FortisBC
2009-2010 Capital Expenditure Plan
Final Submission

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For: Okanagan Environmental Industry Alliance
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BCUC Project Number: 3698519

1.0) Public Consultation[1]

1.1 Stakeholder Engagement

In answer to all questions regarding stakeholder consultation in section 1.0 of OEIA's Information Request[2], FortisBC responded with:

> "*The description of Public Consultation included in the Application (Exhibit B-1) on pages 12 and 13 pertains primarily to those Capital Projects that involve construction and/or rehabilitation of infrastructure having potential community impacts. This passage was not intended to convey the process that is typical in the development of DSM programming.*"[3]

FortisBC did not specifically provide any information on stakeholder consultation for DSM, even though OEIA made the request – "*Please describe the "stakeholder consultation" process used for the planning of the Demand Side Management programs contained in the Capital plan ("the DSM programs")*"[4]. If the passage referenced did not apply to DSM, it would be expected that FortisBC would have described the process it had for DSM. They did not. Therefore, we can only assume that FortisBC had no stakeholder consultation process for the planning of DSM programs contained in the Capital Plan.

We can also assume that FortisBC does not believe that there is any "*value in stakeholder consultation in the planning and implementation*" [5] of DSM as FortisBC did not confirm any relevance to DSM.

This lack of consultation is of great concern to OEIA and we suspect to others as well. This is particularly concerning with the new energy efficiency and demand side measures focus in both the 2007 BC Energy Plan and Bill 15.

We believe that stakeholder consultation is important for DSM to provide input into the priorities and help understand the market.

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[1] Exhibit C4-4, Pages 1 to 2
[2] Exhibit C4-4
[3] Exhibit B-4, OEIA, Page 1-2, A1.1 to A1.6
[4] Exhibit B-4, OEIA, Page 1, A1.1
[5] Exhibit B-4, OEIA, Page 1, Q1.0

We claim that the present process that FortisBC uses for DSM (without stakeholder consultation) is not appropriate and that it must be rectified.

1.1.1 Therefore, we submit that FortisBC should be required as a directive to deliver a stakeholder consultation plan to the BCUC for its DSM programs. We submit that this plan should be developed in conjunction with stakeholders.

1.2 FortisBC DSM Contact

We note that FortisBC did not provide any information in answer to the following question:

> "*Please provide name, phone number and email address for the FortisBC contact person for 'the DSM programs'.*"[6]

We find it puzzling why it is not possible to answer this question. We believe that the topic of "*the DSM program*s" is an important topic and should have a contact person at FortisBC. Without such contact, stakeholders would not have any avenue to understand or clarify DSM programs or help improve them.

1.2.1 We submit that FortisBC should be required to provide a name, phone number and email address for the FortisBC contact person for the Demand Side Management programs as defined in this Capital Plan.

2.0) Resource Planning Process[7]

2.1 Presentation to Government

In regards to the resource planning, FortisBC reports that it "*made presentations to 15 local government entities in its service territory.*"[8] We note that presentations were made only to the "*local government entities*", and not other stakeholders.

2.1.1 We suggest that it would be appropriate for FortisBC to make the presentation to other stakeholders and ask if FortisBC would commit to that.

2.1.2 We submit that the presentation notes should be made publicly available, including a list of the "local government entities".

[6] Exhibit B-4, OEIA, Page 1, A1.9
[7] Exhibit C4-4, Pages 1 to 2
[8] Exhibit B-4, OEIA, Page 7, A2.8

2.2 Environics

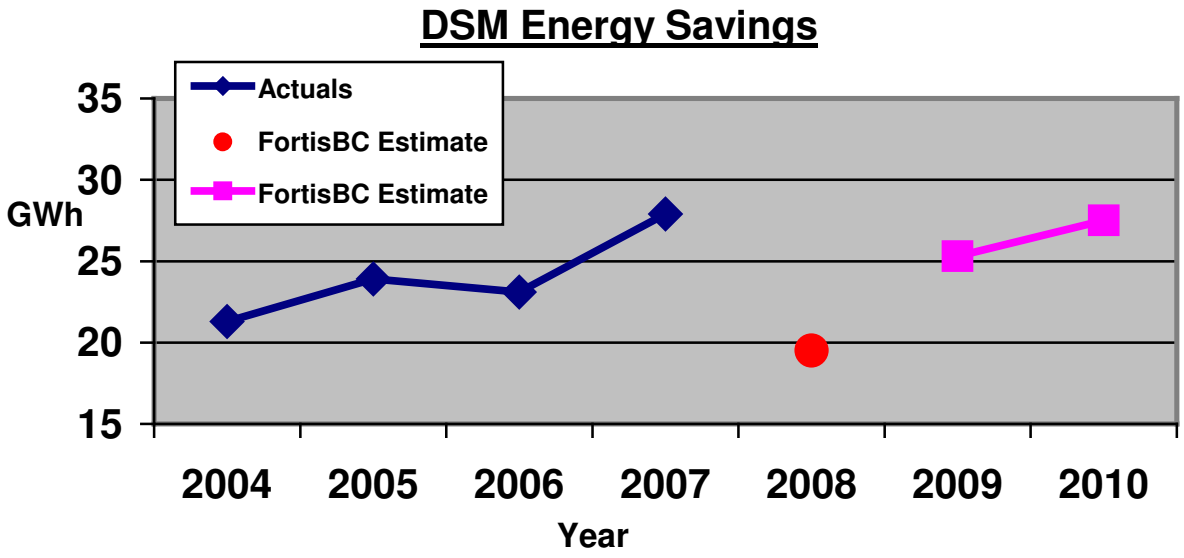
We note that Environics provided assistance in "*discovering and analyzing the customers' perspective*"[9] and that "*information gathering took two forms*" [10].

2.2.1 We submit that the results of the "broad-based public survey" and the two "workshop" forums should be made publicly available.

3.0) DSM Energy Savings and Expenditures

3.1 Background

The section dealing with DSM Energy Savings from OEIA's Information Request[11] includes a chart showing a graph of savings over several years[12] using FortisBC's estimates and proposed numbers from the Capital Plan - see below in Figure 1.



Original FortisBC Capital Plan - Figure 1

[9] Exhibit B-4, OEIA, Page 8, A2.8
[10] Exhibit B-4, OEIA, Page 8, A2.8
[11] Exhibit C4-4
[12] Exhibit B-4, OEIA, Page 14, Q3.8, Figure 1

The following table, Table 1, shows the actual values for the numbers from the chart and describes the source of the numbers:

Year	DSM Energy Savings (GWh)	Source of DSM Energy Savings Number
2004	21.3[13]	Actual semi-annual report
2005	23.9[14]	Actual semi-annual report
2006	23.1[15]	Actual semi-annual report
2007	27.9[16]	Actual semi-annual report
2008	19.5[17]	FortisBC Capital Plan Estimate
2009	25.3[18]	FortisBC Capital Plan Estimate
2010	27.5[19]	FortisBC Capital Plan Estimate

Original FortisBC Energy Savings - Table 1

3.2 New estimate for 2008 DSM Energy Savings

FortisBC in its Capital Plan estimates the DSM Energy Savings for 2008 to be 19.5 GWh[20].

When questioned by OEIA in an Information Request about the estimate of 19.5 GWh for 2008[21], FortisBC noted:

> *"The 2008 plan figure of 19.5 GWh was established in early 2006 as part of a two-year capital filing, and relied upon a forecast reduction in housing starts for 2008. Subsequently, the residential housing market stayed strong and customer participation in programs grew."*[22]

FortisBC admits that the "*figure of 19.5 GWh was established in early 2006*"[23]. We suggest that it is not appropriate to continue to rely on this value after such a length of time (over 2 1/2 years).

FortisBC explains that it "*relied upon a forecast reduction in housing starts for 2008. Subsequently, the residential housing market stayed strong and customer*

[13] Exhibit B-2, BCUC IR#1, Page 150, A77.2a
[14] Exhibit B-2, BCUC IR#1, Page 150, A77.2a
[15] Exhibit B-2, BCUC IR#1, Page 150, A77.2a
[16] Exhibit B-2, BCUC IR#1, Page 150, A77.2a
[17] Exhibit B-2, BCUC IR#1, Page 150, A77.2a
[18] Exhibit B-2, BCUC IR#1, Page 150, A77.2a
[19] Exhibit B-2, BCUC IR#1, Page 150, A77.2a
[20] Exhibit B-1, Section 6, Page 107
[21] Exhibit C4-4, Page 5, IR 3.9
[22] Exhibit B-4, OEIA, Page 14 to 15, A3.9
[23] Exhibit B-4, OEIA, Page 14 to 15, A3.9

participation in programs grew"[24]. We suggest that this new situation with an emphasis to Demand Side Management supports a higher value than the stated 19.5 GWh for 2008, in addition to the trends based on FortisBC information.

FortisBC in its response indicated that the actual DSM Energy Savings to June 30, 2008, was estimated at 16.1 GWh[25]. With six months more to go for the rest of the year, it is obvious that the previous estimated value of 19.5 GWh for the year will be easily surpassed.

Find below, in Table 2, the June and December DSM savings for the last 4 years, and calculated percentage obtained at the June milestone.

Year	June (GWh)	December (GWh)	Percent at June
2004	11.0[26]	21.3[27]	51.6%
2005	10.0[28]	23.9[29]	41.8%
2006	12.9[30]	23.1[31]	55.8%
2007	17.7[32]	27.9[33]	63.4%
		Average	**53.2%**

Midyear DSM Energy Savings Calculations - Table 2

Using the average percentage over the last 4 years at the midway point (June 2008), we could estimate the year end report for 2008 (December 2008) to be approximately 30.2 GWh (16.1/.532 = 30.2 GWh).

