

Testimony of Kathy M. Kinsey

Deputy Secretary
Maryland Department of the Environment

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Our Nation of Builders: Powering U.S. Automobile Manufacturing Forward

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Thank you Chairman Terry, Ranking Member Schakowsky and members of the Subcommittee. My name is Kathy Kinsey and I am the Deputy Secretary for Operations and Regulatory Programs at the Maryland Department of the Environment. I appreciate this opportunity to address the Subcommittee regarding efforts underway in Maryland to promote and support advancements in motor vehicle technology that we believe are the future of the automobile industry and are critical to achieving our State's long-term goals to reduce transportation-related air pollution and greenhouse gas (GHG) emissions, enhance energy security, save consumers money and promote economic growth.

The Need for Cleaner Cars

The automobile industry has achieved significant technological advances to lower automobile pollution and is now doing the same to increase vehicle fuel efficiency. In spite of tremendous progress made at the state, regional and federal level over the past 40 years, however, poor air quality continues to be one of our State's most intractable environmental problems. Cars and trucks remain among the largest emission sources that contribute to air quality related public health and environmental problems in Maryland, and the transportation sector is the second largest source of GHG emissions in our State. Continued technological progress is essential if we are going to achieve meaningful reductions in GHG emissions and much needed further improvements in air quality.

Ozone Nonattainment Areas

Maryland is one of 13 states that have adopted the California low emission vehicle standards. These standards benefit Maryland by reducing emissions of pollutants that cause our continuing ozone nonattainment problem. Nearly 90 percent of Maryland's citizens live in ozone nonattainment areas and are subject to some of the worst ozone pollution east of the Mississippi

River. Reducing emissions of nitrogen oxides (NOx) is key to improving our air quality and mobile sources are the leading contributor to NOx emissions in Maryland – nearly twice the emissions of power plants. When fully implemented, the low emission vehicle standards will reduce pollutants from cars and light-trucks that contribute to ground level ozone by 75 percent. Adoption of the low emission vehicle standards is a key component of Maryland's ozone attainment strategy.

Nutrient Pollution in the Chesapeake Bay

The Chesapeake Bay watershed is a national treasure and vital to the economic health and cultural identity of Maryland. Reducing mobile source emissions of NOx is an important component of the Chesapeake Bay restoration effort. Atmospheric deposition of nitrogen is responsible for approximately one-third of the Bay's nutrient pollution and 50 percent of the airborne NOx is attributable to mobile source emissions. The new vehicle standards will significantly reduce nitrogen deposition to the Bay.

Zero Emission Vehicles

The zero emission vehicle (ZEV) provisions – that require the auto manufacturers to provide for sale, in each state, a certain percentage of vehicles powered by electricity or hydrogen – are a critical component of the low emission vehicle program. State ZEV requirements will advance the development of a new generation of cleaner and more efficient vehicle technologies that will benefit Maryland and, ultimately, the entire nation.

There is reason for confidence that this transformation will come about quickly. In 2002, there were only three hybrid vehicle models commercially available for sale in the United States; ten years later that number has grown to 38. In 2006, there were no plug-in electric vehicles on the market in the United States; only six years later, there are at least 13 different models. These

advancements illustrate the importance of the state ZEV requirements, which have spurred development of new low and zero emission vehicles and demonstrated the automobile industry's ability to innovate in a short period of time. The transition to these advanced technology vehicles will support our efforts to achieve our air quality and climate change goals, and will enhance energy security by reducing our dependence on foreign oil. There is no other known way for Maryland to achieve its long term 2050 goal to reduce State-wide GHG emissions 90 percent from 2006 levels without ultimately transitioning the vehicle fleet to non-petroleum fuels.

Electricity is a low cost, lower carbon domestic alternative that currently cost two-thirds less than gasoline/diesel on a per-mile basis. Today, our State relies almost entirely on imported petroleum fuels for transportation. Switching from imported gasoline and diesel to low cost domestic energy sources will have a positive macro-economic impact by reducing the outflow of capital from the State and putting more money in the pockets of consumers. A portion of the savings that accrues through reduced fuel costs would be invested within the State, with positive multiplier effects across the economy.

