

Off-peak Delivery Pilot in Region of Peel

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SMART FREIGHT

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Introduction

Key Stakeholders:

- Shippers
- Carriers
- Receivers (businesses)
- Residents (public)
- Government (by-laws)
- University (analysis)



Introduction

Previous OPD programs:

- **New York**
- **London**
- **Chicago**
- **Toronto– Pan Am games**



Pilot Description

Participants:



Duration of Off-peak Delivery Pilot:

February 25, 2019 to August 30, 2019



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Role of Smart Freight Centre

Evaluate (quantify) benefits and drawbacks of the pilot

- Travel times
- Service time at the stores
- GHG emissions
- Noise complaints
- Qualitative lessons learned



Analysis steps

- Regular contact with each company to monitor participation
- Obtain truck tracking data from each company, approximately every month
- Interpret and clean datasets from each company
- Develop methods for estimating travel times, service times, travel distance
- Use US EPA method (MOVES) for GHG emissions analysis
- Validate results (identify, understand, and correct for data outliers)



Current Status

- **The pilot is complete**
 - **Participants have been informed that the zoning by-law is back in effect as of September 1, 2019**

- **Complete data from 3 companies has been received as of Oct 29**
 - **Analyses of the 3 companies are complete**
 - **Planning “lessons learned” interviews with drivers, logistics staff**
 - **Working toward the final project report (Target: End of November, 2019)**



Preliminary Results

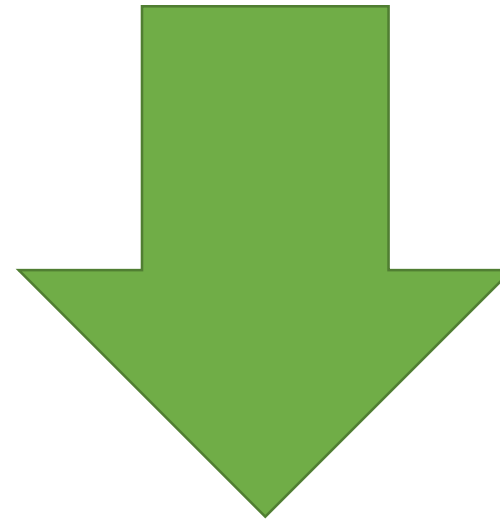
Participation

**30 percent of trips to participating
retail stores made in off-peak hours**



Preliminary Results

Travel Times



**15.3 percent lower
travel times during
off-peak hours**



Preliminary Results

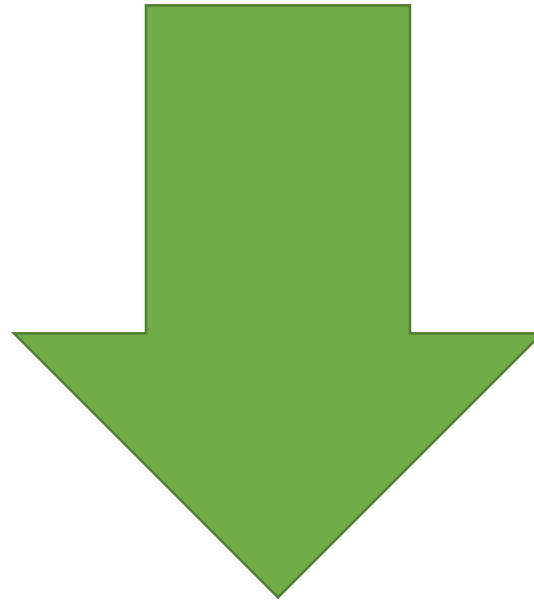
Service Times

- **No clear conclusion regarding change in service times during off-peak hours.**
- **Some companies experienced decrease in service times while others experienced increase in their service times**
- **Interviews with drivers/logistics staff may help explain this observation**



Preliminary Results

GHG emissions

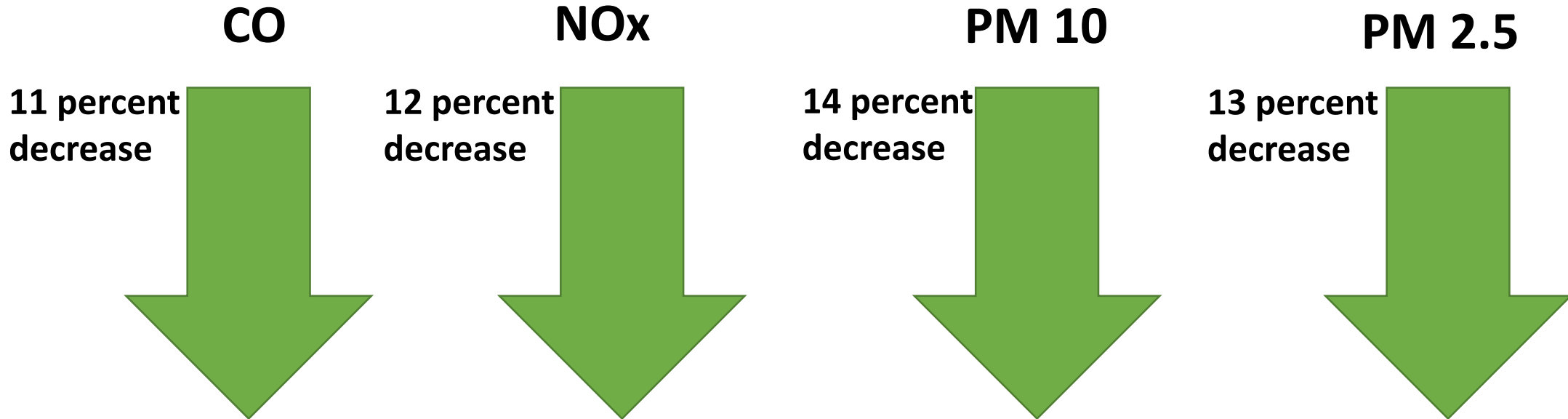


**10.5 percent decrease
in GHG emission
factors (grams/km)
during off-peak hours**



Preliminary Results

Air quality pollutants



Preliminary Results

Number of Complaints

0



Conclusions of Pilot

Off peak delivery pilot has demonstrated:

- **Significant reductions in travel time**
- **Mixed results for service time**
- **Significant reductions in GHG emissions**
- **No noise complaints**



Potential Next Steps

Investigating possibility for expansion of Off-Peak Deliveries

- **Beyond the Region of Peel**
- **Greater number and diversity of companies**
- **Permanent noise bylaw exemptions**
- **Model of GHG emissions, traffic, operational impacts of larger uptake scenarios**