3.2.1 We submit that this value of 30.2 GWh is more appropriate and prudent to use than the 19.5 GWh of FortisBC for the DSM Energy Savings for the year 2008.

3.3 Trend line of DSM Energy Savings

If we now list the five years from 2004 to 2008 (using the best estimate as noted above), we can create a straight "trend line" so that the positive and negative numbers are essentially equal (see Table 3 below):

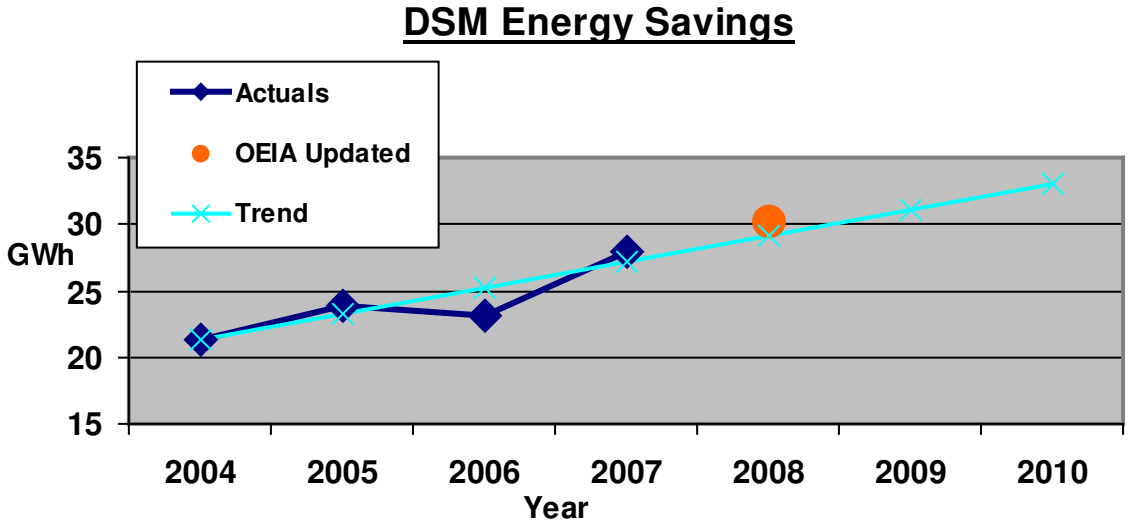
[24] Exhibit B-4, OEIA, Page 14 to 15, A3.9
[25] Exhibit B-4, OEIA, Page 12, A3.5
[26] 2005 RRA, DSM Appendix C
[27] 2006 RRA, Appendix A
[28] 2006 RRA, Appendix B
[29] 2006 RRA, BCUC A42.1
[30] Exhibit B-4, OEIA, A3.3a
[31] Exhibit B-4, OEIA, A3.3b
[32] 2007 RRA, BCUC A55.1
[33] Exhibit B-4, OEIA, Page 11, A3.2

Year	DSM Energy Savings (GWh)	Source of DSM Savings Number	Trend Line (GWh)	Difference To Trend Line (GWh)
2004	21.3[34]	Actual semi-annual report	21.3	0
2005	23.9[35]	Actual semi-annual report	23.3	+0.6
2006	23.1[36]	Actual semi-annual report	25.3	-2.2
2007	27.9[37]	Actual semi-annual report	27.3	+0.6
2008	30.2[38]	OEIA New Update	29.3	+0.9
			31.3	
			33.3	
			TOTAL	**-0.1**

Actuals and This Year's DSM Energy Savings Estimate plus Trend Line - Table 3

As can be seen, the total deviation of the actual/this year estimate for 2004 to 2008 compared to trend line presented is only a total –0.1; therefore the trend line is reasonable.

We can now plot a chart, Figure 2, showing the five years of FortisBC DSM Energy Savings and the trend line:



Original FortisBC Capital Plan with updated 2008 and Trend Line - Figure 2

[34] Exhibit B-2, BCUC #1, Page 150, A77.2a
[35] Exhibit B-2, BCUC #1, Page 150, A77.2a
[36] Exhibit B-2, BCUC #1, Page 150, A77.2a
[37] Exhibit B-2, BCUC #1, Page 150, A77.2a
[38] This document, Page 6

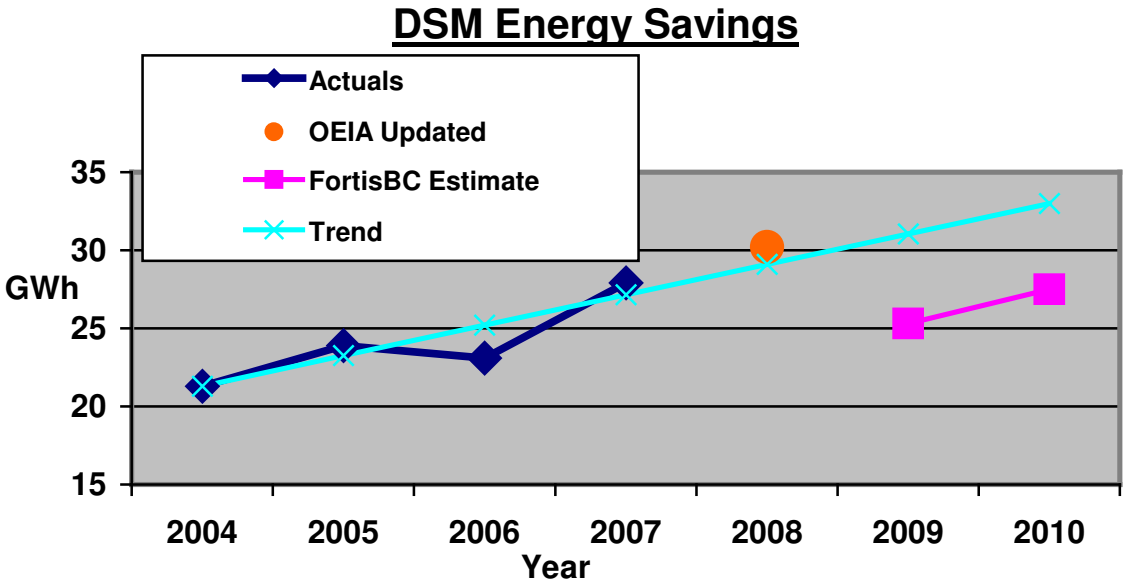
3.3.1 We submit that the Trend Line shown exhibits a reasonable trend for FortisBC Energy Savings for the years 2004 to 2008, with an extension to 2010.

3.4 Analysis of FortisBC Estimates for 2009/2010

If we analyze the FortisBC Estimates for 2009/2010 from the Capital Plan and compare to the trend line, we get the following results in Table 4 and Figure 3 below:

Year	DSM Energy Savings (GWh)	Source of DSM Savings Number	Trend Line (GWh)	Difference To Trend Line (GWh)
2009	25.3[39]	FortisBC Capital Plan Estimate	31.3	-6.0
2010	27.5[40]	FortisBC Capital Plan Estimate	33.3	-5.8
			TOTAL	**-11.8**

Original FortisBC Estimates for 2009/2010 versus Trend Line - Table 4



Original FortisBC Estimates for 2009/2010 plus Trend Line – Figure 3

[39] Exhibit B-2, BCUC #1, Page 150, A77.2a
[40] Exhibit B-2, BCUC #1, Page 150, A77.2a

OEIA requested in one of its Information Requests:

> *"Q3.10 Given the expected increase of DSM due to the Energy Plan and Bill 15 (as noted in the statements in the first paragraphs of Section 3.0 above) and referring to Figure 1 above, please discuss why the "Capital Plan" energy saving values are so low (for 2009 and 2010). Why are the values lower than 2007, and only marginally higher than 2005 and 2006?"*[41]

FortisBC responded with:

> *"A3.10 The 2007 BC Energy Plan sets out long-term DSM goals, and Bill 15 puts those goals into effect. The 2009 and 2010 plan figures represent a prudent rampup, while the DSM Strategic plan will help inform the post 2010 planning horizon."*[42]

Looking at the chart in Figure 3, and with a difference of 11.8 GWh over the two years as calculated in Table 4, we claim that the FortisBC Capital Plan estimates do not fit the trend established in 2004 to 2008 and we disagree that "*the 2009 and 2010 plan figures represent a prudent rampup*".

We claim FortisBC has not dealt with OEIA's question of "*why the values are lower than 2007, and only marginally higher than 2005 and 2006*".

We claim that the proposed 2009 and 2010 DSM Energy Savings do not meet the goals of the 2007 BC Energy Plan or Bill 15.

3.4.1 Therefore, we submit that more appropriate values for DSM Energy Savings than those provided by FortisBC need to be developed for 2009 and 2010.

