

A Brief History of Behaviour Change Demand Side Management Programs - Supporting Staff Engagement in the Commercial Sector

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ABSTRACT

Engaging staff through behaviour change initiatives is a core component of any effective Strategic Energy Management (SEM) program. To successfully transition an organization towards a culture of energy efficiency, building operators, staff, stakeholders and leadership need to be engaged in the process of integrating energy management practices into the organization's policies and practices. Yet there are few examples of utility demand side (DSM) management programs dedicated specifically to supporting commercial customers in designing and implementing staff and leadership engagement initiatives.

This paper will look at a 13-year evolution of behaviour change DSM programs for commercial buildings in one Canadian jurisdiction that culminates in a multi-utility supported network for commercial customers.

The lessons from this history of behaviour change program implementation demonstrates the value of providing ongoing coaching support and incentive funding, emphasizes the effectiveness of the cohort model in facilitating connect and collaboration between program participants and outlines the benefits of creating resources and clear steps for participants to follow in order to effectively lead change in their organizations. Finally, the paper highlights the importance of customer feedback and continuous improvement in developing DSM programs that provide value to commercial customers and supports the adoption of Strategic Energy Management across the industry.

Introduction

Strategic Energy Management is “the continual improvement of energy efficiency in facilities through a systematic management of energy (Vetromile and Collins 2017, 1-128).” Rather than a narrow focus on technical or project-based strategies, SEM is a holistic approach to managing energy in an organization. SEM aims to shift business practices and organizational culture to improve an organization's ability to reduce energy waste and improve energy performance.

Engaging staff through behaviour change initiatives is a core component of any effective Strategic Energy Management program. Levin and Teiwes (2014) describe how leadership and employee engagement is necessary for successful implementation of long-term change initiatives, requiring engagement “from the C-suite to the shop floor (Levin and Teiwes 2014, 4-240).”

From a utility perspective, behavioural change DSM programs are a mechanism to support customers in promoting energy management internally, which can drive participation in other energy management incentive programs (Dresner 2020). Behaviour change programs also play an important role in leading market transformation (Scholefield 2020).

While SEM programs gain support across North America (Burgess et al 2015), few examples exist of utility demand side management programs dedicated specifically to supporting commercial customers in designing and implementing staff and stakeholder engagement initiatives.

BC Hydro is the province of British Columbia’s publicly owned hydro-electric utility. The Canadian utility has been experimenting with behaviour change Demand Side Management programs in British Columbia since 2007 with FortisBC, a local natural gas and electricity provider, joining as a program partner in 2015. In the last 13 years, BC Hydro has tested several delivery formats, trialed a variety of ways of supporting customers and experimented with several program evaluation approaches. Table 1 provides an outline of the three program models explored in this paper.

Table 1. Three Behaviour Change Program Models

Programs	Dates	Key Features
Energy Conservation Awareness (ECA) Program	2007 to 2009	BC Hydro funded one-year program that featured a one-day training workshop, guidebook with references and incentive funding. Customers did not claim savings.
Workplace Conservation Awareness (WCA) Program	2010 to 2016	BC Hydro and FortisBC funded two-year program. Customers developed an action plan and were provided with individual consultant support along with incentive funding. BC Hydro customers claimed savings.
Energy Wise Network (EWN) Program	2016 to Present	BC Hydro and FortisBC funded one-year program. Cohort program model provides customers with training sessions, webinars, campaign toolkits and resources, consultant coaching support and incentive funding. Customers do not claim savings.

This paper documents several program models, highlights key findings, shares program evaluation results and makes the case for greater uptake of utility-supported behavior change programs. It begins with a brief outline of the energy and utility landscape in BC, then provides a detailed history of a pilot program and the ensuing two iterations of DSM behaviour change programs in the province. The paper concludes with a set of recommendations for designing and delivering DSM programs that effectively support electric and natural gas commercial customers in running conservation initiatives that deliver energy savings and other non-energy benefits.

Research Methodology

The paper was written by BC Hydro and Prism Engineering, a Canadian energy management and sustainability consulting firm, that has worked closely with BC Hydro for the last 30 years while the energy management industry has evolved in British Columbia. Prism Engineering has been a partner with BC Hydro and FortisBC throughout the evolution of the behaviour change programs outlined in this paper.

The insights and recommendations shared in the paper are partially based on this experience, but draw heavily on a review of academic literature, program evaluation reports and program surveys. The paper also incorporates ideas and insights from a set of three hour-long recorded interviews conducted with current and past BC Hydro and FortisBC Program Managers. Insights and quotations from the conversations are included throughout the paper.

