Feedback Form

eDSM Commercial HVAC DR Program - June 24, 2025

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Date: 7/8/2025

To promote transparency, feedback submitted will be posted on the Electricity Demand Side Management (eDSM) Framework webpage unless otherwise requested by the sender.

Following the June 24, 2025 engagement webinar, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on the new Commercial HVAC DR Program. The webinar presentation and recording can be accessed from the engagement webpage.

Please submit feedback to engagement@ieso.ca by **July 8, 2025**. If you wish to provide confidential feedback, please submit as a separate document, marked "Confidential". Otherwise, to promote transparency, feedback that is not marked "Confidential" will be posted on the engagement webpage.

Topic	Feedback
Program Enrollment: How can we best ensure that facilities demonstrate their readiness for effective participation, particularly regarding the potential HVAC DR capacity, operational parameters, and metering readiness. What additional factors should be considered?	It is highly recommended that IESO include funding and/or an onboarding incentive to support aggregator efforts in enrolling building participants. The mid-to-large commercial customer segment is highly diverse with unique operational and functional requirements. Enabling these customers to succeed in a demand response program requires deeper, more complex data management and controls strategies than traditional (i.e., behavioral or single-end-use) demand response program designs. We recommend offering bidirectional integration with the building systems, which primes the building for automated DR and ongoing energy efficiency services. This requires more upfront cost, but yields greater benefit to the facilities and a more reliable, predictable asset for the grid.

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Incentive Structure: What is your perspective on the proposed standard payment incentive structure and payment timelines? Do you see any challenges or opportunities with this approach?	In our experience, a single, seasonal capacity payment does not motivate this customer sector to enroll in a demand program. There are alternatives that IESO can consider: 1. Provide event-based performance payments in addition to a seasonal capacity incentive. Event-based payments are ongoing touchpoints to program benefits that increase satisfaction, program retention, and enthusiasm for continued participation. 2. Offer an integrated approach to energy management and demand response with a bidirectional energy monitoring and controls system. This provides immediate value to the building via energy cost savings and operational efficiencies in exchange for enabling automated grid-interactive operations. This up-front service also creates an opportunity to install any needed sensors or submeters.

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Eligibility Requirement – Program Participants: What would be a reasonable minimum DR threshold for the Program to consider; what other eligibility elements should be considered?	As long as the 1MW can be brought as aggregated load, we see no issue with setting this enrollment minimum. We do see a significant opportunity to engage mid-sized commercial customers who would not individually be able to provide this capacity, which is why it is important to enable the capacity to be aggregated across sites.

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Eligibility Requirement – Program Contributors Are there any additional factors or considerations we should take into account?	One factor to consider is that Contributors equipped with Building Automation Systems (BAS) are significantly better positioned to participate in DR programs. BAS enables automated, real-time control of HVAC and other systems, allowing for faster, more reliable load reductions during DR events. They also support the contributor having advanced strategies like pre-cooling and load shifting, which enhance grid responsiveness while maintaining occupant comfort. In addition, BAS provides high-resolution data that improves baseline accuracy and M&V, making these buildings ideal candidates for scalable, cost-effective DR participation. Research from the U.S. Department of Energy and Lawrence Berkeley National Laboratory consistently shows that buildings with automated DR capabilities—typically enabled by BAS—achieve higher and more consistent load curtailments compared to manual participants.

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Events Parameters: Are there any additional factors or considerations we should take into account? Is the notification period adequate, or would a different notification period better suit your needs and why?	When enabling demand response (automated or manual), it is important to give participants adequate time to evaluate the event and/or adjust their programmed response strategies. We recommend day-ahead notice, which has realized fewer opt-outs while being able to accommodate changes to participants planned interventions.

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Performance Parameters: Are there any additional factors or considerations we should take into account? Would using the Capacity Auction baseline methodology with a weather adjustment factor pose any concerns?	The Capacity Auction baseline methodology, even with a weather adjustment factor, may not fully reflect the unique load shape of HVAC systems, which are highly sensitive to outdoor temperature, time of day, and occupancy. Capacity Auction participants typically include large Commercial and Industrial customers with established controls and telemetry. The HVAC DR program targets mid-sized commercial buildings that may lack this infrastructure. Applying the same baseline could result in inaccuracy and limit participation. Other things to consider: • Event Frequency and Duration: The HVAC DR program proposes 10–15 seasonal events of 2–3 hours, compared to the emergency-based Capacity Auction events. A more granular, short-duration baseline may be needed to capture HVAC flexibility accurately. • Risk of Baseline Drift: Even with weather normalization, inaccuracies in estimating what HVAC load "would have been" can lead to over- or under-compensation, affecting program performance and customer trust. IESO may want to consider adapting the Capacity Auction methodology to include HVAC-specific logic (e.g., dynamic weather normalization, pre-event load adjustment, and 3-of-5 day averaging). • Run test events to validate and calibrate the baseline approach ahead of program launch. • Consider funding or onboarding incentives to help customers overcome baseline data and metering gaps

General Comments/Feedback

Topic: Program Enrollment

The aggregator model for recruitment, as currently proposed, relies solely on aggregators to identify and enroll contributors/buildings into the program. Based on our experience, a more effective and efficient approach to scaling participation is to collaborate with LDCs and their account managers.

These trusted relationships can be leveraged to more successfully engage contributors and drive broader program adoption.

Topic: Eligibility Requirement – Program Contributors

Class A buildings should be included as program contributors in the IESO Commercial HVAC Demand Response (DR) pilot due to their significant, cost-effective load flexibility and strong alignment with the pilot's operational goals. These facilities typically have high peak demands—often between 1 MW and 5 MW—meaning even modest reductions can provide substantial grid benefits. With advanced energy management systems already in place, Class A buildings are technically capable of meeting dispatch and telemetry requirements with minimal additional investment. Their exposure to high Global Adjustment (GA) charges also provides a strong financial incentive to participate, improving both enrollment and performance outcomes. Including Class A facilities would diversify the pilot program's participant base, offering valuable insights across a wider range of building types and operational profiles to better inform future program design.

For example, Edo is partnering with a similarly large and complex facility contributor in another jurisdiction with great results. This site is a 500,000-square-foot, multi-use recreational facility with pools, gyms, ice rinks, and childcare; strict comfort requirements; and a peak demand of 1.5 MW. The key question was whether such a complex facility could support the grid without disrupting operations. Through the partnership with Edo, the site implemented a blend of automated and manual load flexibility strategies. The result: the site participated in seven events in just two weeks, realized an average load reduction of 146 kW, and earned $15,000 in incentives—with no impact to customer experience or operations. This demonstrates that even highly demanding facilities can serve as reliable, flexible grid assets.

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It may be beneficial for IESO to allow Commercial HVAC DR participants to participate in the Capacity Auction outside of the HVAC DR program season. From the customer perspective, this creates an opportunity for additional revenue, increasing the overall value proposition of participating in DR. For IESO, enabling participation during the shoulder and winter months could increase the pool of available capacity, leading to greater competition and potentially lower clearing prices in the Capacity Auction. This approach would also support year-round engagement of flexible commercial resources.