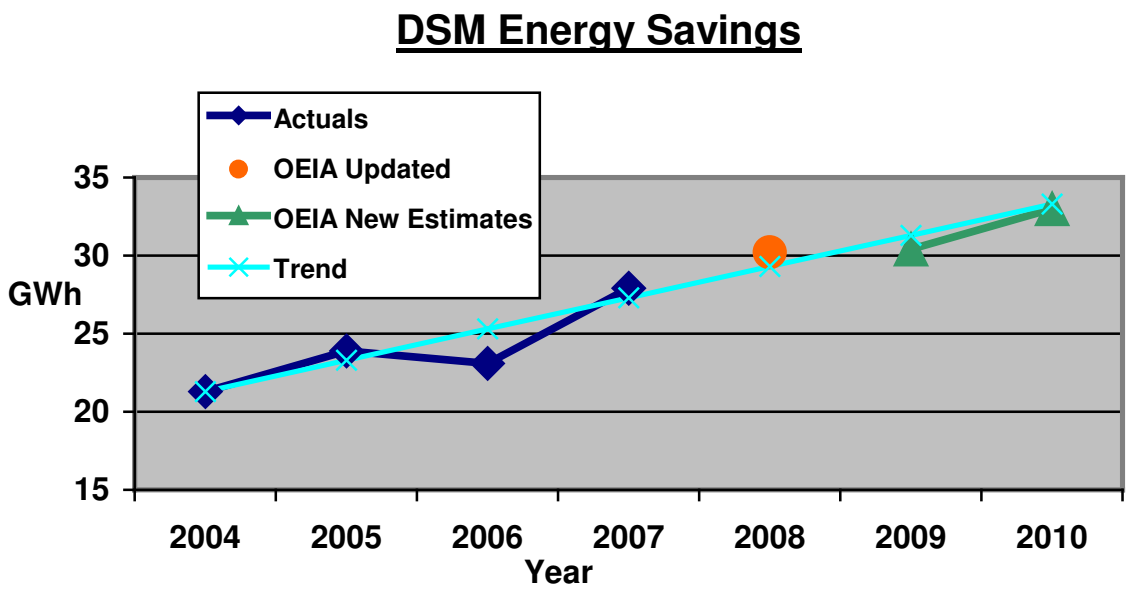
3.5 New Estimates for 2009 and 2010 DSM Energy Savings

We suggest that the 2009/2010 DSM Energy Savings projections for 2009 and 2010 need to be increased by at least 20% over FortisBC estimates (2009: 25.3 increases to 30.4, 2010: 27.5 increases 33.0). This results in the following Table 5 and Figure 4:

[41] Exhibit C4-4, Page 6, IR3.10
[42] Exhibit B-4, OEIA, Page 15, A3.10

Year	DSM Energy Savings (GWh)	Source of DSM Savings Number	Trend Line (GWh)	Difference To Trend Line (GWh)
2009	30.4[43]	OEIA New Estimate	31.3	-0.9
2010	33.0[44]	OEIA New Estimate	33.3	-0.3
			TOTAL	**-1.2**

OEIA New Estimates for DSM Energy Savings - Table 5



OEIA New Estimates - Figure 4

Looking at the chart above, Figure 4, it is easy to see that while the previous FortisBC Estimates for 2009 and 2010 were clearly below the trend line, the new values, OEIA New Estimates, increased by 20% are now very close to the trend line. The previous difference of 11.8 GWh over the two years has now been reduced to a reasonable 1.2 GWh. There are several techniques described through this Final Submission to increase the DSM levels, and would support these new higher levels.

3.5.1 We submit that these new estimates for 2009 (31.3 GWh) and 2010 (33.3 GWh) DSM Energy Savings are more appropriate than those proposed by FortisBC and should be used in the Capital Plan.

[43] This document, Page 6
[44] This document, Page 6

3.6 Energy Savings Comparison of BC Hydro and FortisBC for 2009 and 2010

However, increasing the DSM Energy Savings levels may involve more DSM expenditures. In order to evaluate whether or not more DSM expenditures might be appropriate, an analysis will be done on the overall DSM expenditure levels of FortisBC as described in the Capital Plan, and will include a comparison with BC Hydro. Such a comparison (to BC Hydro) is useful, since both utilities have to operate using the same regulatory framework within the province.

OEIA requested in its Capital Plan Information Requests:

> "*We note that a table was produced in the FortisBC 2008 Revenue Requirements comparing the percentage energy consumption and system peak DSM savings to other jurisdictions*[45]*.*
>
> *Please update this table with the latest information; for BC Hydro use BC Hydro's 2008 LTAP and use this new Capital Plan for FortisBC.*"[46]

FortisBC responded with:

> "*The table was prepared with publicly available information at the time, namely annual reports. It is not possible to update it with prospective information that is not readily available.*"[47]

FortisBC suggests that "*it is not possible to update it with prospective information that is not readily available*"[48] and "*it is not possible to update it with prospective information that is not readily available*"[49]. However, these documents are public and readily available, so we find FortisBC's response and reasons inadequate and inappropriate. In addition, there were specific references made to two public applications from which FortisBC could use – specifically BC Hydro's 2008 LTAP and this "new Capital Plan" for FortisBC.

A similar issue occurred in other Information Requests as discussed in OEIA's request for Clarification[50], where FortisBC failed to provide the information requested. BCUC replied to OEIA's request indicating that FortisBC did not have to respond[51]. We note that although not mandated, FortisBC did supply the December 31, 2007 DSM report (find attached), but FortisBC did not reply to remainder of the requests.

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[45] FortisBC 2008 Revenue Requirements, Exhibit B-2, Horizon A6.5, Page 10 to 11
[46] Exhibit C4-4, Page 6 to 7, IR 4.5
[47] Exhibit B-4, Page 17, OEIA, A4.5
[48] Exhibit B-4, Page 17, OEIA, A4.5
[49] Exhibit B-4, Page 17, OEIA, A4.5
[50] Exhibit C4-5, Pages 4 to 5
[51] Exhibit A-4

Since FortisBC has not volunteered to provide the updated information for the table[52], we find it necessary to do so ourselves, all using publicly available documents.

The FortisBC 2005 Annual Report lists the 2004 electricity revenue at $176 million[53] and 2005 at $185 million[54]. The FortisBC 2007 Annual Report lists the 2006 electricity revenue as $204 million[55] and 2007 as $211 million[56]. The FortisBC June 30, 2008 Quarterly update lists $111 million electricity revenue for the first six months of 2008[57].

We can them estimate the yearend for 2008 to be approximately twice the June 30 amount, or approx. $220 million. Assuming the approximate same growth we could estimate the 2009 electricity revenue to be at least $225 million and 2010 to be least $230 million.

The numbers have been listed in the Table 6 below.

Units: $Millions

2004	2005	2006	2007	2008	2009	2010
$176	$185	$204	$211	$220	$225	$230
Actuals				Estimates		

FortisBC Electricity Revenue, 2004-2010
Actuals and Estimates - Table 6

We note that FortisBC listed its domestic sales for 2007 as $210.5 million[58]. FortisBC listed its 2007 DSM expenditures to be $2.5 million[59] in 2007. FortisBC also provided a calculated value of 1.9%[60] for DSM expenditures, which we respectfully believe is in error. Our calculations of 2.5/210.5 work out to 1.18%, which is close to the value of 1.1% calculated originally by FortisBC in the FortisBC 2008 RRA[61] (more accurately the value should be 2.549[62]/210.5 = 1.21%).

Therefore, in 2007, we claim that FortisBC's DSM expenditure level was

[52] FortisBC 2008 Revenue Requirements, Exhibit B-2, Horizon A6.5, Page 11, Table A6.5
[53] FortisBC 2005 Annual Report, Page 13
[54] FortisBC 2005 Annual Report, Page 13
[55] FortisBC 2007 Annual Report, Page 43
[56] FortisBC 2007 Annual Report, Page 43
[57] FortisBC June 30, 2008 Quarterly Report, Page 3
[58] Exhibit B-4, OEIA, Page 16, A4.2
[59] Exhibit B-4, OEIA, Page 17, A4.3
[60] Exhibit B-4, OEIA, Page 17, A4.3
[61] FortisBC 2008 Revenue Requirements, Exhibit B-2, Horizon A6.5, Page 10 to 11
[62] Exhibit B-2, BCUC IR#1, Page 150, A77.2a

significantly lower than BC Hydro's (1.21% versus 1.66%[63]), contrary to FortisBC's assertion of FortisBC being higher (1.9% versus 1.7%)[64].

As noted in OEIA's Clarification Request[65], the table that is required relates to the years of this Capital Plan – 2009 and 2010 – so that we can compare the planned DSM levels in the Capital Plan by FortisBC and compare to those being planned by BC Hydro. This is in contrast to comparisons in the past.

As can be seen from the BC Hydro's F2009/F2010 RRA the expenditures for DSM are expected to rise from $46.4 million[66] in 2007 and rise to $63.3 million[67] in 2008. The BC Hydro 2008 LTAP documents show expected expenditures of $129.8 million[68] in 2009 and to $161.8 million[69] in 2010.

Units: $Millions

2007	2008	2009	2010
$46.4	$63.3	$129.8	$161.8

BC Hydro DSM Expenditures, 2007-2010 - Table 7

Using the numbers discussed in the sections above, we can then fill in up-to-date information for FortisBC and BC Hydro for 2007 through 2010 in the Tables 8 to 11 below and chart in Figure 5.

