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October 30, 2009

<u>Via Email</u> 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, 2009. Twelve copies will be couriered to the Commission.

Sincerely,

Dennis Swanson Director, Regulatory Affairs

# FORTISBC

FORTISBC INC.

SEMI-ANNUAL DSM REPORT

SIX MONTHS ENDED JUNE 30, 2009

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#### **Report Objective**

This report provides highlights of the Company's Demand Side Management ("DSM") programs for the first six months of 2009 ending June 30, 2009. The presentation format, where applicable, compares actual energy savings and costs to plan, 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, 2009**

Energy efficiency savings for the six months ended June 30, 2009 were 15.3 GW.h, 121 percent of the plan of 12.7 GW.h for the same period. Company costs incurred were \$1,756,000 or 96 percent of the plan \$1,832,000 for the same period. Adding the customers' costs yields a Total Resource Cost ("TRC") of \$2,992,000 for an overall TRC Benefit/Cost ratio of 1.9.

#### **Energy Savings per Sector**

Sector			Actual	% of Plan
		GW	/ <b>.h</b>	Achieved
Residential		5.4	6.1	114%
General Service		5.8	7.8	135%
Industrial		1.5	1.3	88%
Total savings (GW.h) <sup>1</sup>		12.7	15.3	121%

<sup>1</sup>Differences due to rounding

For the first six months of 2009, the Residential and General Service results are both above plan at 114 percent and 135 percent respectively, with Industrial savings at 88 percent of plan.

#### **Detail of Energy Savings**

The following tables provide details on the DSM energy savings in each sector, including wholesale DSM activities.

Residential Programs	YTD Plan	Actual	% of Plan
	GW.	Achieved	
Home Improvement	0.5	0.3	65%
New Home	0.6	0.9	147%
Heat Pumps (Air & Ground Source)	2.8	3.4	119%
Residential Lighting	1.4	1.5	107%
Total savings (GW.h) <sup>1</sup>	5.4	6.1	114%

<sup>1</sup>Differences due to rounding

The residential construction and renovation activity results were at 114 percent of plan. In the New Home program, there were 224 projects recorded. The number of Heat Pump program participants fell to 349, of which 307 were Air Source and 42 Ground Source, compared to 429 for both by June 30, 2008. Most Residential programs programs met or exceeded plan expectations, with the exception of the Home Improvement program ("HIP"). The LiveSmart collaboration resulted in 0.35 GWh of energy savings year to date, which are recorded in the Air Source Heat Pump and HIP programs.

General Service Programs	YTD Plan	Actual	% of Plan
	GW.h	l	Achieved
Lighting	2.8	4.1	148%
Building and Process Improvement	3.0	3.8	123%
Total savings (GW.h) <sup>1</sup>	5.8	7.8	135%

<sup>1</sup>Differences due to rounding

The General Service sector recorded savings of 7.8 GW.h, or 135 percent of the plan. Examples of Building and Process Improvement projects include: the Mission Aquatic Centre (0.6 GW.h), the Fipke Science Building at UBCO (1.5 GW.h), and energy efficient lighting in the Summerland Seniors Village (0.3 GW.h).

The 2009 lighting program savings have been reduced to account for free-riders, as per the Monitoring and Evaluation report previously filed with the December 31, 2008 Semi-Annual

report. A modified product incentive offer will go out in the fall, which will reduce free ridership significantly.

Industrial Programs	YTD Plan	Actual	% of Plan
	GW.I	h	Achieved
Compressed Air	0.4	0.4	98%
Industrial Efficiencies	1.1	0.9	84%
Total savings (GW.h) <sup>1</sup>	1.5	1.3	88%

<sup>1</sup>Differences due to rounding

The Industrial Efficiency program achieved savings of 1.3 GW.h, below the plan of 1.5 GW.h. The savings were recorded for compressor projects in the Okanagan, and various sawmill projects in the Kootenays, including 0.5 GWh for a new planer line.

Wholesale Activity			
	GW.h	$\mathbf{M}\mathbf{W}$	Percent
Grand Forks	0.02	0.003	0.5%
Summerland	0.5	0.1	11%
Nelson	0.3	0.1	7%
Penticton	0.8	0.1	17%
Kelowna	3.0	0.5	65%
Total savings (Wholesale) <sup>1</sup>	4.6	0.8	100%

<sup>1</sup>Differences due to rounding

The Wholesale energy savings, which were acquired within the service areas of the five municipal electric utilities, were 4.6 GW.h and 0.8 MW year to date. The largest DSM savings results occurred within Kelowna and were primarily the result of commercial lighting and new BIP projects, followed by Penticton where the largest activity was in the Air Source Heat Pump program. Three modest projects were undertaken in the Grand Forks area resulting in the savings shown in the above table.

