

Energy North
Cast Iron, Bare Steel Replacement Program
Computation of Revenue Requirement

Annual Increase due to Cast Iron Bare Steel program

	(a)	(b)		
	9 Months	Estimate		
	FY10	FY11		
<u>Deferred Tax Calculation</u>				
1	CIBS Progam Actual Spend-Mains	4,049,995		
2	CIBS Progam Actual Spend-Service	798,555		
3	CIBS Progam Estimated Spend-Mains		3,596,134	
4	CIBS Progam Estimated Spend-Service		498,496	
5	Base Spending Amount	482,110	500,000	
6	Incremental Amount	4,366,440	3,594,630	
7	Cumulative REP Program Spend	4,366,440	7,961,070	
8				
9				
10	Annual Tax Depreciation	4,366,440	3,594,630	
11	Cumulative Tax Depreciation	4,366,440	7,961,070	
12				
13	Book Depreciation	98,794	177,140	
14	Cumulative Book Depreciation	98,794	275,934	
15				
16	Book/Tax Timer	4,267,646	7,685,136	
17	Effective Tax Rate	40.53%	40.53%	
18				
19	Deferred Tax Reserve	1,729,677	3,114,786	
20				
21	<u>Rate Base Calculation</u>			
22	Plant In Service	4,366,440	7,961,070	
23	Accum Depr	(98,794)	(275,934)	
24	Net Plant in Service	4,267,646	7,685,136	
25	Def Tax Reserve	(1,729,677)	(3,114,786)	
26	Year End Rate Base	2,537,969	4,570,351	
27				
28	<u>Revenue Requirement Calculation</u>			
29	Year End Rate Base	2,537,969	4,570,351	
30	Pre-Tax ROR	11.53%	11.53%	
31	Return and Taxes	292,628	526,961	
32	Book Depreciation	98,794	177,140	
33	Property Taxes	2.07%	88,340	159,082
34	Annual Revenue Requirement	479,762	863,183	
35				
36	Prior Year Annual Revenue Requirement	-	479,762	
37				
38	Incremental Annual Rate Adjustment	479,762	383,421	
39				
40				
41	<u>Imputed Capital Structure</u>			
42		<u>Ratio</u>	<u>Rate</u>	<u>Weighted</u>
43	Long Term Debt	50.00%	7.02%	3.51%
44	Short Term Debt	0.00%	0.00%	0.00%
45	Common Equity	50.00%	9.54%	4.77%
46				8.02%
47		<u>100.00%</u>	<u>8.28%</u>	<u>11.53%</u>

3b & 4b Amounts based on estimated 90% 10% split of mains and services work

33 Actual 2009 ratio of municipal tax expense to net plant in service.

Energy North
Cast Iron, Bare Steel Replacement Program
Vintage Year Book Depreciation Schedule

Book Depreciation Schedule-Mains		9 Months	Estimate
		FY10	FY11
1	Actual CIBS spending	4,049,995	3,596,134
2	Base spending	<u>(402,707)</u>	<u>(450,000)</u>
3	Incremental CIBS spending	3,647,288	3,146,134
4			
5	Book Depreciation Rate:		
6	Year 1 (1)	2.54%	
7	Year 1 beginning in FY10	1.92%	70,028
8	Year 2	1.92%	70,028
9	Year 3	1.92%	
10	Year 4	1.92%	
11	Year 5	1.92%	
12	Year 6	1.92%	
13	Year 7	1.92%	
14	Year 8	1.92%	
15	Year 9	1.92%	
16	Year 10	1.92%	
17	Year 11	1.92%	
18	Year 12	1.92%	
19	Year 13	1.92%	
20	Year 14	1.92%	
21	Year 15	1.92%	
22	Year 16	1.92%	
23			
24	Book Depreciation Expense--Mains	<u>70,028</u>	<u>130,434</u>
25			
26	Accumulated Depreciation-Beginning of Year	<u>-</u>	<u>70,028</u>
27	Accumulated Depreciation-End of Year	<u><u>70,028</u></u>	<u><u>200,462</u></u>

2 FY11 split of mains and services estimated to be 90%-10%
 6 FY09 filing used the composite depreciation rate for both mains and services

