



FOR GENERATIONS

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March 9, 2010

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))**

Attached is BC Hydro's semi-annual filing of the Report on Demand-Side Management Activities for the six months ending September 30, 2009.

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, 2009**

March 2, 2010

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1 Introduction

This is BC Hydro's semi-annual report to the British Columbia Utilities Commission (BCUC) on demand-side management (DSM) activities. It 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 expenditures, electricity savings, plan performance, and supporting initiative activities for the first six months of Fiscal 2010 (F2010), being the six months ending September 30, 2009.

Directive 69 directed BC Hydro "to provide information to the BCUC 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 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 supporting initiatives is available in BC Hydro's 2008 Long Term Acquisition Plan (LTAP), it is not repeated in this report.¹

In the July 27, 2009 BCUC decision on BC Hydro's 2008 LTAP, Directive 38 directed BC Hydro "to include metrics for each initiative, achievements in relation to milestones, and description of past or planned mitigation measures where warranted. These mitigation measures should include shifting program resources and alternative supply options for each program. Ongoing

¹ BC Hydro 2008 LTAP, Exhibit B-1-1, Appendix K, page 183 of 213.

DSM performance reporting should demonstrate how BC Hydro is continuously pursuing DSM and that specific programs are cost-effective.”

The development work necessary to include these reporting elements is underway, but is not available for this semi-annual report. Reporting on the Directive 38 elements will be included starting with the first annual report for the year ending March 31, 2010.

2 Expenditures and Electricity Savings for the Six Months Ending September 30, 2009

BC Hydro’s DSM expenditures² in the six months ending September 30, 2009 totalled \$47.3 million while incremental DSM electricity savings totalled 318 GWh/year. This was \$23.5 million and 118 GWh/year below the DSM Plan in BC Hydro’s 2008 LTAP.

Table 1 presents planned and actual DSM expenditures and incremental electricity savings in the first six months of F2010.

² Comprising all DSM-related deferred operating and specific capital expenditures and operating expenditures that are relevant for DSM cost-effectiveness, such as those related to rate structures, which aligns with the types of DSM expenditures included in BC Hydro’s DSM plans. Other DSM operating expenditures are presented in Table 6 of this report.

Table 1 Expenditures and Incremental Electricity Savings for the Six Months Ending September 30, 2009

