

November 1, 2010

**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 June 30, 2010. Twelve copies will be couriered to the Commission.

FortisBC continues to develop its DSM reporting structures. In this Report, Measurement and Evaluation expenditures are reported separately from Planning as detailed in Appendix A of the Report. The other categories that have been suggested by Commission staff (e.g. program development, implementation, assessment & verification) will have accounting codes created to capture those costs for the 2011 when new programs are expected to be launched.

Sincerely,



Dennis Swanson  
Director, Regulatory Affairs



**FORTISBC INC.**  
**SEMI-ANNUAL DSM REPORT**  
**SIX MONTHS ENDED JUNE 30, 2010**

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## Report Objective

This report provides highlights of FortisBC Inc.'s ("FortisBC" or the "Company") Demand Side Management ("DSM") programs for the six month period ended June 30, 2010. The report format compares actual energy savings and costs to Plan, where applicable, and provides a statement of financial results and an estimate of the DSM incentive amount.

## Overview of Results for the Six Months Ended June 30, 2010

Energy efficiency savings for the period ended June 30, 2010 were 13.4 GW.h, or 98 per cent of year-to-date ("YTD") Plan of 13.8 GW.h. Company costs incurred were \$1,854,000 or 94 per cent of the approved YTD Plan of \$1,976,000. Adding the customers' costs yields a Total Resource Cost ("TRC") of \$2,677,000 with an overall TRC benefit/cost ratio of 2.0.

## Energy Savings by Sector

Sector	YTD Plan GW.h	Actual	% of Plan Achieved
Residential	6.1	7.2	118%
General Service	6.0	5.6	93%
Industrial	1.7	0.7	39%
<b>Total savings (GW.h)</b>	<b>13.8</b>	<b>13.4</b>	<b>98%</b>

For the six months ended June 30, 2010, the Residential results are above Plan at 118 per cent. The Residential and Industrial results are under Plan at 93 per cent and 39 per cent respectively.

### Detail of Energy Savings

The following sector tables provide details on the DSM energy savings in each sector, including wholesale DSM activities in the service territories of FortisBC's wholesale customers.

<b>Residential Programs</b>	<b>YTD Plan GW.h</b>	<b>Actual</b>	<b>% of Plan Achieved</b>
Home Improvement Program	1.0	3.1	321%
New Home Program	0.7	0.3	41%
Heat Pumps (Air & Ground Source)	3.2	2.0	64%
Residential Lighting	1.2	1.7	142%
	<b>6.1</b>	<b>7.2</b>	<b>118%</b>

The Residential construction and renovation activity results were at 118 per cent of Plan. The Home Improvement program and Residential Lighting exceeded the plan, whereas the New Home and Heat Pumps fell short of forecast. In the New Home program, there were 98 projects recorded, compared to 224 in the same period last year, reflecting the impact of a continued market slowdown observed in 2009. The LiveSmart BC collaboration resulted in 3.4 GW.h of retrofit energy savings, which are recorded in the Air Source Heat Pump and Home Improvement (HIP) programs.

<b>General Service Programs</b>	<b>YTD Plan GW.h</b>	<b>Actual</b>	<b>% of Plan Achieved</b>
Lighting	2.7	2.6	99%
Building and Process Improvement	3.4	3.0	88%
	<b>6.0</b>	<b>5.6</b>	<b>93%</b>

The General Service sector recorded savings of 5.6 GW.h, or 93 per cent of the YTD Plan. Examples of Building and Process Improvement (BIP) projects include the retrofit of glass door freezers in a large grocery store (0.5 GW.h), and a mixed use condo tower with centralized geexchange (1.3 GW.h). Lighting savings are aggregated through both "at the counter" product rebates, and custom lighting retrofits e.g. the Trail Canadian Tire (0.3 GW.h).

Included in the BIP line item is an Irrigation project with 16 MWh of savings.

<b>Industrial Programs</b>	<b>YTD Plan GW.h</b>	<b>Actual</b>	<b>% of Plan Achieved</b>
Compressed Air	0.5	0.0	0%
Industrial Efficiencies	1.2	0.7	54%
	<b>1.7</b>	<b>0.7</b>	<b>39%</b>

The Industrial Efficiency program achieved savings of 0.7 GW.h, or 39 per cent of the YTD Plan of 1.7 GW.h. No savings were recorded for compressor projects in the first half of the year. Several sawmills resumed operations after the economic downturn, but reinvestment in capital projects has not yet materialized.