Book Depreciation Schedule-Services		9 Months	Estimate
		FY10	FY11
1	Actual CIBS spending	798,555	498,496
2	Base spending	<u>(79,403)</u>	<u>(50,000)</u>
3	Incremental CIBS spending	719,152	448,496
4			
5	Book Depreciation Rate:		
6	Year 1 (1)	2.54%	
7	Year 1 beginning in FY10	4.00%	28,766
8	Year 2	4.00%	28,766
9	Year 3	4.00%	
10	Year 4	4.00%	
11	Year 5	4.00%	
12	Year 6	4.00%	
13	Year 7	4.00%	
14	Year 8	4.00%	
15	Year 9	4.00%	
16	Year 10	4.00%	
17	Year 11	4.00%	
18	Year 12	4.00%	
19	Year 13	4.00%	
20	Year 14	4.00%	
21	Year 15	4.00%	
22	Year 16	4.00%	
23			
24	Book Depreciation Expense--Services	<u>28,766</u>	<u>46,706</u>
25			
26	Accumulated Depreciation-Beginning of Year	<u>-</u>	<u>28,766</u>
27	Accumulated Depreciation-End of Year	<u><u>28,766</u></u>	<u><u>75,472</u></u>
28			
29			
30			
31	Total Mains & Services Depreciation Expense	<u><u>98,794</u></u>	<u><u>177,140</u></u>
32			
33	Total Mains & Services Accumulated Depreciation	<u><u>98,794</u></u>	<u><u>275,934</u></u>

2 FY11 split of mains and services estimated to be 90%-10%
 6 FY09 filing used the composite depreciation rate for both mains and services

Energy North
Cast Iron, Bare Steel Replacement Program
Municipal Taxes as a Percentage of Net Plant

	<u>12/31/2005</u>	<u>12/31/2006</u>	<u>12/31/2007</u>	<u>12/31/2008</u>	<u>12/31/2009</u>	<u>Estimate 12/31/2010</u>
1 Plant in Service (page 100 table 10)	258,573	272,678	289,379	305,221	319,737	319,737
2 Depreciation Reserve (page 101 table 10)	(82,363)	(88,564)	(94,562)	(102,587)	(108,270)	(108,270)
3 Net Plant	<u>176,209</u>	<u>184,114</u>	<u>194,817</u>	<u>202,634</u>	<u>211,467</u>	<u>211,467</u>
4						
5 Average Net Plant						
6 Plant in Service		265,625	281,028	297,300	312,479	319,737
7 Depreciation Reserve		(85,463)	(91,563)	(98,575)	(105,429)	(108,270)
8 Net Plant		<u>180,162</u>	<u>189,465</u>	<u>198,726</u>	<u>207,051</u>	<u>211,467</u>
9						
10 Municipal Taxes (page 112 table 33)		3,534	3,641	3,771	4,294	4,294
11						
12 % Municipal Taxes to Net Plant		<u>1.96%</u>	<u>1.92%</u>	<u>1.90%</u>	<u>2.07%</u>	<u>2.03%</u>

Note: Source of above data is the December 31 PUC Annual Report to be consistent with data previously provided to the Commission.

Energy North
Cast Iron, Bare Steel Replacement Program
Bill Impacts due to Cast Iron and Bare Steel Replacement Program

	Total Yr 1	Total Yr 2	Incremental from Yr. 2
1 Annual Increase due to Cast Iron Bare Steel program	479,762	863,183	383,421
2			
3 Annual Throughput (based on Nov 09 COG filing)	150,828,182	150,828,182	150,828,182
4			
5 Increase Factor	\$0.0032	\$0.0057	\$0.0025
6			
7 Annual Actual Revenues 2009	\$151,224,178	\$151,224,178	\$151,224,178
8			
9 Annual percent increase	0.32%	0.57%	0.25%
10			
11 Typical Residential bill (Based on Pk 09-10 and OffPeak 10 COG)	\$1,591	\$1,613	\$1,613
12			
13 Typical Usage	1,250	1,250	1,250
14			
15 Annual Increase for Residential Heating customer	\$3.98	\$7.15	\$3.18
16			
17 Percent bill increase	0.25%	0.44%	0.20%
18			
19			
20 Typical G-41 (Based on Pk 09-10 and OffPeak 09 COG)	\$2,662	\$2,692	\$2,692
21			
22 Typical Usage	2,000	2,000	2,000
23			
24 Annual Increase for G-41 customer	\$6.36	\$11.45	\$5.08
25			
26 Percent bill increase	0.24%	0.43%	0.19%
27			
28			
29 Typical G-42 (Based on Pk 09-10 and OffPeak 09 COG)	\$25,188	\$25,227	\$25,227
30			
31 Typical Usage	21,023	21,023	21,023
32			
33 Annual Increase for G-42 customer	\$66.87	\$120.31	\$53.44
34			
35 Percent bill increase	0.27%	0.48%	0.21%
36			
37			
38 Typical G-52 (Based on Pk 09-10 and OffPeak 09 COG)	\$21,185	\$21,185	\$21,185
39			
40 Typical Usage	20,489	20,489	20,489
41			
42 Annual Increase for G-52 customer	\$65.17	\$117.26	\$52.09
43			
44 Percent bill increase	0.31%	0.55%	0.25%