Maryland's ZEV requirements are critical to ensuring that automobile manufacturers deliver electric vehicles to our State and region. History has shown that a robust regulatory driver is necessary to ensure this vital transition. The automotive industry has demonstrated the ability for incredible innovation in mass-market commercialization of new technologies to meet the demands of strong regulatory requirements. The rapid improvements in fuel economy that have occurred since the passage of the new CAFE standards are testament to the innovative capacity of the automotive market. The fact that these developments are taking place after two decades of little change in fleet fuel economy demonstrates the importance of a strong regulatory driver with clear long-term goals. Given the huge challenge Maryland faces in meeting our 2050 climate

goals, and the fact that we can't achieve the necessary GHG reductions from the transportation sector without electric vehicles, it is essential that industry maintain its momentum in this transition.

Maryland's Commitment to ZEVs

The State of Maryland is committed to doing its part to help build a robust market for these vehicles through financial and other incentives. The State currently provides a one-time excise tax credit of up to \$2,000 for purchase or lease of a qualifying plug-in electric vehicle (PEV). Fleet operators are eligible for State excise tax credits on up to 10 vehicles. This State credit is in addition to the federal tax rebate for PEVs.

The increasing availability of PEVs is driving investment in electric vehicle fueling infrastructure. In the past two years, Maryland has funded the installation of more than 350 public charging stations. Together with privately funded installations, the State has made a commitment to ensuring the development of adequate charging infrastructure consistent with our ZEV program requirements and consumer demand. The State currently offers a tax credit of up to \$400 on electric vehicle supply equipment. Maryland also provides non-monetary incentives to ZEVs, such as permitting electric vehicles to use high occupancy vehicle (HOV) lanes, regardless of the number of passengers. Legislation extending tax incentives and HOV lane access, due to expire this year, passed both chambers of the Maryland General Assembly last week.

Last year's General Assembly passed two important bills to facilitate development of a charging infrastructure network in the State: (1) legislation exempting owners and operators of electric charging stations from regulation by the Public Service Commission as "public utility companies" subject to tariff and other regulatory requirements; and (2) legislation allowing the

Motor Vehicle Administration to share owner/address information for newly registered electric vehicles with electric utilities to ensure the reliability of the grid.

Recommendations of the Maryland Electric Vehicle Infrastructure Council

Two years ago, the Maryland General Assembly demonstrated its commitment to developing the electric vehicle infrastructure necessary to facilitate widespread use of PEVs by establishing the Electric Vehicle Infrastructure Council, composed of 26 members representing local and State government agencies, citizens, manufacturers of charging equipment, utilities and other interest groups. In December, the Council released a comprehensive final report and action plan to advance the development of a State-wide charging network. In addition to the legislative recommendations discussed above, other key recommendations of the Council included:

- Establishment of a goal to have 60,000 PEVs on the road in Maryland by 2020;
- A detailed blueprint for the State-wide location of public charging stations sufficient to serve 60,000 electric vehicles to guide public investment in charging infrastructure;
- Measures to facilitate installation of charging stations in multi-dwelling and urban settings where many homeowners do not have access to private garages or parking spaces;
- 2020 and 2025 State fleet purchase goals for PEVs;
- Exploration of State bulk PEV lease/purchase agreements with local governments and Northeast Corridor states;
- Educational webinars and other outreach for property managers, developers and homeowner associations to explain the benefits of providing charging infrastructure;
- Guidance documents for local governments on infrastructure planning; and
- Revisions to local government zoning and planning codes to eliminate existing barriers to infrastructure development, including siting and design guidelines.

State Funding for Charging Stations

In 2010 and 2011, Maryland's Energy Administration awarded more than \$500,000 in competitive matching grants for installation of charging stations in the State, enabling PEV drivers to charge at more than 40 different locations in Maryland and the District of Columbia. This year, Governor O'Malley included \$1 million in capital funding for installation of charging stations at MARC and Metro Stations in the State.

