Plug-in Vehicles
Measuring and Transforming Consumer Attitudes

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About VEIC

- Mission driven non-profit
- Energy efficiency & renewable energy programs
- 300+ employees
- Locations: VT, DC, NJ, OH

- Electricity generation: 32%
- Transportation: 28%
- Industry: 20%
- Agriculture: 10%
- Commercial: 5%
- Residential: 5%

Vermont Energy Investment Corporation
Vermont Greenhouse Gas Emissions (2011)

- Transportation: 46%
- Residential, Commercial & Industrial Use: 31%
- Agriculture
- Waste Management
- Electricity Supply
- Fossil Fuel Industry
- Industrial Processes

Vermont Agency of Natural Resources, 2013
Electric Vehicle Greenhouse Gas Emissions

- Coal: 30
- Oil: 32
- Natural Gas: 54
- Solar: 500
- Nuclear: 2,000
- Wind: 3,900
- Hydro: 5,800
- Geothermal: 7,600

New England regional mix provides 75 MPG GHG equivalent

Well to Wheels MPG Greenhouse Gas Equivalent

Union of Concerned Scientists, 2012
A public-private partnership working to increase the use of electrified transportation in Vermont
Vermonters’ Unaided Awareness of Alt Fuels

First Mention  Combined Mention

Electric  44.3%  24.8%
Hybrid
Diesel
Biodiesel
Battery
Ethanol / Corn
Vegetable Oil
Hydrogen
Solar
Natural Gas

n=495
Familiarity with Electric Vehicles

- **Plug-in Hybrid Vehicle**
  - Very Familiar - 5: 12.4%
  - 4: 14.9%
  - 3: 30.5%
  - 2: 24.6%
  - Not at all Familiar - 1: 17.7%

- **All Electric Vehicle**
  - Very Familiar - 5: 10.0%
  - 4: 14.8%
  - 3: 29.4%
  - 2: 26.5%
  - Not at all Familiar - 1: 19.4%

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Sources of Information About Electric Vehicles

- Internet Search Engine: 69%
- Auto Manufacturer Website: 60%
- Auto Dealer Showroom: 59%
- Word of mouth: 45%
- Automotive Industry Website: 43%
- Technology-oriented Website: 25%
Dealer Experience

Overall Buyer Satisfaction with Purchase Experience

- Plug-in Buyer: 738
- Non-premium Conventional Buyer: 787
- Premium Conventional Buyer: 838
- Tesla: 902

Source: UC Davis, 2014
Incentive Program Design

OEM → Dealer → Consumer → Midstream Program
Pilot Implementation

- $200 dealer incentive
- Participants selected through auto dealer trade organization
- Paper voucher processing
Dealer Training

- Supplement OEM Training
- Compare vehicles
- Charging infrastructure
- EVs in Vermont conditions
- Sales approach
Lessons Learned

- Cultivate relationships
- Consider dealer tax/business implications
- Sustained funding needed