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April 15, 2007

Mr. Robert J. Pellatt
Commission Secretary
British Columbia Utilities Commission
Sixth Floor – 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Pellatt:

**RE: British Columbia Utilities Commission (BCUC)
British Columbia Hydro and Power Authority (BC Hydro)
2004/05 to 2005/06 Revenue Requirement Application
BCUC Decision: October 29, 2004; Directive 69 (page 201)**

Attached is the semi-annual filing of the Report on Demand-Side Management Activities for the six month ending September 30, 2006.

Please contact Lyle McClelland at 604-623-4306 for further information regarding this submission.

Yours sincerely,

A handwritten signature in black ink, appearing to read "J. Sofield".

Joanna Sofield
Chief Regulatory Officer

Enclosure





**Report on Demand-Side
Management Activities
for the Six Months Ending
September 30, 2006**

April 2007

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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's decision on BC Hydro's 2004/05 and 2005/06 Revenue Requirements Application. The report provides information on DSM capital expenditures, operations, maintenance and administration (OMA) expenditures, program performance and portfolio-level activities, for the period April through September 2006.

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."

BC Hydro files milestone and evaluation reports as a separate package. This report addresses the balance of directive 69.

2. Deferred Capital Expenditures

In the first half of BC Hydro's 2006/07 fiscal year (F2007), DSM deferred capital expenditures totalled \$15.6 million, or \$ 8.4 million below plan from BC Hydro's F2007/F2008 Revenue Requirements Application. Program activity and associated expenditures are expected to increase in the second half of the fiscal year, which will decrease the actual-to-plan variance by fiscal year end. Table 1 presents planned and actual deferred capital expenditures by program during the period from April through September, 2006.

Table 1. DSM Deferred Capital Expenditures in First Half of F2007 (\$ 000)

	Actual	Plan *	Variance	%
Energy Efficiency				
Industrial Sector				
Power Smart Partners	2,506	4,436	-1,930	-44%
High Performance Buildings	17	174	-157	-90%
Sector Enabling Activities	<u>138</u>	<u>420</u>	<u>-282</u>	<u>-67%</u>
Sector Total	2,661	5,030	-2,369	-47%
Commercial/Gov't Sector				
Power Smart Partners	2,129	2,769	-640	-23%
Schools, Univ., Coll. & Hosp.	761	1,124	-363	-32%
Product Incentive	526	1,297	-771	-59%
High Performance Buildings	259	817	-558	-68%
Sector Enabling Activities	<u>423</u>	<u>409</u>	<u>14</u>	<u>3%</u>
Sector Total	4,098	6,416	-2,318	-36%
Residential Sector				
Compact Fluorescent Lighting	227	1,355	-1,128	-83%
Refrigerator Buy-Back	1,657	1,473	184	12%
Seasonal Light Emitting Diode	14	159	-145	-91%
New Home	374	560	-186	-33%
Fuel Substitution	65	252	-187	-74%
Renovation Rebate	245	351	-106	-30%
Variable Speed Motors	63	117	-54	-46%
Sector Enabling Activities	<u>143</u>	<u>239</u>	<u>-96</u>	<u>-40%</u>
Sector Total	2,788	4,506	-1,718	-38%
Total	9,547	15,952	-6,405	-40%
Load Displacement	-186	167	-353	-211%
Portfolio Level Costs				
Indirect/Portfolio Enabling	4,404	4,388	16	N/A
Public Awareness & Comm.	<u>1,874</u>	<u>3,490</u>	<u>-1,616</u>	<u>-46%</u>
Total	6,278	7,878	-1,600	-20%
Total DSM	15,639	23,997	-8,358	-35%

* The September 30, 2006 Plan figures are pro-rated based on the Annual Plan and expected activity levels during the period.

