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FortisBC Inc.

June 4, 2008

<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 December 31, 2007. Twelve copies will be couriered to the Commission.

Sincerely,

Dennis Swanson

Director, Regulatory Affairs



# FORTISBC INC.

# SEMI-ANNUAL DSM REPORT

YEAR ENDED DECEMBER 31, 2007

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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 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	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	GV		
Residential Frograms	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.

Cananal Caurias Duaguama	GV		
General Service Programs	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 Duagnama	GV		
Industrial Programs	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** 

	(\$0	(\$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	(\$00		
Residential	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	(\$0		
General Service	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	(\$0		
industrial	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)

			Planning and			
	Program		Evaluation	Customer		Benefit/Cost
Program	Benefits	<b>Program Costs</b>	Costs	Costs	<b>Total Costs</b>	Ratios
			(\$000s)			
Residential						1
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
January 1, 2007 to March 31, 2007	Ψ200,741
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				
	Actual to:	Base to:	Eligible for		Forecast
	31-Dec 2007	31-Dec 2007	Incentive	Performance	Incentive
		\$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
Sector/11ogram	(\$000s)											
RESIDENTIAL				(4000	ĺ							
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) Levelized Capacity Unit Cost (\$ per kW) 2.3 128.6 Energy Savings (kWh) Capacity Savings (kW) 27,924,751 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.