	Expenditures ¹				Incremental Electricity Savings			
	Plan ²	Actual ³	Variance	%	Plan ²	Actual	Variance	%
	\$ 000	\$ 000	\$ 000		GWh/yr	GWh/yr	GWh/yr	
Codes and Standards⁴								
Residential	-	-	-	-	68	11	(57)	(84%)
Commercial	-	-	-	-	0	4	4	1,911%
Industrial	-	-	-	-	-	-	-	n/a
Total Codes and Standards	-	-	-	-	68	15	(53)	(78%)
Rate Structures								
Residential	995	622	(373)	(38%)	116	124	7	6%
Commercial	1,675	1,854	179	11%	59	0	(59)	(100%)
Industrial	70	583	513	732%	40 ⁵	0 ⁵	(40)	(100%)
Total Rate Structures	2,740	3,058	318	12%	215	124	(92)	(43%)
Energy Efficiency Programs								
Residential Sector								
Behaviour	10,417	1,001	(9,416)	(90%)	5	2	(4)	(69%)
Voltage Optimization	2,260	1,404	(856)	(38%)	8	7	(2)	(19%)
Lighting	667	517	(150)	(23%)	2	5	3	191%
Sustainable Community	348	353	5	1%	0	0	-	n/a
Refrigerator Buy-Back	1,748	1,851	103	6%	7	10	3	41%
Low Income	2,721	804	(1,917)	(70%)	3	1	(2)	(71%)
New Home	466	505	39	8%	1	1	0	3%
Appliances and Electronics	3,005	3,102	97	3%	7	6	(2)	(25%)
Renovation Rebate	652	292	(359)	(55%)	1	3	2	223%
<u>Sector Enabling Activities</u>	589	534	(55)	(9%)	n/a	n/a	n/a	n/a
Sector Total	22,873	10,363	(12,510)	(55%)	34	33	(1)	(4%)
Commercial Sector								
Power Smart Partners	3,935	6,870	2,935	75%	2	10	8	358%
Product Incentive	5,380	3,078	(2,302)	(43%)	22	42	20	88%
High Performance Buildings	2,363	1,612	(751)	(32%)	4	6	3	71%
Voltage Optimization	750	468	(282)	(38%)	3	2	(1)	(20%)
Sustainable Community	140	144	4	3%	0	0	-	n/a
<u>Sector Enabling Activities</u>	815	674	(141)	(17%)	n/a	n/a	n/a	n/a
Sector Total	13,383	12,846	(536)	(4%)	31	61	30	96%
Industrial Sector								
Mechanical Pulping	-	-	-	-	0	0	-	n/a
Power Smart Partner - Transmission	9,172	3,216	(5,956)	(65%)	82 ⁶	82 ⁶	0	1%
Power Smart Partner - Distribution	6,044	3,665	(2,379)	(39%)	6	4	(2)	(34%)
New Plant Design	416	362	(54)	(13%)	0	0	-	n/a
<u>Sector Enabling Activities</u>	560	627	67	12%	n/a	n/a	n/a	n/a
Sector Total	16,192	7,870	(8,322)	(51%)	88	86	(2)	(2%)
Total EE Programs	52,448	31,079	(21,369)	(41%)	153	180	27	17%
Load Displacement Programs								
Residential	85	-	(85)	(100%)	0	0	-	-
Commercial	140	-	(140)	(100%)	0	0	-	-
Industrial	205	-	(205)	(100%)	0	0	-	-
Total LD Programs	430	-	(430)	(100%)	0	0	-	-
Total Programs (EE+LD)	52,878	31,079	(21,799)	(41%)	153	180	27	17%
Supporting Initiatives								
Public Awareness & Education	3,393	2,831	(562)	(17%)	-	-	-	-
Community Engagement	4,262	4,082	(180)	(4%)	-	-	-	-
Technology Innovation	620	494	(126)	(20%)	-	-	-	-
Codes & Standards Support	1,220	782	(438)	(36%)	-	-	-	-
Information Technology	1,125	775	(350)	(31%)	-	-	-	-
<u>Indirect & Portfolio Enabling</u>	4,624	4,241	(383)	(8%)	-	-	-	-
Total Supporting Initiatives	15,244	13,204	(2,040)	(13%)	-	-	-	-
Total DSM	70,862	47,342	(23,521)	(33%)	437	318	(118)	(27%)

Note: Numbers are rounded.

- ¹ Including all DSM-related deferred operating and specific capital expenditures and operating expenditures that are relevant for DSM cost-effectiveness.
- ² Plan figures are from BC Hydro's 2008 LTAP.
- ³ To align with the DSM Plan activities and expenditures presented in BC Hydro's 2008 LTAP, which cover the years F2008 forward, these figures do not include \$4.5 million in incentive refunds received in the first six months of F2010 relating to DSM program activity before F2008.
- ⁴ Expenditures for Codes and Standards Support are reported under Supporting Initiatives.
- ⁵ Savings shown are those planned to come from the Industrial sector from the Large General Service rate. 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 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.
- ⁶ Includes estimated electricity savings resulting from the Transmission Service Rate.

The following are explanations for the above variances:

Codes and Standards	
Residential	Electricity savings were below plan primarily due to a delay in the federal government's introduction of a regulation for ceiling fans. The regulation was expected to take effect in 2008, but is now expected to take effect in 2010. In addition there has been a delay in the federal government's introduction of regulations for set-top boxes and external power supplies. These regulations were expected to take effect in September 2009 but are now anticipated to take effect in late 2010.
Commercial	Energy savings were above plan due to the enactment of a B.C. regulation on fluorescent ballasts taking effect January 2009. This regulation had not been contemplated in the 2008 DSM Plan.
Industrial	No new industrial codes and standards savings were planned because no changes to industrial codes and standards were expected.
Rate Structures	
Residential	Expenditures were below plan due to a smoother transition than anticipated by customers to the Residential Inclining Block (RIB) rate and postponement of selected communication activities. Electricity savings were above plan due to differences between the assumed RIB rate structure and that approved by the BCUC and between forecast and actual residential load.
Commercial	Expenditures were above plan due to more research, analysis and stakeholder consultation activities than anticipated with respect to restructuring the Large General Service (LGS) rate. Electricity savings were below plan due to the deferral of the LGS rate application to October 2009.
Industrial	Expenditures were above plan for the same reasons noted above in Commercial and also due to necessary but unplanned higher level of work on the Transmission Service Rate, specifically compliance filings and the three year report to the BCUC. Electricity savings were below plan due to the deferral of the LGS rate application to October 2009.
Energy Efficiency Programs	
Residential Sector	
Behaviour	Expenditures and electricity savings were below plan due to not incurring costs for activities enabled by the Smart Metering and Infrastructure program as planned in F2010.
Voltage Optimization	Expenditures and electricity savings were below plan due to voltage optimization projects taking longer to complete than planned.
Lighting	Expenditures were below plan due to delays in program partners invoicing BC Hydro. Electricity savings were above plan due to higher than planned program activity as a result of BC Hydro securing the participation of more retail partners than expected and, in turn higher than expected sales of CFLs.
Sustainable Community	Expenditures were approximately on plan. No electricity savings were planned.
Refrigerator Buy-Back	Expenditures were slightly above plan due to higher than forecast program participation. Energy savings were above plan due to higher than forecast program participation due to a strong, targeted advertising campaign.