Year: 2007	Unit	FortisBC	BC Hydro
FINANCIAL			
Domestic Electricity Revenue	$millions	211[70]	2791[71]
DSM Expenditures	$millions	2.549[72]	46.4[73]
Share (calculated)	***Percent***	***1.21%***	***1.66%***

DSM Expenditure Comparison for FortisBC and BC Hydro For 2007 – Table 8

[63] $46.4m (2007 DSM) / $2791m (2007 revenue) = 1.66%
[64] Exhibit B-4, OEIA, Page 17, A4.3
[65] Exhibit C4-5, Pages 4 to 5
[66] BC Hydro F2009/F2010 RRA, B-10, Appendix 1, Page 38, Schedule 13.0
[67] BC Hydro F2009/F2010 RRA, B-10, Appendix 1, Page 38, Schedule 13.0
[68] BC Hydro 2008 LTAP, B-1, Page 6-2, Table 6-1
[69] BC Hydro 2008 LTAP, B-1, Page 6-2, Table 6-1
[70] As calculated on Page 10 of this document
[71] BC Hydro F2009/F2010 RRA, B-10, Page 11, Table 7
[72] Exhibit B-1, Section 6, Page 108, Table 6.2
[73] BC Hydro 2008 LTAP, B-1, Page 6-2, Table 6-1

Year: 2008	Unit	FortisBC	BC Hydro
FINANCIAL			
Domestic Electricity Revenue	$millions	220[74]	2923[75]
DSM Expenditures	$millions	2.355[76]	63.3[77]
Share (calculated)	***Percent***	***1.07%***	***2.17%***

DSM Expenditure Comparison for FortisBC and BC Hydro
For 2008 – Table 9

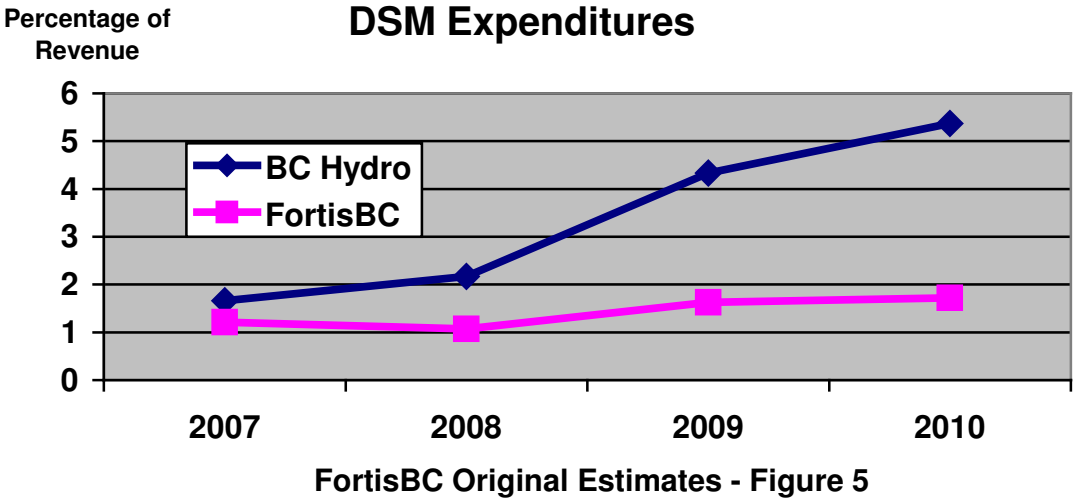
Year: 2009	Unit	FortisBC	BC Hydro
FINANCIAL			
Domestic Electricity Revenue	$millions	225[78]	2998.6[79]
DSM Expenditures	$millions	3.668[80]	129.8[81]
Share (calculated)	***Percent***	***1.63%***	***4.33%***

DSM Expenditure Comparison for FortisBC and BC Hydro
For 2009 – Table 10

Year: 2010	Unit	FortisBC	BC Hydro
FINANCIAL			
Domestic Electricity Revenue	$millions	230[82]	3009.2[83]
DSM Expenditures	$millions	3.952[84]	161.8[85]
Share (calculated)	***Percent***	***1.72%***	***5.37%***

DSM Expenditure Comparison for FortisBC and BC Hydro
For 2010 – Table 11

[74] As calculated on Page 10 of this document
[75] BC Hydro 2008/9 to 2010/11 Service Plan, Page 29
[76] Exhibit B-1, Section 6, Page 108, Table 6.2
[77] BC Hydro 2008 LTAP, B-1, Page 6-2, Table 6-1
[78] As calculated on Page 10 of this document
[79] BC Hydro F2009/F2010 RRA, B-10, Page 11, Table 7
[80] Exhibit B-1, Section 6, Page 108, Table 6.2
[81] BC Hydro 2008 LTAP, B-1, Page 6-2, Table 6-1
[82] As calculated on Page 10 of this document
[83] BC Hydro F2009/F2010 RRA, B-10, Page 11, Table 8
[84] Exhibit B-1, Section 6, Page 108, Table 6.2
[85] BC Hydro 2008 LTAP, B-1, Page 6-2, Table 6-1



FortisBC Original Estimates - Figure 5

It is obvious looking at Figure 5, that FortisBC's DSM expenditure level is significantly below that of BC Hydro, and over time the spread increases. By 2010, the FortisBC will be spending only 1/3 the level of BC Hydro. At that time (2010), FortisBC is just obtaining the level that BC Hydro had before the 2007 Energy Plan and Bill 15.

3.6.1 While there could be operational reasons for differences between FortisBC and BC Hydro DSM expenditure levels, we submit that the disparity shown here is quite large. This gives FortisBC the flexibility to increase its DSM budget, if necessary, and still be within industry and provincial acceptable levels.

4.0) Participation levels in incentive programs

OEIA requested in one of its Information Requests:

"Increased incentive levels are listed in Table 6.3 of 'the Capital Plan'[86].

. . .

FortisBC suggests the increase incentive levels 'is intended to encourage and support higher take-up rates'[87]. Please discuss the expected levels of increase for these 'take-up rates' (e.g. percentage)."[88]

[86] Exhibit B-1, Section 6, Page 109
[87] Exhibit B-1, Section 6, Page 109
[88] Exhibit C4-4, Page 13 to 14, IR 14.2

FortisBC responded with:

"FortisBC expects that the increased incentive levels specified will increase program participation approximately 2-3 percent."[89]

We claim that an increase of the program participation by only 2 to 3 percent is far too small, and does not support the goals of the 2007 Energy Plan and Bill 15.

It does not support various FortisBC statements in the new Capital Plan. For example, incorporating a measure than only increases participation by 2-3 percent, does not place "*demand side management as the priority resource to meet growing electricity demand in BC*"[90].

Similarly, it does not substantially help FortisBC in its efforts in "*doubling of the current DSM resource acquisition rate*"[91]

4.0.1 We submit that FortisBC must implement measures to raise this participation increase rate significantly. Since the measures meet the "economic test of costing less than the avoided cost of delivered power"[92] it will be a benefit to FortisBC and the customers to do so.

We have identified two concrete measures that FortisBC can easily implement in this Capital Plan and measures that will work complement each other to raise this participation rate. These two measures involve adjusting the communications coordinator role (see section 4.1) and the incentive levels (see section 4.2).

4.1 Communications Coordinator Role

4.1.1 FortisBC Awareness/Participation Link

Evidence throughout FortisBC's DSM reports shows a clear link between awareness and participation levels: [***emphasis added***]

FortisBC report; Efficiency Savings and Demand Reduction Potential, September 2005:

"*Reliability of savings through persistent behaviour requires continuous messaging to affirm consumers that are reducing energy use and to attract more participation in energy efficient use behaviour by all consumers. A DSM information and* ***awareness program is needed*** *to provide regular messaging and education packages. The program should include a feedback mechanism to*

[89] Exhibit B-4, OEIA, Page 43, A14.2
[90] Exhibit B-1, Section 6, Page 107
[91] Exhibit B-1, Section 6, Page 108
[92] Exhibit B-1, Section 6, Page 106

communities to let them know the impact of their choices."[93]

FortisBC report; Demand Side Management Five Year Business Plan, 2006-2010, October 31, 2005:

"*School education and **public awareness campaigns can yield immediate energy savings** and are an important factor in consumer adoption of the 'hard-wired' measures.*"[94]

FortisBC report; DSM semi-annual report, December 31, 2006:

"*There were 711 participants in the Air Source Heat Pump program compared to 622 in 2005, with the increase attributable to **additional customer awareness** activities and capacity building efforts attained by the industry co-op plan and federal NRCan[1] funding.*"[95]

BC Government; 2007 BC Energy Plan, February 27, 2007:

*"Building upon efforts to **educate customers** about the choices they can make today with respect to the amount of electricity they consume"*[96]

FortisBC report; DSM Advisory Committee Meeting & Workshop, August 16, 2007:

*"While cost effective savings have accumulated and program delivery has become efficient, survey results show that **customers are unaware** of FortisBCs role as a leader and champion of efficient energy use."*[97]

FortisBC report; Draft Conference Call minutes of DSM Advisory Committee (Definition: Conservation Culture), June 26, 2008:

*"Everyone needs to be **aware**; Needs to be seen and heard"*[98]

FortisBC report; Draft Conference Call minutes of DSM Advisory Committee (Robert, re: Conservation Culture), June 26, 2008:

*"I think conservation culture needs to be throughout society, not just high-income people. Everyone needs to be **aware**. Just like Waterton lead from safety of water supply to water use and conservation because of **awareness**. People **need to know** about the alternatives."*[99]

FortisBC report; Draft Conference Call minutes of DSM Advisory

[93] Exhibit B-4, OEIA IR#1, Appendix A10.9b, Page 23
[94] Exhibit B-4, OEIA IR#1, Appendix A10.9c, Page 7
[95] Exhibit B-4, OEIA, Appendix A3.3b, Page 5
[96] Exhibit B-4, OEIA, Appendix A3.1, Page 8
[97] Exhibit B-5, OEIA IR#1, Appendix A10.2f, Page 3
[98] Exhibit B-5, OEIA IR#1, Appendix A10.2i, Page 4
[99] Exhibit B-5, OEIA IR#1, Appendix A10.2i, Page 5

Committee (Robert, re: Conservation Culture), June 26, 2008:
"*Presentations could be made at community colleges*." [100]

4.1.2 Other BC Utilities activity

Other utilities in BC are also focusing on this area, further emphasizing its importance and also providing some guidance on relevancy in BC:

FortisBC report; Draft Conference Call minutes of DSM Advisory Committee (Spending for Conservation Culture), June 26, 2008:
"*Terasen has a request $13.8 million for Outreach and Education to be spent over three years. BC Hydro refers to the conservation culture extensively throughout the LTAP*."[101]

4.1.3 FortisBC Plans for Communications Person

The key driver for FortisBC for this awareness campaign is the Communications Coordinator[102] and that position is key in obtaining the program participation levels.

