

The logo for the National Coalition for Advanced Transportation (NCAAT) features the acronym 'NCAAT' in a bold, blue, sans-serif font. The letter 'A' is stylized as a road with a dashed white center line, with the top and bottom bars of the 'A' being blue and the center line being black.

NATIONAL COALITION FOR
ADVANCED TRANSPORTATION

**Model-Year 2021-2025
Light-Duty Vehicle Standards**

November 3, 2017

WHO WE ARE



NCAT is a coalition of companies that support electric vehicles and other advanced transportation technologies and related infrastructure – including leaders in:

- *energy supply, transmission and distribution*
- *vehicle design and manufacturing*
- *charging infrastructure, battery and other energy-storage technologies*
- *infrastructure engineering and construction and movement of passengers, goods and services*

NCAT supports policies at all levels of government that help to accelerate development and deployment of advanced technology vehicles

KEY PRINCIPLES



- NCAT's members and other leading companies in this area have a substantial economic stake in federal and state vehicle standards
- NCAT's members support robust and durable regulatory outcomes that provide clear, long-term market signals for investment in advanced technology development and deployment
- NCAT intends to play a constructive role, contributing information, fostering dialogue, and developing targeted, innovative policy mechanisms that support "win-win" solutions

WHY ADVANCED TRANSPORTATION TECHNOLOGIES?

- Investment, Economic Growth, Jobs
- Transportation Infrastructure of the Future
- American Energy Production and Security
- Consumer Savings and Consumer Choice
- U.S. Competitiveness
- Cost-Effective Pollution Reduction



DRIVING U.S. INVESTMENT IN ADVANCED TRANSPORTATION



- U.S. companies are making major investments in advanced transportation technologies and related infrastructure.
- Vehicle and supply equipment manufacturing:
 - U.S. and global manufacturers investing tens of billions of dollars – major marketing commitments
- Electric grid development:
 - Utilities and others are investing billions in charging infrastructure and grid improvements
- Natural gas – supports vehicles and power generation
- All of this means U.S. economic growth and job creation



THE CRITICAL ROLE OF FEDERAL AND STATE STANDARDS



- **Federal and state vehicle standards drive technology development and deployment**
 - Includes incremental improvements to conventional technologies *AND* development of “game changing” advanced technologies
 - Virtuous cycle: Increased investment → better technologies and lower costs → increased demand and deployment
- **State standards, including the ZEV regulations, play a key role – and will continue to do so through and beyond 2025**
 - California and other ZEV states account for nearly 30 percent of U.S. market
 - Substantial positive “spillovers” across the U.S.
- **The market is now at an inflection point – stable, long-term regulatory signals are needed to drive breakthrough and sustained momentum**

RAPIDLY IMPROVING TECHNOLOGIES AND FALLING COSTS



- MY 2021-2025 standards can be met with limited electrification
 - Technical Assessment Report, EPA Proposed Determination and Technical Support Document, CARB Mid-Term Review, ICCT analyses
- *But* improvements in EV technologies and reduced costs since Phase II rule was adopted mean that EVs will be increasingly attractive as a compliance option
 - Battery costs falling rapidly (65% drop 2010-2015; projected to drop 77% from 2016-2030)
 - Total EV costs going down (2025: \$4300-\$5300 below 2012 projections)
 - Vehicle range increasing, making EVs more and more attractive
- That means more headroom and flexibility to meet standards at reasonable costs

GLOBAL TRENDS IN VEHICLE MARKETS AND POLICIES

- **The EV market is growing rapidly**
 - U.S. EV sales doubled between 2012 and 2015, including a 37% increase from 2015-2016, despite lower gasoline prices; global sales >2 million
 - Analysts project dramatic growth in U.S. and global sales
- **Manufacturers have announced major commitments to EVs**
 - Tesla, Volkswagen, Volvo, BMW, Daimler, GM, Ford
- **Governments moving towards increasingly robust policies**
 - China, UK, France, Germany, Norway, India
- **What all this means . . .**
 - Global trends will support achievability of robust U.S. standards
 - Robust U.S. standards needed to support U.S. competitiveness



