



Department of Energy
Washington, DC 20585

May 1, 2012

The Honorable Andy Harris
Chairman
Subcommittee on Energy and Environment
Committee on Science, Space, and Technology
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Harris:

Thank you for your March 26, 2012 letter to the U.S. Department of Energy (DOE) regarding the National Community Deployment Challenge and other advanced vehicle initiatives. The Department shares your dedication to clean and efficient transportation solutions. As part of the President's sustained, all-of-the-above approach to American energy, DOE is working to develop the technologies that can secure our energy future and provide consumers with choices to reduce costs and save energy.

Your letter listed several questions about these activities and we appreciate this opportunity to respond.

National Community Development Challenge

As part of the President's blueprint for a new era of American energy, President Obama announced his support for the National Community Deployment Challenge (NCDC)—designed to spur the deployment of clean, advanced vehicles in communities around the country. With \$1 billion in investments, communities across the United States can support the infrastructure, create the incentives, and remove the regulatory barriers needed to reduce our reliance on foreign oil, save families and businesses money at the pump, and position the United States as the global leader in clean energy.

This proposal embraces a strategy similar to that outlined by Senators Merkley and Alexander in their Promoting Electric Vehicles Act legislation (S. 948, Sec. 106). The NCDC proposal, however, is largely "fuel neutral," allowing communities to determine if electric-drive, natural gas, or other alternative fuel vehicles and infrastructure would be the best fit for their local situation. Deployment Communities would leverage limited federal resources to develop different models to deploy advanced vehicles at scale and with an emphasis on achieving economic sustainability without further government funds. Funding for the NCDC is contingent upon Congressional authorizing legislation.



Objectives, Milestones and Selection Criteria

The NCDC would establish a highly-leveraged, cost-shared, open and competitive grant program with an emphasis on demonstrating local-market transformations to increase the use of alternative fuel and advanced transportation technologies at scale. Deployment Communities would be asked to meet competitive goals and serve as national leaders for the implementation of these technology deployment models. The establishment and maintenance of strong data collection efforts would be crucial to the effort—allowing communities to continue to replicate successes across the United States.

How NCDC Contrasts with Other Programs

Despite the widespread benefits of alternative fuel vehicles, the lack of infrastructure to support their use remains a major obstacle to broader deployment. As part of the American Reinvestment and Recovery Act of 2009 (ARRA), four DOE Transportation Electrification grants enabled test demonstrations of electric drive vehicles and charging infrastructure in several communities. These projects comprise the largest-ever demonstration of plug-in vehicles and charging infrastructure and are providing critical, publicly-available information on real-world operation. This initiative has collected over 25 million miles of operational data from approximately 5,000 plug-in vehicles and charge-event data from nearly 7,000 EV charging stations as of March 31, 2012. This data has not only helped inform research further improving this technology but has also helped communities, manufacturers and utilities plan future EV charging infrastructure. Specifically, data on charging behavior, local effects on the grid, and other lessons learned about time of use rates, for example, provide important information for similar rollouts in other cities as well as future infrastructure expansion.

With rising fuel prices, the number of parties interested in adopting alternative and advanced fuel technologies has grown substantially. Community leaders have voiced a strong desire to start planning for further widespread use of alternative fuels. The NCDC would build on efforts such as the Transportation Electrification initiative and provide support for communities that come forward with commitments to implement the local and regional planning, incentives, and other policies to support the widespread use of not only electric drive but also other alternative fuels. Through NCDC, communities would have the opportunity to scale deployment of these technologies—helping provide consumers and businesses with choices to reduce costs and save energy.

DOE Advanced Technology Vehicle Research, Development, Demonstration, Commercialization and Manufacturing Activities

DOE has an active portfolio of programs that support advanced technology vehicle research, development, demonstration, commercialization, and manufacturing. Enclosure 1 provides a

breakdown of the activities that DOE supports in the listed categories. Details on all Vehicle Technologies Program projects in these areas are publicly available through the Annual Merit Review, which provides detailed presentations about project activity, milestones, progress, and budgets.¹ The 2012 Merit Review, which is open to the public, will be held May 14 – 18, 2012 in the Washington, DC area. The Advanced Technology Vehicle Manufacturing loan program is not covered in this review. Enclosure 2 lists the status of the ATVM loans.

