Highlights of NYC Transportation (& Green) Policy

Ari Kahn
Mayor’s Office of Long-term Planning & Sustainability
“I’d like to suggest that we face up to those challenges, not tomorrow, not in the future, not when it’s too late, but right now....This is our opportunity to make the type of history that future generations will recognize and that future mayors will invoke on Earth Day.”

— Mayor Michael R. Bloomberg, April 22, 2007
I: General New York City Environmental Initiatives

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I: General
New York City Environmental Initiatives

II: City Electric Vehicle Policy
I. NYC Green Initiatives: Bus Rapid Transit
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- Usage up by 5,000
- Speed improvements of 20% on 2nd Ave
- 98% of Riders Satisfied
Madison Square - 23rd & Broadway

I. NYC Green Initiatives:

Pedestrian Plazas & Bike Lanes
I. NYC Green Initiatives:

Pedestrian Plazas & Bike Lanes
Times Square

- 74% of surveyed New Yorkers agree that Times Square has improved dramatically over the last year
- Pedestrian injuries are down 35%
- *On balance* travel speeds improved
I. NYC Green Initiatives:

Greener Greater Buildings
Why NYC’s Green Initiatives Work:

• Well conceived
Why NYC’s Green Initiatives Work:

• Well conceived
• Creates winners
Why NYC’s Green Initiatives Work:

• Well conceived
• Creates winners
• City tells a story & leads by example
II. A Case Study – NYC Electric Vehicle Policy
NYC carbon abatement targets

Millions of metric tons CO₂ per year

- “Business as usual”
- PlaNYC 30% by 2030

Avoided sprawl
Clean power
Efficient buildings
Sustainable transportation

II. Electric Vehicles

The Rationale
New York City's power grid mix has the potential to enable significant GHG emission reduction from EVs.

Source: IEA, IAEA, AG Energiebilanzen, DOE, McKinsey Automotive Practice, Oak Ridge National Laboratory

II. Electric Vehicles

The Rationale

GHG Impacts – Conventional vs. Electric Vehicles

- Conventional gas vehicle: 417 g CO2/mile, 2010
- Best case gas engine technology (2030): 200 g CO2/mile
- Plug-in hybrid electric vehicle: 116 - 232 g CO2/mile
- Electric vehicle charged on NYC grid: 116 g CO2/mile
- Electric vehicle charged from renewable source: 0 g CO2/mile, 2010
### Potential early adopters

1. **Green Auto Aficionados**
   - Vehicle used daily
   - Feels EV is great for daily and long trips

2. **Simple Greens**
   - Vehicle used less frequently
   - Feels EV is great for daily and long trips

3. **Progressive Pragmatists**
   - Vehicle used daily
   - Feels EV is okay for daily driving

### Probable late adopters

4. **Unfit Urbanites**
   - Vehicle used less frequently
   - Feels EV won’t fit trip patterns (mostly long trips)

5. **Open But Unconvinced**
   - Feels EV won’t work for daily driving

6. **Luxury Loyal**
   - Vehicle used daily
   - Feels EV won’t fit with short or long trip driving

7. **Unwilling Conventionals**
   - Vehicle used daily
   - Feels EV won’t fit with short or long trip driving

### Car preferences

- **Status and brand matters**
- **Performance & features focus**
- **Family car**
- **Basic features**

### Status attitudes

- **Wants and will pay for new tech**
- **Doesn’t want new tech**

### Tech attitudes

- **Wants and might pay for new tech**
- **Not interested in new tech**
- **Interested in tech but risk averse**

### Green attitudes

- **Strong green, will make sacrifices**
- **Strongest green, will make sacrifices**
- **Medium green, can give up on features**
- **Slight green, but no sacrifices**
- **Conflicted on green; doesn’t want green in car**
- **Averse to green messaging**

### Cost sensitivity

- **WTP for TCO**
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- **WTP for TCO**
- **WTP for TCO**

### What will it take to adopt?

- Need supply
- Recognition incentives, if any
- Streamline home charger install
- Minimize cost
- Insulate from risk
- Highlight operating cost savings

- Streamline home charger installation, especially for apt dwellers
- Insulate from risk
- Provide charging infrastructure

- Convince of EV value proposition
- Associate EVs with luxury
- Value buyer
- Won’t accept any upfront increase

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1 WTP = Willingness-to-Pay
2 TCO = Total cost of ownership

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**II. Electric Vehicles**

Results from McKinsey Study
II. Electric Vehicles

Education & Outreach
II. Electric Vehicles

Education & Outreach
II. Electric Vehicles

Charging Infrastructure
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II. Electric Vehicles

Charging Rates
II. Electric Vehicles

Beyond Early Adopters

What’s Next & How Do We Do It?
II. Electric Vehicles

Beyond Early Adopters

What’s Next & How Do We Do It?

• Further Unlock Demand
• Foster New Markets
• Understand How to Lead by Example
Thank You

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