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April 21, 2009

Ms. Erica M. Hamilton  
Commission Secretary  
British Columbia Utilities Commission  
Sixth Floor – 900 Howe Street  
Vancouver, BC V6Z 2N3

Dear Ms. Hamilton:

**RE: British Columbia Utilities Commission (BCUC)  
British Columbia Hydro and Power Authority (BC Hydro)  
F2005/F2006 Revenue Requirements Application  
BCUC Decision: October 29, 2004; Directive 69 (page 201)  
(AMENDED pursuant to 2006 Integrated Electricity Plan and  
2006 Long Term Acquisition Plan  
BCUC Decision: May 11, 2006; Directive 16 (page 145-146)**

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Attached is BC Hydro's semi-annual filing of its Report on Demand-Side Management Activities for the six months ending September 30, 2008.

For further information please contact Lyle McClelland at 604-623-4306.

Yours sincerely,



Joanna Sofield  
Chief Regulatory Officer

Enclosure (1)



**Report on Demand-Side  
Management Activities  
for the Six Months Ending  
September 30, 2008**

**April 21, 2009**

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## 1. Introduction

This BC Hydro semi-annual report to the British Columbia Utilities Commission (**BCUC**) on demand side management (**DSM**) activities responds to directive 69 from the BCUC decision on BC Hydro's F2005/F2006 Revenue Requirements Application (**F05/F06 RRA**) and to directive 16 from the BCUC decision on BC Hydro's 2006 Integrated Electricity Plan and Long Term Acquisition Plan (**2006 IEP/LTAP**). The report provides information on DSM deferred operating, specific capital and operating expenditures, electricity savings, plan performance, and portfolio-level activities.

Directive 69 directed BC Hydro "to provide information to the Commission for on-going review of Power Smart performance through:

- Executive Summaries of milestone evaluation reports and full final evaluation reports for each program.
- Semi-annual reports on DSM activities which, amongst others, will include:
  - detailed breakdown of OMA expenses related to support activities carried out within the Power Smart group and in other departments that support Power Smart organization;
  - detailed description of the functions of portfolio level costs and how these costs are allocated to programs;
  - summaries of the overall performance of Power Smart with reference to program objectives; and
  - variances of fiscal year budgeted and actual deferred capital expenditures and explanation of variances."

Directive 16 directed BC Hydro "to continue to file reports on DSM performance as described in Directive 69 included in BCUC Order No. G-96-04 and to file its Semi Annual Demand Side Management Reports in the same format as the June 2005 Report with the following enhancements: Provide annual and cumulative totals since program inception;

- (1) Express these values on a per unit basis; and
- (2) Provide the benefit to cost ratios for the three DSM tests."

BC Hydro is filing evaluation reports as a separate package. This report addresses the balance of directives 69 and 16 with one exception. Since a detailed description of the functions of portfolio level costs is available in BC Hydro's 2008 Long Term Acquisition Plan (**2008 LTAP**), it is not repeated in this report.<sup>1</sup>

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<sup>1</sup> BC Hydro 2008 LTAP, Exhibit B-1-1, Sub-Appendix G of Appendix K, p. 183 to 192 of 213

## 2. Expenditures and Electricity Savings in the Six Months ending September 30, 2008

In the six months ending September 30, 2008 BC Hydro's DSM deferred operating, specific capital and relevant operating expenditures totalled \$39.5 million while incremental DSM electricity savings totalled 125 GWh/year.<sup>2,3</sup> This was \$9.6 million below plan and 2 GWh/year above plan. Table 1 presents planned and actual DSM deferred operating, specific capital and relevant operating expenditures and incremental electricity savings for the six months ending September 30, 2008.

Tables 1 and 2 present BC Hydro's DSM deferred operating, specific capital and relevant operating expenditures in order to align with expenditures presented in BC Hydro's DSM plans.

