

May 22, 2008

Ms. Erica M. Hamilton
Commission Secretary
BC Utilities Commission
Sixth Floor, 900 Howe Street, Box 250
Vancouver, BC V6Z 2N3

Dear Ms. Hamilton:

Re: *Amended Application for a CPCN for the Advanced Metering Infrastructure (AMI) Project No. 3698493 – Errata No. 2*

Please find attached replacement pages for Exhibits B-6 containing the following errata.

- 1 Exhibit B-6 AMI Project - Amended Application, Page 12**
Amended Table 4.1.1 is revised.
- 2 Exhibit B-6 AMI Project – Amended Application, Page 13**
Amended Table 6.3 is revised.
- 3 Exhibit B-6 AMI Project – Amended Application, Page 14**
Amended Table 6.6 is revised.
- 4 Exhibit B-6 AMI Project – Amended Application, Page 15**
Amended Figure 6.6 is revised.
- 5 Exhibit B-6 AMI Project – Amended Application, Pages 18-20**
Appendix A: Net Present Value Revenue Requirements is revised.
- 6 Exhibit B-6 BCOAPO IR No. 1 Amended – A7.2, Page 55, Line 9**
“\$48,000” should read “\$56,000”
- 7 Exhibit B-6 Wait IR No. 1 Amended – A21, Page 63, Lines 2, 5**
“0.10 percent” should read “0.11 percent”

Sincerely,



Dennis Swanson
Director, Regulatory Affairs
cc: Registered Intervenors

1 **5. Revisions to Operational Savings**

2

3 The Amended Application requires the addition of software maintenance costs
4 associated with the more complex MDMR including VEE capability. The annual
5 maintenance cost of this software is expected to be an incremental \$0.2 million per year
6 as shown in Amended Table 4.1.1 below.

Amended Table 4.1.1: Total AMI Cost Savings

Category	Annual Savings Original Application (\$000s)	Annual Savings Amended Application (\$000s)
Meter Reading	2,491	2,491
T&D Operational	318	318
Customer Service	307	307
Operating Expenses AMI	(524)	(735)
Total Net Annual Savings	2,592	2,389

1 **6. Revisions to Project Costs**

2
 3 The Company estimates that it will require a capital investment of \$37.3 million for the
 4 acquisition and deployment of FortisBC's recommended amendment which is an
 5 increase of approximately \$6.0 million from the Original Application. Amended Table
 6 6.3 below provides a summary breakdown of the required capital expenditures for both
 7 the Original and Amended Application.

8
Amended Table 6.3: Summary of Capital Costs

	Costs Original Application (\$000s)	Costs Amended Application (\$000s)
(i) Meters and Modules	19,507	20,684
(ii) Network Infrastructure	6,700	7,771
(iii) IT Infrastructure and Upgrades	1,483	5,014
(iv) Project Management	2,701	2,701
AFUDC	950	1,130
Total Capital Cost	31,341	37,300
(v) Non-Project Costs		
Incremental Meter Costs	1,336	1,444
Avoided Future Capital Costs	(1,250)	(1,250)

1 **7. Revision to Rate Impact Analysis**

2
 3 Under the Original Application, the implementation of AMI had a net present value
 4 impact on rates of -0.09 percent over a twenty five year period. The maximum
 5 incremental annual rate impact is 0.46 percent in 2010 and the project is expected to
 6 reduce rates by the year 2016.

7
 8 Under the Amended Application, the implementation of AMI has a net present value
 9 impact on rates of 0.11 percent over a twenty five year period. The maximum
 10 incremental annual rate impact is 0.46 percent in 2010. However, by the year 2022, the
 11 Project will reduce rates. Table 6.6 below is a summary of the NPV of revenue
 12 requirements for the amended Application.

