	13-May-10		-28	-17.38	133.18
					A1150	OLE Supports and Catenary over Tracks	OLE	133,272.58	113,908.19	19,364.39	24-May-09	24-May-09		0	0.00	-
					A4170	Overhead Catenary Line	OLE	365,146.23	312,090.79	53,055.43	26-Jun-10	06-Sep-10		69	212.45	1,628.34
					A18130	Overhead Catenary Line	OLE	365,146.23	312,090.79	53,055.43	18-Jan-10	09-Mar-10		50	153.95	1,179.96
					A5950	Installation of TPS Equipment	OLE	134,092.85	114,609.27	19,483.58	2-Feb-10	16-Feb-10		14	31.66	242.66
					A5940	Install LV Power Supply and LV Power Equipment	OLE	134,092.85	114,609.27	19,483.58	15-Dec-09	12-Jan-10		28	31.66	242.66
					A5970	Testing and Commissioning	OLE	134,092.85	114,609.27	19,483.58	23-Feb-10	08-Mar-10		14	31.66	242.66
					A5960	Install Telecom and Scada	OLE	134,092.85	114,609.27	19,483.58	2-Feb-10	16-Feb-10		14	31.66	242.66
					A6330	Installation of SIG-interlocking cubicle	OLE	134,092.85	114,609.27	19,483.58	29-Dec-09	26-Jan-10		29	31.66	242.66
					A4210	Overhead Catenary Line	OLE	84,994.25	72,644.66	12,349.59	11-Dec-09	15-Feb-10		68	47.30	362.55
					A4250	Overhead Catenary Line - One Third	OLE	424,061.42	362,445.66	61,615.76	23-Apr-10	01-Jul-10		69	246.73	1,861.07
					A4250	Overhead Catenary Line - One Third	OLE	424,061.42	362,445.66	61,615.76	23-Apr-10	01-Jul-10		69	246.73	1,861.07
					A4250	Overhead Catenary Line - One Third	OLE	424,061.42	362,445.66	61,615.76	23-Apr-10	01-Jul-10		69	246.73	1,861.07
					A4250	Overhead Catenary Line - One Third	OLE	424,061.42	362,445.66	61,615.76	23-Apr-10	01-Jul-10		69	246.73	1,861.07
					A6000	Installation of TPS Equipment	OLE	73,781.01	63,060.69	10,720.32	16-Mar-10	30-Mar-10		14	8.71	66.76
					A5990	Install LV Power Supply and LV Power Equipment	OLE	73,781.01	63,060.69	10,720.32	19-Nov-09	10-Mar-10		111	69.06	529.30
					A6020	Testing and Commissioning	OLE	73,781.01	63,060.69	10,720.32	6-Apr-10	20-Apr-10		14	8.71	66.76
					A6910	Install Telecom and Scada	OLE	73,781.01	63,060.69	10,720.32	16-Mar-10	30-Mar-10		14	8.71	66.76
					A1880	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	22-Jun-10	07-Oct-10		77	22.58	173.95
					A1720	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	5-Oct-09	10-Oct-10		158	45.74	350.59
					A1800	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	15-Apr-10	15-Oct-10		0	0.00	-
					A1850	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	7-Oct-10	18-Nov-10		40	11.73	89.89
					A2560	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	21-May-10	03-Oct-10		74	21.70	166.30
					A2600	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	10-Mar-10	21-Oct-10		72	21.11	161.81
					A2660	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	3-Nov-09	28-Oct-10		237	69.49	532.62
					A2720	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	8-Sep-10	12-Oct-10		36	10.56	80.90
					A2780	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	7-Sep-10	21-Oct-10		403	119.32	919.16
					A2750	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	25-Nov-09	25-Nov-09		0	0.00	-
					A2810	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	3-Feb-10	03-Oct-10		0	0.00	-
					A2480	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	24-Aug-09	02-Nov-09		70	20.52	157.31
					A2030	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	12-May-10	24-Oct-10		104	30.49	233.72