Energy and Utilities Landscape in BC

British Columbia, Canada, is a leader in energy management and greenhouse gas reduction policies, with the provincial government and local utilities supporting demand side management programs for over three decades.

Provincial Government

At the provincial level, the BC Government adopted an aggressive greenhouse gas reduction target in 2007 to reduce emissions to 80% below 2007 levels by 2050 (Government of British Columbia 2020a) and has achieved carbon neutral status since 2010. BC is also credited with introducing North America's first revenue-neutral carbon tax (Government of British Columbia 2020b).

Local Utility Providers

Local utility providers in BC are also committed to supporting emissions reduction and energy efficiency. BC Hydro, a publicly owned utility that serves British Columbians with hydro-electric power, has long been a leader in using DSM programs to moderate the province's growing demand for energy. FortisBC, a subsidiary of Fortis Inc, a North American electric and gas utility company, provides British Columbians with electricity, natural gas or propane across the province. Both utilities provide a comprehensive set of DSM program offerings to customers to manage energy demand.

BC Hydro and FortisBC partner on a number of DSM programs, including a partnership that started in 2015 on behaviour change programs for commercial customers.

Commercial Energy Managers and Energy Specialist Programs

The most notable partnership between the two utilities are the parallel BC Hydro Commercial Energy Managers (BC Hydro 2020a) and FortisBC Energy Specialist (FortisBC 2020) Programs that provide funding to organizations to hire an internal resource to manage energy in their organization. The FortisBC Energy Specialists typically report to BC Hydro Energy Managers in organizations that participate in both programs. Together this team of energy management professionals lead SEM initiatives, coordinate participation in incentive and other DSM programs and work towards achieving a set of energy management targets in order to continue to receive program funding.

These programs have helped to support the growth and success of behaviour change programs in BC by ensuring that many large commercial customers have an internal resource focused on energy management that can work on engaging staff and stakeholders in conservation action.

Energy Conservation Awareness Pilot Program (2007-2009)

In 2006, after several years of strong market demand from the commercial sector, BC Hydro's commercial program offerings were trending towards a decrease in participation and a reduction in expected savings. To continue to drive conservation activities in the commercial sector, BC Hydro launched an Integrated Energy Conservation Management approach,

introducing North America's first Strategic Energy Management model that is widely used in the market today.

The Integrated Energy Conservation Management model features a three pillars approach to SEM which includes:

- **Business Management:** This pillar focuses on stakeholder engagement and planning. Key deliverables include the Strategic Energy Management Plan (SEMP) and annual Energy Management Assessments (EMA). EMAs are diagnostic workshops engage senior executives on the organization's current state of energy management and result in a one-year plan that feeds into the SEMP.
- **Asset Management:** This pillar focuses on the implementation of energy conservation measures identified as part of the EMA and SEMP deliverables.
- **Change Management:** This pillar focuses on supporting recommissioning, staff training and employee behaviour change.

Each of the pillars are supported and driven by an Energy Manager within each organization, a role that continues to be incentivized by BC Hydro. The Energy Conservation Awareness (ECA) program was launch as a part of the new Integrated Energy Conservation Management program under the change management pillar.

Early Research

At the time, BC Hydro had several behaviour based programs in the market, including the long running residential Team Power Smart program and a newly launched school-based program that engaged students in elementary and high schools in energy management and safety issues.

Without any existing examples of utility-based programs supporting large commercial customers, the first program pilot was launched with intent to test the program model, materials and theoretical frameworks. To design the program, the project team conducted research to explore best practices worldwide in behaviour change theory and program design. The research lead to the team to develop a *Guide to Creating an Energy Awareness Program* (BC Hydro and Prism Engineering 2007), a guidebook that became the resource document for BC Hydro's ECA Program.

The guidebook provided organizations with a systematic approach to creating an Energy Awareness Program that aligned with the organization's SEM and business objectives. The guidebook included a "self-assessment" matrix for organizations to evaluate their progress and an energy awareness program flowchart that provided a series of steps for participants to build their program. It also included a set of templates, check lists, communications materials and case studies.

Program Design

The ECA program provided customers with a full day training workshop, the program guidebook and incentive funding to implement initiatives. Organizations signed a yearlong agreement with BC Hydro that outlined a series of quarterly deliverables. Reimbursement payments were provided on the same quarterly schedule.