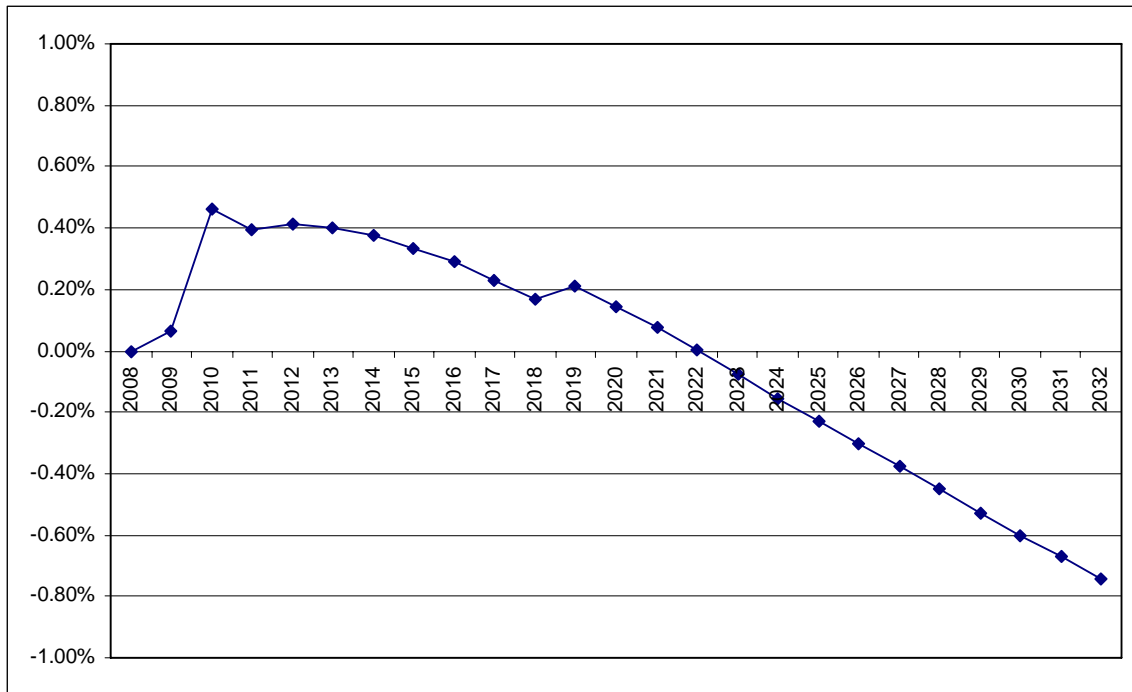
Amended Table 6.6: Summary of Revenue Requirements – Amended Application

	Expenditure / Impacts	2008	2009	2010	2011	2012	2016	2033
		(\$000s)						
1	Cumulative Capital Expenditure	568	17,179	37,524	37,609	37,675	37,690	37,495
2	Non-Project Costs	0	118	223	308	3 74	390	194
3	Total Operating Expense	0	0	(518)	(2,381)	(2,502)	(3,032)	(5,743)
4	Financing Cost	0	641	2,014	2,686	2,567	2,071	(2)
5	Total Revenue Requirement	0	151	1,185	1,071	1,189	896	(5,429)
6	Maximum Annual Incremental Rate Impact Over Previous Year	0.46%						
7	Net Present Value of Revenue Requirement	3,258						
8	One-Time Equivalent Rate Impact	0.11%						

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- 1 Amended Figure 6.6 below summarizes the annual rate impact of the Amended
- 2 Application from 2008 to 2033 based on full AMI implementation as outlined in this
- 3 Application.

Amended Figure 6.6 Rate Impact – Amended Application



**Revenue Requirements Template
 Option "AMI"**

Line No.	NPV @ 10.00%	0 Dec-08	1 Dec-09	2 Dec-10	3 Dec-11	4 Dec-12	5 Dec-13	6 Dec-14	7 Dec-15	8 Dec-16	9 Dec-17	10 Dec-18	
Summary													
Revenue Requirements													
1	Operating Expense (Incremental)	(24,407)	0	0	(518)	(2,381)	(2,502)	(2,629)	(2,752)	(2,890)	(3,032)	(3,181)	(3,334)
2	Depreciation Expense	12,737	0	0	761	1,662	1,666	1,669	1,661	1,664	1,667	1,670	1,673
3	Carrying Costs	15,512	0	641	2,014	2,686	2,567	2,438	2,310	2,191	2,071	1,951	1,822
4	Income Tax	(583)	0	(490)	(1,071)	(896)	(542)	(296)	(99)	61	191	296	387
5	Total Revenue Requirement for Project	3,258	0	151	1,185	1,071	1,189	1,182	1,120	1,026	896	737	548
Rate Impact													
6	Forecast Revenue Requirements	219,817	240,023	255,139	272,208	287,690	293,400	299,300	305,300	311,400	317,600	324,000	
7	Rate Impact	0.00%	0.06%	0.46%	0.39%	0.41%	0.40%	0.37%	0.34%	0.29%	0.23%	0.17%	
8	NPV of Project / Total Revenue Requirements	<u>0.11%</u>											
Regulatory Assumptions													
9	Equity Component	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	
10	Debt Component	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	
11	Equity Return	9.02%	9.02%	9.02%	9.02%	9.02%	9.02%	9.02%	9.02%	9.02%	9.02%	9.02%	
12	Debt Return	6.43%	6.43%	6.43%	6.43%	6.43%	6.43%	6.43%	6.43%	6.43%	6.43%	6.43%	
13	AFUDC	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	
Capital Cost													
14	Capital Investment	551	15,992	19,627									
15	Incremental meter costs	0	118	105	85	66	67	67	66	65	63	61	
16	Avoided Itron Purchase (2013 & 2018)	0					(250)					(250)	
16	AFUDC	17	500	613									
17	Total Construction Cost in Year	568	16,610	20,345	85	66	(183)	67	66	65	63	(189)	
18	Cumulative Construction Cost	568	17,179	37,524	37,609	37,675	37,492	37,559	37,626	37,690	37,753	37,565	
19	Land												
20	Net Cost of Removal												
21	Total Capital Cost in Year	568	16,610	20,345	85	66	(183)	67	66	65	63	(189)	
22	Cumulative Capital Cost	568	17,179	37,524	37,609	37,675	37,492	37,559	37,626	37,690	37,753	37,565	
23	Additions to Plant in Service	0	17,179	20,345	85	66	(183)	67	66	65	63	(189)	
24	Cumulative Additions to Plant	0	17,179	37,524	37,609	37,675	37,492	37,559	37,626	37,690	37,753	37,565	
25	CWIP	568	0	0	0	0	0	0	0	0	0	0	

