



CREATING GOOD JOBS, A CLEAN ENVIRONMENT, AND A FAIR AND THRIVING ECONOMY

October 5, 2017

Elaine L. Chao
Secretary, Department of Transportation

E. Scott Pruitt
Administrator, Environmental Protection Agency

Submitted electronically via www.regulations.gov

RE: Docket No. EPA-HQ-OAR-2015-0827 - Request for Comment on Reconsideration of the Final Determination of the Mid-Term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022-2025 Light-Duty Vehicles; Request for Comment on Model Year 2021 Greenhouse Gas Emissions Standards

The BlueGreen Alliance is pleased to comment on the *Reconsideration of the Final Determination of the Mid-Term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022-2025 and Model Year 2021 Greenhouse Gas Emissions Standards* (Docket No. EPA-HQ-OAR-2015-0827). Strong common-sense greenhouse gas and fuel economy standards have helped bring back American manufacturing jobs and are critical to sustaining them.

The BlueGreen Alliance unites America's largest labor unions and environmental organizations to identify ways to create and maintain good jobs and build a stronger, fairer economy while meeting today's greatest environmental challenges. Together, our partners represent millions of Americans.

Many of our partner organizations have submitted detailed technical comments on the Reconsideration of the Final Determination which address topics such as technology availability and cost, emissions and other environmental impacts, as well as consumer and safety issues.

The BlueGreen Alliance focuses our comments instead on the impact of clean vehicle standards on American manufacturing, jobs and the economy, where we and others have done extensive and ongoing research. Across this analysis we find that the innovation and investment being carried out under existing standards has been critical to the automotive recovery, manufacturing and job growth, and that ongoing strong, long-term standards are critical to sustaining these gains.

In short, at a time when the nation is focused on rebuilding good American manufacturing jobs, these standards are working.

Our comments address several of the specific questions highlighted by the agencies in the request for comment. Most notably, we argue that:

- Strong, long-term standards have a beneficial effect on the automotive industry in the US and on innovation and growth in the extensive supply chain that depends on it.
- Over the past decade, American industry and workers have demonstrated that meeting world-leading standards is both feasible and practicable. Beyond that, smartly structured standards are driving innovation in every part of the automotive ecosystem, and as a result have been critical to rebuilding the domestic industry's global standing and competitiveness. With strong action also being taken by competitor nations overseas, we cannot risk losing our edge in innovation or advanced manufacturing.
- Not only do the benefits of the standards far outweigh the costs for vehicle purchasers, but the costs to vehicle producers represent essential ongoing reinvestment in the domestic manufacturing sector and jobs that the nation cannot afford to rollback.

Detailed comments

Over the past decade we've seen the automotive sector successfully meet world-leading fuel economy and GHG standards while at the same time returning to profitability and building great cars and trucks that consumers have purchased at record levels. The innovative vehicles being built under these standards are saving consumers billions annually at the pump, enhancing America's energy security, and combating climate change. At the same time, the industry has brought back hundreds of thousands of direct jobs that are anchoring a broader manufacturing recovery.¹

These standards are demonstrating that we can create and sustain jobs, and rebuild American manufacturing, while protecting our environment and human health.

In May, the BlueGreen Alliance co-authored a report with the Natural Resources Defense Council called *Supplying Ingenuity II: U.S. Suppliers of Key Clean Fuel-Efficient Technology*.² The report assessed the companies and workers across the US making the specific technologies (as identified by the Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA) and the National Academy of Sciences) that go into improving fuel economy. The report finds 288,000 American workers building this technology today - that's at over 1200 factories and engineering facilities in 48 states and in 335 congressional districts.

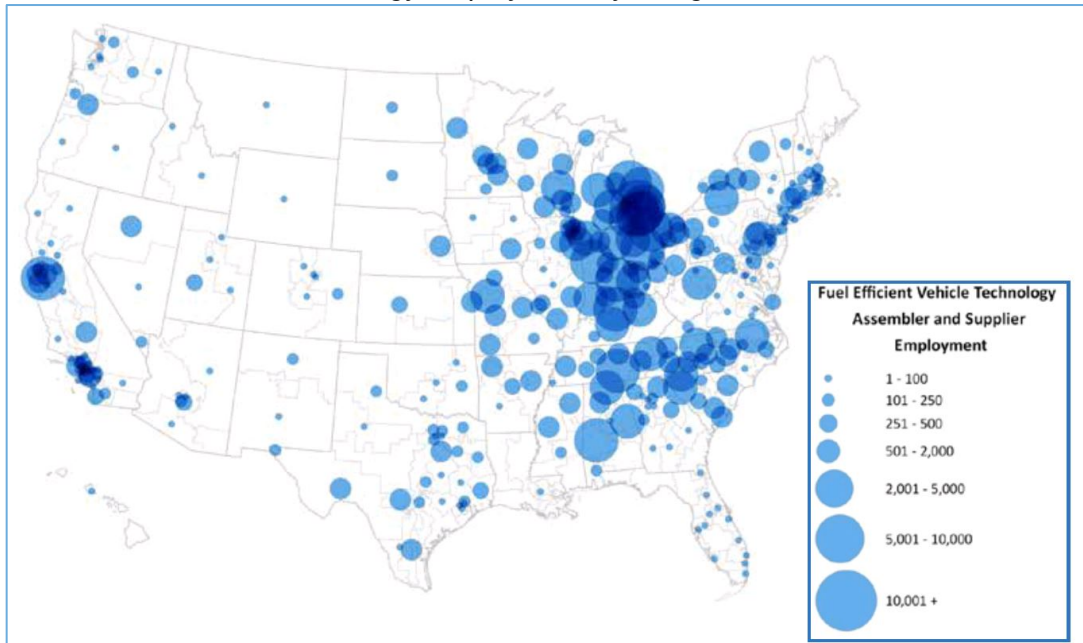
¹ BlueGreen Alliance, "Backgrounder: Sound Vehicle Standards & Policies Drive Strong Job Growth," August 2016, <https://www.bluegreenalliance.org/resources/sound-vehicle-standards-policies-drive-strong-job-growth/>. Underlying data from U.S. Bureau of Labor Statistics (BLS), <https://www.bls.gov/iag/tgs/iagauto.htm>. Analysis by BlueGreen Alliance.