The following table provides a breakout of the Wholesale DSM results, which are included in the sector tables above.

<b>Wholesaler Activity</b>	<b>GW.h</b>	<b>MW</b>	<b>% of GW.h<sup>1</sup></b>
Grand Forks	0.18	0.05	10%
Summerland	0.18	0.03	10%
Nelson	0.26	0.06	15%
Penticton	0.66	0.11	36%
Kelowna	0.53	0.10	29%
<b>Total (wholesalers)</b>	<b>1.8</b>	<b>0.4</b>	<b>100%</b>

<sup>1</sup> Of savings attributable to the wholesale class

The total Wholesale energy savings, which were acquired within the service areas of the five municipal electric utilities served by FortisBC, were 1.8 GW.h and 0.4 MW to June 30, 2010. The largest DSM savings results occurred within Kelowna and Penticton municipal utility service areas (those with the largest number of customers), in new BIP and Home Improvement programs respectively. Nelson Hydro savings were led by commercial lighting projects.

## Program Costs

The table below presents the year end actual costs incurred compared to Plan.

### Summary of Costs by Sector

	YTD Plan	Actual	% of Plan
Sector/Component:	\$000s		
Residential	758	1,071	141%
General service	690	475	69%
Industrial	195	86	44%
Conservation Culture	74	70	95%
Monitoring & Evaluation	104	60	58%
Planning & O/H	156	92	59%
	<b>1,976</b>	<b>222</b>	<b>11%</b>

Costs amounted to \$1,884,000 or 94 per cent of the approved Plan to June 30, 2010, a positive variance of \$121,700 for the year to date. A more detailed breakdown of utility program costs per sector follows, and other costs are found in Appendix A.

### Costs per Sector

Residential	YTD Plan	Actual	% of Plan
	\$000s		
Home Improvement Program	197	358	182%
New Home Program	127	72	57%
Heat Pumps (Air & Ground )	312	459	147%
Residential Lighting	122	180	149%
	<b>758</b>	<b>1,071</b>	<b>141%</b>

The utility cost of Residential programs was \$1,071,000 or 141 per cent of Plan, commensurate with GW.h savings. The largest cost component of Residential programs was the Heat Pumps Program followed by the Home Improvement Program, both of which include incentives paid through the LiveSmart BC collaboration. Incentives paid to Residential participants amounted to \$689,500 to June 30, compared to \$487,700 Plan, a variance of \$201,800.

<b>General Service</b>	<b>YTD Plan</b>	<b>Actual</b>	<b>% of Plan</b>
	<b>\$000s</b>		
Lighting	361	215	60%
Building and Process Improvement	329	260	79%
	<b>690</b>	<b>475</b>	<b>69%</b>

General Service (including Irrigation) program costs, to June 30, 2010 amounted to \$475,100 or 69 per cent of Plan. Incentives paid up to June 30 amounted to \$182,100 and were \$235,000 under Plan, due partially to reduced activity in BIP.

<b>Industrial</b>	<b>YTD Plan</b>	<b>Actual</b>	<b>% of Plan</b>
	<b>\$000s</b>		
Industrial Efficiencies	151	77	1
Compressed Air	44	10	0
	<b>195</b>	<b>86</b>	<b>44%</b>

Industrial sector costs were \$86,000 for the period, or 44 per cent of Plan. Incentives paid during the period amounted to \$17,500 a fraction of the \$137,200 YTD Plan due to low activity.

Industrial DSM projects tend to be large in savings, but small in number, and no large scale projects materialized in the first half of the year.

	<b>YTD Plan</b>	<b>Actual</b>	<b>% of Plan</b>
	<b>\$000s</b>		
<u>Components</u>			
Conservation Culture	74	70	95%
Monitoring & Evaluation	104	60	58%
Planning & Overhead	156	92	59%
	<b>334</b>	<b>222</b>	<b>66%</b>

The Conservation Culture budget was under budget at \$70,200 or 95 per cent of Plan.

The Planning and Evaluation budget is now split into “Monitoring and Evaluation” and “Planning and Overhead”. Both were just under 60 per cent of YTD Plan, due to resourcing issues that will be addressed by year end.