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<sup>2</sup> In keeping with BC Hydro's F2009/F2010 Revenue Requirements Application (**F09/F10 RRA**) (Exhibit B-1, Chapter 6, page 10), DSM deferred capital expenditures are now referred to as DSM deferred operating expenditures, and operations, maintenance, general and administration costs (OMG&A) are now referred to as operating costs. This is a change in presentation only.

<sup>3</sup> Operating expenditures relevant for DSM cost-effectiveness, such as those related to rate structures, are reported in Table 1. All other DSM operating expenditures are presented in Table 6.

Table 1

### Deferred Operating, Specific Capital and Relevant Operating Expenditures and Incremental Electricity Savings for the Six Months Ending September 30, 2008

	Deferred Operating, Specific Capital and Relevant Operating Expenditures (\$'000)				Incremental Electricity Savings (GWh/yr)			
	Plan	Actual	Variance		Plan	Actual	Variance	
	\$ 000	\$ 000	\$ 000	%			GWh/yr	%
<b>Codes and Standards<sup>1</sup></b>								
Residential	-	-	-	-	4	2	(2)	(57%)
Commercial	-	-	-	-	0.2	0	(0.2)	(100%)
Industrial	-	-	-	-	0	0	-	n/a
<b>Total Codes and Standards</b>	-	-	-	-	4	2	(3)	(59%)
<b>Rate Structures<sup>2</sup></b>								
Residential	2,700	1,656	(1,044)	(39%)	0	0	-	n/a
Commercial	1,800	1,299	(501)	(28%)	0	0	-	n/a
Industrial	500	365	(135)	(27%)	0 <sup>3</sup>	0 <sup>3</sup>	-	n/a
<b>Total Rate Structures</b>	5,000	3,320	(1,680)	(34%)	0	0	-	n/a
<b>Energy Efficiency Programs</b>								
<b>Residential Sector</b>								
Behaviour	799	264	(535)	(67%)	0	0.2	0.2	n/a
Voltage Optimization	2,600	1,150	(1,450)	(56%)	8	4	(4)	(49%)
Lighting	714	643	(70)	(10%)	1	6	5	532%
Sustainable Community	160	-	(160)	(100%)	0	0	-	n/a
Refrigerator Buy-Back	2,152	2,180	28	1%	9	11	2	21%
Low Income	271	282	11	4%	0	1	1	n/a
New Home	735	769	34	5%	2	2	(0)	(20%)
Appliances and Electronics	1,837	2,652	815	44%	1	3	1	122%
Renovation Rebate	364	191	(173)	(47%)	0	1	1	n/a
<u>Sector Enabling Activities</u>	700	829	129	18%	n/a	n/a	n/a	n/a
<b>Sector Total</b>	10,371	8,955	(1,416)	(14%)	21	27	6	29%
<b>Commercial Sector</b>								
Power Smart Partners	5,551	4,294	(1,257)	(23%)	5	5	1	17%
Product Incentive	2,578	2,286	(292)	(11%)	15	23	8	49%
High Performance Buildings	1,426	1,046	(381)	(27%)	1	2	1	51%
Voltage Optimization	850	383	(467)	(55%)	3	1.3	(1)	(49%)
Sustainable Community	40	-	(40)	(100%)	0	0	-	n/a
<u>Sector Enabling Activities</u>	902	653	(249)	(28%)	n/a	n/a	n/a	n/a
<b>Sector Total</b>	11,307	8,662	(2,645)	(23%)	24	31	8	32%
<b>Industrial Sector</b>								
Mechanical Pulping	-	-	-	-	0	0	-	n/a
Power Smart Partner - Transmission	4,050	2,125	(1,924)	(48%)	72 <sup>4</sup>	62 <sup>4</sup>	(10)	(14%)
Power Smart Partner - Distribution	2,987	2,058	(929)	(31%)	1	3	1	81%
New Plant Design	540	235	(305)	(56%)	0	0	0	n/a
<u>Sector Enabling Activities</u>	540	344	(197)	(36%)	n/a	n/a	n/a	n/a
<b>Sector Total</b>	8,117	4,763	(3,355)	(41%)	73	64	(9)	(12%)
<b>Total EE Programs</b>	<b>29,796</b>	<b>22,380</b>	<b>(7,416)</b>	<b>(25%)</b>	<b>118</b>	<b>123</b>	<b>5</b>	<b>4%</b>
<b>Load Displacement Programs</b>								
Residential	-	-	-	-	0	0	-	-
Commercial	-	-	-	-	0	0	-	-
Industrial	-	-	-	-	0	0	-	-
<b>Total LD Programs</b>	-	-	-	-	0	0	-	-
<b>Total Programs (EE+LD)</b>	<b>29,796</b>	<b>22,380</b>	<b>(7,416)</b>	<b>(25%)</b>	<b>118</b>	<b>123</b>	<b>5</b>	<b>4%</b>
<b>Portfolio Level Activities</b>								
Public Awareness & Education	3,647	3,814	168	5%	-	-	-	-
Community Engagement	3,887	3,507	(380)	(10%)	-	-	-	-
Technology Innovation	573	529	(44)	(8%)	-	-	-	-
Codes & Standards Support	834	648	(186)	(22%)	-	-	-	-
Information Technology	1,166	948	(218)	(19%)	-	-	-	-
<u>Indirect &amp; Portfolio Enabling</u>	4,214	4,399	185	4%	-	-	-	-
<b>Total Portfolio Level</b>	<b>14,320</b>	<b>13,845</b>	<b>(475)</b>	<b>(3%)</b>	-	-	-	-
<b>Total DSM</b>	<b>49,116</b>	<b>39,545</b>	<b>(9,571)</b>	<b>(19%)</b>	<b>122</b>	<b>125</b>	<b>2</b>	<b>2%</b>