The program encouraged customers to focus on changing specific behaviours with particular target audiences but also connect their initiatives with a holistic approach to energy management and culture change in their organization. The program drew on McKenzie-Mohr's community based social marketing theory (McKenzie-Mohr, D. 2011) as well as energy management frameworks, such as the ANSI/MSE 2000:2008 System for Energy Management.

The first pilot workshop, held in October 2007, invited 20 organizations across a variety of sectors to participate in the year long program. Among the attendees were a local credit union, a school district, a university, a health authority and various government facilities. Participants left the workshop with a partially completed Energy Awareness Plan template they could use to develop their own customized program within their organizations.

After a successful pilot in 2007, the program was run in 2008 with a cohort of Municipalities from across the province, giving BC Hydro program managers a second opportunity to learn about program design. According to Paul Seo, Program Manager at the time of the ECA, "the results that we saw from hosting [that second program] were impressive. We also continued to learn a lot about how to support customers helping us formulate the next iteration of the program."

Program Results

In an effort to measure the impact of the program, BC Hydro conducted a measurement and verification process with a subset of customers who participated in the first iteration of the ECA Program. The study found that ECA participants generated between 5%-8% savings as a result of implementing their energy conservation campaigns. The ECA program, the first of its kind in Canada, demonstrated that it was possible to realize savings from conservation campaigns.

It also received excellent feedback from participating customers. The program provided Energy Managers, who had more experience and expertise with implementing energy projects, with the methodology and step by step approach to building successful conservation campaigns that encouraged staff and stakeholders to adopt new energy conservation behaviours.

Customers showed great creativity in their initiatives and were rewarded with strong participation in their organizations, confirming that these types of behaviour change program could drive results. The government facility developed a popular "electric eel" mascot and a local credit union launched a successful "cut the carbon" website that encouraged banking staff to reduce their carbon footprint.

Lessons Learned

The ECA Program was a strong start to supporting commercial organizations in running behaviour change campaigns, but there were challenges with the program design. Because customers only participated for a year in the program, many developed "one off" initiatives that did not continue in the subsequent years. Later versions of the program emphasized the

importance of creating annual engagement action plans that helped customers develop a strategic approach to staff energy conservation engagement initiatives.

Additionally, although the workshop and resources were important support for customers in helping get them ready to run effective behaviour change initiatives, the program did not provide ongoing support for the individuals running these initiatives in their organization. Leading change initiatives from the middle of an organization requires a different skill set than the more technical skills required to identify and implement energy projects. Subsequent program models featured consultant-based coaching that provided ongoing individual support to customers that helped to address this challenge.

With two successful pilots completed and the program evaluation report clearly outlining the potential for greater commercial customer support and savings, BC Hydro was ready to develop and introduce to the market a robust, evidence-based behaviour change program offer.

Workplace Conservation Awareness Program 2009-2016

The Workplace Conservation Awareness (WCA) Program, launched in 2009, supported large commercial customers in using behaviour change strategies to realize and claim electrical energy savings. In 2015, BC Hydro and FortisBC formed a partnership to jointly fund the WCA program. This partnership provided the program with additional funding and also presented customers with a holistic program offering, by focusing both on electricity and natural gas savings initiatives. BC Hydro WCA Program Manager, Paul Seo, felt “it helped to keep the program fresh and give participants the opportunity to support a more holistic view of energy conservation activities in their organizations. It was also a positive response to market demands that the WCA become more encompassing and included natural gas opportunities.”

By the close of the program in 2016, the WCA program had supported over 40 organizations in seven sectors, which represented an estimated 500 facilities and 600,000 people across the province participating in energy conservation actions in their workplace.

Program Features

The WCA program aimed to build on the successes and address some of the challenges from the ECA program. The new program introduced a number of features, including:

- Consulting support and incentive funding
- Flexible support
- A two-year program
- Claiming savings
- Holistic staff engagement
- Advancing theoretical frameworks

Consulting support and incentive funding. The program was delivered by a set of program consultants who each worked with different sector groups, which included Health Authorities, Advanced Education, Retail / Hospitality, Government, Property Managers, School Districts and Municipalities.

The support provided by the program consultants was comprehensive, including but not limited to in-person and phone based coaching calls to develop or trouble shoot campaigns, Green Team meeting facilitation, outreach support and campaign and communications material design.