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<u>Annual Operating Costs / (Savings)</u>												
Savings												
26	Annual Meter Reading Savings	-	-	(592)	(2,491)	(2,611)	(2,736)	(2,856)	(2,992)	(3,133)	(3,280)	(3,431)
27	Annual Customer Service Savings	-	-	(74)	(307)	(316)	(324)	(333)	(343)	(352)	(362)	(371)
29	Annual Operations Savings	-	-	-	(318)	(329)	(340)	(351)	(363)	(375)	(387)	(399)
Costs												
32	Incremental Labour	-	-	148	296	304	314	323	333	343	353	364
33	Software Service Agreement	-	-	-	242	246	251	256	262	267	272	278
34	Communications	-	-	-	142	145	148	151	154	157	160	163
35	Equipment Replacements	-	-	-	56	57	58	59	60	61	63	64
				0	0	0	0	0	0	0	0	0
36	Total Incremental Operating Costs (Savings)	0	0	(518)	(2,381)	(2,502)	(2,629)	(2,752)	(2,890)	(3,032)	(3,181)	(3,334)
					735							
<u>Depreciation Expense</u>												
37	Opening Cash Outlay	0	0	17,179	37,524	37,609	37,675	37,492	37,559	37,626	37,690	37,753
38	Additions in Year	0	17,179	20,345	85	66	(183)	67	66	65	63	(189)
39	Cumulative Total	0	17,179	37,524	37,609	37,675	37,492	37,559	37,626	37,690	37,753	37,565
40	Depreciation Rate - composite average	4.43%	4.43%	4.43%	4.43%	4.43%	4.43%	4.43%	4.43%	4.43%	4.43%	4.43%
41	Depreciation Expense	0	0	761	1,662	1,666	1,669	1,661	1,664	1,667	1,670	1,673
<u>Net Book Value</u>												
42	Gross Property	0	17,179	37,524	37,609	37,675	37,492	37,559	37,626	37,690	37,753	37,565
43	Accumulated Depreciation	0	0	(761)	(2,423)	(4,090)	(5,759)	(7,420)	(9,084)	(10,750)	(12,420)	(14,093)
44	Net Book Value	0	17,179	36,763	35,186	33,586	31,734	30,140	28,542	26,940	25,333	23,472
<u>Carrying Costs on Average NBV</u>												
45	Return on Equity	0	310	973	1,298	1,241	1,178	1,116	1,059	1,001	943	880
46	Interest Expense	0	331	1,041	1,388	1,327	1,260	1,194	1,132	1,070	1,008	941
47	AFUDC	0	0	0	0	0	0	0	0	0	0	0
48	Total Carrying Costs	0	641	2,014	2,686	2,567	2,438	2,310	2,191	2,071	1,951	1,822
<u>Income Tax Expense</u>												
49	Combined Income Tax Rate	31.50%	31.00%	30.00%	28.50%	27.00%	27.00%	27.00%	27.00%	27.00%	27.00%	27.00%
<u>Income Tax on Equity Return</u>												
50	Return on Equity	0	310	973	1,298	1,241	1,178	1,116	1,059	1,001	943	880
51	Gross up for revenue (Return / (1- tax rate))	0	449	1,390	1,815	1,700	1,614	1,529	1,450	1,371	1,292	1,206
52	Income tax on Equity Return	0	139	417	517	459	436	413	392	370	349	326

