

Connecticut Department of Energy and Environmental Protection











GC3 Meeting

March 7, 2017 3:00 — 5:00 p.m.



Agenda

3:00	Welcome & Announcements		
3:05	Addressing equity concerns in climate planning efforts		
3:10	REMI transportation analysis update		
3:25	A Review of the Literature: Transportation Best Practices for Emissions Reductions		
3:35	Plan of Conservation and Development (POCD), Transit Oriented Development (TOD) & VMT reduction opportunities		
4:30	Public Comments		

Addressing equity concerns in climate planning efforts



REMI transportation analysis update



Analysis Updates

- Zero emissions vehicles updates
 - Updated % of sales, # of ZEVs, % of fleet for 2020-2050
- Electrification of buses

Let's Go CT BAU spend vs. additional investments

Vehicle Electrification

	2020	2030	2050		
35% below 2001 by 2030					
# of ZEVs	35,000	450,000	2,600,000		
% of Fleet	1%	18%	92%		
% of Sales	3%	55%	99%		
45% below 2001 by 2030					
# of ZEVs	70,000	750,000	2,600,000		
% of Fleet	3%	32%	95%		
% of Sales	5%	72%	99%		
55% below 2001 by 2030					
# of ZEVs	113,000	1,000,000	2,700,000		
% of Fleet	5%	43%	96%		
% of Sales	9%	89%	99%		

REMI Inputs Transportation Sector

Included:

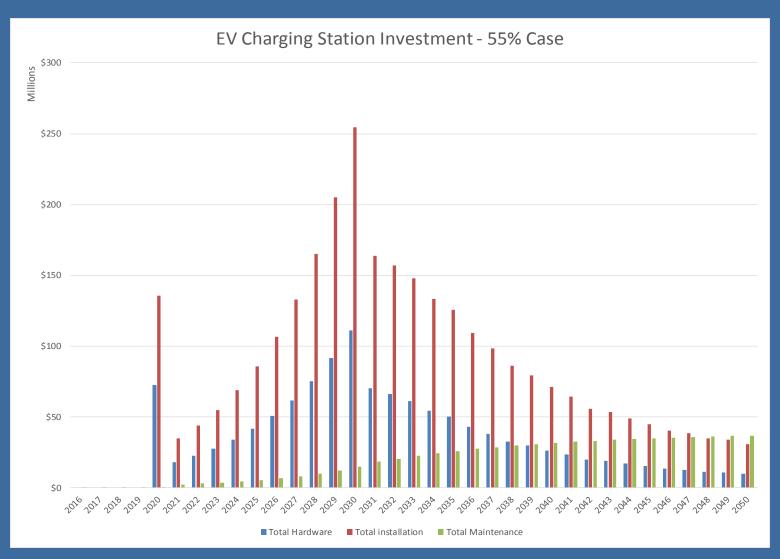
- Fiscal deficit due to declining fuel consumption relative to DOT revenue requirements as EVs deploy
- Increased EV charging & H2 filling station deployment
- Reduced # of gas stations and increased remediation cost
- Increased demand for electricity

REMI Inputs Transportation Sector

Not Included:

- Increased emissions due to increased electricity consumption
- Decreased emissions due to deployment of ZEVs
- Let's Go CT! transportation network improvements

REMI Input: EV Charging Station Investment 55% Case



A Review of the Literature: Transportation Best Practices for Emissions Reductions



Transportation Best Practices

Strategies to reduce GHG emissions

<u>Primary Target</u> — There are three primary means to reduce greenhouse gas emissions from the transportation sector:

- Reduce vehicle miles traveled
- Increase fuel economy; and
- Switch to fuels with lower life-cycle carbon content

<u>Approach</u> — There are various approaches to achieve a target, which rage from voluntary efforts to mandatory actions:



<u>Timing</u> — Immediate vs. long-term impacts

Level of Authority — Local vs. state vs. federal

<u>Effectiveness Factors</u> — policy design/nuances and consumer responses

Ease of Implementation— political feasibility, equity, economic impacts, and co-benefits

Source: adapted from DOT FHWA Transportation and Global Climate Change: A review and analysis of the literature. 12

Example strategies to reduce GHG emissions

VMT Reductions	Fuel Economy	Fuel Switching to reduce carbon content
Travel PricingRoad/congestion pricingVMT feesFuel pricing	Improving Traffic OperationsTraffic flow improvementsSpeed limitsDriver education	Alternative fuel vehicle (AFV) mandates Research and development on fuels and AFVs
Provision for Alternative Modes: • Transit investment	Vehicle Technology Improvements:	Carbon taxes or differential
Bicycle support strategiesHOV lanesPark-and-ride facilities	 Mandates on new vehicle fuel economy (CAFÉ) Research and development on 	taxes for fuels
Parking Management: • Parking pricing	fuel economy Changing Vehicle	
Mandatory parking cash-outParking supply limits	Purchase/Retirement Decisions:	
 Land Use Planning Increasing density, mix of uses, and transit-oriented development Pedestrian environment improvements 	 Disseminate fuel economy information Vehicle efficiency tax or feebates Emission-based vehicle registration fees Vehicle retirement/buyback 	
Other VMT-reduction Measures:	programs	

POCD, TOD & VMT Reduction Opportunities



Public Comments