Codes and Standards	
Low Income	Expenditures and electricity savings were lower than planned due to a delay in launching the audit and retrofit element of the program. Privacy issues associated with this program element have now been resolved and this element is now in market.
New Home	Expenditures and electricity savings were approximately on plan.
Appliances and Electronics	Expenditures were approximately on plan. Electricity savings were below plan due to a delay in launching the set-top box portion of the program.
Renovation Rebate	Expenditures were below plan due to a delay in program partners invoicing BC Hydro. Energy savings were above plan due to higher than planned program participation as a result of a higher number of audits leading to retrofits than planned.
Sector Enabling Activities	Expenditures were approximately on plan.
Commercial/ Government Sector	
Power Smart Partner	Expenditures were above plan due to changes to the program offer and program communication strategy and the launch of new program components as well as higher than planned participation in response to these changes. Electricity savings were above plan due to this increase in participation.
Product Incentive	Expenditures were below plan as the mix of technologies selected by program participants led to fewer incentive costs than planned. Electricity savings were above plan due to higher than planned participation in response to a changed program offer, communication strategy and an improved application process.
High Performance Buildings	Expenditures were below plan due to the projects selected by program participants resulting in lower incentive costs than planned. Electricity savings were above plan due to more projects reaching completion than planned.
Voltage Optimization	See Residential Sector.
Sustainable Community	See Residential Sector.
Sector Enabling Activities	Expenditures were below plan due to a delay of selected activities that were expected to occur in the first half of F2010 but will now occur in the second half.
Industrial Sector	
Mechanical Pulping	The program is currently embedded within the Power Smart Partner – Transmission program. Mechanical Pulping costs and savings may be accounted for separately in future years.
Power Smart Partner – Transmission	Expenditures were below plan due to poor economic conditions prompting program participants to implement lower cost projects enabled by the energy management elements of the program. Savings were approximately on plan.
Power Smart Partner – Distribution	Expenditures and electricity savings were below plan due to longer than expected lag times between when energy studies were completed and projects were implemented.
New Plant Design	Expenditures were below plan due to energy study costs for program participants being lower than planned. No savings were planned.
Sector Enabling Activities	Expenditures were above plan due to unplanned activity to capitalize on the Federal Green Transformation Program, which offered grants to Canadian pulp and paper mills to improve energy efficiency and environmental performance.

Codes and Standards	
Energy Efficiency Programs Total	Expenditures were below plan largely due to lower than planned costs in five programs: Behaviour, Low Income, Product Incentive, Power Smart Partner – Transmission and Power Smart Partner – Distribution. Electricity savings were above plan largely due to higher than planned participation in the Product Incentive and Power Smart Partner programs in the Commercial sector.
Load Displacement	Expenditures were below plan due to a delay in the development of load displacement programs in order to ensure alignment with BC Hydro's supply side offers targeting distributed generation opportunities. No savings were planned.
Supporting Initiatives	
Public Awareness & Education	Expenditures were below plan due to the chosen timing of various communication, educational and celebrity leader activities.
Community Engagement	Expenditures were approximately on plan.
Technology Innovation	Expenditures were below plan due to a longer than expected lag between commitments and payments for technology innovation projects.
Codes and Standards Support	Expenditures were below plan due to co-funding contributions for Canadian Standards Association energy efficiency standards development work and for energy efficiency policy studies with the City of Vancouver occurring later than planned.
Information Technology	Expenditures were below plan due to fewer activities than planned as a result of challenges in resolving privacy and security concerns with external partners.
Indirect and Portfolio Enabling Activities	Expenditures were approximately on plan.
Total DSM	Expenditures were below plan due to lower than planned costs for energy efficiency programs and supporting initiatives. Electricity savings were below plan due to lower than expected savings from Codes and Standards and Rate Structures.