					A2300	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	17-Jul-09	27-Oct-09		102	29.91	229.23
					45	Fix Rails	Structures	32,259.34	27,572.08	4,687.25	30-Mar-09	28-Oct-09		-4	-1.09	8.34
					A2080	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	2-Mar-10	16-Oct-10		104	30.49	233.72
					A2230	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	2-Nov-09	24-Oct-10		114	33.43	256.20
					A2140	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	7-May-09	18-Oct-09		103	30.30	231.48
					A2110	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	26-Jan-10	07-Oct-10		101	29.61	226.98
					90	S27 Edinburgh Park Station bridge - Fix Rails	Structures	132,272.58	113,908.19	19,364.39	30-Apr-09	30-Apr-09		0	0.00	-
					A2170	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	12-Jun-09	22-Oct-09		102	29.91	229.23
					A2200	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	28-Sep-09	20-Oct-10		114	33.43	256.20
					A1940	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	8-Dec-09	31-Oct-10		113	33.13	253.95
					A1880	Deliver and Install Shelter	Structures	34,772.76	29,720.31	5,052.45	7-Apr-10	19-Oct-10		103	30.20	231.48
					Snagging	Snagging	Structures	351.24	300.21	51.03						



ETN Programme comparison V26 vs V31

ID	P3 code	Note	Set track activities V26/V31 programme			Duration			Diff Duration	Diff start	Diff End	Diff start end	
			Duration V26	Begin V26	End V26	Duration V31	Begin V31	End V31					
58	A16500	1C SAS - PAVY	24	27/11/2009	03/03/2010	24	25/01/2010	03/03/2010	0	00	00	0	
100	1619 SB BAR - EDP	BAL - SAU Ballast track 1150m/2 track layns	21	15/01/2010	13/07/2010	21	05/03/2009	16/03/2009	0	24	24	1	
101	1659 SB BAR - EDP	BAL - SAU Ballast track 1050m/2 covering emb track	26	02/12/2009	20/07/2010	26	05/03/2009	18/03/2009	0	00	00	11	
25	A12000	1B SAS - MDR	10	20/12/2009	05/11/2010	10	03/02/2010	20/03/2010	0	-137	-136	1	
28	A12000	1B SAS - MDR	10	16/02/2010	01/03/2010	10	19/04/2010	04/05/2010	0	62	64	2	
59	879 SB BAR - EDP	BAU - EPS 750m/2	20	23/12/2009	19/11/2010	20	17/11/2008	16/12/2008	0	25	27	2	
4	A14910	1A CON - FOW	CON - FOW 2110-2340 track 460m embedded	15	01/07/2010	21/07/2010	15	26/03/2010	17/09/2010	0	21	20	1
3	A14500	1A CON - FOW	CON - FOW 2340-2720 track 780m	25	21/04/2010	20/05/2010	25	12/03/2010	10/04/2010	0	40	37	3
110	703 SC EDP - GOG	DEP - GOG 562m/2 track	32	06/06/2009	21/07/2009	32	11/09/2009	27/10/2009	0	00	00	3	
111	789 SC EDP - GOG	EPA - OYL 760m/2 green track	20	06/11/2008	04/12/2008	20	13/01/2009	12/02/2009	0	10	10	0	
97	839 SB BAR - EDP	EPA - ECP 804m/2	44	06/07/2009	08/09/2009	44	10/07/2009	11/03/2010	0	0	0	1	
36	A12500	1B FOW - BAS	FOW 0-100 line 2	4	18/07/2009	23/07/2009	4	27/06/2009	02/07/2009	0	00	00	1
37	A12500	1B FOW - BAS	FOW 0-100 line 3	4	18/07/2009	23/07/2009	4	19/06/2009	24/06/2009	0	00	00	2
35	A12500	1B FOW - BAS	FOW 0-100 line 1 embedded 100	6	21/01/2010	28/01/2010	6	27/04/2009	06/05/2009	0	00	00	2
123	419 7A GOG - AIR	GOG - YPR 1750m track ballast	65	23/07/2010	21/09/2010	65	27/10/2009	10/01/2010	0	01	01	10	
109	478 SC EDP - GOG	YPR - GEP 580m/2 green track	47	16/03/2010	21/05/2010	47	03/06/2010	10/03/2010	0	19	19	2	
72	A6070	1D SHP - HAY	Haymarket 1250-1125 line 3 1st half 54m embedded	4	26/02/2009	25/07/2009	4	25/03/2009	31/03/2009	0	30	34	1