Electric Vehicle Market Growth

The President set an ambitious goal to put the United States on a path toward reducing our dependence on oil—calling for putting one million electric vehicles on the road by 2015. While this goal is an important milestone for electric vehicle (EV) market development, this growth alone is not enough. Significant additional market penetration is required to realize the technology’s full potential and to address oil consumption and greenhouse gas reduction across the nation’s vehicle fleet. Automakers do not report sales figures to the Department. However, media reports indicate over 21,000 plug-in electric vehicles have been sold through February of 2012, with most of these transactions occurring during the last year.²

In February 2011, DOE released a status report on the President’s goal—noting that the President has proposed steps to accelerate America’s leadership in electric vehicle deployment, including improvements to existing consumer tax credits, programs to help cities prepare for growing demand for electric vehicles and strong support for research and development.³ Since the report’s release, a number of automakers have announced their intention to bring to market new electric drive vehicles.⁴ Meeting the 2015 goal does not seem to be constrained by vehicle availability—it will largely be determined by how fast consumer demand grows. Ultimately, as more electric drive vehicles enter the market and sales volume grows, the United States can dramatically reduce our dependence on foreign oil and ensure that we lead the growing advance vehicle manufacturing industry.

Electric Vehicles and Charging Stations

As of March 23, 2012, over 9,000 Electric Vehicle Supply Equipment (EVSE, more commonly referred to as EV charging stations) have been purchased and deployed with DOE financial support. The majority of these charging stations were the result of cost-shared funding under the

¹ The presentations from the 2011 Merit Review and the VTP multiyear program plan is available are available at <http://www1.eere.energy.gov/vehiclesandfuels>; Budget requests and appropriations from FY2009 through the FY2013 budget request are available at <http://www.mbe.doe.gov/crorg/cf30.htm#Justifications>.

² See http://www.greencarreports.com/news/1073563_february-plug-in-car-sales-rise-leaf-drops-volt-soars.

³ See http://www1.eere.energy.gov/vehiclesandfuels/pdfs/1_million_electric_vehicles_rpt.pdf.

⁴ Vehicles include the Ford C-Max Plug-In; Ford Fusion Plug-In; Chevrolet Spark EV; Toyota Prius Plug-In; Volvo C30 EV; and the Toyota RAV4 EV.

Transportation Electrification initiative. In addition, a smaller number of charging stations have been deployed as part of programs undertaken by the Energy Efficiency and Conservation Block Grants and public-private partnerships such as locally-based Clean Cities coalitions.

DOE has demonstrated a 35 percent cost reduction in the price of electric vehicle energy storage—the dominant electric vehicle cost driver—since 2008 and intends to demonstrate an additional 50 percent cost reduction by the end of 2014, based on high-volume manufacturing cost projections using a peer reviewed cost model. This reduction would bring the cost of electric vehicle energy storage to \$300/kW-hr. Longer-term goals for vehicle batteries include an overall cost reduction of over 85 percent by 2020 relative to 2008 levels.

After these battery cost reductions, estimates of the purchase and ownership costs of the electric vehicles suggest the price of electric vehicles will fall commensurately. In 2015, with expected progress, DOE intends to demonstrate the technology for a 100-mile range electric vehicle with an incremental cost low enough to pay for itself in fuel savings over several years without subsidy. By 2020, a 100-mile range electric vehicle is targeted to cost roughly the same as a vehicle driven by an internal combustion engine without subsidy. These cost projections assume production of electric vehicles at scale, and the NCDC would help achieve high-volume production.

Ecotality and The EV Project

Ecotality received funding through the Transportation Electrification initiative—an effort to establish demonstration and evaluation projects that would accelerate the market introduction and penetration of advanced electric-drive vehicles. As part of this effort, DOE administered an open, transparent competitive solicitation process and awarded funding for Ecotality's EV Project to develop and deploy a network of charging stations in residential, commercial, and public locations in 18 cities nationwide. Partnering with DOE's Oak Ridge and Idaho National Laboratories, the EV Project also created a prototype solar-powered recharging system and robust data collection effort. Additional information is available in Enclosure 3.

The EV Project began on October 1, 2009, and is expected to continue into 2013. Installations have been extended past the original expected end date of September 2011 to match the vehicle sales and availability.

Strict monitoring and control mechanisms are in place so that Ecotality North America and its project partners are reimbursed only as progress is made and project milestones are met. As of March 31, 2012, Ecotality had completed 44 percent of the planned EVSE installations and 57 percent of the planned vehicles, and it had been reimbursed \$42 million, or 42 percent of the total award amount.

In your letter, you also mention a Securities and Exchange Commission (SEC) investigation of Ecotality for insider trading. As a publicly-traded company, Ecotality disclosed this information through its public filings.

We thank you for your continued interest in this program and for your interest in the successful deployment of advanced vehicle technologies. If you need additional information, please contact me or Mr. Christopher Davis, Deputy Assistant Secretary for House Affairs, Office of Congressional and Intergovernmental Affairs, at (202) 586-5450.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Danielson", with a long horizontal flourish extending to the right.

Dr. David T. Danielson
Assistant Secretary
Energy Efficiency and Renewable Energy

Enclosures

cc: The Honorable Brad Miller
Ranking Member
Energy and Environment Subcommittee
Committee on Science, Space and Technology
U.S. House of Representatives
Washington, DC 20515