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New reports provide insights into benefits of electric vehicles in Northeast and mid-Atlantic states

Reports analyze the costs and benefits of electric vehicle penetration through 2050; savings to vehicle owners, utility customers and society add up to billions in each state.

CONCORD, MA, FEBRUARY 14, 2017: New, independent studies by M.J. Bradley & Associates (MJB&A) have been published that evaluate the costs and benefits of increased penetration of plug-in electric vehicles (PEV) in five Northeast and mid-Atlantic states: Connecticut, Maryland, Massachusetts, New York, and Pennsylvania. The net present value of cumulative net benefits from greater PEV use in these five states is projected to total between \$41.7 billion and \$205 billion by 2050. The studies were conducted for the Natural Resources Defense Council (NRDC).

The analyses project societal costs and benefits for two different PEV penetration levels between 2030 and 2050, which bracket the states' short and long-term policy goals for zero emission vehicle (ZEV) adoption and greenhouse gas (GHG) emission reductions. Four of these states are signatories to the eight-state ZEV Memorandum of Understanding, which seeks to put 3 million zero emission vehicles on the road by 2025 (short-term goal). Most of these states analyzed have also adopted formal long-term goals to reduce transportation GHG emissions by 80 percent by 2050.

"Policymakers in the Northeast and mid-Atlantic states are discussing approaches to promote further adoption of electric vehicles," said Brian M. Jones, Senior Vice President, MJB&A, "These reports provide insights into the benefits of doing so for all stakeholders."

The studies estimate statewide net benefits of high levels of PEV penetration, including vehicle owner operating cost savings, utility customer savings on electric bills, and societal benefits from GHG reductions. The studies estimate the benefits that would accrue to all electric utility customers in these states due to increased utilization of grid assets and PEV charging load management through off-peak charging. Off-peak charging reduces the need for distribution system upgrades and avoids investments in additional peaking capacity.

"In each state, wider use of electric vehicles will produce billions of dollars in benefits to everyone's pocketbook, health, and the planet," said Luke Tonachel, Director, Clean Vehicles

and Fuels Project, NRDC, “The studies provide further evidence of the value of making electric cars more available to the mass market because it leads to lower utility bills and cleaner air for everyone, not just EV owners.

The net present value of estimated total annual benefits in 2030 ranges from \$107 – \$265 per PEV in the five states. These annual benefits (NPV) are projected to increase to \$349 - \$520 per PEV in 2050, as the cost of PEVs continues to fall, and the electric grid is further de-carbonized.

“The state-specific analyses account for differences in vehicle fleet, vehicle usage, energy costs, and grid characteristics,” said Dana Lowell, Senior Vice President, MJB&A. “If projected future reductions in battery costs are achieved, on average PEVs will be less expensive to operate than gasoline vehicles by 2030.”

Reports summarizing each state-level analysis and a report detailing the methodology and sources used for all five studies are available [here](#).

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About M.J. Bradley & Associates

M.J. Bradley & Associates LLC (MJB&A), founded in 1994, is a strategic consulting firm focused on energy and environmental issues. The firm includes a multi-disciplinary team of experts with backgrounds in economics, law, engineering, and policy. The company works with private companies, public agencies, and non-profit organizations to understand and evaluate environmental regulations and policy, facilitate multi-stakeholder initiatives, shape business strategies, and deploy clean energy technologies.