Note: Numbers may not add due to rounding.

<sup>1</sup>

Expenditures for Codes and Standards Support are reported under Portfolio Level Activities.

<sup>2</sup>

Expenditures reported for Rate Structures include rates staff, rate design and implementation costs.

<sup>3</sup>

A combined estimate of savings from both the Transmission Service Rate and Power Smart Partner – Transmission program is presented below in the Power Smart Partner-Transmission program line. Upon an evaluation of F2009 energy savings from the Transmission Service Rate and Power Smart Partner-Transmission program, BC Hydro will assess reporting separate estimates of savings from each initiative.

<sup>4</sup>

Includes an estimate of electricity savings resulting from the Transmission Service Rate.

The following are explanations for the above variances:

<b>Codes and Standards</b>	
Residential	Electricity savings were below plan due to a delay in the federal government's introduction of a regulation for ceiling fans. The regulation was enacted in December 2008 and the first stage of the regulation will take effect in 2010.
Commercial	Electricity savings were below plan due to a delay in the federal government's introduction of a regulation for ice-cube makers and commercial clothes washers. The regulation was enacted in December 2008 and took effect immediately.
Industrial	No new industrial codes and standards savings were planned.
<b>Rate Structures</b>	
Residential	Expenditures were below plan due to less activities occurring in the first six months of F2009 than planned.
Commercial	See Residential above.
Industrial	See Residential above.
<b>Energy Efficiency Programs</b>	
<b>Residential Sector</b>	
Behaviour	Expenditures were below plan due to program development taking longer than anticipated. Electricity savings are from customers who have joined Team Power Smart.
Voltage Optimization	Expenditures were below plan due to human resource constraints resulting in delays in implementing voltage optimization at new substations. Actions are underway to address resource constraints. Electricity savings were below plan due to unanticipated BCTC work preventing the voltage optimization systems from operating. The work is expected to reach completion by end of F2009, at which time voltage optimization will resume.
Lighting	Expenditures were below plan because BC Hydro was able to leverage greater value from manufacturers providing more rebates than expected and the use of single rebates on packages of multiple bulbs. Electricity savings were above plan due to higher than planned program participation.
Sustainable Community	Expenditures were below plan as internal resource constraints resulted in a delay in launching program. No savings were planned.
Refrigerator Buy-Back	Electricity savings were above plan due to better than expected response to advertising and media coverage that increased program activity from July through September. Expenditures were approximately on plan.
Low Income	Expenditures were approximately on plan. Energy savings were higher than expected due to elements of the program launching earlier than planned.
New Home	Expenditures were on plan due to initiatives with fixed costs occurring in the first six months of F2009. Savings were below plan due to delays in planned program activity as some new housing developments are taking longer to complete than expected. Program cost-effectiveness is expected to improve as new housing developments are completed.
Appliances and Electronics	Expenditures and electricity savings were above plan as program participation was higher than anticipated. Incentive levels have been adjusted and program advertising has been reduced. Future savings are expected to be attained more cost-effectively than planned.
Renovation Rebate	Expenditures were below plan due to processing delays in paying incentives. Expenditure variance is expected to be resolved as processing is completed. Energy savings were above plan due to more activity than planned.