The following are variance explanations for the above figures:

Energy Efficiency	
Industrial Sector	
Power Smart Partners	Expenditures were below plan. This decline was due significantly to the restructuring within the forestry sector and the transition to a stepped rates environment.
High Performance Buildings	Expenditures were below plan due to a timing difference between the actual and planned energy savings and expenditures. There is typically a nine to twenty-four month lag between the initial program activity and electricity savings coming online. Since the program launched in F2006, most of the initial energy savings will not come online, and the initial project incentives will not be distributed, until F2008.
Sector Enabling Activities	Expenditures were below plan due to the redesign of enabling activities (in light of stepped rates) taking longer than anticipated.
Commercial/ Government Sector	
Power Smart Partners	Expenditures were below plan in the first half of the fiscal year. Spending historically occurs in the second half of the year for this program. Activity is expected to increase in the second half of the year.
Schools, Univ., Colleges & Hospitals	Expenditures were below plan in the first half of the fiscal year. Spending historically occurs in the second half of the year for this program. Activity is expected to increase in the second half of the year.
Product Incentive	Expenditures were below plan due to lower than anticipated customer participation. Changes were made to the program's offer and application process in June 2006 which have resulted in increased participation.
High Performance Buildings	Expenditures were below plan due to a timing difference between the actual and planned energy savings and expenditures. There is typically a nine to twenty-four month lag between the initial program activity and electricity savings coming online. Since the program launched in F2006, most of the initial energy savings will not come online, and the initial project incentives will not be distributed, until F2008.
Sector Enabling Activities	Expenditures were on plan.
Residential Sector	
Compact Fluorescent Lighting	Expenditures were below plan due to the program achieving greater than expected effects on market barriers, which allowed for a reduction in advertising and implementation costs.
Refrigerator Buy-Back	Expenditures were marginally above plan due to higher than anticipated participation. The program continues to attract steady levels of participation and has been extended beyond its planned end-date.

Seasonal Light Emitting Diode	Expenditures were below plan in the first half of the year. However, as program activity commences in November, costs are expected to increase in the next quarter.
New Home	Expenditures were below plan due to delays in the construction industry affecting the building and completion of new homes. Also, the planned advertising campaign was delayed.
Fuel Substitution	Expenditures were below plan due to opportunities being less numerous than planned.
Renovation Rebate	Program participation has been slower than initially forecast but is growing substantially each month as more manufacturers join the program. Annual participation is expected to meet forecast by year end.
Variable Speed Motors	Expenditures were below plan due to the lag between Terasen Gas, which delivers the program, invoicing of BC Hydro and BC Hydro's payments.
Sector Enabling Activities	Expenditures were slightly below plan due to the timing of spend. Expenditures are expected to increase in the second half of the year.
Portfolio Total	Expenditures were below plan largely due to a slowdown in industrial program activity during the transition to stepped rates, lower than anticipated participation in most commercial programs and lower than anticipated costs in the residential CFL program.
Load Displacement	
Load Displacement Program	Expenditures are below plan due to the partial refund of an incentive payment due to under-performance of a large project which remains cost-effective.
Portfolio Level Costs	
Indirect/Portfolio Enabling Activities	Costs were on plan.
Public Awareness & Communication	Expenditures were below plan due to a shift in the timing of the Power Smart ad campaign. Activity and costs will increase significantly in the second half of the year with the launch of the Fall and Spring marketing campaigns.

3. Operations, Maintenance and Administration Expenditures

In the first half of F2007, DSM Operations, (OMA) expenditures totalled \$ 2.0 million. Table 2 presents DSM OMA expenditures by resource during the period of April through September, 2006.

Table 2. DSM OMA Expenditures in First Half of F2007 (\$ 000)

ABS Services	\$ 215
Buildings & Equip	70
External Recoveries	-8
Internal Svcs Received	89
Labour	973
Materials	40
Services	629
Total	\$ 2,008

4. Program Performance

At September 30, 2006 – the mid-point of F2007 - cumulative DSM electricity savings since the inception of BC Hydro's current DSM plan in F2002 totalled 2,092 GWh per year, representing 57 percent of BC Hydro's F2012 target of 3,678 GWh per year from BC Hydro's F2007/F2008 Revenue Requirements Application. Table 3 provides these figures by program.