On May 8, 2008, FortisBC during its DSM Advisory Committee conference call stated that at that time it had planned a full time communications person[103].

On the June 26, 2008 DSM Advisory Committee conference call, FortisBC noted that it now has reduced the communications person to a part-time basis[104], and "*wants to double spending next year to add the resources of a full-time equivalent*"[105].

On June 27, 2008, FortisBC filed its Capital Plan[106] and in response to a BCUC Information Request notes that it plans to add a part time communications coordinator[107] (0.5 Full Time Equivalent).

[100] Exhibit B-5, OEIA IR#1, Appendix A10.2i, Page 4
[101] Exhibit B-5, OEIA #1, Appendix A10.2i, Page 2
[102] Exhibit B-2, BCUC IR#1, Page 152, A78.1
[103] Exhibit B-5, OEIA #1, Appendix A10.2h, Page 4
[104] Exhibit B-5, OEIA #1, Appendix A10.2i, Page 3
[105] Exhibit B-5, OEIA #1, Appendix A10.2i, Page 3
[106] Exhibit B-1
[107] Exhibit B-2, BCUC IR#1, Page 152, A78.1

4.1.4 OEIA Submission regarding Communications Person

We claim that a part time communications person as budgeted by FortisBC for the first year is not sufficient. As seen by the many statements above, creating an awareness of the DSM programs is very important and key to the success of the DSM program, and in addition will create an impression of the FortisBC organization.

We suggest there is more than a full time equivalent need for this person from the very beginning. A part time position would mean that there would be limited hours in which that person could be contacted or that would be available for meetings. In addition, the most appropriate candidates might not be available for part time.

If in the second year, the position did expand to a full time position from a part time position, then that may require a new person, which would need re-training, and new contacts re-established with the customers. These problems are removed if the Communications Coordinator position is initiated as a full time position for the first year.

We note that FortisBC has a preference for full time staff: "*In the Company's opinion these business needs are best met through full-time permanent staff which benefits customers by providing a higher degree of continuity.*"[108]

A possible reason for a part time position is in the case where there is uncertainty about the future needs and requirement for such a role. That is not the situation in this case. All the evidence, including the Energy Plan and Bill 15, and statements from FortisBC point to increasing demand side management in the future. There is overwhelming evidence that there will be substantially more needs for such a position in the future, not less. One could even argue, that by having a part time position for this role, FortisBC is uncertain about the future support for DSM.

4.1.5 Therefore, we submit that a full time person should be allocated to the Communications Coordinator[109] position starting in the first year in the Capital Plan.

4.2 Incentive Level

Another reason for such a small program participation rate increase of only 2 to 3 percent[110] is because of the small increase value in the incentive levels proposed

[108] Exhibit B-2, BCUC IR#1, Page 152, A78.3
[109] Exhibit B-2, BCUC IR#1, Page 152, A78.1
[110] Exhibit B-4, OEIA, Page 43, A14.2

by FortisBC of only 0.5 cents per kWh[111]. Such a small incentive level increase is a challenge for differentiating a new plan and limits the ability for the FortisBC team "*to escalate its advertising and promotion efforts*"[112]. [Interestingly, this statement regarding escalating was made during the May 8, 2008 DSM Advisory Committee conference call in which the full time position was being considered for the Communications Coordinator position.]

By increasing the incentive by a total of 1.0 cents/kWh (instead of 0.5 cents/kWh) it will provide the Communications Coordinator and the FortisBC team the tools to help initiate the "Conservation Culture" and differentiate it from previous plans.

In addition, valuable information can be gathered by FortisBC on the reaction of customers to the increase incentive levels and can provide important price elasticity information for FortisBC to analyze in its future efforts to increase DSM.

4.2.1 We submit that the incentives should be increased further by a total of 1.0 cents per kilowatt-hour instead of 0.5 cents per kilowatt-hour.

5.0) DSM Advisory Committee Terms of Reference Documents[113]

It is noted that FortisBC has updated its Terms of Reference for the DSM Advisory Committee on September 4, 2008[114], from its previous version dated November 2006[115].

It is noted that most of the additions and changes relate to membership.

The three new sections that have been added:

Membership:

". . . with a direct interest in DSM in the FortisBC service territory."[116]

"Members of the Committee may nominate candidates for membership from time to time as vacancies occur. New members must be accepted by a majority of members and FortisBC."[117]

Term of Service:

"*A term of service is two years from first appointment, with one renewal term. Members may serve additional terms with the approval of a*

[111] Exhibit B-1, Section 6, Page 109
[112] Exhibit B-5, OEIA, Appendix A10.2h, Page 4
[113] Exhibit B-4, OEIA, Appendix A10.4 & FortisBC 2008 Revenue Requirements, Exhibit B-2, Horizon A13.2.4
[114] Exhibit B-4, OEIA, Appendix A10.4
[115] FortisBC 2008 Revenue Requirements, Exhibit B-2, Horizon A13.2.4
[116] Exhibit B-4, OEIA, Appendix A10.4, Page 1
[117] Exhibit B-4, OEIA, Appendix A10.4, Page 1

majority of members and FortisBC."[118]

The main changes within the Membership section are:

The newest updated version:

- specifically mentions businesses and associations, but limits them to a maximum of two
- specifies a minimum of four members representing customers or customers groups
- specifies members from all regions: South Okanagan-Similkameen, Kelowna, and the West Kootenay-Boundary

It is noted that the new Terms of Reference Document "*is in draft form and is subject to review and revision by the Committee.*"[119]

5.1 We submit that the final version of the Terms of Reference document for the DSM Advisory Committee should be submitted for the public record, including reasons for the changes from the last public version of November 2006.

5.2 We submit that the following questions should be answered:

5.2.1 What does a "direct interest in DSM in the FortisBC service territory" mean and why has it been added? How does Willis Energy meet this criteria?

5.2.2 Why are there limits on the businesses and associations to only two?

5.2.3 A list of members is provided, but there was no indication what role each played (e.g. regions, business, association, etc.) – it would be helpful to add a column listing the role of each member.

5.2.4 What happens if the minimum levels of four members representing customers or customer groups are not obtained?

5.2.5 It is noted that in regards to the minutes of the BC Hydro's Rate Working Group "unless specifically requested by them, meeting summaries shall not attribute specific points of view to individual Members"[120] where as FortisBC minutes specifically identifies individual members and their views[121]. Is there a reason for the difference? Does FortisBC's method limit open discussions and

[118] Exhibit B-4, OEIA, Appendix A10.4, Page 1
[119] Exhibit B-4, OEIA, Page 34, A10.4
[120] BC Hydro 2008 RIB, Exhibit B-1, Appendix F, Page 9, Item 40
[121] Exhibit B-5, Appendices A10.2a to A10.2i

restrict criticism? Will that method be changing in the future?

5.2.6 While FortisBC did comment on how the committee deals with guests in an IR response - "Guests at meetings are by invitation"[122] – it, however, did not make any reference to guests or visitors in the Terms of Reference document:

5.2.6.1 Why does the Terms of Reference document not mention guests or visitors?
5.2.6.2 Will a guest section be added in future Terms of Reference documents?
5.2.6.3 Could a guest request attendance to a DSM Advisory Committee meeting?
5.2.6.4 Who decides on the attendance for guests?
5.2.6.5 Are committee members given an opportunity to decide on the attendance of guests?
5.2.6.6 Could a committee member suggest an invitation be sent to a particular guest?
5.2.6.7 Can guests participate in discussions or do they only observe?

6.0) DSM Rate Structures and Demand Reduction

6.1 Lack of Rates for Conservation, Reducing Demand or Shifting

As stated in its Capital Plan, FortisBC "*supports the Provincial Government energy objectives, including the objective:*
(b) to encourage public utilities to take demand-side measures."[123]

In response to an OEIA IR, FortisBC confirms that the "*demand-side measures*" referenced in their statement refer to Bill 15[124].

Bill 15 defines "*demand-side measure*", in part, as:
"'demand-side measure' means a rate . . . undertaken
(a) to conserve energy or promote energy efficiency,
(b) to reduce the energy demand a public utility must serve, or
(c) to shift the use of energy to periods of lower demand;"[125]

FortisBC does confirm that it considers time-of-use rates as a Demand Side

[122] Exhibit B-4, OEIA, Page 35, A10.6
[123] Exhibit B-1, Section 6, Page 106
[124] Exhibit B-4, OEIA, Page 23, A6.1
[125] Exhibit B-4, OEIA, Appendix A2.1

Measure as defined in Bill 15:

"*FortisBC considers that Time-of-Use rates satisfy the definition of the 'Demand Measure' described in Section 1 (c) to shift the use of energy to periods of lower demand."*[126]

However, FortisBC has decided not to use time-of-use rates for shifting or any other rates to encourage conservation or reduce demand into any programs in its DSM plans[127] or are they included in any programs in any form (e.g. definition, evaluation, upgrade) listed in the budget[128].

OEIA requested:

"*Please provide a table listing each FortisBC project (e.g. CFL, Heat Pump etc.) . . . type (rate, measure, action or program) . . . The table would look like the following:*"[129]

FortisBC responded with a table of its projects, yet all projects were of the type "*Program*" - there were none listed as "*Rate*"[130].

6.2 FortisBC Activities

Over the last few years, there have been FortisBC discussions and projects related to Time of Use projects, demand reduction, and Net Metering.