Sector Enabling Activities	Expenditures were above plan due to more activities occurring in the first six months of F2009 than planned as a result of differences in the timing of F2009 activities relative to the plan.
<b>Commercial/ Government Sector</b>	
Power Smart Partners	Expenditures were below plan due to the mix of technologies selected by program participants providing more cost-effective electricity savings than planned. Electricity savings were above plan due to higher than planned activity in response to a changed program offer.
Product Incentive	Expenditures were below plan as the mix of technologies selected by program participants provided more cost-effective electricity savings than planned. Electricity savings were above plan due to higher than planned activity in response to a changed program offer, application process and communication strategy.
High Performance Buildings	Expenditures were below plan as the projects selected by the participants provided more cost-effective savings than planned and internal resource constraints, now resolved, resulted in the delay of some planned activities. Electricity savings were above plan due to more projects reaching completion than planned.
Voltage Optimization	See Residential Sector Voltage Optimization above.
Sustainable Community	See Residential Sustainable Community above.
Sector Enabling Activities	Expenditures were below plan due to less activity than planned as a result of differences in the timing of F2009 activities relative to the plan.
<b>Industrial Sector</b>	
Mechanical Pulping	The Mechanical Pulping program is not yet operational so expenditures and electricity savings related to mechanical pulping continue to be captured under the Power Smart Partners - Transmission program as planned.
Power Smart Partners – Transmission	Expenditures and electricity savings were below plan due to lower than expected activity in the first six months of F2009, in part due to economic conditions impacting Transmission customers. These conditions, combined with a delay in launching the incentive component of the program, contributed to lower than expected incentive costs. BC Hydro is monitoring participation in the incentive component of the Transmission program.
Power Smart Partners – Distribution	Expenditures were below plan due to a longer than expected lag between project and study initiation and completion when incentive payments are made. Electricity savings were above plan due to higher than expected activity resulting from the program's enabling initiatives.
New Plant Design	Expenditures were below plan as participating customer projects have required fewer costs than planned. No electricity savings were planned.
Sector Enabling Activities	Expenditures were below plan due to less activity in the first six months of F2009 than planned as a result of differences in the timing of F2009 activities relative to the plan.
<b>Energy Efficiency Programs Total</b>	Expenditures were below plan due to lower than planned program activity in some programs and more cost-effective than planned electricity savings in some programs. Electricity savings were approximately on plan.
<b>Load Displacement</b>	No expenditures or savings were planned.
<b>Portfolio Level Costs</b>	
Public Awareness & Education	Expenditures were approximately on plan.
Community Engagement	Expenditures were below plan due to longer than anticipated time required for recruiting staff and a delay in initiatives targeted at local governments due to civic elections.
Technology Innovation	Expenditures were approximately on plan.

Codes and Standards Support	Expenditures were below plan primarily due to a delay in a planned contribution to the development of Canadian Standards Association energy performance standards.
Information Technology	Expenditures were below plan due to less activity than expected in the first six months of F2009 as a result of differences in the timing of F2009 activities relative to the plan.
Indirect and Portfolio Enabling Activities	Expenditures were approximately on plan.
<b>Total DSM</b>	Expenditures were below plan due to lower than planned costs for the energy efficiency portfolio. Electricity savings were approximately on plan.