3 Expenditures to Date

BC Hydro's DSM expenditures from F2008 through the first six months of F2010 totalled \$223.8 million. Table 2 presents DSM expenditures from April 1, 2007 to September 30, 2009.

Table 2 Expenditures since F2008¹

	F2008 ² (\$ 000)	F2009 (\$ 000)	F2010 (\$ 000)	Total (\$ 000)
Rate Structures				
Residential	1,164	3,688	622	5,474
Commercial	44	2,593	1,854	4,491
Industrial	269	610	583	1,461
Total Rate Structures	1,477	6,891	3,058	11,426
Energy Efficiency Programs				
Residential Sector				
Behaviour	-	1,351	1,001	2,352
Voltage Optimization	2,011	3,165	1,404	6,581
Lighting	3,007	2,525	517	6,049
Sustainable Community	-	-	353	353
Refrigerator Buy-Back	4,014	4,950	1,851	10,815
Low Income	113	1,339	804	2,256
New Home	1,431	1,519	505	3,455
Appliances and Electronics	1,035	5,460	3,102	9,597
Renovation Rebate	549	1,193	292	2,035
<u>Sector Enabling Activities</u>	<u>2,229</u>	<u>1,897</u>	<u>534</u>	<u>4,660</u>
Sector Total	14,389	23,401	10,363	48,153
Commercial Sector				
Power Smart Partners	10,723	17,726	6,870	35,320
Product Incentive	2,842	7,920	3,078	13,841
High Performance Buildings	2,163	3,721	1,612	7,495
Voltage Optimization	670	1,055	468	2,194
Sustainable Community	-	-	144	144
<u>Sector Enabling Activities</u>	<u>1,374</u>	<u>2,100</u>	<u>674</u>	<u>4,148</u>
Sector Total	17,773	32,523	12,846	63,142
Industrial Sector				
Mechanical Pulping	-	-	-	-
Power Smart Partner - Transmission	8,223	6,443	3,216	17,882
Power Smart Partner - Distribution	1,351	5,963	3,665	10,979
New Plant Design	310	729	362	1,401
<u>Sector Enabling Activities</u>	<u>1,219</u>	<u>1,283</u>	<u>627</u>	<u>3,129</u>
Sector Total	11,103	14,418	7,870	33,391
Total EE Programs	43,264	70,342	31,079	144,685
Load Displacement Programs				
Residential	-	-	-	-
Commercial	-	-	-	-
Industrial	-	-	-	-
Total LD Programs	-	-	-	-
Total Programs (EE+LD)	43,264	70,342	31,079	144,685
Supporting Initiatives				
Public Awareness & Education	11,295	8,469	2,831	22,594
Community Engagement	-	7,749	4,082	11,831
Technology Innovation	-	1,418	494	1,911
Codes & Standards Support	377	1,295	782	2,454
Information Technology	1,520	1,875	775	4,170
<u>Indirect & Portfolio Enabling</u>	<u>11,231</u>	<u>9,290</u>	<u>4,241</u>	<u>24,762</u>
Total	24,422	30,095	13,204	67,722
Total DSM	69,163	107,328	47,342	223,833

Note: Numbers are rounded.

¹ Comprising all DSM deferred operating and specific capital expenditures and operating expenditures that are relevant for DSM cost-effectiveness

² These expenditures differ slightly from the F2008 actual expenditures presented in BC Hydro's Report on Demand Side Management for F2008 due to the inclusion of expenditures for Rate Structures and Voltage Optimization in order to align with DSM expenditures presented in BC Hydro's 2008 LTAP. Also, to align with those same expenditures, which cover the years F2008 forward, these figures do not include \$15.2 million in incentive refunds received since F2009 relating to DSM program activity before F2008.