Table 3. Cumulative DSM Electricity Savings at Mid-Point of F2007 (GWh/yr)

	Electricity Savings (GWh/yr)	F2012 Target (GWh/yr)	% of Target
Energy Efficiency			
Industrial Sector			
Power Smart Partners	649	1,357	48%
High Performance Buildings	<u>5</u>	<u>53</u>	<u>11%</u>
Sector Total	654	1,409	46%
Commercial/Government Sector			
Power Smart Partners	263	314	83%
Schools, Univ., Colleges & Hospitals	101	103	98%
Product Incentive	30	145	21%
Small Business CFL	7	0	0%
High Performance Buildings	4	54	7%
Traffic Light	<u>29</u>	<u>28</u>	<u>103%</u>
Sector Total	434	645	67%
Residential Sector			
Compact Fluorescent Lighting	344	352	98%
Refrigerator Buy-Back	101	133	76%
Seasonal Light Emitting Diode	40	29	138%
New Home	26	86	30%
Fuel Substitution	7	83	8%
Renovation Rebate	5	28	18%
Variable Speed Motors	<u>3</u>	<u>10</u>	<u>30%</u>
Sector Total	526	721	73%
Total	1,614	2,775	58%
Load Displacement	478	903	53%
Total DSM	2,092	3,678	57%

The Compact Fluorescent Lighting and Seasonal Light Emitting Diode program fiscal 2012 targets are being reviewed and will be addressed when the Conservation Potential Review is finalized in F2008.

5. Portfolio-Level Activities

This section describes how portfolio-level costs are allocated to programs and describes portfolio-level activities.

Allocation of Portfolio-level Costs to Programs

In keeping with directive 61 from the BCUC's decision on BC Hydro's 2004/05 and 2005/06 Revenue Requirements Application, portfolio-level costs are allocated to DSM programs based on their share of total DSM electricity savings forecast in F2012. For example, the total DSM portfolio is forecast to save roughly 3,700 GWh per year in F2012, so a program that is forecast to save 37 GWh per year in F2012 represents 1% of the total. In turn, 1% of portfolio-level costs would be allocated to that program in each year.

Indirect and Portfolio Enabling Activities

Indirect and portfolio enabling activities support BC Hydro's DSM programs but are not directly attributable to specific programs, and are also not related to public awareness and communication activities. Costs are incurred to provide the overall organization and infrastructure essential to ensure due diligence, quality assurance and effective management for this type and complexity of investment. Activities associated with these costs include:

General Management: A portion of the business unit's general management of people and resources, and portfolio-level planning activities related to DSM.

Process and Policy: Support activities related to the development and administration of general processes, policies, and procedures related to DSM. Examples include measurement and verification protocols, energy study processes, business/ financial audits, credit policy; and risk policy.

Tracking and Reporting: Development and production of management reports including, but not limited to, the DSM Monthly Tracking Report (that details all monthly costs and energy related to specific programs and sectors) and the DSM Annual Report (that will be produced for regulatory reporting purposes).

General Administration: A portion of general administrative functions including costs associated with administrative assistants, photocopy and fax equipment, office supplies and building security, rent and concessions, as well as a portion of labour for individual timesheets, expense reporting and benefits administration.

DSM-related Training and Education: Costs associated with individual employee training related to DSM, including technical seminars and attendance at conferences.

Computer Costs: A portion of costs related to computing including individual network / LAN connections, e-mail messaging services, data storage, and general IT support.

Quality Assurance: The Quality Assurance department reviews, develops and recommends policies, processes, procedures and standards that assure the quality and integrity of DSM programs. The group advises on design and implementation issues, undertakes reviews to ensure that standards are observed, and carries out studies to support the DSM programs. It further serves to build credibility, save time and ensure consistency in the design and implementation of programs.

DSM Information Systems: Development, maintenance, administration and management of the DSM information systems. The DSM information systems contain a variety of operating systems, within a real-time data warehouse. The prime component is Converge, which includes the business customers' contact management system, campaign management tools, opportunity/sales management systems, energy savings reporting systems, etc. Within the contact management system the users can see the hierarchy of Key Account Manager portfolios, the "parent" companies or customers, the subsidiary companies, their sites, the contacts at those sites, and all activities and DSM opportunities that are connected with those sites.

Delivery Tracking System: This is for the development, maintenance, administration and management of the Delivery Tracking System (DTS). The purpose of the DTS is to track all customer projects, from application submission to the end of the contract obligation. Technical, financial and process due diligence is applied and the data is tracked at a facility/site level. The system supplies Converge with savings data for the monthly DSM reporting, load forecasting and corporate reporting. Financial commitments are monitored by the Incentives and Rates group and the Marketing group extracts information on an as needed basis.