## Financial Results

### FINANCIAL RESULTS for the Six Months Ended June 30, 2010

by Program (\$000)

Program	Program Benefits	Program Costs	Planning & Evaluation		Customer Costs	Total Costs	Benefits less Costs	Benefit Cost Ratio
			Planning & Overhead	Monitoring & Evaluation				
<b>Residential</b>								
Home Improvement	1,028	358	21	14	90	483	545	2.1
New Home program	208	72	2	1	2	77	131	2.7
Heat Pumps	1,109	459	14	9	174	657	452	1.7
Residential Lighting	458	180	11	8	(13)	186	272	2.5
<b>Residential Total</b>	<b>2,803</b>	<b>1,071</b>	<b>49</b>	<b>32</b>	<b>252</b>	<b>1,404</b>	<b>1,399</b>	<b>2.0</b>
<b>General Service</b>								
Lighting	962	215	18	12	35	279	683	3.4
Building and Process Improvement	1,297	260	20	13	504	798	499	1.6
<b>General Service Total</b>	<b>2,259</b>	<b>475</b>	<b>38</b>	<b>25</b>	<b>539</b>	<b>1,077</b>	<b>1,182</b>	<b>2.1</b>
<b>Industrial</b>								
Industrial Efficiencies	240	77	4	3	32	116	124	2.1
Compressed Air	0	10	0	0	0	10	(10)	0.0
<b>Industrial Total</b>	<b>240</b>	<b>86</b>	<b>4</b>	<b>3</b>	<b>32</b>	<b>126</b>	<b>114</b>	<b>1.9</b>
Conservation Culture	0	70	0	0	0	70		
<b>Total</b>	<b>5,302</b>	<b>1,702</b>	<b>91</b>	<b>61</b>	<b>823</b>	<b>2,677</b>	<b>2,625</b>	<b>2.0</b>

Program benefits are calculated on the present value of avoided power purchases, based on the 2010 BC Hydro Rate Schedule 3808 over the measure lifespan, plus a Deferred Construction factor. An overall benefit/cost ratio of 2.0 has been achieved thus far in 2010 compared to 1.9 for the same period in 2009.

### Residential Results

The Residential sector programs performance resulted in a robust benefit/cost ratio of 2.0 for the sector, up from the 1.7 result in the same period last year.

### General Service and Industrial Results

The General Service (including Irrigation) financial result for YTD 2010 achieved a benefit/cost ratio of 2.1, down somewhat from the 2.3 result for the same period last year. The Industrial sector benefit/cost ratio was stronger at 1.9, compared to 1.4 in the first six months of 2009.

**Government Programs**

The Company continues to collaborate with the provincial government on various initiatives, and the first phase of the LiveSmart BC program for residential energy efficiency retrofits provided considerable activity in the Home Improvement and Heat Pump (Air Source) programs. On April 1, 2010 the second phase of the residential LiveSmart BC program opened to new entrants, but the simultaneous closure of the federal ecoEnergy Retrofit offer has dampened customer demand for energy efficient home retrofits.

**DSM Incentive for 2010**

The table below presents the calculation of the DSM incentive for the first six months of 2010.

	<b>TRC Net Benefits</b> ( <i>Thousands of Dollars</i> )			<b>Incentive</b>	
	Actual to June 30th	Base 3-yr average	Eligible for Incentive	Performance	<i>\$000s</i>
Residential	1,480	1,538	1,153	75%	(35)
General Service	1,245	1,538	1,245	81%	(25)
Industrial	122	258	122	47%	(2)
<b>Total</b>	<b>2,847</b>	<b>3,333</b>	<b>2,520</b>		<b>0</b>

Actual TRC Net Benefits to June 30, 2010 amounted to \$2,847,000, falling short of the Base Net Benefits of \$3,333,000. The Actual Net Benefits are throttled by any sector expenditure over 110 per cent of plan, resulting in a reduced “Eligible” Net Benefits for the residential sector. The Net Benefits for each sector are compared to a 3-year rolling average Baseline, to determine each sector’s incentive amount.

All sectors performed below the baseline, thus earning negative incentives. Under FortisBC’s DSM Incentive Mechanism, a negative incentive in any sector (s) is used to offset any positive incentive amount(s) in other sectors, but the sum total cannot fall below zero.

The estimated DSM incentive is \$0 (zero) thus far, subject to the results obtained in the second half of the calendar year.

A more detailed description of the Incentive Mechanism calculation is found in Appendix B.