#### **Program Costs**

The table below presents the June 30, 2009 year to date costs incurred as compared to plan.

#### Summary of Costs by Sector

Sector	YTD Plan	Actual	% of Plan
	\$00	00s	Achieved
Residential	696	832	120%
General service	642	518	81%
Industrial	173	108	62%
Conservation Culture	71	59	84%
Planning & Evaluation	252	239	95%
Totals costs <sup>1</sup>	1,832	1,756	96%

<sup>1</sup>Differences due to rounding

Costs amounted to \$1,756,000 or 96 percent of the YTD plan to June 30t, 2009, a positive variance of \$76,000.

#### Costs per Sector

Residential	YTD Plan	Actual	% of Plan
	\$0	00s	Achieved
Home Improvement	136	73	54%
New Home	171	265	156%
Heat Pumps (Air & Ground)	258	366	142%
Residential Lighting	131	128	97%
Totals costs <sup>1</sup>	696	832	120%

<sup>1</sup>Differences due to rounding

The utility cost of Residential programs was \$832,000 or 120 percent of plan. The largest cost component of Residential programs is the Heat Pumps Program followed by the New Home Program. Incentives paid to Residential participants amounted to \$495,700 to June 30, 2009 as compared to the plan of \$434,500, resulting in a variance of \$61,200 due to carryover projects from 2008.

General Service	YTD Plan Actual		% of Plan
	\$00	)0s	Achieved
Lighting	307	229	75%
Building and Process Improvement	280	290	104%
Totals costs <sup>1</sup>	586	518	88%

<sup>1</sup>Differences due to rounding

Costs to June 30, 2009 for General Service amounted to \$518,000 or 88 percent of plan. Incentives paid for the period amounted to \$318,900 and were \$50,800 under plan.

Industrial	YTD Plan Actual		% of Plan	
	\$0(	)0s	Achieved	
Industrial Efficiencies	137	78	57%	
Compressed Air	36	30	85%	
Totals costs <sup>1</sup>	173	108	62%	

<sup>1</sup>Differences due to rounding

Industrial sector costs were \$108,000 for the period, 62 percent of plan. Incentives paid during the period amounted to \$50,400, which was \$67,800 below plan.

#### **Financial Results**

			Planning &			Benefit
	Program	Program	Evaluation	Customer	Total	Cost
Program	Benefits	Costs	Costs	Costs	Costs	Ratio
			(\$000s)			
Residential						
Home Improvement	155	73	5	78	156	1.0
New Home	519	265	14	(37)	242	2.1
Heat Pumps	1,214	366	53	425	844	1.4
Residential Lighting	433	128	24	(0)	151	2.9
Residential Total	2,321	832	96	465	1,393	1.7
General Service						
Lighting	1,398	229	64	143	436	3.2
Building and Process Improvement	1,442	290	59	467	815	1.8
General Service Total	2,840	518	123	610	1,251	2.3
Industrial						
Industrial Efficiencies	324	78	14	132	224	1.4
Compressed Air	68	30	6	28	65	1.1
Industrial Total	392	108	21	161	289	1.4
Conservation Culture	-	59	-	-	59	-
Total <sup>1</sup>	5,553	1,517	239	1,236	2,992	1.9

#### Financial Results for Six Months Ending June 30, 2009 Financial Results by Program

<sup>1</sup>Differences due to rounding

Program benefits are the present value of avoided power purchases, based on BC Hydro Rate 3808, over the measure lifespan. An overall Benefit/Cost ratio of 1.9 has been achieved year to date in 2009.

### **Residential Results**

The residential sector programs showed good performance with an overall benefit/cost ratio of 1.7 for the sector, up from the 1.6 result in the prior year.

#### **General Service and Industrial Results**

The General Service financial result for 2009 quite robust with a benefit/cost ratio of 2.3 down slightly from the 2.4 figure for the same period in 2008. The Industrial sector result dropped considerably to 1.4, compared to 3.0 a year ago, despite a similar volume of savings.

# **Government Programs**

The Company is collaborating with the provincial government on various initiatives, notably the LiveSmart BC home retrofit program and PSECA (Public Sector Efficiency & Conservation Agreement) for publicly owned or funded organizations (e.g. schools & hospitals). In August 2009 the provincial government closed the LiveSmart BC program to new entrants, however there is an existing base of customers with completed audits who are still eligible for the provincial incentives.

