Transportation Industry

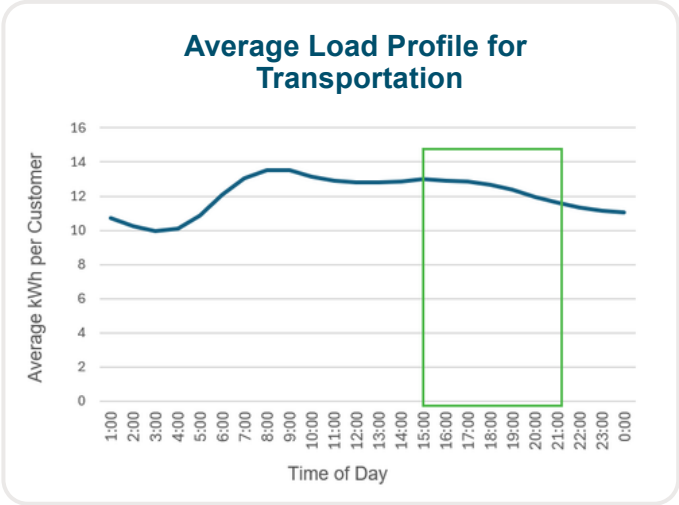


BC Hydro Demand Response Program

DEMAND OPPORTUNITY

Transportation and fleet operations offer strong demand response potential as:

- EV charging can be adjusted, delayed, or reduced while ensuring vehicles remain ready for service.
- Charging schedules can often be shifted outside peak periods with minimal impact on daily operations.
- Many facilities can reduce non-essential building and equipment loads during DR events while maintaining safety and operational requirements.



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 1 – March 31
Advanced Notification	One business day
Participation	Must have successfully performed in at least 50% of all events

PARTICIPATION BENEFITS

FINANCIAL INCENTIVES

NO COST TO ENROLL

RISK-FREE

INDUSTRIAL DR BEST PRACTICES

- Develop a DR event plan that identifies specific systems or equipment, control actions, monitoring requirements, and procedures for actions before, during, and after the event, including returning systems to normal operation.
- Assign clear roles and responsibilities so staff understand required actions, and ensure adequate staffing, particularly if the event occurs outside normal operating hours.
- Focus on controllable loads that operations staff can adjust through centralized plant SCADA/DCS or local controls.
- Monitor potential adverse impacts (including building conditions, inventory levels, product quality, safety) and determine any critical levels which will require return of systems or equipment to normal operation.
- Use automated control systems where possible to implement DR actions quickly and consistently. This could include pre-programmed shutdown sequencing.
- Perform a mock DR event when conditions are suitable. Use lessons learned from the test event to identify flaws and correct or adjust where possible.
- Following DR events, review performance and document lessons learned to improve future event execution.



"It is not complicated at all. The reporting and communication side are the biggest things. Once you get the notification, spread it among the people who need to know. Awareness is key, and having a champion to coordinate participation and share results helps make the program successful."

- DANIEL, LOBLAW COMPANIES LIMITED

CASE STUDY: LOBLAW

Loblaw Companies Limited (Loblaws) joined BC Hydro's Demand Response (DR) program as part of its ongoing commitment to energy management and operational efficiency. Building on a long-standing relationship with BC Hydro, Loblaws became involved during the program's early planning stages in 2022 while expanding electric vehicle (EV) charging infrastructure at its Pitt Meadows distribution centre.

Participation was an easy decision. BC Hydro's straightforward enrollment process and its flexible structure made it a low-risk opportunity to explore demand response. The absence of penalties for opting out of an event meant Loblaws could participate when operationally feasible while gaining experience managing electricity use during peak demand periods.

The Pitt Meadows facility serves as a key distribution hub and includes charging stations that support the company's fleet of electric Freightliner eCascadia trucks. As EV operations expanded, the Demand Response program presented a practical opportunity to reduce electricity demand during peak periods without disrupting day-to-day operations.

The site's demand response strategy focused exclusively on managing EV charging loads. When BC Hydro issued an event notification, the information was communicated to the operations team, including supervisors, dispatch staff, and other key personnel. The team then adjusted charging schedules to reduce electricity consumption during the event window. In many cases, vehicles were charged earlier in the day or charging rates were temporarily reduced to a "trickle charge," minimizing demand while ensuring vehicles remained ready for service.

The facility successfully participated in approximately 80% of the events and delivered an average demand reduction of about 140 kW per event. Participation also resulted in approximately $7,000 in rebates credited directly to the facility's electricity bill. Beyond the financial benefits, drivers experienced no disruptions, and the response process was easily integrated into existing operations. The success of the program has reinforced Loblaws' commitment to continued participation, with preparations already underway for the upcoming winter Demand Response season.

DEMAND RESPONSE OPPORTUNITIES

- Reduce, defer, or stagger EV and equipment charging during DR events.
- Lower EV and equipment charging rates while maintaining operational readiness.
- Schedule maintenance and equipment downtime during DR events where feasible.
- Power down idle or non-essential equipment in depots, maintenance facilities, and yards.
- Reduce lighting, ventilation, and HVAC loads in non-critical areas while maintaining safety and comfort.
- Use on-site battery storage or generation to reduce grid electricity consumption.

HOW DO I SIGN UP?

Enroll in the program via the Demand Response Behavioural link or QR code, log into your MyHydro account and provide:

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

BC Hydro