Public Awareness and Communication

The objective of the Public Awareness and Communication initiative is to develop and foster a conservation culture in BC that leads customers to make a dramatic and permanent reduction in electricity intensity. It will accomplish this by raising awareness of the importance of energy efficiency among the customers of today and tomorrow.

Awareness of how to improve energy efficiency and the impacts that are associated with various actions is one of the major barriers to customers' investments in energy efficiency and energy conserving measures and the adoption of energy conserving practices and behaviours. This series of initiatives is designed to inform customers of how they can save energy and increase the response to and participation in all DSM programs. This initiative will reach all customer sectors and benefit business and residential programs alike. The initiative is designed to:

- Provide useful and tangible information about DSM and energy efficiency to all customers through community outreach and other communications initiatives such as the Internet, earned media and advertising.
- Educate all British Columbians about the role that DSM and energy efficiency plays in BC Hydro's electricity acquisition strategy and increase participation in DSM programs.
- Instil a conservation ethic in customers of today and tomorrow by delivering energy efficiency educational programs to schools within the BC Hydro service area.

In order to achieve the levels of participation in DSM activities targeted, BC Hydro must continue to engage the public in all customer sectors to emphasize the importance of DSM with a platform of awareness, information delivery and education. This multi-channel initiative will position and entrench energy efficiency as a way of life and a way of doing business, a critical component of BC Hydro's electricity acquisition strategy. There are seven key components to this initiative:

Power Smart Outreach: The Power Smart Outreach group is an effective, grassroots channel for delivering the DSM message to our customers in a face-to-face manner. The Power Smart Outreach group generates earned media coverage and engages in face-to-face or indirect contact with BC Hydro customers through events, festivals and home shows. This outreach activity is an integral component of the Public Awareness and Communication initiative and delivers key messages to the public to influence the purchase of more efficient products. This activity makes a significant contribution to the market transformation objective of the mass-market programs.

Public Education and Information Advertising: Advertising is a cost-effective channel to reach the public and customers with frequent and carefully controlled messaging. The advertising campaigns educate and inform customers about the need for electricity conservation and provide tangible ways in which they can do their part. By increasing awareness of DSM under the Power Smart brand and deepening understanding of its importance to all British Columbians, the campaigns will also increase uptake on sector-specific tactical programs. In addition, they will play a major role in raising current program participation levels. This support advertising is required to inform the public about BC Hydro's DSM activities and their importance.

Primary and Secondary School Education: This program aims to reinforce Power Smart messages to school age children, BC Hydro's customers of tomorrow, and to encourage a lifelong commitment to an energy efficiency ethic. The initiative uses a number of complementary components featuring a range of tactics targeting students from K-12. These include behaviour change campaigns, energy audits of schools, as well as interactive electricity games that demonstrate how individual efforts can lead to significant savings. Educating the customers of tomorrow is essential to achieve BC Hydro's long-term DSM objectives.

Sponsorships and Events: Sponsorship of and attendance at major sporting and cultural events allow BC Hydro to extend the Power Smart DSM message and brand identity into grassroots, community settings. This multiplies our opportunities to educate customers about electricity conservation, and builds positive brand associations. It also helps reinforce BC Hydro's standing in the community as a committed corporate citizen. This program reaches, either directly or indirectly, hundreds of thousands of British Columbians each year, and is necessary to reinforce the messages to act on executing energy efficient behaviours.

Media Relations: Ongoing public relations activities and longer-term media education strategies are all part of the DSM public relations effort. These help ensure high-profile initial coverage and sustained long-term coverage of DSM issues.

Internet: The internet is a perfect channel to support the general and more succinct messages the public will receive through other channels. The Power Smart web pages contain general and product-specific information for residential and business customers, as well as numerous applications to help them evaluate energy savings opportunities in their homes and businesses. This is an essential medium for reaching a large segment of our customer base.

Key Customer Recognition: The goal of this initiative is to encourage key customers to adopt Power Smart as an ongoing way of doing business and to reward and recognize customers (outside of the Power Smart Certified program) who demonstrate commitment to DSM. This program is required to provide Key Account Managers with an important tool for facilitating contact with key prospects.