## DSM Incentive for 2009

The table below presents the estimated DSM incentive for 2009, based on mid-year costs and savings.

	TRC N	Net Benefits (\$	000s)		
	Actual To Jun 30	Base To Jun 30	Eligible for Incentive	Performance	Incentive (\$000s)
Residential	1,024	1,152	941	82%	(28)
General Service	1,712	1,170	1,712	146%	68
Industrial	124	236	124	52%	(2)
Total	2,859	2,557	2,777		38

Actual TRC Net Benefits to June 30, 2009 amounted to \$2.86 million over the Base Net Benefits of \$2.56 million. The Net Benefits for each sector are compared to a 3-year baseline, to determine each sector's incentive amount. Please see Appendix B for a more detailed description of the Incentive Mechanism calculation.

The General Service sector performed well, earning an incentive of \$68 thousand, whereas the Residential and Industrial sectors are both in the negative realm.

The estimated DSM incentive is \$38,000 thus far, subject to the results in the second half of the calendar year.

# Appendix A DSM Summary Report

#### FortisBC Demand-Side Management Summary Report in BCUC Format Year to Date ending June 30, 2009

	Utility Costs					Prov.		Customer	Total	Benefit/Cost Ratios		tios
	Direct	Direct	Program	Planning	Research		Govt.	Incurred	Resource	Total	Rate	Levelised
Sector/Program	Incentives	Information	Labour	& Evaluation	Adm & OH	Total	Funding	Cost	Cost	Resource	Impact	Cost
					\$000s							
<u>RESIDENTIAL:</u>												
Heat Pumps	206.2	56.7	102.9	31.7	21.1	418.5	0.0	425.1	843.7	1.4	0.4	2.8
New Home	217.7	22.8	25.0	8.4	5.6	279.5	0.0	-37.5	242.1	2.1	0.6	2.4
Residential Lighting	49.3	36.1	42.2	14.2	9.5	151.3	0.0	0.0	151.3	2.9	0.8	2.5
Home Improvements Program	22.6	37.8	12.8	3.1	2.1	78.4	0.0	77.6	156.0	1.0	0.6	4.8
Residential sub-total	495.7	153.4	182.9	57.4	38.3	927.7	0.0	465.2	1,393.0	1.7	0.6	2.8
GENERAL SERVICE												
Lighting	133.5	36.6	58.5	38.3	25.6	292.6	0.0	143.3	435.9	3.2	0.5	1.4
<b>Building and Process Improvements</b>	185.4	38.9	65.3	35.3	23.5	348.3	0.0	466.9	815.2	<u>1.8</u>	<u>0.5</u>	<u>2.2</u>
General Service sub-total	318.9	75.5	123.8	73.6	49.1	640.9	0.0	610.2	1,251.1	2.3	0.5	1.9
INDUSTRIAL:												
Industrial Efficiencies	32.1	3.4	42.1	8.6	5.7	92.0	0.0	132.3	224.3	1.4	0.6	2.3
Compressors	18.3	1.1	10.6	3.7	2.5	36.2	0.0	28.5	64.7	1.1	0.6	3.1
Industrial sub-total	50.4	4.5	52.7	12.3	8.2	128.2	0.0	160.8	289.0	1.4	0.7	2.6
Conservation Culture	0.0	59.0	0.0	0.0	0.0	59.0		0.0	59.0			
TOTAL	865.0	292.4	359.4	143.4	95.6	1,755.8	0	1,236.3	2,992.0	1.9	0.6	2.3
Levelised Energy Unit Cost - Cents per kW	7h 2.3							Energy Savings		15,255,449 kWh		
Levelised Capacity Unit Cost - Dollars per k	:W		160.1					Capacity Savings		2,454	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 percent to 150 percent of Base. There is no calculation for performance between 90 percent and 100 percent of Base for all sectors. Calculations for performance of less than 90 percent of Base produce negative results. Maximum penalty is applied to performances of less than 50 percent 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 Residential incentive ranges from 3 percent to 6 percent, starting at the achievement of 101 percent of Base, while the penalty ranges from -3 percent to -6 percent. The incentive range for General Service is 2 percent to 4 percent and for Industrial is 1 percent to 3 percent, while the penalty ranges are -2 percent to -4 percent and -1 percent to -3 percent, respectively.