FortisBC Time of Use Rates

FortisBC does have time-of-use rates at this point. The following question was asked during a DSM Advisory Committee Conference Call on May 8, 2008:

"*How did FortisBC arrive at the Time of Use (TOU) rate schedules that came into effect in 2007?*"[131]

FortisBC responded with:

"TOU Rate Design

Prior to integration, FortisBC and its subsidiary Princeton Light and Power (PLP) offered TOU service. The TOU tariffs were different. Upon integration of PLP into FortisBC, it was necessary to harmonize the tariffs. Most tariffs structures, except TOU, were similar between the two utilities. PLP TOU customers moving to FortisBC rates would have seen significant bill volatility. PLP had

[126] Exhibit B-4, OEIA, Page 23, A6.3
[127] Exhibit B-1, Sector 6, Pages 106 to 114
[128] Exhibit B-1, Sector 6, Page 108, Table 6.2
[129] Exhibit C4-4, Page 9, IR 6.4
[130] Exhibit B-4, OEIA, Page 25, A6.4, Table 6.4
[131] Exhibit B-5, Appendix A10.2h, Page 5, Q3

simpler rules, with no seasonal variation, and different time periods for on-peak and off-peak. Also there were ten times as many PLP TOU customers than there were FortisBC TOU customers. So the filed TOU rate is based on the PLP rate structure and is revenue neutral to FortisBC, with a modified rate charge. The existing FortisBC TOU customers, only 19, were offered grandfathering on FortisBC's former TOU rate structure.

Time of use rates per se are difficult to implement on a broad scale. And with only few customer additions, the cost to change out, read, and bill the meters is high. The current TOU tariff structure is transitional, given the upcoming cost of service rate application.

The 2007 TOU changes were filed with the BCUC and processed by a written procedure, with the usual notification process. The upcoming cost of service rate design application will provide a broader opportunity for stakeholder input into the application before and after it is submitted to the BCUC."[132]

Hedley Improvement District Project

At the October 28, 2005 DSM Incentive Committee conference call it was noted that "*the Hedley Water District has volunteered to be part of a pilot project and may turn out to be typical of other small water districts in the service area, meaning the project can be replicated*."[133]

On the February 6, 2006 DSM Incentive Committee conference call FortisBC notes that "*the Hedley Improvement District Pilot Project will look at load shifting for irrigation systems*"[134].

At the August 30, 2006 DSM Advisory Committee Workshop it was noted that the Hedley Water Improvement program is "*targeting demand reduction and capacity savings*"[135]. It involves "*scheduled controlling of pumping equipment to reduce demand during electric system peak demand cycles*" [136]. FortisBC "*clarified that the initiative was initially tied to Time of Use rates which would have provided customer benefits derived from the differential between the tariffs for low load hours and the bundled tariff. There is significant value to the Company from this initiative once implemented and some credit and recognition is needed for customers choosing to*

[132] Exhibit B-5, OEIA Appendix A10.2h, Page 5
[133] Exhibit B-5, OEIA Appendix A10.2a, Page 2
[134] Exhibit B-5, OEIA Appendix A10.2b, Page 4
[135] Exhibit B-5, OEIA Appendix A10.2c, Page 3
[136] Exhibit B-5, OEIA Appendix A10.2c, Page 3

participate."[137].

In the November 3, 2006, DSM Advisory Committee conference call FortisBC reported that "*in 2006, the company has focused on core program activities and has deferred some of the planned 2006 demonstration projects until 2007.*"[138] Hedley Improvement District notes that "*the pilot was struck almost a year ago and activity has only recently been happening*" [139] and that "*the objectives of the program are to – evaluate demand savings by alternating pumping schedules, [and] assess the feasibility for water districts to use Time of Use (TOU) rates*" [140]. FortisBC notes that a "*TOU rate simulation on bill impacts will be analyzed.*" [141].

In the August 16, 2007 DSM Advisory Committee Meeting & Workshop, the Hedley Improvement District noted that "*off peak pumping has maintained the reservoir at satisfactory levels*"[142]. While the "*Improvement District continues to pay a regular tariff*" [143] that "*comparing that to the Time of Use rate to determine the value of not consuming during the peak shows bill reductions which could have occurred.*" [144] "*A power use baseline is needed before it can be determined if the program can be expanded.*"[145] "*Hedley Improvement District will assist FortisBC to identify a similar water district whose demand could be monitored for a year to collect the energy use information for a pumping system without controls.*"[146] "*Any program that is established would offer incentives for the customer to install the control system.*"[147]

We note in the May 8, 2008 DSM Advisory Committee conference call that it was Richard Tarnoff of the Hedley Improvement District htat initiated the question "*how did FortisBC arrive at the Time of Use (TOU) rate schedules that came into effect in 2007?*"[148] The response from FortisBC is listed above under "*Time-of-Use and Demand Reduction*" section on Page 22. We also note that Richard Tarnoff's noted in regards to further discussions that "*more detail about plans for, and impact of conservation culture transformation*".[149]

In the June 26, 2008 DSM Advisory Committee conference call, Richard Tarnoff commented: "*Continuing the pilot project with FortisBC of putting the*

[137] Exhibit B-5, OEIA Appendix A10.2c, Page 5
[138] Exhibit B-5, OEIA Appendix A10.2d, Page 1
[139] Exhibit B-5, OEIA Appendix A10.2d, Page 2
[140] Exhibit B-5, OEIA Appendix A10.2d, Page 2
[141] Exhibit B-5, OEIA Appendix A10.2d, Page 2
[142] Exhibit B-5, OEIA Appendix A10.2f, Page 6
[143] Exhibit B-5, OEIA Appendix A10.2f, Page 6
[144] Exhibit B-5, OEIA Appendix A10.2f, Page 6
[145] Exhibit B-5, OEIA Appendix A10.2f, Page 6
[146] Exhibit B-5, OEIA Appendix A10.2f, Page 6
[147] Exhibit B-5, OEIA Appendix A10.2f, Page 6
[148] Exhibit B-5, OEIA Appendix A10.2h, Page 5
[149] Exhibit B-5, OEIA Appendix A10.2h, Page 6

water pumping system on a computer controls program that manages water levels to reduce pumping requirements during electric system peak periods. It does not save energy but it will reduce demand during peaks."[150]

Other Discussions

At the DSM Advisory Committee Meeting & Workshop on August 16, 2007 there was a consideration discussion on conservation and rate design[151]:

"*- AMI technology can enable innovative rate design, such as critical peak pricing, load control, and curtailable load.*
- Time of Use load control may need to be staggered to avoid load pickup spikes and simply shifting the same peak to a later hour.
- It is believed that stepped rates, where the energy supplied at the second step is at a higher price than the first step, will induce conservation.
- Current situation is that technology is being adopted before rates have been designed. It should be the other way around.
- FortisBC's view is that current meters and technology do not support innovative rates.
- However rates are about recovering costs and objectives of rate design are independent of technology.
- It is not known what the impact of large price signals will be on conservation.
- BC Hydro plans to meet their DSM targets with 1/3 from rates, 1/3 from DSM, and 1/3 from codes and regulation.
- Princeton Light & Power's successful peak demand reduction program combined several features of DSM program design, including information and customer feedback, event notice, technology solution, rate signal, and published program monitoring reports.
- Customers are receiving inconsistent messages from agencies and utilities. As an example, the home insurance industry may soon require the installation of larger electrical services (200 amp instead of 100 amp) to avoid overloading single family household circuits."[152]

In the May 8, 2008 DSM Advisory Committee conference call there was the discussion relating to TOU Rate Design, see above section under "*Time-of-Use and Demand Reduction"* section on page 22. It was noted that "w*ith a Cost of Service Application delay, the net metering rate application, which would have been part of that filing, will be submitted on its own over the summer. There is no reason to delay it.*"[153] It was also noted that "*There is no*

[150] Exhibit B-5, OEIA Appendix A10.2i, Page 5
[151] Exhibit B-5, OEIA Appendix A10.2f, Page 7
[152] Exhibit B-5, OEIA Appendix A10.2f, Page 7
[153] Exhibit B-5, OEIA Appendix A10.2h, Page 6

indication that the government is intending to mandate TOU rates for all electricity users. However, if FortisBC wants a broad based TOU rate, it may be worthwhile to wait until advanced meters are installed."[154] Members suggested the following items for further discussion:

"*Also wondering if there is a way to improve air conditioner efficiencies to reduce their impact on system peak? Really about demand reduction and may be improved in response to TOU rates.*"[155]

"*Net metering, TOU rate*"[156]

"*Net metering*"[157]

In the August 7, 2008 in response to an IR, FortisBC notes that "*an application for a Net Metering program will be filed by FortisBC in August of 2008. The Net Metering program will be separate from those programs included within the scope of the DSM initiatives, however, the DSM Strategic Plan will address the issue of Customer-owned Generation. It will recommend whether the Company should offer incentives to customers to install Customer owned Generation in the future.* "[158]

6.3 Discussion

The following discussion uses material as quoted in the previous section, "*FortisBC Activities*" – please refer this section for the full context.

Hedley Improvement District Project

The Hedley Improvement District Project was first discussed on October 28, 2005, yet almost three years later no concrete results have been forthcoming from FortisBC. With the new emphasis from the Energy Plan, Bill 15 and FortisBC's directions, we believe the importance of this project has further increased to the point that full information is required.