## Appendix A DSM Summary Report in BCUC Format

**FortisBC**  
**Demand-Side Management Summary Report**  
**Six Months Ended June 30, 2010**

Sector/Program	Utility Program Costs			Planning and Evaluation		Total Utility Costs	Customer Incurred Cost	Total Resource Cost	Benefit/Cost Ratios		
	Direct Incentives	Direct Information	Program Labour	Planning & Overhead	Monitoring & Evaluation				Total Resource Cost	Rate Impact	Levelised Cost
<b>\$000s</b>											
<b><u>RESIDENTIAL:</u></b>											
Heat Pumps	256.1	70.2	133.2	13.9	9.2	482.6	174.1	656.7	1.7	0.5	3.4
New Home Program	39.8	12.2	20.4	1.9	1.3	75.6	1.8	77.4	2.7	0.5	2.4
Residential Lighting	99.7	36.8	44.0	11.5	7.7	199.7	-13.5	186.2	2.5	0.5	2.8
Home Improvements Program	<u>294.1</u>	<u>50.9</u>	<u>13.3</u>	<u>21.3</u>	<u>14.2</u>	<u>393.7</u>	<u>89.7</u>	<u>483.4</u>	<u>2.1</u>	<u>0.4</u>	<u>1.6</u>
Residential sub-total:	<u>689.7</u>	<u>170.1</u>	<u>210.8</u>	<u>48.5</u>	<u>32.4</u>	<u>1,151.6</u>	<u>252.2</u>	<u>1,403.7</u>	<u>2.0</u>	<u>0.5</u>	<u>2.3</u>
<b><u>GENERAL SERVICE</u></b>											
Lighting	66.5	95.6	53.1	17.8	11.9	244.8	34.5	279.3	3.4	0.5	1.4
Building and Process Improvements	<u>115.6</u>	<u>85.0</u>	<u>59.4</u>	<u>20.2</u>	<u>13.4</u>	<u>293.6</u>	<u>504.3</u>	<u>797.9</u>	<u>1.6</u>	<u>0.5</u>	<u>2.7</u>
General Service sub-total:	<u>182.1</u>	<u>180.6</u>	<u>112.5</u>	<u>38.0</u>	<u>25.3</u>	<u>538.4</u>	<u>538.8</u>	<u>1,077.2</u>	<u>2.1</u>	<u>0.5</u>	<u>2.2</u>
<b><u>INDUSTRIAL:</u></b>											
Industrial Efficiencies	17.5	16.6	42.3	4.4	3.0	83.9	31.8	115.7	2.1	0.6	1.5
Compressors	<u>0.0</u>	<u>0.0</u>	<u>9.9</u>	<u>0.0</u>	<u>0.0</u>	<u>9.9</u>	<u>0.0</u>	<u>9.9</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Industrial sub-total:	<u>17.5</u>	<u>16.6</u>	<u>52.2</u>	<u>4.4</u>	<u>3.0</u>	<u>93.7</u>	<u>31.8</u>	<u>125.6</u>	<u>1.9</u>	<u>0.7</u>	<u>1.9</u>
Conservation Culture:	70.2	-1.0	1.0	-	-	70.2	-	70.2	-	-	-
<b><u>TOTAL:</u></b>	<u>959</u>	<u>366.3</u>	<u>376.6</u>	<u>91.0</u>	<u>60.6</u>	<u>1,854</u>	<u>823</u>	<u>2,677</u>	<u>2.0</u>	<u>0.6</u>	<u>2.3</u>

Levelised Energy Unit Cost - Cents per kWh

2.3

Energy Savings

13,419,828 kWh

Levelised Capacity Unit Cost - Dollars per kW

169.2

Capacity Savings

2,042 kW

## Appendix B DSM Incentive Calculation

**Total resource cost (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 immediately 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 actual TRC Net Benefits (Actual) and the Base 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 per cent to 150 per cent of Base. There is no calculation for performance between 90 per cent and 100 per cent of Base for all sectors. Calculations for performance of less than 90 per cent of Base produce negative results. Maximum penalty is applied to performances of less than 50 per cent of Base.

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.

The sector incentive rates are determined using the following table:

<u>Incentive Performance Level</u>						
<50%	<70%	<90%	90-100%	>100%	>110%	>120%
<u>DSM Sector Incentive Rates</u>						
-6.0%	-4.5%	-3.0%	0.0%	3.0%	4.5%	6.0%
-4.0%	-3.0%	-2.0%	0.0%	2.0%	3.0%	4.0%
-3.0%	-2.0%	-1.0%	0.0%	1.0%	2.0%	3.0%