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<u>Income Tax on Timing Differences</u>												
53	Depreciation Expense	0	0	761	1,662	1,666	1,669	1,661	1,664	1,667	1,670	1,673
54	Less: Capital Cost Allowance	0	1,401	4,233	5,209	4,372	3,649	3,044	2,559	2,152	1,811	1,506
55	Total Timing Differences	0	(1,401)	(3,472)	(3,547)	(2,705)	(1,980)	(1,383)	(895)	(485)	(141)	167
56	Gross up for tax (Total Timing Differences/(1-tax rate))	0	(2,031)	(4,960)	(4,960)	(3,706)	(2,712)	(1,895)	(1,225)	(664)	(194)	229
57	Income tax on Timing Differences	0	(630)	(1,488)	(1,414)	(1,001)	(732)	(512)	(331)	(179)	(52)	62
60	Total Income Tax	0	(490)	(1,071)	(896)	(542)	(296)	(99)	61	191	296	387
<u>Capital Cost Allowance</u>												
61	Opening Balance - UCC	0	0	15,778	31,890	26,766	22,460	18,629	15,651	13,159	11,072	9,324
62	Additions	0	17,179	20,345	85	66	(183)	67	66	65	63	(189)
63	Subtotal UCC	0	17,179	36,123	31,975	26,832	22,278	18,695	15,717	13,223	11,135	9,135
64	Capital Cost Allowance Rate	16.31%	16.31%	16.31%	16.31%	16.31%	16.31%	16.31%	16.31%	16.31%	16.31%	16.31%
65	CCA on Opening Balance	0	0	2,574	5,202	4,366	3,664	3,039	2,553	2,147	1,806	1,521
66	CCA on Capital Expenditures (1/2 yr rule)	0	1,401	1,659	7	5	(15)	5	5	5	5	(15)
67	Total CCA	0	1,401	4,233	5,209	4,372	3,649	3,044	2,559	2,152	1,811	1,506
68	Ending Balance UCC	0	15,778	31,890	26,766	22,460	18,629	15,651	13,159	11,072	9,324	7,629

Project No. 3698493: Advanced Metering Infrastructure (AMI) Project

Requestor Name: BCOAPO et al.

Information Request No: 1 Amended Application

To: FortisBC Inc.

Request Date: February 5, 2008

Response Date: ~~March 28, 2008~~ April 22, 2008 Erratum

1 **7.0 Reference: Exhibit B-1, page 16**

2 **Q7.2 What is the service life for network and IT infrastructure (see page 29)**
3 **associated with the project? Are the replacement costs for this covered**
4 **by the \$48,000 in contingency funds for equipment replacements? If not,**
5 **has the future replacement of this equipment been incorporated in the 25-**
6 **year rate impact analysis?**

7 A7.2 The service life of the network and IT infrastructure is still expected to be 25
8 years. The expected replacement costs for the network infrastructure are
9 contained within the \$56,000 per year of "Equipment Replacements". Future
10 support and upgrade costs for the IT infrastructure are budgeted in ongoing
11 AMI operating expenses, now expected to be approximately \$242,000 per year
12 to accommodate the increased functionality of the MDMR.

Project No. 3698493: Advanced Metering Infrastructure (AMI) Project

Requestor Name: Mr. Alan Wait

Information Request No: 1 Amended Application

To: FortisBC Inc.

Request Date: February 5, 2008

Response Date: ~~March 28, 2008~~ April 22, 2008 Erratum

1 **Q21 Please show the calculation of the Project NPV of -0.09% in App. B.**

2 A21 The project impact is now 0.11 percent, which is calculated by dividing the NPV
3 of the revenue requirements (line 5 below) for the project by the NPV of total
4 revenue requirements for the Company (line 6 below).

5
$$= 3,258/3,042,076 = 0.11 \%$$

Revenue Requirements

1	Operating Expense (Incremental)	(24,407)
2	Depreciation Expense	12,737
3	Carrying Costs	15,512
4	Income Tax	(583)
5	Total Revenue Requirement for Project	<u>3,258</u>

Rate Impact

6	Forecast Revenue Requirements	3,042,076
7	Rate Impact	
8	NPV of Project / Total Revenue Requirements	<u>0.11%</u>