73	A6070	1D SHP - HAY	Haymarket 1250-1125 line 3 2nd half 54m embedded	4	13/03/2009	18/03/2009	4	16/04/2009	22/04/2009	0	0	0	3
74	A6070	1D SHP - HAY	Haymarket 1250-1125 line 3 1st half 54m embedded	4	24/05/2009	29/05/2009	4	03/07/2009	13/01/2010	0	13	14	1
75	A7000	1D SHP - HAY	Haymarket 1250-1125 line 6 2nd half 54m embedded	4	15/07/2009	20/07/2009	4	18/11/2009	16/11/2009	0	100	110	1
76	A7140	1D SHP - HAY	Haymarket 1250-1125 line 6 1st half 54m embedded	3	23/09/2009	25/09/2009	3	05/01/2010	11/01/2010	0	110	120	1
77	A7210	1D SHP - HAY	Haymarket 1250-1125 line 6 2nd half 54m embedded	3	12/10/2009	14/10/2009	3	25/01/2010	28/01/2010	0	110	120	1
85	1179 2A HAY - ROS	HayRox Track layns 1	19	21/10/2008	14/11/2008	19	08/12/2008	18/01/2009	0	00	00	17	
86	1180 2A HAY - ROS	HayRox Track layns 2	10	24/03/2009	05/03/2009	10	02/04/2009	13/04/2009	0	00	00	1	
87	1279 2A HAY - ROS	HayRox Track layns 3	14	27/03/2009	16/04/2009	14	10/07/2009	30/07/2009	0	100	100	0	
122	369 7A GOG - AIR	YPR - AIR 2140m ballast track	30	22/10/2009	03/12/2009	30	10/07/2010	24/03/2010	0	111	111	0	
43	A18200	1C MDR - PIP	Leith track 0-375 1st half 375m embedded	14	12/11/2009	05/01/2010	14	01/04/2010	22/04/2010	0	1400	1400	10
45	A18200	1C MDR - PIP	Leith track 0-375 2nd half 375m embedded	14	11/05/2010	20/05/2010	14	10/06/2010	30/06/2010	0	00	00	3
44	A18200	1C MDR - PIP	Leith track 375-450 1st half 75m embedded	4	23/06/2010	24/06/2010	4	20/01/2010	26/01/2010	0	25	25	3
46	A18410	1C MDR - PIP	Leith track 450-520 2nd half 70m embedded	4	12/01/2010	19/01/2010	4	29/09/2009	05/10/2010	0	70	65	3
64	A8370	1D PSW - SHP	Leith track 440-280 line 2 1st half 300m embedded	4	16/02/2009	19/02/2009	4	19/03/2009	25/03/2009	0	01	04	3
66	A8440	1D PSW - SHP	Leith track 440-280 line 2 2nd half 300m embedded	4	09/03/2009	12/03/2009	4	05/04/2009	11/04/2009	0	01	05	4
66	A8370	1D PSW - SHP	Leith track 440-280 line 3 1st half 30m embedded	4	18/06/2009	23/06/2009	4	18/04/2009	24/05/2009	0	0	0	1
67	A8800	1D PSW - SHP	Leith track 440-280 line 3 2nd half 30m embedded	4	09/07/2009	14/07/2009	4	04/11/2009	10/11/2009	0	110	110	1
68	A8860	1D PSW - SHP	Leith track 440-280 line 1 1st half 30m embedded	4	17/02/2009	22/02/2009	4	06/11/2009	06/11/2009	0	0	0	35
69	A8960	1D PSW - SHP	Leith track 440-280 line 4 2nd half 30m embedded	4	01/01/2010	05/01/2010	4	15/01/2010	19/01/2010	0	100	100	3
38	A12740	1B FOW - BAS	LWA 100-350 1st half 250m embedded	10	22/04/2009	06/05/2009	10	05/08/2009	15/08/2009	0	100	100	0
40	A13130	1B FOW - BAS	LWA 100-350 2nd half 250m	10	04/06/2009	17/06/2009	10	25/09/2009	09/10/2009	0	111	114	1
39	A13130	1B FOW - BAS	LWA 350-600 1st half 250m embedded	10	21/07/2009	04/08/2009	10	18/11/2009	04/12/2009	0	121	122	1
41	A13210	1B FOW - BAS	LWA 350-600 2nd half 250m	10	01/09/2009	14/09/2009	10	14/01/2010	28/01/2010	0	130	130	1
27	A13260	1B SAS - MDR	McDonalds/Barnack road 500-1250 1st half 300m embedded McDonalds/Barnack road 500-1250 2nd half 300m	12	01/06/2010	16/06/2010	12	11/08/2010	27/08/2010	0	19	17	1
30	A13450	1B SAS - MDR	embedded	12	16/07/2010	03/09/2010	12	27/09/2010	31/10/2010	0	113	113	16
91	A16010	1A NHR - OCT	Moynah field - Ballast road 2012m	27	04/06/2010	09/09/2010	27	24/09/2010	08/11/2010	0	00	00	0
14	A16010	1A NHR - OCT	NHR - OCT 0-255 track 600m embedded	25	02/09/2010	25/09/2010	25	04/05/2010	08/05/2010	0	112	109	5