In addition to coaching support, customers were provided with incentive funding of at least \$2,000 to a maximum of \$12,000. The funding was calculated based on an estimated 2% energy savings at participating buildings at an amount of 1.5cents/KWh. This allowed larger organizations to receive a greater level of support. This discretionary funding was for customers to use to support their program and included items such as printing campaign materials, catering meetings, hosting training sessions and offering prizes.

Flexible support: As organizations continued to develop and update their Strategic Energy Management Plans and conduct Energy Management Assessments, they were able to identify and align their WCA initiatives with their organization's priorities. Additionally, they were able to reflect the unique culture of the staff groups who customers were looking to engage. As highlighted by Paul Seo, WCA Program Manager, "We didn't put too many constraints on the customers. We didn't pretend to be subject matter experts in their business. Instead we let the imagination of the organization drive [the focus of the activities in the program.] We provided the framework and support and they provided the content."

A two-year program: The WCA program was a two-year commitment for customers and most organizations continued to renew participation at the end of each program cycle. At the beginning of the two-year program, the consultants would host a planning workshop with the key contacts and stakeholders in the organization that they were working with. The purpose of the workshop was to create a 2 Year Engagement Action Plan, which would be submitted to BC Hydro for approval.

After signing an agreement with BC Hydro, the organization would report back on progress through the program consultant on a monthly basis. Every quarter, customers would submit a more formal report that would include incentive funding receipts incurred over the quarter.

Claiming savings: BC Hydro customers participating in the Workplace Conservation Awareness Program were able to claim two percent savings with a two-year persistence on the set of buildings that were selected to participate in the program. Two percent savings was selected as a conservative number based on the measurement and verification results from the ECA program (5-8% savings).

As for persistence, with no other utility running a program like it at the time, it was challenging to determine an evidence-based figure. A twenty-year plus persistence figure would make the program highly cost effective but when considering the complexity of factors contributing to the continuity of behaviour change (Breukers, Mourik, and Heiskanen 2013), it was not a reasonable assumption. After initially selecting a five-year persistence number, BC Hydro balanced out with a two-year persistence figure (Seo 2020).

Holistic Staff Engagement: The program provided resources, funding and coaching expertise for running behaviour change campaigns with specific target audiences in addition to providing support for running effective green teams, staff champion programs and engaging senior leadership.

As an example of this holistic approach to engagement, BC Hydro developed a Tier Assessment Tool (see figure 1) that provided customers with a strategic roadmap for culture change for energy management in their organization (BC Hydro and Prism Engineering 2014). The tool provided an "engagement" score and WCA customers were expected to complete the Tier Assessment Tool at the beginning and end of the two-year program cycle. It was a mechanism to effectively measure progress on a comprehensive set of program elements for both customers and the utilities running the program.

	TIER 1	TIER 2	TIER 3	TIER 4
Program Management				
Planning [PDF, 527 KB]	Conduct Energy Wise Network planning with BC Hydro Contact and facilities' department	Get sign off from all stakeholders on energy plan (including Communications)	Engage Conservation Governance Committee (senior managers of the stakeholders, including HR) in planning	Present to Executive for feedback on Energy Wise Network Program
Partnerships [PDF, 269 KB]	Develop partnerships to deliver program	Engage at least one Executive Champion who is active and visible	Establish program personnel and budget	Incorporate energy conservation goals into 3 department's business plans
Reporting [PDF, 253 KB]	Report quarterly on campaign results to Green Champions	Report quarterly on estimated energy savings to Green Champions and Executive Champion	Report quarterly on energy savings to Champions and Conservation Governance Committee	Make energy savings publicly available
Awareness [PDF, 269 KB]	Demonstrate that 33% of the target audience is aware of the conservation campaigns (aided recall)	Demonstrate that 50% of the target audience is aware of the conservation brand (aided recall)	Demonstrate that 33% of all people at the organization are aware of the conservation brand (aided recall)	Demonstrate that 50% of all people at the organization are aware of the organization's energy conservation achievements (aided recall)
Engagement				
Target Audience [PDF, 259 KB]	Identify and prioritize target audiences and include at least 25% of organization (by energy-use or people) in campaign	Include at least 50% of organization in campaign plan	Ensure at least 75% of employees and/or sites are included in energy conservation	Ensure everyone and all departments are involved in energy conservation
Champions [PDF, 1.2 MB]	Establish a Green Champions network that meets 4 times per year	Develop formal guidelines for Green Champions	Develop policies to support employee efforts on energy conservation	Include conservation responsibilities in job descriptions in non-energy related positions
Recognition [PDF, 1.0 MB]	Communicate Green Champions' work and achievements to the organization	Communicate achievements to Green Champions' managers at least twice per year	Establish formal recognition (awards) for employee conservation efforts	Earn external sustainability award for employee engagement initiatives
Strategies				
Campaigns [PDF, 1.1 MB]	Develop a calendar of conservation campaigns	Develop campaign toolkits, if applicable, and integrate lessons learned	Translate campaign actions into policies, training and standard operating practices	Develop/test new conservation campaign approaches and opportunities
Targets [PDF, 260 KB]	Establish baselines for campaign targets + establish method for determining energy savings	Track campaign results	Demonstrate measurable energy savings from campaigns	Decrease energy use by at least 2% from behaviour changes
Communications [PDF, 1.1 MB]	Create campaign communication materials	Establish program branding for conservation	Develop a communications strategy to make everyone aware of campaign results	Publish article on conservation successes in external publication
Fresh ideas [PDF, 837 KB]	Attend Energy Wise Network workshops & connect with sector conservation groups (if applicable)	Solicit employee conservation ideas & best practice ideas	Establish resources to evaluate, prioritize and implement employee and best practice ideas	Present case studies of energy savings from employee engagement efforts to BC Hydro

