

# Delivering Ice Cream in the dark

Nestlé looks at off-peak deliveries to avoid congestion

Traffic congestion causes delays that cost business and consumers billions of dollars each year. Nestlé Canada took a look at one option for saving some of that time and money by delivering its products to retailers at night.

Hot, cranky and stuck in the curb lane behind a truck unloading product in Toronto's downtown core? Furious and frustrated amidst a slew of trucks gridlocked on the 400-series highways? You know what traffic delays cost you, but what about the impact on that truck driver and his employers?

Congestion, particularly in the Greater Toronto Area and around any of Canada's major metropolitan centres, is an issue facing fleet operators as they target operating efficiencies and associated costs.

Metrolinx, a Government of Ontario agency focused on transportation in the Greater Toronto and Hamilton area, concluded in a report (*Costs of Road Congestion in the Greater Toronto and Hamilton Area*) that the annual cost of congestion to commuters in 2006 was \$3.3 billion as a result of environmental impact, increased vehicle costs due to travel delays and the greater risk of vehicle collisions. In addition, these annual costs were expected to climb to \$7.2 billion by 2031.

"The supply chain industry, which is more sophisticated than it's ever been, is facing a variety of challenges around congestion and our industry would be well advised to solve this issue before governments feel the need to intervene," says John Dolbec, president and CEO at TransHub Ontario, a membership-based, economic development corporation aimed at attracting businesses that rely on or provide transportation and logistics to the Hamilton-Burlington-Niagara hub. "It's simply not acceptable for goods or human resources to be tied up due to congestion while in transit in today's highly competitive universe."

Government and big business have been looking at congestion, and while they unanimously agree that expanding the existing infrastructure is not an option due to the stratospheric costs involved, no to mention the

lack of available land, there's been a lot of talk with little concrete action.

For instance, in February 2011, Metrolinx released a report that states trucking is the GTHA's most prominent urban freight mode for short- and long-distance hauling. Virtually everything sold to the public relies on a truck for part of its journey. While the report acknowledges the myriad challenges, it also recommends multiple actions, including the investigation of better managing curbside delivery space, intelligent lane utilization and truck-only lanes, incentives to encourage off-peak deliveries and exploring flexible freight delivery times.

## Feasibility study

Last year, Nestlé Canada took it a step forward when the company asked University of Waterloo students, Taufiq Ramji, Jessica McPhee and Ari Paunonen—who have all since graduated from the Management Engineering program—to further investigate the viability of off-peak ice-cream deliveries in the high-traffic geographic area that runs from Oshawa to Fort Erie and Newmarket to Lake Ontario. They would also look at the impact on customers who run the gamut from major chains like Mac's, Sobeys and Metro to independent mom-and-pop operators.

Joe Malon, Nestlé's leader of alternative routes to market, is well aware of the costs of congestion and the associated delays to the company and its employees, suppliers and partners in terms of lost productivity and capital (fixed assets) and operating costs, such as manpower, fuel, maintenance and parking tickets.

"Our drivers and their trucks spend a significant portion of every day in heavy traffic—imagine the impact if a percentage of the national truck fleet were shifted to off-peak hours?" says Malon.



While off-peak deliveries would benefit municipalities by reducing emissions and the load on infrastructure, they might also facilitate corporations' best possible use of fixed assets while containing the operating costs tied to fuel consumption, maintenance, repairs and parking violations.

"We could do more with the same size fleet or handle the same volume of deliveries with half the fleet," notes Malon.

Yet as TransHub's Dolbec points out, in an industry facing critical driver shortages, off-peak shifts could further exacerbate that problem. While some drivers might appreciate the night shift and the benefits it brings, others might refuse it or demand significant compensation for it. In addition, the impact on drivers' health and safety also needs to be recognized and a commitment made to regular shifts to allow consistent sleep schedules.

The UW team researched City of Toronto bylaws, Nestlé Canada's current policies and customer-specific mandates such as approved delivery times, signature requirements and the various types of preferred payment.

### Challenges

Yet as the UW researchers soon discovered, the many benefits were offset by a variety of challenges, many of which could be addressed with a little creativity and flexibility. In certain residential or quiet zones, loading/unloading noise may be prohibited during certain times and on particular days, but regardless, organizations may need to consider noise abatement systems such as "hush kits" on rolling doors and dampening material on the floors of the refrigerated boxes to maintain a positive relationship with residents. The UW team suggested the trucks carry signage indicating that noise abatement systems were in place on those vehicles. After all, it's

best to be proactive and take the initiative in an effort to preempt and avoid any complaints about back-up indicators, cooling systems or metal doors late at night or as dawn breaks.

Safety and security are also a concern, and retailers might need to agree to non-cash payments for safety's sake or consider allowing someone other than a manager to sign for the off-peak deliveries. Off-peak, trucks should be staffed or locked at all times, although Malon points out that should be the policy anytime. Also, smaller stores frequently have only one staff member on duty for the late shift, making it a challenge to move the new stock into cold storage after it's delivered.

Of course, any organization would need to carefully assess customer interest and acceptance, then determine whether the volume warrants an off-peak shift. Despite Nestlé Canada's interest and commitment, a customer survey in 2011 indicated that of the 166 retailers surveyed, 82 were open to off-peak deliveries, provided they were able to switch from cash to charge payments, received the deliveries within certain time windows, adjusted staffing and were able to obtain direction/approval from head office. The 63 who rejected the proposed off-peak deliveries were concerned about local by-laws, timing, wanted to personally check the deliveries or didn't trust night staff. Close to 20 didn't respond.

"When the industry shifted to just-in-time delivery, we faced similar obstacles and issues, but we overcame them together because we could all see that JIT was here to stay," says Dolbec. "Ultimately, whoever pays the bills determines when and how the goods are shipped, but in the end, the customers don't want their goods sitting in traffic any more than anyone else. Sooner or later, the government will take fairly drastic measures to ease congestion. I'd rather see our industry take the initiative." **b2b**