White Papers on Congestion Mitigation Strategies

New York City Traffic Congestion Mitigation Commission
November 20, 2007
Overview of presentation and research

- **Technical Reports:**
  - Alternatives to Mayor’s plan
  - Supplements to Mayor’s plan
  - Modifications to Mayor’s plan

- **Presented today:**
  - Night deliveries (alternative or supplement)
  - Telecommuting (alternative or supplement)
  - Hybrid exemption (modification)
Congestion Mitigation Strategies

1. Incentives for night-time deliveries
1. Incentives for night-time deliveries

- **Option:** Use incentives and regulations to shift truck deliveries to off-peak periods
  - Per-axle charge
  - Tax incentives
  - Peak period truck ban

- **Applies to:** Trucks and commercial vehicles
1. Incentives for night-time deliveries

- **Case studies:**
  - Atlanta – 1996 Olympics
  - Port of Los Angeles-Long Beach Pier Pass Off-Peak Program
  - London Congestion Charging
  - PANYNJ’s Value Pricing Initiative in NYC
  - Tappan Zee Bridge 1997 Variable Pricing Initiative for Commercial Vehicles
1. Incentives for night-time deliveries

- **Findings from case studies:**
  - Tolls have almost no impact on time of truck operations
  - Truckers constrained by receivers’ operating hours and practices
  - Incentive programs for carriers AND receivers have potential for greatest success

- **VMT reduction:**
  - 0% over 24 hours (truck travel shifts to overnight hours)
  - Daytime (6 am – 8 pm):
    - 0.1% (Per-axle charge)
    - 1.0% (Per-axle charge + tax incentive)
    - 8.05% (Ban trucks and commercial vehicles from CBD, 6 am – 8 pm)
Congestion Mitigation Strategies

2. Incentives for telecommuting
2. Incentives for telecommuting

- **Option:** Encourage and provide incentives to commuters for telecommuting.

- **Applies to:** all commuters with the opportunity to telecommute
2. Incentives for telecommuting

- Case studies
  - United States Federal Government
  - New York City
  - Connecticut
  - Washington State
  - Atlanta, Georgia
  - Phoenix, Arizona
  - Denver, Colorado
  - International: Stockholm, Sweden and Wellington, New Zealand
2. Incentives for telecommuting

- Findings from Case Studies:
  - Existing incentive programs do not impact rates of telecommuting or VMT
  - Institutional and technological barriers

- VMT Impact:
  - Short-term: - 0.03 - 0.21%
  - Long-term: No anticipated reduction
3. Exempt hybrids from the congestion charge
3. Exempt hybrids from congestion charge

- **Option:** Allow free travel for hybrids in the pricing zone
- **Applies to:** Drivers of hybrid and low-emission vehicles
3. Exempt hybrids from congestion charge

- Case studies
  - New York State Clean Pass & Green Pass Programs
  - Virginia Clean Special Fuel HOV Program
  - California Clean Air Vehicle Program
  - London Congestion Charge Zone Emissions-Related Charges
3. Exempt hybrids from congestion charge

- Findings from case studies:
  - Incentives can influence travel behavior and vehicle purchasing
  - Participation enhanced when program requirements include more vehicles
  - Higher participation, more exemptions, smaller reduction in congestion

- VMT Impact:
  - Short-term: - 5.3 - 6.1% VMT reduction with congestion charge (compared to - 6.3% reduction with no hybrid exemption)
  - Long-term: Smaller reduction in congestion
## VMT summary

<table>
<thead>
<tr>
<th>Strategy</th>
<th>VMT Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Incentives for night-time deliveries</td>
<td>0%</td>
</tr>
<tr>
<td>2. Incentives for telecommuting</td>
<td>0.03 - 0.21% Reduction</td>
</tr>
<tr>
<td>3. Congestion pricing, with hybrids exemption</td>
<td>0.2 – 1.0% Increase</td>
</tr>
<tr>
<td>Congestion pricing (Mayor’s Plan)</td>
<td>6.3 % Reduction</td>
</tr>
</tbody>
</table>