Figure 1. WCA Tier Assessment Tool. *Source:* BC Hydro and Prism Engineering 2014.

Theoretical frameworks: With community based social marketing as the theoretical foundation of the program, the program consultants integrated Prosci change management practices (Prosci 2020) and volunteer management strategies (Lahiffe and Volunteer Ottawa 2017) into the program offering in order to provide customers with an evolving approach to leading energy conservation change projects in organizations.

Program Results

The energy conservation programs and initiatives that were being run across the province helped to drive the utilities' mandate to create market transformation and orient the province towards energy conservation.

Annual program survey results, consistently in the top quartile, regularly “exceeded expectations,” highlighting the value customers derived from the program. Customers shared in the survey comments that the WCA program “help[ed] to unite people from various departments and is valuable in establishing a 'conservation' ethic” and that “having regular meetings with [our] consultant helps to keep us on track.”

A program evaluation report conducted in 2011 highlighted the successes and challenges of the WCA program. The report conveyed the excitement from customers in reducing energy and promoting energy conservation through behaviour change initiatives. Customers also reported that sharing the results from the program with internal stakeholders generated excitement and additional support from leadership and helped to enhance other environmental initiatives in their organization (BC Hydro 2014).

As a part of the program, organizations ran Shut the Sash campaigns in labs that resulted in a three-percent reduction in total building energy use, engaged high schools in energy conservation cup competitions that generated three to four percent savings and led creative “office doctor campaigns” that tracked two and half percent savings (Prism Engineering 2016).

The program evaluation report, however, outlined the difficulties in measuring savings from staff engagement programs. As outlined in table 2, statistically significant estimates for gross electricity impacts could not be found for municipalities, government, advanced education or healthcare, although the school district sector showed savings of over 4.5% each year.

Table 2. Gross Electricity Impacts

Participant Group	First Year of Participation (%)	Second Year of Participation (%)
K-12 Schools	-5.7	-4.7
Property Management	-3.1	N/A
Municipalities (Libraries/Administration)	N/A	-5.5
Retail/Hospitality Group 1	N/A	-4.2
Retail/Hospitality Group 2	+3.4	N/A
Retail/Hospitality Group 3	+6.2	+17.4

Note: Negative values represent electricity savings, positive values represent relative increases in consumption. N/A indicates no measurement possible or not statistically significant. *Source:* BC Hydro 2014.

Lessons Learned

BC Hydro and FortisBC found that although customers continued to deliver successful conservation campaigns, run green team programs and launch effective communications initiatives, there was a danger in the program design that encouraged consultants to do much of the work needed to deliver the initiatives thereby not building the internal capacity and expertise needed to run campaigns and staff engagement initiatives (Scholefield 2020). At the same time, the level of support provided by consultants resulted in significant program costs for the utilities running the program, limiting the number of customers that could be supported through the program. In addition, participating customers worked individually with their consultants and although there were some opportunities to connect with their peers, cross organizational networking and learning was not an emphasis in the program.

In 2016, as DSM program funding priorities began to shift in the province, BC Hydro and FortisBC decided that after eight years in the market it was time to consider other program models. According to Paul Seo, the utilities determined that “we’d supported multiple organizations, created best practices and worked with subject matter experts.[We decided] that the program had grown and evolved to the point that the market had been transformed.” BC Hydro and FortisBC worked with the pool of WCA program consultants to develop concepts for the next version of a behaviour change and staff engagement DSM program for the two utilities. The resulting Energy Wise Network Program (EWN) was launched in September of 2016.