6.3.1 Therefore, we submit that FortisBC should be required to produce a public report on the Hedley Improvement District Project, including the following:

- ***history of the project, including reasons for deferral of project***
- ***how the scheduling of pumping equipment has reduced demand during electric system peak demand cycles***
- ***how the customer would have benefited if Time-of-Use rates were provided using a range of rate structures***
- ***based on the results, the feasibility for similar water districts to use Time-of-Use rates***

[154] Exhibit B-5, OEIA Appendix A10.2h, Page 6
[155] Exhibit B-5, OEIA Appendix A10.2h, Page 6
[156] Exhibit B-5, OEIA Appendix A10.2h, Page 6
[157] Exhibit B-5, OEIA Appendix A10.2h, Page 6
[158] Exhibit B-2, BCUC#1, Page 154, A80.1

- ***analysis results for TOU rate simulation***
- ***an analysis on the ability for off peak pumping to maintain the reservoir at satisfactory levels***
- ***development of a power use baseline to determine whether or not the program can be expanded***
- ***the results of identifying similar water districts whose demand could be monitored for a year***
- ***what incentives could be established for the customer to install a control system***

DSM Rates Project

With demand side measures covering not only conservation, but also shifting and reducing the energy demand, plus the lack of rate initiatives in FortisBC's DSM program, we claim that FortisBC should initiate a new project in this Capital Plan dedicated to this area. While it is recognized that FortisBC is developing a Cost of Service Rate Design Application, we claim that rate structures that shift and reduce demand are more suited to the DSM group and should be driven from that group. The level of discussion already within the DSM Advisory Committee on this subject further supports this position.

6.3.2 We submit that FortisBC should initiate a new project developed within the Demand Side Management area of FortisBC, and covered by the DSM budget. This new project would support the DSM targets by conserving, shifting and reducing demand through rate structures (DSM Rates Project).

This "*DSM Rates Project*" would cover aspects such as time-of-use rates, critical peak pricing, net metering, and conservation rates.

This project would support the 2007 BC Energy Plan and Bill 15.

The extended length of time for the Hedley Improvement District Project and lack of results, underscores the need for a focus in this area. As noted by FortisBC in 2006, FortisBC focused on core programs, and therefore delayed the Hedley Improvement District project. By having a separate dedicated project and dedicated manpower, these delays should not occur.

The extensive discussion on August 16, 2007 also shows the interest within the group for such a project. Note that BC Hydro is planning to meet 1/3 of its DSM goals from rates and has its own Rates Working Group, dedicated specifically for this – yet this emphasis is lacking in FortisBC.

The lack of discussion of Net Metering during the DSM Committee meetings and calls, even though an application is imminent, further supports the need for "*the DSM rates Project*". With this project, there would be more emphasis for net metering, and dedicated personnel to ensure the information is gathered from FortisBC customers, and directions of FortisBC provided back.

The promised August submission of the Net Metering application has not yet occurred which further supports the initiation of "*the DSM Rates Project*". With such a project, the reasons for the delay would be revealed.

There will also be a need to explore rate structures if the AMI project moves forward, further supporting "*the DSM Rates Project*".

While it is recognized that long term strategies are being developed, there will be an element of rate design to accomplish that, further supporting "*the DSM Rates Project*".

7.0) General Service Incentives

OEIA attached a document labeled "*BC Hydro's Power Smart Incentive Program, Eligible Product Incentives*"[159] and submitted a series of Information Requests to which FortisBC responded.

7.1 Existing product incentives

OEIA requested:

"Please list each product from the document which FortisBC presently also has incentives and indicate the difference in incentive level."[160]

FortisBC replied:

"Since FortisBC does not know the basis of BC Hydro's calculations, it is not possible to make an item by item comparison. The current FortisBC incentive structure is based on 5 cents per kWh saved."[161]

We claim that FortisBC should still be able to answer the first portion of the request: "*please list each product from the document which FortisBC presently also has incentives . . .*"[162]. This does not require FortisBC to understand any calculations - simply to list each product from the document in which FortisBC has incentives.

7.1.1 Therefore, we submit that FortisBC should list each product or group of products from the document[163] which FortisBC presently also has incentives.

The calculation of the incentives are listed on the BC Hydro document, so we

[159] Exhibit C4-4, attached psbbusiness47976.pdf
[160] Exhibit B-4, OEIA, Page 48, Q16.3
[161] Exhibit B-4, OEIA, Page 48, A16.3
[162] Exhibit B-4, OEIA, Page 48, Q16.3
[163] Exhibit C4-4, attached psbbusiness47976.pdf

claim that FortisBC should be able to list the difference in incentive levels. If there is not a one to one correspondence, FortisBC could group the products together. If one utility uses an incentive and the other utility a reduction on a energy usage, that could be noted. Ultimately, it is possible to compare the BC Hydro and FortisBC incentive programs, and that is what the request is aiming at.

7.1.2 Therefore, we submit that FortisBC should indicate the difference in incentive levels for each product or group of products between FortisBC and BC Hydro using the attached document[164].

7.2 New product incentives

OEIA requested:

"Please indicate the new products in 'the Capital Plan' which FortisBC intends to cover and their difference in incentive levels."[165]

FortisBC responded with:

"The Capital Plan is constructed by sector and by program, and does not delve into specific product offers."[166]

We claim that FortisBC should be able to answer the first portion of the request: "*indicate which new products in 'the Capital Plan" which intends to cover.*"[167] – ultimately there are certain products within the programs or sectors – it may end up to be a list or groups of products.

7.2.1 Therefore, we submit that FortisBC should indicate the <u>new</u> products, list of products or groups of products in "the Capital Plan" which FortisBC intends to cover.

Similarly, to compare the product and establish their difference in incentive levels, it may require FortisBC to group the products together. In addition, there are products that are exclusive to be added for one utility or the other and obviously those should be appropriated noted.

7.2.2 Therefore, we submit that FortisBC should indicate the differences in incentive levels compared to BC Hydro for the <u>new</u> products, list of products or groups of products in "the Capital Plan" which FortisBC intends to cover.

7.2.3 Therefore, we submit that FortisBC should indicate the <u>new</u> products,

[164] Exhibit C4-4, attached psbbusiness47976.pdf
[165] Exhibit B-4, OEIA, Page 48, Q16.4
[166] Exhibit B-4, OEIA, Page 48, A16.4
[167] Exhibit B-4, OEIA, Page 48, Q16.4

list of products or groups of products in <u>future</u> Capital Plans which FortisBC intends to cover.

7.3 BC Hydro and FortisBC

OEIA requested:

> *"Please discuss any plans for consistency between BC Hydro and FortisBC. If not, why not?"*[168]

FortisBC responded with:

> *"The Company looks for opportunity to collaborate with the other public utilities, but does not plan for consistency since it is an independent public with different customer needs and environment factors."*[169]

This statement seems to be contradict the 2007 BC Energy Plan which states "*ensure a coordinated approach to conservation and efficiency is actively pursued in British Columbia*"[170]. The first step, we suggest, is by answering the previous requests in this section, therefore providing important information as to the areas where the systems differ.

Then, It would also seem logical to investigate how the systems could move together, or to explain why the systems are different.

7.3.1 We submit that FortisBC should generate a report describing the steps, benefits and costs that would be required to move toward consistency between BC Hydro and FortisBC in regards to the General Service incentives or programs.

[168] Exhibit B-4, OEIA, Page 48, Q16.6
[169] Exhibit B-4, OEIA, Page 48, A16.6
[170] Exhibit B-4, OEIA Appendix A3.1, Page 42

Dennis Swanson
Director, Regulatory Affairs

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June 4, 2008

Via Email
Original via mail

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

Dear Ms. Hamilton:

Re: FortisBC Inc's Semi Annual Demand Side Management Report

Please find enclosed for filing FortisBC Inc's Semi-Annual Demand Side Management Report to December 31, 2007. Twelve copies will be couriered to the Commission.

Sincerely,

Dennis Swanson
Director, Regulatory Affairs

FORTISBC

FORTISBC INC.

SEMI-ANNUAL DSM REPORT

YEAR ENDED DECEMBER 31, 2007

Table of Contents

Report Objective

This report provides highlights of FortisBC Inc.'s ("FortisBC or "the Company") Demand Side Management (DSM) programs for the year ended December 31, 2007. The presentation format compares actual energy savings and costs to plan, provides a statement of financial results and details the DSM incentive for the period.

Overview of Results for the Year Ended December 31, 2007

Energy efficiency savings for the year ended December 31, 2007 were 27.9 GW.h, 128 percent of the planned 21.8 GW.h for the same period. Company costs incurred were $2.55 million or 103 percent of the plan of $2.47 million. Adding the customers' costs yields a Total Resource Cost (TRC) of $5.57 million for an overall TRC Benefit/Cost ratio of 1.9.

Energy Savings per Sector

	GW.h		
	YTD Plan	**Actual**	**% of Plan**
Residential	10.6	15.3	144
General Service	9.2	10.4	113
Industrial	2.0	2.2	110
Total	**21.8**	**27.9**	**128**

The Residential, General Service and Industrial sectors all exceeded their energy savings target for the period.

Details of Energy Savings

The following tables provide details on the DSM measures in each sector.

Residential Programs	GW.h		
	YTD Plan	**Actual**	**% of Plan**
H.I.P./Watersavers	0.5	0.5	100
New Home Program	1.7	2.5	147
Heat Pumps (Air and Ground Source)	6.2	9.6	155
Residential Lighting	2.2	2.7	123
Total	**10.6**	**15.3**	**144**

Steady residential construction and renovation activity continues to contribute to increasing numbers of participants in the Residental programs. In the New Home program, there were 520 (489 in 2006) single family and 595 (418 in 2006) multiple unit participants in 2007. There were 984 participants in the Heat Pump program compared to 785 in 2006. All Residential programs met or exceeded plan expectations.

General Service Programs	**GW.h**		
	YTD Plan	**Actual**	**% of Plan**
Lighting	3.0	5.5	183
Building and Process Improvement	6.2	4.9	79
Total	**9.2**	**10.4**	**113**

The General Service sector recorded savings of 10.4 GW.h, 113 percent of plan to December 31, 2007. Examples of larger projects included: two Kelowna geothermal heating/cooling installations of 0.6 GW.h each; and two lighting retrofit projects in the Penticton area totaling 1.0 GW.h.

