



NO RECYCLABLES

Bin Sensor Technology Maximize Efficiency, Save Money

By / Jessica Kirby

Photo submitted by RecycleSmart

RecycleSmart has deployed over 1500 sensors in waste dumpsters across Canada.

RecycleSmart is a Vancouver-based company that uses bin sensor technology to monitor and adjust collection needs and cycles for businesses looking to maximize their efficiency and save on costs.

On-going data collection and subsequent service adjustments shed light on unnecessary or poorly-timed pick-ups, help RecycleSmart ensure the correctly sized bins are in place, and give the company leverage to act as a liaison with haulers to create schedules that meet the customer's needs and fit preset scheduling requirements.

The process is gradual and calculated. If, for instance, a company begins with one bin going three times a week on average 30 per cent full, they could knock one collection off of the schedule. Monitoring for the next 30 days may see the bins going at 65 per

cent full, and perhaps an additional pick-up could be removed.

“We want to go to about 80 per cent and not have overflow,” said Collin Bell, managing partner with RecycleSmart. “We could be looking at the scheduling and size of bin and striving for 85 per cent efficiency.”

This is one of the company's biggest challenges—trying to get the haulers to go onto a more customized schedule. They have set routes, which means although RecycleSmart is looking at actual data that shows bins are never full on particular days, haulers aren't willing or able to deviate from their prescribed pick-up days.

“Basically, we are trying to move toward a dynamic model based on the customer's needs, whereas industry runs on a preset schedule,” said Bell. “We know it isn't realistic to call for

pick-up tomorrow, so we are checking every 30 days and making changes based on data trends. We are probably never going to get to the point where we are 100 per cent full at each collection, but we are aiming for close to that.”

The goal is to work this program into the existing model and make it more efficient. As external factors like carbon taxes and traffic restrictions progress, they may come together to create the perfect storm for change, he said.

RecycleSmart stays on as a permanent fixture in the program, monitoring the bins' sensor data to drive accurate sustainability reporting, and to monitor vendor performance. “Once we have maximized efficiency, we want to be proactive rather than reactive to ensuring vendors are showing up and providing the correct service,” said Bell. “Instead of the customer calling us to say ABC Hauling didn't show up,

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Founded in 2007, RecycleSmart works nationally, with satellite offices in Calgary and Toronto.

With a focus on customers eager for innovation and early adopters of new technology, it tends to shy away from municipalities, educational facilities, and healthcare, which are typically locked into longer-term contracts and less able to make adjustments. Private, medium, and large businesses are the company’s main target customers—hospitality, commercial property managers, and multiple location retailers.

A recent case example is a container monitoring and vendor management contract between RecycleSmart and Bentall Kennedy Canada’s Airport Executive Park in Richmond, BC

Airport Executive Park (AEP) is a 35-acre park offering approximately 700,000 square feet of office space, 1,500 square feet of restaurant space, and a 4,500-square-foot daycare facility.

RecycleSmart installed container sensors in all waste containers at the Airport Executive Park, managed the RFP to switch waste hauling vendors, and analyzed container fill level data to drive overall cost reduction at the property while maintaining a clean operating environment.

The property’s initial monthly service costs were \$4,867, which RecycleSmart reduced in three stages to \$4,041 for savings of \$826 per month, or \$9,912 per year.

The on-going data monitoring is where RecycleSmart’s value proposition really kicks in—a property manager with 50 bins working to monitor its programs independently would have to log in, monitor, and schedule pick-ups for each receptacle per the information, a labour intensive tracking process RecycleSmart’s technology is able to simplify.

“We have system checks automated to see what needs help and give a report,” said Bell. “Otherwise the customer would have to be doing it manually.”

A company can have two stores in the same city, and while one is doing a great job, another can be struggling. “Owners will assume the same success rate, but they find out, it’s not so much.”

Monitoring can help make recycling programs more successful by identifying problems, making the programs more convenient, and customizing them to fit each location.

“One thing we learned from putting in sensors and looking at the data is people don’t know about their waste and recycling programs,” said Bell. “They think they know what is going on but once the data is out in the open, they have eye opening discoveries.” ●●

NEWS BITE

MMBC Changes its Name to Recycle BC

Multi-Material BC, the non-profit organization responsible for residential packaging and printed paper recycling throughout the province, has rebranded to Recycle BC. The clearly-defined name reflects an ongoing mandate to promote recycling best practices and the environmental benefits of recycling to residents through education.

Launched as Multi-Material BC three years ago, Recycle BC provides recycling services to over 1.7 million households through curbside, multi-family and depot collection. The program is funded by the businesses that produce packaging and printed paper, meaning residents don’t pay for the service.

Recycle BC is promoting the new brand with a challenge intended to get people talking and thinking about the importance of recycling. In partnership with the Vancouver Whitecaps, the organization is launching a social media contest that encourages residents to share their best recycling photos, ideas, and tips on Instagram, Twitter, Facebook, or the RecycleBC.ca website using the hashtag #RecycleBC for a chance to win suite tickets for a group of six, or pairs of tickets in monthly draws.

Information is available at RecycleBC.ca. ●●

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