4 Plan Performance

BC Hydro's DSM electricity savings since F2008 totalled 1,240 GWh/year at September 30, 2009, representing 12 per cent of BC Hydro's F2020 target of 10,606 GWh/year in BC Hydro's 2008 LTAP. Table 3 presents these figures by codes and standards, rate structures and programs.³

**Table 3 Cumulative Electricity Savings at
September 30, 2009¹**

	Cumulative Electricity Savings at Sept 30, 2009 GWh/year	F2020 Target GWh/year	% of F2020 Target GWh/year
Codes and Standards			
Residential	15	2,763	1%
Commercial	4	500	1%
Industrial	0	106	0%
Total Codes and Standards	19	3,369	1%
Rate Structures			
Residential	218	978	22%
Commercial	0	387	0%
Industrial	0 ²	727	0%
Total Rate Structures	218	2,092	10%
Energy Efficiency Programs			
Residential Sector			
Behaviour	5	309	2%
Voltage Optimization	10	231	4%
Lighting	89	148	60%
Sustainable Community	0	114	0%
Refrigerator Buy-Back	57	91	63%
Low Income	3	73	4%
New Home	16	35	46%
Appliances and Electronics	11	35	31%
Renovation Rebate	11	23	48%
<u>Sector Enabling Activities</u>	0	n/a	n/a
Sector Total	202	1,059	19%
Commercial Sector			
Power Smart Partners	79	666	12%
Product Incentive	131	448	29%
High Performance Buildings	20	238	8%
Voltage Optimization	3	77	4%
Sustainable Community	0	28	0%
<u>Sector Enabling Activities</u>	0	n/a	n/a
Sector Total	234	1,457	16%
Industrial Sector			
Mechanical Pulping	0	941	0%
Power Smart Partner - Transmission	531 ³	742	72%
Power Smart Partner - Distribution	36	698	5%
New Plant Design	1	118	1%
<u>Sector Enabling Activities</u>	0	n/a	n/a
Sector Total	568	2,499	23%
Total EE Programs	1,004	5,016	20%
Load Displacement Programs			
Residential	0	11	0%
Commercial	0	25	0%
Industrial	0	93	0%
Total LD Programs	0	129	0%
Total Programs (EE+LD)	1,004	5,146	20%
Total DSM	1,240	10,606	12%

Note: Numbers are rounded.

- ¹ Table 3 does not present annual incremental electricity savings because, over time, the sum of incremental electricity savings will not equal the cumulative 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 are not presented here. Annual incremental electricity savings for prior years are available in Table 1 of previous reports.
- ² 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 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.
- ³ Includes estimated electricity savings resulting from the Transmission Service Rate.

³ Table 3 does not reflect the reduction in planned DSM savings presented in the Evidentiary Update to the 2008 LTAP because the Update only contained a new estimate of the DSM Plan's total savings.

The DSM electricity savings presented in Table 3 have been achieved at an average utility cost of 1.8 cents/kWh. Table 4 presents the levelized utility cost of actual DSM electricity savings achieved from April 1, 2007 through September 30, 2009. The industrial New Plant Design program has a relatively high utility cost due to the lag between program costs and electricity savings coming online.

**Table 4 Utility Cost of Electricity Savings:
F2008 to Mid-year F2010**

	Levelized Utility Cost (cents/kWh)
Rate Structures	
Residential	0.7
Commercial	n/a
<u>Industrial¹</u>	<u>n/a</u>
Total Rate Structures	0.8
Energy Efficiency Programs	
Residential Sector	
Behaviour	3.8
Voltage Optimization	5.0
Lighting	1.3
Sustainable Community	n/a
Refrigerator Buy-Back	3.0
Low Income	7.7
New Home	2.4
Appliances and Electronics	8.7
Renovation Rebate	2.3
<u>Sector Enabling Activities</u>	<u>n/a</u>
Sector Total	2.9
Commercial Sector	
Power Smart Partners	4.5
Product Incentive	2.1
High Performance Buildings	3.9
Voltage Optimization	5.1
Sustainable Community	n/a
<u>Sector Enabling Activities</u>	<u>n/a</u>
Sector Total	3.4
Industrial Sector	
Mechanical Pulping	n/a
Power Smart Partner - Transmission ²	0.7
Power Smart Partner - Distribution	3.7
New Plant Design	24.6
<u>Sector Enabling Activities</u>	<u>n/a</u>
Sector Total	1.1
Total EE Programs	2.1
Load Displacement Programs	
Residential	n/a
Commercial	n/a
Industrial	<u>n/a</u>
Total LD Programs	n/a
Total Programs (EE+LD)	2.1
Total DSM	1.8

¹ 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 energy savings from the Transmission Service Rate and Power Smart Partner-Transmission program, BC Hydro will assess reporting separate levelized utility costs for each initiative.