Industrial Programs	**GW.h**		
	YTD Plan	**Actual**	**% of Plan**
Compressed Air	0.7	0.4	57
Industrial Efficiencies	1.3	1.9	146
	2.0	**2.3**	**115**

The Industrial sector achieved savings of 2.3 GW.h, in excess of the plan of 2.0 GW.h. These savings are largely attributable to the replacement of three 75 horsepower motors with a heat exchanger for a large pulp company, contributing savings of 1.2 GW.h.

Program Costs

The table below presents the actual costs incurred compared to plan.

Summary of Costs by Sector

	($000s)		
	YTD Plan	**Actual**	**% of Plan**
Residential	1,205	1,303	108
General Service	726	739	102
Industrial	168	183	109
Planning and Evaluation	375	324	86
Total	**2,474**	**2,549**	**103**

Costs amounted to $2.55 million or 103 percent of plan to December 31, 2007, a variance of $75,000 due to the robust level of activity. The $50,000 under spent in Planning and Evaluation was due to a shortage of applicants for the vacant engineering position.

Costs per Sector

Residential	($000s)		
	YTD Plan	**Actual**	**% of Plan**
H.I.P./Watersavers	98	78	80
New Home Program	424	458	108
Heat Pumps (Air & Ground)	513	651	127
Residential Lighting	170	116	68
Total	**1,205**	**1,303**	**108**

The cost of Residential programs was $1.30 million or 108 percent of plan. The largest cost component was the Heat Pumps Program followed by the New Home Program. Incentives paid to participants amounted to $935,500 during the period, $141,000 over plan, reflecting increased program participation.

General Service	($000s)		
	YTD Plan	**Actual**	**% of Plan**
Lighting	257	240	93
Building and Process Improvement	469	499	106
Total	**726**	**739**	**102**

Costs to December 31, 2007 for General Service amounted to $739,000 or 102 percent of plan. This reflects the program activity within this sector which also resulted in savings exceeding plan. Incentives paid amounted to $294,000, and were $65,000 less than plan.

Industrial	**($000s)**		
	YTD Plan	**Actual**	**% of Plan**
Industrial Efficiencies	131	153	117
Compressed Air	37	30	81
Total	**168**	**183**	**109**

Industrial sector costs were $183,000 for the period, 109 percent of plan. Incentives paid during the period amounted to $102,000, which was $47,000 in excess of plan, with achieved savings at 110 percent of plan.

Financial Results

Financial Results for the Year ended December 31, 2007
Financial Results by Program ($000s)

Program	Program Benefits	Program Costs	Planning and Evaluation Costs	Customer Costs	Total Costs	Benefit/Cost Ratios
	($000s)					
Residential						
H.I.P./Watersavers	213	78	6	57	141	1.5
New Home program	1,275	458	29	70	557	2.3
Heat Pumps	3,572	651	111	1,543	2,305	1.6
Residential Lighting	764	116	31	(11)	136	5.6
Residential Total	**5,824**	**1,303**	**177**	**1,659**	**3,139**	**1.9**
General Service						
Lighting	2,033	240	64	414	718	2.8
Building and Process Improvement	1,889	499	57	694	1,250	1.5
General Service Total	**3,922**	**739**	**121**	**1,108**	**1,968**	**2.0**
Industrial						
Industrial Efficiencies	622	153	22	216	391	1.6
Compressed Air	70	30	5	35	70	1.0
Industrial Total	**692**	**183**	**26**	**251**	**460**	**1.5**
Total	**10,438**	**2,225**	**324**	**3,018**	**5,567**	**1.9**

Program benefits are the present value of avoided power purchases over the measured lifespan. An overall Benefit/Cost ratio of 1.9 has been achieved to December 31, 2007, compared to 1.8 in the previous year.

Residential

The residential sector showed strong performance with an overall benefit/cost ratio of 1.9. All residential programs had very strong results. The programs in this sector continue to benefit from the continuing brisk construction pace in the Okanagan service area.

General Service and Industrial

The General Service and Industrial financial results for 2007 were also robust, with benefit/cost ratios of 2.0 and 1.5 respectively. Potential savings are identified through key customer contacts, trade ally relationships with architectural and engineering firms and the review of capital plans with larger customers.

Program participation varied amongst the subsectors within both customer classes. While the forestry sector has faced several temporary and permanent plant shutdowns, a pulp customer was financially strong and able to participate in DSM programs.

Federal and Provincial Government Programs

In the fall of 2005, the provincial and federal governments requested the Company's assistance in promoting a number of energy efficiency initiatives. These partnership agreements concluded in early 2007. The costs and funding related to these initiatives for the program period ending March 31, 2007, is summarized below:

Provincial Program Costs January 1, 2007 to March 31, 2007	**$208,741**
Cost Recoveries	
Federal Funds	$145,000
Provincial Funds	$246,676
Total	**$391,676**
Outstanding receivables paid in 2008	$182,935

The costs and energy and capacity savings related to this undertaking have been excluded from the Company's savings, costs and financial results in this semi-annual DSM report.

DSM Incentive for 2007

The table below presents the DSM incentive results for 2007, based on actual costs and savings for the year. Please refer to Appendix B for a description of the Incentive Mechanism calculation.

	TRC Net Benefits		Eligible for Incentive	Performance	Forecast Incentive
	Actual to: 31-Dec 2007	Base to: 31-Dec 2007			
	$000s				$000s
Residential	2,863	1,357	2,035	150%	122.1
General Service	2,075	2,298	2,074	90%	-
Industrial	259	296	259	87%	(2.6)
Total	**5,197**	**3,951**	**4,368**		**119.5**

Actual TRC Net Benefits to December 31, 2007 amounted to $5.20 million over the Base Net Benefits of $3.95 million.

The DSM incentive is $119,500 for the year ended December 31, 2007.

Appendix A DSM Summary Report BCUC Format

FortisBC for Year Ending December 31, 2007

	Utility Costs								Benefit/Cost Ratios			
Sector/Program	Direct Incentives	Direct Information	Program Labour	Planning and Evaluation	Research Admin & OH	Total	Customer Incurred Cost	Total Resource Cost	Societal Cost	Total Resource	Rate Impact	Levelized Cost
	($000s)											
RESIDENTIAL												
Heat Pumps	435.0	76.9	138.1	66.5	44.3	760.8	1,543.0	2,303.8	n/a	1.6	0.6	2.6
New Home Program	394.0	30.4	33.6	17.4	11.6	487.0	70.0	557.0	n/a	2.3	0.6	2.0
Residential Lighting	59.0	17.2	40.8	18.8	12.5	148.3	-11.0	137.3	n/a	5.6	0.9	1.3
Home Improvements Program	48.0	7.4	22.6	3.7	2.5	84.1	57.0	141.1	n/a	1.5	0.5	2.6
Total	936.0	131.9	235.1	106.4	70.9	1,480.2	1,659.0	3,139.2		1.9	0.6	2.4
GENERAL SERVICE												
Lighting	129.0	24.2	87.8	38.4	25.6	305.0	414.0	719.0	n/a	2.8	0.6	1.7
Building and Process Improvements	166.0	107.3	225.7	34.0	22.6	555.6	694.0	1,249.6	n/a	1.5	0.5	2.6
Total	295.0	131.5	313.5	72.4	48.2	860.6	1,108.0	1,968.6		2.0	0.6	2.2
INDUSTRIAL												
Industrial Efficiencies	84.0	12.9	56.1	13.0	8.6	174.6	216.0	390.6	n/a	1.6	0.6	1.7
Compressors	18.0	0.3	11.7	2.7	1.8	34.6	35.0	69.6	n/a	1.0	0.6	3.4
Total	102.0	13.2	67.8	15.7	10.5	209.2	251.0	460.2		1.5	0.6	2.3
TOTAL	**1,333.0**	**276.6**	**616.4**	**194.5**	**129.5**	**2,550.0**	**3,018.0**	**5,568.0**		**1.9**	**0.6**	**2.3**

Levelized Energy Unit Cost (¢ per kWh)	2.3	Energy Savings (kWh)	27,924,751
Levelized Capacity Unit Cost ($ per kW)	128.6	Capacity Savings (kW)	5,486

Appendix B DSM Incentive Calculation

Total resource costs (TRC) Net Benefits are the gross benefits of lifecycle energy and capacity savings less the total resource cost (FortisBC program costs plus customer-incurred costs) for the energy savings measures installed.

The Base TRC Net Benefits (Base) are based on a yearly average of actual costs, savings and benefits for the preceding three year period. The costs are escalated to the incentive year dollars and the benefits are priced at the incentive year BC Hydro Rate Schedule 3808.

The DSM incentive mechanism measures the variance between the TRC Net Benefits (Actual) and the TRC Net Benefits (Base) set for each sector for the year. There are different incentive or penalty levels based on the size of the variance for each of the three sectors. Incentives for the sectors are calculated for performances of 100 to 150 percent of Base. The Residential incentive ranges from 3 to 6 percent starting at the achievement of 101 percent of Base, while the incentives for General Service and Industrial range from 2 to 4 percent and 1 to three percent respectively. There is no calculation for performance between 90 and 100 percent of Base for all sectors.

A penalty is possible if less than 90 percent of Base TRC Net Benefits are achieved in each sector. There is a maximum penalty set at 50 percent of Base TRC Net Benefits. The Residential penalty ranges from -3 to -6 percent while the penalty range for General Service is -2 to -4 percent and -1 to -3 percent for Industrial.

If the sum of the sector incentives or penalties is greater than zero, then that sum is the DSM incentive for FortisBC for the year. If the sum is less than zero, then there is no DSM incentive for FortisBC for the year and no penalty is charged.