### 3. Expenditures to Date

BC Hydro's DSM deferred operating, specific capital and relevant operating expenditures from F2008 through the first six months of F2009 total \$109 million. Table 2 presents DSM deferred operating, specific capital and relevant operating expenditures from April 1, 2007 to September 30, 2008, and excludes overhead costs consistent with the approach taken in Appendix K of BC Hydro's 2008 LTAP (Exhibit B-1-1).

**Table 2 Deferred Operating, Specific Capital and Relevant Operating Expenditures since F2008 (\$000)**

	F2008 <sup>1</sup>	F2009 (6 mos)	Total
<b>Rate Structures</b>			
Residential	1,164	1,656	2,821
Commercial	44	1,299	1,343
Industrial	269	365	633
<b>Total Rate Structures</b>	<b>1,477</b>	<b>3,320</b>	<b>4,796</b>
<b>Energy Efficiency Programs</b>			
<b>Residential Sector</b>			
Behaviour	-	264	264
Voltage Optimization	2,011	1,150	3,162
Lighting	3,007	643	3,650
Sustainable Community	-	-	-
Refrigerator Buy-Back	4,014	2,180	6,193
Low Income	113	282	395
New Home	1,431	769	2,200
Appliances and Electronics	1,035	2,652	3,688
Renovation Rebate	549	191	740
<u>Sector Enabling Activities</u>	<u>2,229</u>	<u>829</u>	<u>3,058</u>
Sector Total	14,389	8,955	23,344
<b>Commercial Sector</b>			
Power Smart Partners	10,723	4,294	15,017
Product Incentive	2,842	2,286	5,128
High Performance Buildings	2,163	1,046	3,208
Voltage Optimization	670	383	1,054
Sustainable Community	-	-	-
<u>Sector Enabling Activities</u>	<u>1,374</u>	<u>653</u>	<u>2,027</u>
Sector Total	17,773	8,662	26,435
<b>Industrial Sector</b>			
Mechanical Pulping	-	-	-
Power Smart Partner - Transmission	8,223	2,125	10,349
Power Smart Partner - Distribution	1,351	2,058	3,409
New Plant Design	310	235	545
<u>Sector Enabling Activities</u>	<u>1,219</u>	<u>344</u>	<u>1,562</u>
Sector Total	11,103	4,763	15,865
<b>Total EE Programs</b>	<b>43,264</b>	<b>22,380</b>	<b>65,644</b>
<b>Load Displacement Programs</b>			
Residential	-	-	-
Commercial	-	-	-
Industrial	-	-	-
<b>Total LD Programs</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Programs (EE+LD)</b>	<b>43,264</b>	<b>22,380</b>	<b>65,644</b>
<b>Portfolio Level Activities</b>			
Public Awareness & Education	11,295	3,814	15,109
Community Engagement	-	3,507	3,507
Technology Innovation	-	529	529
Codes & Standards Support	377	648	1,025
Information Technology	1,520	948	2,468
<u>Indirect &amp; Portfolio Enabling</u>	<u>11,231</u>	<u>4,399</u>	<u>15,630</u>
<b>Total</b>	<b>24,422</b>	<b>13,845</b>	<b>38,268</b>
<b>Total DSM</b>	<b>69,163</b>	<b>39,545</b>	<b>108,708</b>

Note: Numbers may not add due to rounding.

<sup>1</sup> These expenditures differ slightly from the F2008 actual expenditures presented in BC Hydro's Report on Demand Side Management for the Twelve Months ending March 31, 2008 due to the inclusion of expenditures for Rate Structures and Voltage Optimization in order to align with DSM expenditures presented in Appendix K of Exhibit B-1-1.