13	A16030	1A NHR - OCT	NHR - OCT 255-425 track 370m	11	06/09/2010	10/09/2010	11	04/12/2009	04/01/2010	0	127	128	17
12	A15850	1A NHR - OCT	NHR - OCT 425-475 track 100m	5	20/09/2010	20/09/2010	5	30/06/2009	07/07/2009	0	100	103	1
11	A15770	1A NHR - OCT	NHR - OCT 475-600 track 250m	5	20/09/2010	20/09/2010	5	10/06/2009	20/06/2009	0	00	00	1
10	A15690	1A NHR - OCT	NHR - OCT 600-700 track 200m	8	20/09/2010	20/09/2010	8	22/11/2009	03/02/2010	0	00	00	3
9	A15610	1A NHR - OCT	NHR - OCT 700-850 track 300m	10	20/09/2010	20/09/2010	10	02/02/2010	21/02/2010	0	00	00	1
19	A15350	1A OCT - ODR	OCT - ODR 850-1000 line 500m embedded	20	15/06/2009	22/06/2009	20	08/14/2010	03/03/2010	0	120	120	3
18	A15270	1A OCT - ODR	OCT - ODR 1000-1450 line 450m embedded	21	16/07/2010	16/08/2010	21	08/10/2010	08/11/2010	0	00	00	1
17	A15190	1A OCT - ODR	OCT - ODR 1450-1850 line 400m embedded	29	29/03/2010	10/05/2010	29	18/05/2010	28/07/2010	0	01	02	1
22	A16150	1A ODR - CON	ODR - CON 1850-11 V26 last construction activity	4	25/06/2009	25/06/2009	4	04/01/2010	06/01/2010	0	137	136	1
21	A15050	1A ODR - CON	ODR - CON 11850-2 activity	15	15/06/2009	08/07/2009	15	05/06/2009	30/10/2009	0	118	118	1
52	A16490	1C PIP - SAS	Pondy place 450-700	4	24/05/2010	27/05/2010	4	18/05/2010	24/05/2010	0	4	6	3
53	A16540	1C PIP - SAS	Pondy place 450-700 2nd half 100m emb 3 embedded	4	25/04/2010	30/05/2010	4	14/05/2010	16/05/2010	0	11	12	1
54	A16620	1C PIP - SAS	Pondy place 450-700 1st half 400 embedded track	16	09/09/2010	29/09/2010	16	03/02/2010	27/02/2010	0	1	0	1
26	A12980	1B SAS - MDR	Shifnong street 850-950 1st half 100m embedded	5	22/02/2010	26/03/2010	5	07/06/2010	10/06/2010	0	17	16	1
29	A13370	1B SAS - MDR	Shifnong street 850-950 2nd half 100m	5	14/04/2010	20/04/2010	5	30/06/2010	06/07/2010	0	27	26	1
63	A13810	1D PSW - SHP	Process street 2010 - 1360-1560 1900m embedded track	54	31/03/2009	17/06/2009	54	31/03/2009	18/06/2009	0	0	0	1
92	1003 SAROS - BAR	Rosburn - Mansfield 940m	17	04/12/2009	11/01/2010	17	28/03/2010	23/04/2010	0	110	104	14	
59	919 SB BAR - EDP	SAU - BAN Track layns 200m	29	21/11/2008	15/01/2010	29	16/12/2008	09/01/2010	0	00	00	0	
84	A8150	1D SHP - HAY	Sharnwick place 850-640 820m embedded track	31	15/10/2009	26/11/2009	31	05/10/2009	16/11/2009	0	13	10	3
23	12150 1B SAS - MDR	Tonholm 1125-940 line 1 1st half 145m embedded	6	09/02/2009	07/07/2009	6	13/07/2009	21/07/2009	0	0	0	0	
79	A7400	1D SHP - HAY	Tonholm 1125-940 line 2 1st half 40m embedded	6	09/02/2009	18/09/2009	6	24/08/2009	09/10/2009	0	13	14	1
80	A7560	1D SHP - HAY	Tonholm 1125-940 line 2 2nd half 40m embedded	4	06/11/2009	11/11/2009	4	26/03/2010	26/03/2010	0	140	138	2
81	A7620	1D SHP - HAY	Tonholm 1125-940 line 2 2nd half 40m embedded	4	05/01/2010	11/01/2010	4	28/04/2010	28/04/2010	0	100	100	1
116	A4-01-TRCK-70	9 DEP	Track layns	100	14/01/2009	05/06/2009	100	20 calendar days shift in activities / 10 working weeks	07/07/2009	0	25	22	3
131	81	154	1400m	180	14/01/2009	05/06/2009	180	20 calendar days shift	08/10/2009	0	00	00	0
82	A8200	1D SHP - HAY	West Mansfield 940-850 1st half 90m embedded	4	14/02/2010	16/02/2010	4	09/03/2010	11/03/2010	0	00	00	1
83	A8270	1D SHP - HAY	West Mansfield 940-850 2nd half 90m embedded	4	04/04/2010	09/03/2010	4	28/02/2010	01/03/2010	0	00	00	1
55	A16												