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August 1, 2006

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)**

This letter informs the BCUC of BC Hydro's compliance with the second part of Directive 69 which directs BC Hydro to provide information to the BCUC for on-going review of Power Smart performance through:

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 organizations;
- 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.

Attached is the semi-annual filing of the Report on Demand-Side Management Activities for the year ending March 31, 2006.

Yours sincerely,



Joanna Sofield
Chief Regulatory Officer

Enclosure





**Report on Demand-Side
Management Activities
for the Year Ending
March 31, 2006**

July 2006

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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, general and administration (OMGA) expenditures, program performance and portfolio-level activities for the year ending March 31, 2006 (F2006).

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

1. Executive Summaries of milestone evaluation reports and full final evaluation reports for each program.
2. 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."

In response to part 1 of Directive 69, BC Hydro last filed evaluation reports and summaries on December 8, 2005. This report addresses part 2 of Directive 69.

2. F2006 Deferred Capital Expenditures

DSM deferred capital expenditures totalled \$90.0 million for the year ending March 31, 2006, or \$35.0 million below the F2006 plan, as presented in BC Hydro's 2005 Resource Expenditure and Acquisition Plan (REAP). Table 1 presents planned and actual deferred capital expenditures by program.

Table 1. DSM Deferred Capital Expenditures in F2006

	Actual (\$ 000)	Plan (\$ 000)	Variance	
			(\$ 000)	%
Energy Efficiency				
Industrial Sector				
Power Smart Partners	6,689	24,783	-18,094	-73%
High Performance Buildings	23	514	-491	-96%
Sector Enabling Activities	<u>542</u>	<u>620</u>	<u>-78</u>	<u>-13%</u>
Sector Total	<u>7,254</u>	<u>25,917</u>	<u>-18,663</u>	<u>-72%</u>
Commercial/Gov't Sector				
Power Smart Partners	6,517	6,176	341	6%
Schools, Univ., Coll. & Hosp.	6,040	6,846	-806	-12%
Product Incentive	1,233	3,699	-2,466	-67%
Small Business CFL	9	0	9	n/a
High Performance Buildings	288	2,029	-1,741	-86%
Traffic Light	3	16	-13	-80%
Lighting Redesign	0	4,458	-4,458	-100%
Sector Enabling Activities	<u>973</u>	<u>620</u>	<u>353</u>	<u>57%</u>
Sector Total	<u>15,063</u>	<u>23,844</u>	<u>-8,781</u>	<u>-37%</u>
Residential Sector				
Compact Fluorescent Lighting	2,022	5,340	-3,318	-62%
Refrigerator Buy-Back	3,627	1,030	2,597	252%
Seasonal Light Emitting Diode	1,090	1,250	-160	-13%
New Home	254	809	-555	-69%
Fuel Substitution	140	1,625	-1,485	-91%
Renovation Rebate	292	601	-309	-51%
Variable Speed Motors	120	228	-108	-47%
Sector Enabling Activities	<u>262</u>	<u>303</u>	<u>-41</u>	<u>-14%</u>
Sector Total	<u>7,807</u>	<u>11,186</u>	<u>-3,379</u>	<u>-30%</u>
Total Energy Efficiency	30,124	60,947	-30,823	-51%
Load Displacement	45,798	47,649	-1,851	-4%
Portfolio Level Costs				
Indirect/Portfolio Enabling	8,013	8,738	-725	-8%
Public Awareness & Comm.	<u>6,115</u>	<u>7,674</u>	<u>-1,559</u>	<u>-20%</u>
Total	14,128	16,412	-2,284	-14%
Total DSM	90,050	125,008	-34,958	-28%

The following are variance explanations for the above figures.