² The levelized utility cost of the Power Smart Partner – Transmission program includes estimated electricity savings resulting from the Transmission Service Rate.

The DSM electricity savings presented in Table 3 have been at a substantially lower cost than new electricity supply, with an All Ratepayers Test benefit-cost ratio of 2.7. Table 5 presents benefit cost ratios of actual DSM electricity savings achieved from April 1, 2007 through September 30, 2009. The industrial New Plant Design program has relatively low benefit-cost ratios due to the lag between program costs and electricity savings coming online.

**Table 5 Benefit-Cost Ratios of Electricity Savings:
F2008 to Mid-year F2010**

	Benefit Cost Ratios		
	Utility Test	All Ratepayers Test	Non Participant Test ⁴
Rate Structures			
Residential	16.3	16.3	1.0
Commercial	n/a	n/a	n/a
Industrial ¹	n/a	n/a	n/a
Total Rate Structures	13.6	13.6	1.0
Energy Efficiency Programs			
Residential Sector			
Behaviour	3.0	3.0	0.9
Voltage Optimization	2.2	2.2	0.9
Lighting	9.7	3.8	1.4
Sustainable Community	n/a	n/a	n/a
Refrigerator Buy-Back	3.5	4.1	0.9
Low Income ²	1.6	1.5	0.8
New Home	4.3	1.0	1.0
Appliances and Electronics	1.2	2.5	0.6
Renovation Rebate	4.9	1.3	0.9
<u>Sector Enabling Activities</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
Sector Total	4.0	2.5	1.0
Commercial Sector			
Power Smart Partners	2.4	2.3	0.8
Product Incentive	5.1	2.8	1.0
High Performance Buildings	2.7	1.6	1.0
Voltage Optimization	2.1	2.1	0.8
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	3.1	2.3	0.9
Industrial Sector			
Mechanical Pulping	n/a	n/a	n/a
Power Smart Partner - Transmission ³	13.8	2.0	1.4
Power Smart Partner - Distribution	2.9	1.9	0.9
New Plant Design	0.4	0.5	0.4
<u>Sector Enabling Activities</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
Sector Total	4.0	2.5	1.0
Total EE Programs	5.2	2.2	1.1
Load Displacement Programs			
Residential	n/a	n/a	n/a
Commercial	n/a	n/a	n/a
Industrial	n/a	n/a	n/a
Total LD Programs	n/a	n/a	n/a
Total Programs (EE+LD)	5.2	2.2	1.1
Total DSM	6.1	2.7	1.1

- ¹ 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 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.
- ² The All Ratepayers Test benefit-cost ratio for the Low Income program includes a 30 per cent adder to program benefits, in keeping with the 2008 DSM regulation (Ministerial Order M 271).
- ³ The benefit cost ratios of the Power Smart Partner – Transmission program includes estimated electricity savings resulting from the Transmission Service Rate.
- ⁴ While the 2008 DSM regulation 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 42 from the BCUC decision on BC Hydro's 2008 LTAP.

5 Operating Expenditures for the Six Months Ending September 30, 2009

For the six months ending September 30, 2009, BC Hydro’s DSM operating expenditures totalled \$601,000.⁴ Table 6 presents the break-down of these DSM operating expenditures.

Table 6 Operating Expenditures for the Six Months Ending September 30, 2009 (\$ 000)

ABS Services	0
External Recoveries	(2)
Internal Services Received	0
Labour	546
Materials	6
Services	49
Facilities and Equipment	3
Total	601

6 Allocation of Supporting Initiative Costs to Programs⁵

This section describes how supporting initiative costs are allocated to programs for the purpose of cost test calculations.

In keeping with Directive 61 from the BCUC decision on the F05/F06 RRA, for the purposes of this report supporting initiative costs are allocated to DSM programs and rate structures based on their share of forecast 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 supporting initiative costs would be allocated to that program in each year.

⁴ DSM operating expenditures relevant for DSM cost-effectiveness, such as those related to rate structures, are reported in Table 1 and not included here.

⁵ Previous reports provided a description of the functions of supporting initiatives. However since this description is available in BC Hydro’s 2008 LTAP (Exhibit B-1-1, Appendix K, page 183 of 213), it is not repeated in this report.