Energy Wise Network Program (2016-Present)

The Energy Wise Network Program, jointly funded by BC Hydro and FortisBC, is a year-long program that supports BC organizations in developing and delivering one well-planned energy conservation campaign. Organizations can participate year after year if they continue to demonstrate internal support for the program and complete all program requirements. Participants no longer claim savings through the program, but they are provided with regular training and networking opportunities, toolkits and resources and customized coaching.

The program is coordinated by the program consultant, who works closely with BC Hydro and FortisBC to manage the program, facilitate the training and webinar sessions and deliver the one on one coaching support that remains a key feature of the program.

Each year participants are required to complete an application and sign an agreement with BC Hydro. The agreement states that the organization will complete at least one conservation campaign, submit a First and Final Report and participate in all in-person and online training sessions. At the end of the year, organizations submit receipts along with their Final Report in order to claim their program funding.

The Energy Wise Network program has now supported over 50 organizations in seven sectors that together have implemented more than 250 workplace energy conservation campaigns since 2016. This new version of the program pulled together lessons learned from the previous two program models and integrated best practices from the industrial sector’s SEM cohort model (Burgess et al. 2015).

Program Features

The EWN program strikes a balance between providing effective ongoing support for customers and lower program costs, with the ability to deliver the program to over 60 organizations with only one program consultant. Unlike previous program models, the current

program focuses on requiring organizations to run one conservation campaign, allowing customers to spend the time needed to plan and implement an effective campaign while providing BC Hydro and FortisBC with a clear deliverable for program participants.

This evolution of the program included several significant changes to the program model, including:

- The adoption of an SEM type cohort model
- Individual coaching
- Integrating a 7-step campaign planning framework
- The development of new campaign toolkits and program resources

SEM type cohort model: The program provides opportunity for peer-to-peer connection, support, and collaboration, by adopting a model similar to the industrial SEM cohort program model (Burgess et al. 2015).

Each year the program features two full-day trainings and networking sessions, called Energy Wise Network Summits. Customers are expected to attend these sessions as well as three online webinars provided between the Summits. The Summits provide participants with the opportunity to connect with a cohort of peers working on similar initiatives in their organizations. The day long sessions include training on behaviour, engagement and organizational change theory as well as communication techniques.

Jeremy Dresner, Program Specialist at FortisBC, feels that the cohort model works because the Energy Wise Network Summits provide significant value to customers. They “come to these events and see there’s 40 other people there who get it, speak my language and are on the same page. It’s really encouraging. It keeps people interested, accountable and keeps [them] coming back.” Customers also report that the regular opportunity for contact between participants as one of the key benefits for participating in the program.

Individual coaching: Program participants are offered several options at the beginning of the year for coaching and funding support (see table 3). Funding is provided to support campaign costs such as printed materials, food and prizes.

Table 3. Energy Wise Network coaching and funding options

Number of Coaching Hours	Program Funding Offer
10 hours	\$1200
15 hours	\$600
20 hours	\$0

Source: BC Hydro 2020b.

The options for selecting a combination of coaching hours and funding allows organizations to prioritize consulting support or program funding depending on the organizational and individual need.

Dresner (2020) describes the importance of the coaching program component by saying, “[the] coaching works really well. It’s important to have someone there to talk to throughout the year about campaigns who has the history of the program and the overview of what all participants are working on to drawn from.”

7 step campaign planning framework: Each organization is asked to use Prism Engineering's 7-step Campaign Planning framework to design and deliver effective conservation campaigns:

1. Identify stakeholders
2. Interview and investigate
3. Select behaviours
4. Develop strategy and success metrics
5. Finalize the campaign plan
6. Implement
7. Evaluate, celebrate and report back

Based on the theories of community based social marketing, change management and behavioural science, the framework guides customers through a clear set of steps for successful campaigns. In addition, having all customers move through similar steps at the same time provides a better approach to program management and reporting, with each organization required to hit certain milestones at specific points in the program year.

Toolkits and resources: The program also provides customers with a set of 14 campaign toolkits to help customers understand how to apply the 7-step campaign planning process to different behaviour change opportunities. Each toolkit tells the story of how a different individual in a particular organization navigates the steps to implement a successful conservation campaign. The toolkits are accompanied by a set of resources, such as posters, tally sheets and email templates, to help customers get ready for their campaigns.