Energy Efficiency	
Industrial Sector	
Power Smart Partners	Electricity savings and investments were below plan due to customers delaying energy efficiency projects in anticipation of the new transmission service rates.
High Performance Buildings	Expenditures were below plan due to program launch occurring later than anticipated.
Sector Enabling Activities	Expenditures were below plan due to lower than planned activity among selected initiatives.
Commercial/ Government Sector	
Power Smart Partners	Expenditures were slightly above plan due to increased program activity in response to an improved offer for the Government sector and a decrease in the minimum project threshold.
Schools, Univ., Colleges & Hospitals	Expenditures were below plan due to lower than anticipated program implementation costs, including energy savings coming online at lower than expected costs.
Product Incentive	Expenditures were below plan due to slower than anticipated customer take up. Program adjustments have been examined and corrective action taken to address concerns about the application process, program policies and incentives. In addition, marketing activities have been increased.
Small Business Compact Fluorescent Lighting	Expenditures were above plan due to unplanned post-implementation evaluation activity.
High Performance Buildings	Expenditures were below plan due to program launch occurring later than anticipated.
Traffic Light	Expenditures were below plan due to less post-implementation costs than planned.
Lighting Redesign	The launch of this program was cancelled after further experience and analysis indicated that it would not be cost effective at this time.
Sector Enabling Activities	Year-end investment was above plan due to the implementation of unplanned activities in energy management assessment and training of customers and trade allies.
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 above plan due to the program being extended beyond its planned end date. Contrary to original expectations, the program continues to attract steady levels of participation and was therefore extended.
Seasonal Light Emitting Diode	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.
New Home	Expenditures were below plan due to delays in finalizing agreements with partners in the program's next phase. Agreements were in place at year-end.
Fuel Substitution	Expenditures were below plan due to the program being offered only on Vancouver Island rather than province-wide as planned. The more limited geographical scope of the program relates to the level of gas and electric use for space and water heating on Vancouver Island relative to the rest of BC.
Renovation Rebate	Expenditures were below plan due to delays in finalizing agreements with partners in the program's next phase. Agreements were in place at year-end.
Variable Speed Motors	Expenditures were below plan due to a reduction in the program's incentive level relative to plan.
Sector Enabling Activities	Expenditures were below plan due to less activity than planned on the Home Energy Profile, training and energy efficiency studies.
Portfolio Total	Expenditures were below plan due to industrial customers delaying energy efficiency projects in anticipation of the new transmission service rates, commercial sector program delays and participation issues that are being addressed, and lower than anticipated costs in the residential CFL and Fuel Substitution programs.
Load Displacement	
Load Displacement Program	Expenditures were slightly below plan due to lower than anticipated project identification and development costs.
Portfolio Level Costs	
Indirect/Portfolio Enabling Activities	Expenditures were slightly below plan due to a one-time shift of staff time from planned DSM activities to the design of the new transmission service rates.
Public Awareness & Communication	Expenditures were below plan due to the delay of selected communication initiatives.
Total DSM	Expenditures were below plan due to industrial customers delaying energy efficiency projects in anticipation of the new transmission service rates, commercial sector program delays and participation issues that are being addressed, and lower than anticipated costs in the residential CFL and Fuel Substitution programs.

3. Operations, Maintenance, General and Administration Expenditures

DSM Operations, Maintenance, General and Administration (OMGA) expenditures for the year ending March 31, 2006, totalled \$3.2 million. Table 2 presents DSM OMGA expenditures by resource.

Table 2. DSM OMA Expenditures in F2006 (\$ 000)

ABS Services	248
Buildings & Equip	124
External Recoveries	0
Internal Svcs Received	395
Labour	1,703
Materials	74
Services	694
Total	3,238

4. Program Performance

At March 31, 2006, cumulative DSM electricity savings since the inception of BC Hydro's current DSM plan in F2002 totalled 1,957 GWh per year, representing 54 per cent of BC Hydro's F2012 target of 3,644 GWh per year contemplated in the 2005 Resource Expenditure and Acquisition Plan (REAP). Table 3 provides these figures by program.

Table 3. Cumulative DSM Electricity Savings at March 31, 2006

	Electricity Savings (GWh/yr)	F2012 Target (GWh/yr)	% of Target
Energy Efficiency			
Industrial Sector			
Power Smart Partners	566	1,355	42%
High Performance Buildings	<u>5</u>	<u>52</u>	<u>9%</u>
Sector Total	571	1,408	41%
Commercial/Government Sector			
Power Smart Partners	260	305	85%
Schools, Univ., Colleges & Hospitals	99	93	107%
Product Incentive	24	97	25%
Small Business CFL	8	9	83%
High Performance Buildings	4	56	8%
Traffic Light	29	30	95%
Lighting Redesign	<u>0</u>	<u>43</u>	<u>0%</u>
Sector Total	424	632	67%
Residential Sector			
Compact Fluorescent Lighting	340	305	111%
Refrigerator Buy-Back	85	89	96%
Seasonal Light Emitting Diode	23	28	83%
New Home	24	68	35%
Fuel Substitution	5	164	3%
Renovation Rebate	5	33	14%
Variable Speed Motors	<u>3</u>	<u>11</u>	<u>23%</u>
Sector Total	484	698	69%
Total	1,479	2,738	54%
Load Displacement	478	906	53%
Total DSM	1,957	3,644	54%

Periodic updates of BC Hydro's DSM plans take actual program performance into account, as well as new information on energy efficiency opportunities and the need for electricity savings.

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 3,600 GWh per year in F2012, so a program that is forecast to save 36 GWh per year in F2012 represents 1 per cent of the total. In turn, 1 per cent 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, supported by the Power Smart Partners, Schools, Universities, Colleges and Hospitals and High Performance Buildings programs. 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.
- Instill 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.