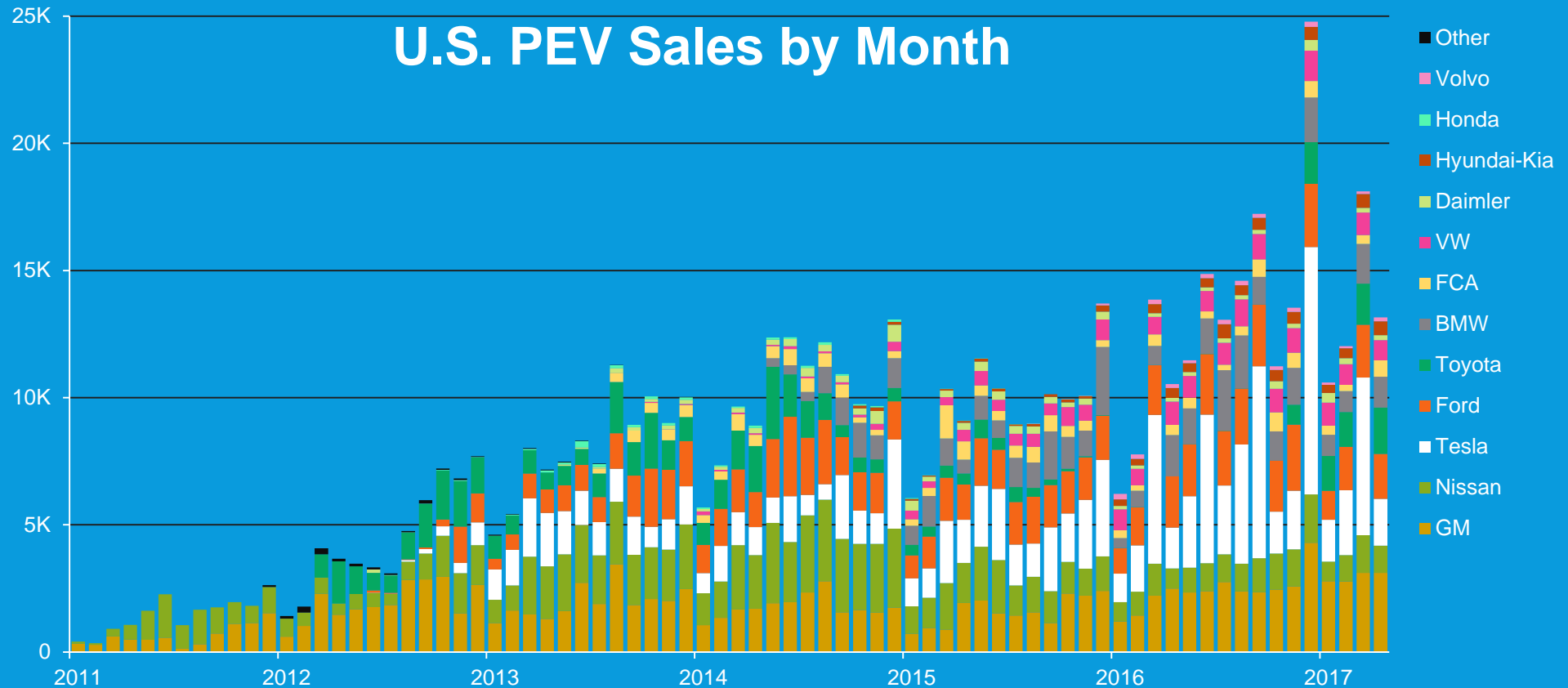
INCREASING SALES

620,000
sales since
Dec. 2010

+40%
2017 YTD
sales vs. '16

33
PEV models

18
auto brands



SOURCE: Sales data from InsideEVs.com and HybridCars.com

SUPPORTING CONSUMER CHOICE, DEMAND AND BENEFITS



- **Increasing options for advanced technology vehicles:**
 - >30 different models of EVs and growing, covering range of market segments
 - Manufacturer commitments → much broader offerings in coming years
- **Falling cost and increasing range – dramatic improvement since 2012, and will improve further with technology improvements and manufacturer commitments**
- **Affordability**
 - Fuel savings from Phase II rule pay for themselves
 - EV costs falling rapidly
- **EV sales, consumer acceptance and demand growing rapidly**
- **Charging infrastructure buildout is keeping pace**



INCREASING ENERGY SECURITY AND ENVIRONMENTAL BENEFITS



- U.S. electricity generation and natural gas production is clean and getting cleaner – resulting in greater benefits from EVs and other advanced technology vehicles
- Advanced technology vehicles rely on energy produced in the U.S. → diverse, secure supply and stable prices
- EVs rely on and support baseload power generation
- EVs support effective grid management and reduce consumer costs

IMPLICATIONS FOR THE MY 2021-2025 STANDARDS



- State standards are critically important for advanced technologies and infrastructure
- Technology advances and cost reductions since 2012 support the achievability and benefits of the existing MY 2022-2025 standards.
- Reconsideration of the MY 2021 standards at this time would be counterproductive.
- If the Administration decides to reconsider the MY 2022-2025 standards, it should ensure:
 - Full recognition and support of the role of EVs and other advanced technologies
 - Robust, defensible, harmonized standards that deliver equivalent benefits
 - State authority and programs are not undermined
- NCAT intends play an active and constructive role – supporting defensible standards and innovative policy mechanisms that support “win-win” outcomes