Program Results

Program results are no longer measured in terms of claimable energy saving, but BC Hydro and FortisBC track annual program participation and participant feedback.

As noted by Heather Scholefield, Program Manager with BC Hydro, "we know that even if we can't see the energy savings, [staff engagement initiatives] enhance everything else organizations are doing with SEM. It's part of a comprehensive approach to culture change and gives credibility to an overall energy management program."

Each year the program survey shows strong support from customers for the program. The 2019 program survey resulted in an average 8.1 score for a series of statements that asked program participants to rate different program components out of a scale of 1 to 10, where 1 is not at all satisfied and 10 is extremely satisfied. The highest ranked program components included:

- Coaching services from the consultant (8.5)
- Customer service received from BC Hydro and FortisBC (8.4)
- Networking opportunities for Energy Wise Network participants. (8.4)

When asked what they liked best about the program, participants shared that, "the best aspect of the program is that it can be customized to our organization's needs," that "the resources available for campaigns that other people / institutions have already done" were valuable and that "the information sharing opportunities and networking with others in the program" was an important program feature.

Lessons Learned

Each year the program consultant and BC Hydro and FortisBC have reviewed program feedback and tweaked the following year's schedule and approach, resulting in the current format of two Summits, three webinars, fourteen toolkits and one conservation campaign as a deliverable.

Several challenges continue to exist for the program. One challenge is the variation in both the participants and the organizations levels of experience, comfort and capacity in running staff engagement initiatives and campaigns. Training sessions and webinars need to balance providing foundational theory for new participants while continuing to provide relevant new content to long term program participants.

In addition, as with any long-term program, the Energy Wise Network deals with the turnover of key contacts in participating organizations due to regular staffing changes such as parental leave or staff departures. This turnover often occurs during the program year, which can result in campaigns not being implemented or being put on hold for a period of time while the organization works to fill the vacant position and /or the new individual becomes familiar with their new role.

Designing Behavioural Change Programs that Work

Over the 13 years of testing, evaluating and re-designing behaviour change DSM programs, BC Hydro and FortisBC have experimented with a number of program features and models. Table 4 below provides a summary of the key features of the three programs explored in this paper.

Table 4. Summary of Program Features

Program Features	ECA Program	WCA Program	EWN Program
Program Length	One Year	Two Year*	One Year*
Claimable Savings	No	Yes	No
Training Provided	Minimal	Minimal	Significant
Peer Networking	Minimal	Minimal	Significant
Consulting Support	None	Significant	Minimal
Incentive Funding	Significant	Significant	Minimal
Resources and Templates	Generic	Customized	Generic
Program Deliverables	Customer Dictated	Customer Dictated	Program Dictated
Customer Reporting	Significant	Significant	Minimal
Program Evaluation Effort	Significant	Significant	Minimal
Program Cost	Medium	High	Low

Note: *option for continuous participation.

Based on this history of experimentation, utilities looking to support commercial organizations in running behaviour change campaigns and staff engagement programs as part of a Demand Side Management Program, should consider the following recommendations:

- **Use a cohort model:** As seen with other SEM programs, cohort models allow for collaboration, connection and accountability between participants.

- **Include coaching support and incentive funding:** Providing even small amounts of one-on-one coaching helps customers trouble shoot issues and keep track of progress for program managers. Incentive funding can help support commercial customers that struggle with access to discretionary funding for staff engagement initiatives.
- **Provide support in multiple formats:** Provide a mix of in-person, phone, webinar, resources and coaching support so that each participant can access the support that will help them be most successful.
- **Create clear frameworks:** Running successful behaviour change initiatives in commercial organizations is a complex and sometimes challenging undertaking. Providing program participants with a clear step-by-step process provides participants with a roadmap on how to plan, implement, evaluate and report back on their campaigns.
- **It is not all about claiming savings:** Utilities do not need to develop programs that claim savings from behaviour change programs in order to provide value for commercial customers committed to advancing conservation. Tracking metrics such as program feedback and surveys are a useful way to gauge program success.
- **Continuously evaluation and improve:** Actively gather participant feedback to continue to tailor the program to customer needs.

BC Hydro and FortisBC continue to see the value of offering DSM behaviour change programs to commercial customers as part of a holistic approach to supporting Strategic Energy Management in organizations.