Regional Collaboration

Through the Transportation Climate Initiative (TCI), Maryland and other East Coast states are working collaboratively to ensure development of a robust charging station network along the I-95 corridor that will permit long distance travel in electric cars throughout the region. We are also coordinating and collaborating with California and the other ZEV states – which together comprise more than one-quarter of the U.S. car market – to support and facilitate the commercialization of ZEVs and ensure the successful implementation of our Zero-Emission Vehicle programs. These states are exploring opportunities to develop and implement consistent standards to promote ZEV consumer acceptance and awareness, industry compliance and economies of scale, including adoption of universal signage, common methods of payment and interoperability of electric vehicle charging networks and reciprocity among states for ZEV incentives, such as preferential parking and HOV lane access.

Fueling Infrastructure

It has been suggested that the necessary fueling infrastructure is not in place in the states, and that this will constrain efforts to market plug-in electric vehicles (PEVs) and hydrogen fuel cell vehicles (FCVs). We disagree. As I described, the fueling infrastructure for plug-in vehicles,

is rapidly expanding in Maryland, and the nation as a whole, to keep pace with consumer demand.

With respect to hydrogen fuel cell vehicles, the so-called “Section 177” states (states other than California that have ZEV requirements) have acknowledged the important role that hydrogen fueling infrastructure plays in ensuring customer acceptance of this technology. For this reason, the Section 177 states have supported the California Air Resources Board’s (CARB’s) extension of the so-called “travel” provision for these vehicles, until such time as the infrastructure is in place to support wider deployment. This provision ensures that manufacturers who meet a portion of their near-term ZEV obligation in California with FCVs will automatically earn credit toward their obligations in all other ZEV program states – without placing a single vehicle outside of California. This concession is likely to significantly lower some manufacturers’ obligations outside California. Moreover, the Section 177 states agreed to support this provision after detailed conversations with the automakers and CARB.

The infrastructure challenges for PEVs are much different. Where hydrogen-powered vehicles require a new, technology-specific fuel delivery system, PEVs make use of an already ubiquitous source of energy. While there are new hardware requirements necessary for vehicle charging, the fuel source is adequate and widely available. We are confident that Maryland’s electric infrastructure can accommodate a smooth transition to electric transportation through careful planning, close coordination with private sector, and strategic investment.

Consumer Acceptance

Some also suggest that customer acceptance is not sufficient to successfully market advanced vehicles outside of California. However, the track record of hybrid-electric vehicles, such as the Toyota Prius, and the burgeoning demand for plug-in vehicles across the country

suggest otherwise. As of March, there were more than three times the number of plug-in vehicles on America's roads compared to just one year ago.¹

In contrast to several automakers that have chosen to limit their product plans for advanced vehicles, manufacturers such as GM and Nissan have committed to marketing PEVs nationwide. The impressive initial sales figures for these models validate their decision to make PEVs available more broadly and are indicative of growing market demand for these products across the nation.

Economics

Finally, it must be acknowledged that auto manufacturers have tremendous influence over the response of their customer base through marketing and strategic vehicle pricing. A narrow focus on near-term profitability of new vehicle models fails to recognize the overall return on investment that will be realized over time. For example, GM has announced plans to roll out the plug-in Cadillac ELR, based on the Volt powertrain, enabling the company to leverage its initial investment in research and development, while expanding consumer choice. One can expect that manufacturers will continue to broaden their deployment of advanced technologies across product lines, as Toyota has done with the Prius hybrid system, and as is common practice with engines, transmissions and other power train components. This will reduce production costs for ZEVs over time and allow manufacturers to competitively price early models with the knowledge that their current investments will pay dividends in the future.

Thank you again for this opportunity to address the Subcommittee on Maryland's commitment to, and efforts toward, developing a robust charging infrastructure and market for ZEVs.

¹ <http://www.electricdrive.org/index.php?ht=d/sp/i/20952/pid/20952>