

Electric Vehicles and Infrastructure

Experience & Recent Projects



M.J. Bradley & Associates (MJB&A) has more than 20 years of experience working at the intersection of energy and environmental policy, with emphasis on the electric and transportation sectors. Our international client base includes electric and natural gas utilities, major transportation fleet operators, investors, clean technology firms, environmental groups, and government agencies, which provides a wide view of policy issues from multiple stakeholder perspectives.

Transportation electrification has been a focus of our work since the early 1990's, when we managed DARPA-funded electric vehicle (EV) development projects in New England. Since then in this field we have: managed in-use demonstration (and emissions and fuel economy testing) projects for hybrid-electric, plug-in hybrid, and electric school buses, transit buses, and trucks; completed a feasibility study of using grid shore power to support docked vessels at the Brooklyn Cruise Terminal; and managed a transportation refrigeration unit electrification program at the Chelsea Produce Market in Massachusetts. We have conducted fleet sustainability and alternative fuel/advanced technology vehicle analyses for transit agency, municipal, and utility clients, evaluating technology options—including electrification—for light-, medium-, and heavy-duty fleet vehicles.

In addition, in the last few years we have executed numerous policy studies and analyses related to transportation electrification, with an emphasis on the role of electric utilities in the development of electric vehicle charging infrastructure. This has included state-level transportation electrification cost-benefit analysis, policy-focused white papers, analysis of electricity pricing options to incentivize EV adoption while minimizing grid impacts, and development of GIS-based tools to identify possible locations for EV charging investments.

In 2016 we launched the Utility EV Initiative, a group of leading electric utilities collaborating to address key market, regulatory and technical factors affecting the growth of the electric vehicle market. The mission of the Utility EV Initiative is to advance the electrification of the transportation segment through consumer engagement and education, making the case for utility programs to help accelerate EV charging infrastructure deployment, and integration of EVs into the electric grid for the benefit of all electric customers. MJB&A provides facilitation, technical, and strategy support to Utility EV Initiative participants. In March 2017 the Utility EV Initiative released the MJB&A-authored white paper [Accelerating the Electric Vehicle Market: Potential Roles of Electric Utilities in the Northeast and Mid-Atlantic States](#).

EXPERTISE

- Vehicle/technology evaluation
- In-use demonstration and testing
- Feasibility studies
- Cost/benefit and life-cycle cost analysis
- GIS mapping and analysis
- Policy and regulatory analysis
- Management of stakeholder groups
- Project management

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MJB&A developed a whitepaper resource for Northeast and Mid-Atlantic policymakers and stakeholders on the status of the EV market, market barriers, and the potential role of electric utilities in transportation electrification programs.



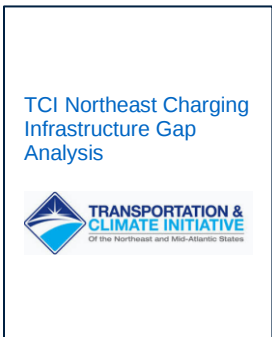
MJB&A conducted seven state-level assessments of net financial and public benefits of high-levels of light-duty electric vehicle adoption, including owner savings, bill savings for electric utility customers, and the value of greenhouse gas (GHG) reductions. States include CO, CT, IL (forthcoming), MD, MA, MI, NY, and PA.



MJB&A is providing support to a project team developing an electric vehicle charging infrastructure plan for the New York City Department of Transportation.



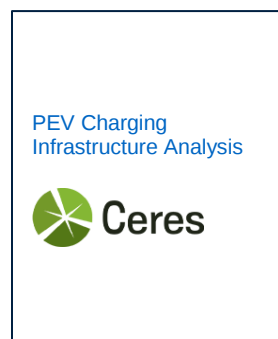
MJB&A is currently working with a NYSERDA project team to develop a cost-benefit framework to be used by New York utilities when developing electric vehicle charging infrastructure programs in New York State.



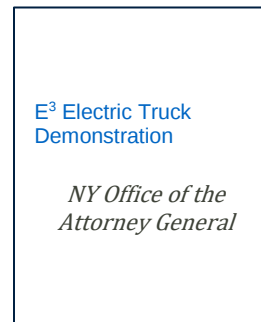
MJB&A is developing a GIS-based tool to visualize and evaluate existing and planned public direct current fast charging infrastructure along all “EV signage ready” corridors in the 12 Transportation Climate Initiative states (Maryland to Maine).



MJB&A is evaluating the costs and benefits of fully electrifying Vancouver, British Columbia’s existing fleet of 1,000+ diesel, compressed natural gas, and hybrid transit buses between 2020 and 2040.



MJB&A is developing an assessment of the total need for home and public charging infrastructure in 12 specific utility service territories in seven states, to support low to medium levels of EV adoption through 2035, and comparing the estimated total cost of this infrastructure to EV net benefits.



MJB&A is supporting an in-use demonstration of Class 3 electric delivery trucks in NYC. MJB&A will develop and execute a plan to collect data from 8 trucks operated by four non-profit organizations over a two-year period, to demonstrate the benefits of electric trucks. MJB&A will also conduct a NYC electric truck market study.