## 4 Plan Performance

BC Hydro's DSM electricity savings since F2008 totalled 582 GWh/year at September 30, 2008.<sup>4</sup> The 582 GWh/year of DSM electricity savings achieved at September 30, 2008 represent five per cent of BC Hydro's F2020 target of 10,606 GWh/year from the DSM plan filed as part of BC Hydro's 2008 LTAP. Table 3 presents these figures by codes and standards, rate structures and programs.<sup>5</sup>

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<sup>4</sup> Previous reports provided annual incremental electricity savings. However, this presentation is problematic because, over time, the sum of incremental electricity savings will not equal the running total due to some previous savings retiring in light of persistence. To avoid confusion and in order to manage the volume of data in the report, annual incremental electricity savings by year are not presented. Annual electricity savings for prior years are available in Table 1 of previous reports.

<sup>5</sup> Table 3 does not reflect the reduction in planned DSM savings presented in the Evidentiary Update to the 2008 LTAP because BC Hydro has not re-forecasted DSM savings by initiative.

**Table 3 Cumulative Electricity Savings at September 30, 2008 (GWh/year)**

GWh/year	Cumulative Electricity Savings at Sept. 30, 2008	F2020 Target	% of F2020 Target
<b>Codes and Standards</b>			
Residential	2	2,763	0%
Commercial	0	500	0%
<u>Industrial</u>	<u>0</u>	<u>106</u>	<u>0%</u>
<b>Total Codes and Standards</b>	<b>2</b>	<b>3,369</b>	<b>0%</b>
<b>Rate Structures</b>			
Residential	0	978	0%
Commercial	0	387	0%
<u>Industrial</u>	<u>0</u> <sup>1</sup>	<u>727</u>	<u>0%</u>
<b>Total Rate Structures</b>	<b>0</b>	<b>2,092</b>	<b>0%</b>
<b>Energy Efficiency Programs</b>			
<b>Residential Sector</b>			
Behaviour	1	309	0%
Voltage Optimization	4	231	2%
Lighting	26	148	18%
Sustainable Community	0	114	0%
Refrigerator Buy-Back	38	91	42%
Low Income	1	23	3%
New Home	5	35	14%
Appliances and Electronics	3	73	4%
Renovation Rebate	5	35	15%
<u>Sector Enabling Activities</u>	<u>0</u>	<u>n/a</u>	<u>n/a</u>
<b>Sector Total</b>	<b>84</b>	<b>1059</b>	<b>8%</b>
<b>Commercial Sector</b>			
Power Smart Partners	38	666	6%
Product Incentive	51	448	11%
High Performance Buildings	4	238	2%
Voltage Optimization	1	77	2%
Sustainable Community	0	28	0%
<u>Sector Enabling Activities</u>	<u>0</u>	<u>n/a</u>	<u>n/a</u>
<b>Sector Total</b>	<b>94</b>	<b>1457</b>	<b>6%</b>
<b>Industrial Sector</b>			
Mechanical Pulping	0	941	0%
Power Smart Partner - Transmission	390 <sup>2</sup>	742	53%
Power Smart Partner - Distribution	13	698	2%
New Plant Design	0	118	0%
<u>Sector Enabling Activities</u>	<u>0</u>	<u>n/a</u>	<u>n/a</u>
<b>Sector Total</b>	<b>403</b>	<b>2499</b>	<b>16%</b>
<b>Total EE Programs</b>	<b>580</b>	<b>5016</b>	<b>12%</b>
<b>Load Displacement Programs</b>			
Residential	0	11	0%
Commercial	0	25	0%
<u>Industrial</u>	<u>0</u>	<u>93</u>	<u>0%</u>
<b>Total LD Programs</b>	<b>0</b>	<b>129</b>	<b>0%</b>
<b>Total Programs (EE+LD)</b>	<b>580</b>	<b>5,146</b>	<b>11%</b>
<b>Total DSM</b>	<b>582</b>	<b>10,606</b>	<b>5%</b>

Note: Numbers may not add due to rounding.

<sup>1</sup> A combined estimate of savings from both the Transmission Service Rate and Power Smart Partner - Transmission program is presented below in the Power Smart Partner-Transmission program line. Upon an evaluation of F2009 energy savings from the Transmission Service Rate and Power Smart Partner-Transmission program, BC Hydro will assess reporting separate estimates of savings from each initiative.

