BC Hydro Demand Response Program

Reducing Demand for Government Buildings

WHAT IS DEMAND RESPONSE?

Demand Response (DR) is a program that encourages electricity users to temporarily reduce or shift their energy use during BC Hydro peak demand periods. It helps balance the grid, improves system reliability, and can be carried out manually or through automated systems.

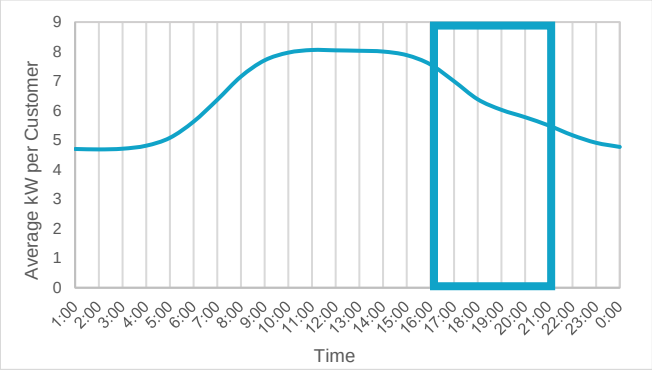
WHY DO DEMAND RESPONSE?

- To reduce energy costs without disrupting operations.
- To help BC Hydro maintain a more resilient, efficient power system.
- To accelerate the transition to a cleaner energy future.

DEMAND OPPORTUNITY

Government buildings offer strong demand response potential because:

- Facilities such as courthouses and warehouses typically experience large demand peaks and have consistent energy usage patterns.
- DR events are typically scheduled near the end of the workday when it is often more feasible to adjust or shut off equipment in office buildings.
- Many government buildings are equipped with centralized systems that allow for heating load adjustments with minimal impact on operations or occupant comfort.



Typical Load Profile for Government Buildings

PROGRAM OVERVIEW

Program Incentive	$50 per average kilowatt (kW) of demand reduction per season
Event Duration	Up to 20 events per season, no more than four hours each
Event Season	November - March
Advanced Notification	One day notification prior to an event
Participation	Must participate in at least 50% of all events to be eligible for incentive

PARTICIPATION BENEFITS

FINANCIAL INCENTIVES

NO COST TO ENROLL

RISK-FREE

DEMAND RESPONSE OPPORTUNITIES FOR GOVERNMENT

Building System Adjustments

- Reduce static pressure setpoints in air handling units resulting in a reduction of fan speeds.
- Limit humidification by adjusting HVAC system controls in non-critical areas.
- Raise cooling setpoint temperature or lower heating setpoint temperature on electric HVAC equipment and refrigeration equipment for occupied spaces like offices, hallways, or meeting rooms.
- Lockout back-up electric heating sources (e.g., baseboard heaters).
- Reduce HVAC use in low-occupancy or unused rooms like meeting rooms and courtrooms.

Behavioural Changes

- Discourage staff from using space heaters in individual offices and unplug unused kitchen equipment.
- Reschedule energy-intensive activities such as cleaning and maintenance.
- Turn off or dim non-essential lighting in unoccupied offices and boardrooms.
- Turn off laptops, chargers, printers, and copiers, etc.

BC Hydro
Power smart

CASE STUDY: CBRE DEMAND RESPONSE PILOT PROGRAM

CBRE, responsible for managing the Ministry of Citizens' Services buildings, joined BC Hydro's Demand Response (DR) program, motivated by encouragement from their key account manager and the opportunity to enhance operational efficiency while reducing operational and maintenance costs. With an existing team already focused on building optimization, participating in the DR program was a natural extension of CBRE's ongoing efforts. The DR program demonstrated excellent value, with the end-of-season rebate on their BC Hydro bill delivering an immediate benefit to their clients.

Due to initial concerns surrounding occupant comfort and needing flexibility to participate if needed, CBRE started a DR pilot project. Seventeen buildings with remote building automation controls access were selected for the pilot. A dedicated team was assigned to oversee the pilot and ensure all DR activities were carried out effectively. These activities included:

- Implementing automation changes, including:
  - Setting HVAC systems to minimum heating temperature setbacks.
  - Modifying building schedules to shut down equipment an hour ahead of the regular schedule.

Source: https://cheknews.ca/b-c-provincial-court-to-resume-priority-in-person-proceedings-in-some-cities-671141/

During the 2024/25 event season, CBRE participated in approximately 60% of the total DR events, which provided a valuable opportunity to demonstrate savings through measurement and verification.

CBRE's participation in the DR program aligned with their commitment to reducing energy consumption and greenhouse gas emissions in the buildings they manage. By the end of the event season, their combined efforts earned them a total rebate of approximately $14,000 across seventeen accounts. Building on this success, CBRE plans to enroll around ten additional sites for the upcoming winter season.

"This is a very effective, low- or no-cost demand response measure that offers very high return with minimal effort."

- Dennis, CBRE

FAQS

HOW DO I SIGN UP?

Enroll in the program by following the enrollment link on our webpage, **Demand Response for Business**, and logging into your MyHydro account. You'll need the following information:

- A list of the sites you want to enroll.
- The name and contact information for the person on site who will receive event notices.

HOW WILL I KNOW HOW IT WENT?

Within 48 hours after the event, we'll send you an email letting you know the results of the event.

HOW ARE MY INCENTIVES CALCULATED?

BC Hydro monitors your kW demand during each demand response event compared to the kW demand value from the five eligible days prior to the event. Your incentive is calculated based on your average kW demand reduction across all demand response events in a season and you receive $50/kW for all savings, with no penalty if there are none.

HOW DO I GET MY INCENTIVES?

At the end of each event season, you will receive a season ending email outlining your overall performance along with eligible incentives. Your total rewards earned during the season will be applied as a rebate on your subsequent BC Hydro bill.