

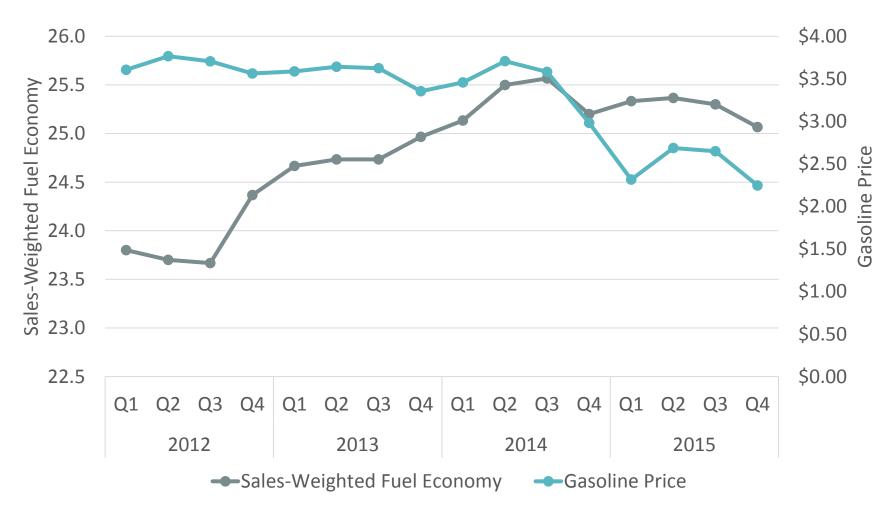
Alternative Fuel Vehicle Market State of Play

Deploying alternative fuel vehicles in a time of low oil prices

Nick Nigro, Atlas Public Policy February 22, 2016

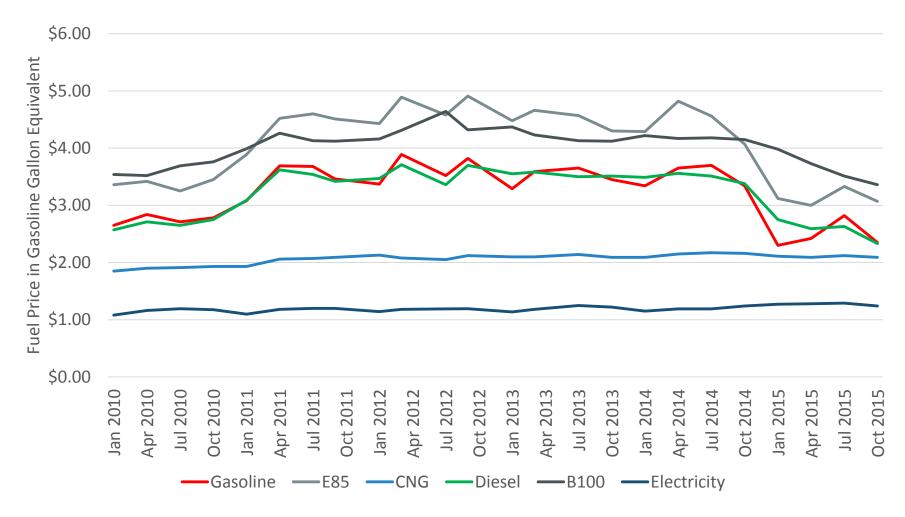


Consumer Response To Low Gas Prices





Fuel Prices Converging Since 2014





Key Challenges through 2020

- Effects of sustained low oil prices
 - Decreased investment in alternative fuels
 - Reduced political will to address oil dependence
 - Consumer amnesia
- Gasoline and diesel vehicles constantly improving
 - Emissions and fuel economy standards
 - Local air quality benefits reduced
 - Alt fuels still needed for climate goals, energy security, and vibrant local economy
- Alternative fuel market
 - EV market must get to third generation and address public infrastructure business model challenge
 - Fleet manager procurement must realize alt fuel public benefits and reorient budget practices to accommodate infrastructure and operating/capital costs



Business Model Challenge For Public Charging Stations

- Public charging competes with residential charging
- High upfront costs
 - Can require trenching, extensive wiring, or pavement replacement
 - Must comply with regulations to serve public
- Willingness to pay for service and expected use does not cover costs of installing and operating equipment

Public charging business models must capture indirect revenue sources from charging services



Fleet Managers Must Capture Value Of Alternative Fuels

- Alternative fuels can offer net cost savings through lower operating costs
 - Existing budgets must adapt and not depend on low upfront costs and high operating costs
- Alternative fuels can be domestically produced with lower local air and/or greenhouse gas emissions
 - Funding programs must monetize public benefits of alternative fuels



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