<sup>2</sup> Includes an estimate of electricity savings resulting from the Transmission Service Rate.

The DSM electricity savings presented in Table 3 have been achieved at a utility cost of 2.2 cents/kWh. Table 4 presents the levelized utility cost of actual DSM electricity savings achieved from F2008 through September 30, 2008.

**Table 4 Utility Cost of DSM Electricity Savings: F2008 to mid-year F2009**

	Levelized Utility Cost (cents/kWh)
<b>Rate Structures</b>	
Residential	n/a
Commercial	n/a
Industrial <sup>1</sup>	<u>n/a</u>
Total Rate Structures	<b>n/a</b>
<b>Energy Efficiency Programs</b>	
<b>Residential Sector</b>	
Behaviour	2.2
Voltage Optimization	6.6
Lighting	2.8
Sustainable Community	n/a
Refrigerator Buy-Back	3.7
Low Income	8.0
New Home	5.1
Appliances and Electronics	13.1
Renovation Rebate	2.6
<u>Sector Enabling Activities</u>	<u>n/a</u>
Sector Total	4.3
<b>Commercial Sector</b>	
Power Smart Partners	4.8
Product Incentive	3.0
High Performance Buildings	7.9
Voltage Optimization	6.6
Sustainable Community	n/a
<u>Sector Enabling Activities</u>	<u>n/a</u>
Sector Total	4.4
<b>Industrial Sector</b>	
Mechanical Pulping	n/a
Power Smart Partner - Transmission <sup>2</sup>	0.4
Power Smart Partner - Distribution	4.2
New Plant Design	n/a
<u>Sector Enabling Activities</u>	<u>n/a</u>
Sector Total	0.8
<b>Total EE Programs</b>	<b>2.1</b>
<b>Load Displacement Programs</b>	
Residential	n/a
Commercial	n/a
Industrial	<u>n/a</u>
<b>Total LD Programs</b>	<b>n/a</b>
<b>Total Programs (EE+LD)</b>	<b>2.1</b>
<b>Total DSM</b>	<b>2.2</b>

<sup>1</sup> A combined estimate of the levelized utility cost for both the Transmission Service Rate and Power Smart Partner - Transmission program is presented below in the Power Smart Partner-Transmission program line. Upon an evaluation of F2009 energy savings from the Transmission Service Rate and Power Smart Partner-Transmission program, BC Hydro will assess reporting separate levelized utility cost for each initiative.

<sup>2</sup> The levelized utility cost of the Power Smart Partner - Transmission program includes an estimate of electricity savings resulting from the Transmission Service Rate.

The electricity savings achieved to date have been cost-effective, with an All Ratepayers Test benefit-cost ratio of 1.9. Table 5 presents benefit cost ratios of actual DSM electricity savings achieved from F2008 through September 30, 2008.<sup>6</sup>