In organizations, successful staff engagement and behaviour change programs enhance all other aspects of a sustainability or energy management program. Campaigns are often good news stories that increase the visibility of energy management in the organization and complement overall energy management strategies. Customers also report that behaviour change programs act as "enablers" for other initiatives and projects, including the ability to generate buy-in and funding for energy management projects.

In BC, programs that support commercial customers in engaging staff and other stakeholders in energy management initiatives have helped utilities build stronger customer relationships and prioritize energy management in the commercial sector. For BC Hydro's Paul Seo, "the value of these programs has been the energy savings, the ability to drive market transformation, and to be a pioneer, to push the envelope. We are creating a model for other utilities to adopt and design their programs." BC Hydro and FortisBC will continue to experiment and share insights and lessons learned from designing and delivering commercial behaviour change DSM program that deliver energy savings and promote conservation.

References

- BC Hydro and Prism Engineering. 2007. "Guide to Creating an Energy Awareness Program." Vancouver, BC.
- BC Hydro and Prism Engineering. 2014. "Workplace Conservation Awareness Tier Assessment." Vancouver, BC. Accessed May 20, 2020. <https://www.bchydro.com/powersmart/business/programs/workplace-conservation/workplace-conservation-tiers.html>
- BC Hydro. 2014. "Demand Side Management Milestone Evaluation Summary Report F2014." Unpublished evaluation report.
- BC Hydro. 2020a. "Energy Manager Program." https://www.bchydro.com/powersmart/business/programs/energy-manager.html?WT.mc_id=rd_energymanager
- BC Hydro. 2020b. "Energy Wise Network Program Offering." <https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/power-smart/business/programs/energy-wise-network-program-offering.pdf>
- Breukers, S., Mourik, R. and Heiskanen, E. 2013. "Changing Energy Demand Behaviour: Potential of Demand-Side Management." *Handbook of Sustainable Engineering*. https://www.researchgate.net/publication/288609206_Changing_Energy_Demand_Behavior_Potential_of_Demand-Side_Management
- Burgess, J., Cross, M., Baker, G., Vohra, P. 2015. "The Second Generation of Strategic Energy Management Programs." *2015 ACEEE Summer Study on Energy Efficiency in Industry*. <https://www.aceee.org/files/proceedings/2015/data/papers/1-31.pdf>
- Dresner, J. Interview with author. Vancouver, BC. June 15, 2020.
- FortisBC. 2020. "Energy Specialist Funding." <https://www.fortisbc.com/rebates/business/energy-specialist-funding>
- Government of British Columbia. 2020a. "Climate Action Legislation." Accessed June 15, 2020. <https://www2.gov.bc.ca/gov/content/environment/climate-change/planning-and-action/legislation#ccaa>
- Government of British Columbia. 2020b. "British Columbia's Carbon Tax." Accessed June 15, 2020. <https://www2.gov.bc.ca/gov/content/environment/climate-change/planning-and-action/carbon-tax>
- Lahiffe, M. and Volunteer Ottawa. 2017. "Workbook for Volunteer Management Essentials." Ottawa, On. Accessed June 20, 2020. <https://cpf.ca/en/files/Day-2-Volunteer-Management-Essentials-workbook.pdf#page=4&zoom=100,92,358>
- Levin, D. and Teiwes, I. 2014. "Strategic Energy Management: A Framework Approach."

2014 ACEEE Summer Study on Energy Efficiency in Buildings.
<https://www.aceee.org/files/proceedings/2014/data/papers/4-1119.pdf>

McKenzie-Mohr, D. (2011). *Fostering sustainable behavior: An introduction to community-based social marketing.* Gabriola Island, B.C: New Society Publishers.

Prism Engineering. 2016. "Energy Conservation through Behaviour Change in the Workplace: The Impact of BCIT's "Office Doctors" Campaign." Accessed April 12, 2020.
<https://www.prismengineering.com/sites/default/files/upload/BCIT-Office-Doctors-Campaign-White-Paper.pdf>

Prosci. Accessed June 20, 2020. <https://www.prosci.com/>

Scholefield, H. Interview by Author. Vancouver, BC. February 28, 2020.

Seo, P. Interview by Author. Vancouver, BC. June 19, 2020.

Vetromile, J. and Collins, M. 2017. "How Best Practices in Documenting Strategic Energy Management Leads to Better Programs and More Savings." *2017 ACEEE Summer Study on Energy Efficiency in Industry.*
https://www.aceee.org/files/proceedings/2017/data/polopoly_fs/1.3687915.1501159092!/fileserver/file/790283/filename/0036_0053_000008.pdf