**Table 5 Benefit-Cost Ratios of DSM Electricity Savings: F2008 to mid-year F2009**

	Benefit Cost Ratios		
	Utility Test	Ratepayers Impact Measure (All Ratepayers) Test	Total Resource Cost (Non Participant) Test
<b>Rate Structures</b>			
Residential	n/a	n/a	n/a
Commercial	n/a	n/a	n/a
Industrial <sup>1</sup>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
Total Rate Structures	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>Energy Efficiency Programs</b>			
<b>Residential Sector</b>			
Behaviour	5.2	5.2	1.2
Voltage Optimization	1.7	1.7	0.8
Lighting	4.4	2.6	1.3
Sustainable Community	n/a	n/a	n/a
Refrigerator Buy-Back	2.8	3.1	0.9
Low Income <sup>2</sup>	1.6	2.0	0.8
New Home	2.0	0.8	0.8
Appliances and Electronics	0.8	2.1	0.5
Renovation Rebate	4.3	1.3	0.9
<u>Sector Enabling Activities</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
Sector Total	2.6	2.0	0.9
<b>Commercial Sector</b>			
Power Smart Partners	2.2	1.9	0.8
Product Incentive	3.5	2.1	1.0
High Performance Buildings	1.3	1.1	0.7
Voltage Optimization	1.6	1.6	0.7
Sustainable Community	n/a	n/a	n/a
<u>Sector Enabling Activities</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
Sector Total	2.4	1.8	0.9
<b>Industrial Sector</b>			
Mechanical Pulping	n/a	n/a	n/a
Power Smart Partner - Transmission <sup>3</sup>	23.8	1.7	1.2
Power Smart Partner - Distribution	2.5	1.7	0.9
New Plant Design	0.0	0.0	0.0
<u>Sector Enabling Activities</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
Sector Total	13.0	1.9	1.2
<b>Total EE Programs</b>	<b>5.0</b>	<b>1.9</b>	<b>1.1</b>
<b>Load Displacement Programs</b>			
Residential	n/a	n/a	n/a
Commercial	n/a	n/a	n/a
Industrial	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
<b>Total LD Programs</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>Total Programs (EE+LD)</b>	<b>5.0</b>	<b>1.9</b>	<b>1.1</b>
<b>Total DSM</b>	<b>4.8</b>	<b>1.9</b>	<b>1.1</b>

<sup>1</sup> A combined view of the benefit cost ratios from both the Transmission Service Rate and Power Smart Partner - Transmission program is presented below in the Power Smart Partner-Transmission program line. Upon an evaluation of F2009 energy savings from the Transmission Service Rate and Power Smart Partner-Transmission program, BC Hydro will assess reporting separate benefit cost ratios for each initiative.

<sup>2</sup> All Ratepayers Test for Low Income program includes a 30 per cent adder to program benefits. Subsection 4(2)(b) of Ministerial Order M 271 directs the BCUC to grant a 30 per cent adder to the benefits of low income programs in the All Ratepayers Test (Total Resource Cost Test).

<sup>3</sup> The benefit cost ratios of the Power Smart Partner - Transmission program includes an estimate of electricity savings resulting from the Transmission Service Rate.

<sup>6</sup> While Ministerial Order M 271 precludes the use of the Non Participant Test in determining cost-effectiveness of a demand-side measure, this benefit cost ratio is included in the table consistent with directive 16 from the BCUC decision on the 2006 IEP/LTAP.

## 5. Operating Expenditures in the Six Months ending September 30, 2008

In the six months ending September 30, 2008, DSM operating expenditures totalled \$1.4 million.<sup>7</sup> Table 6 presents DSM operating expenditures in the six months ending September 30, 2008.

**Table 6 Operating Expenditures for the Six Months Ending September 30, 2008 (\$000)**

ABS Services	72
Building and Equipment	82
External Recoveries	(7)
Internal Services Received	17
Labour	1,063
Materials	7
Other	3
Services	134
<b>Total</b>	<b>1,371</b>

## 6. Allocation of Portfolio-Level Costs to Programs<sup>8</sup>

This section describes how portfolio-level costs are allocated to programs. In keeping with directive 61 from the BCUC decision on the F05/F06 RRA, for the purposes of this report portfolio-level costs are allocated to DSM programs and rate structures based on their share of the DSM electricity savings in F2018, excluding codes and standards savings. For example, rate structures and programs are forecast to save roughly 6,554 GWh/year in F2018, so a program that is forecast to save 65 GWh/year in F2018 represents one per cent of the total. In turn, one per cent of portfolio-level costs would be allocated to that program in each year.

<sup>7</sup> Operating expenditures relevant for cost-effectiveness, such as those related to rate structures, are reported in Table 1 and thus not included here.

<sup>8</sup> Previous reports provided a description of the functions of portfolio level costs. However since this description is available in the DSM Plan as part of BC Hydro's 2008 LTAP (Exhibit B-1-1, Sub-Appendix G to Appendix K, p. 183 of 213) it is not repeated in this report.