² Natural Resources Defense Council and Blue Green Alliance, *Supplying Ingenuity II: U.S. Suppliers of Key Clean, Fuel-Efficient Vehicle Technologies* (June 2017). <https://www.bluegreenalliance.org/resources/supplying-ingenuity-ii-u-s-suppliers-of-key-clean-fuel-efficient-vehicle-technologies/>

Figure 1: Suppliers of fuel-efficient vehicle technology – more than 1200 facilities nationwide³



Figure 2: Fuel-efficient vehicle technology employment by Congressional District⁴



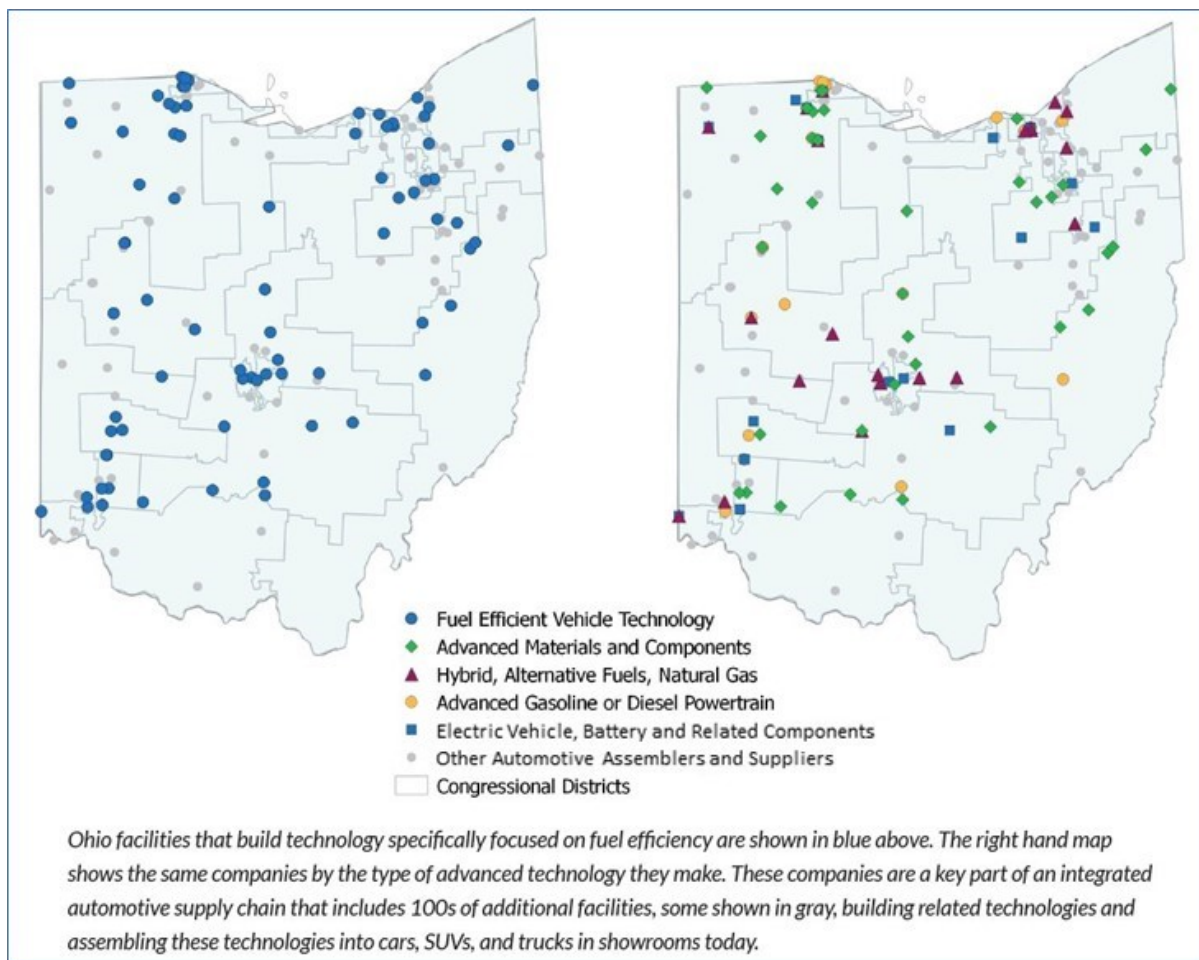
In the top five states alone - Michigan, Indiana, Ohio, Tennessee and Kentucky - building

³ Source: *Supplying Ingenuity II*

⁴ Ibid.

cleaner vehicle technologies supports nearly 160,000 manufacturing jobs.⁵ Figures 3 and 4 below provide a glimpse of the range of facilities, technologies, and manufacturing jobs this entails.

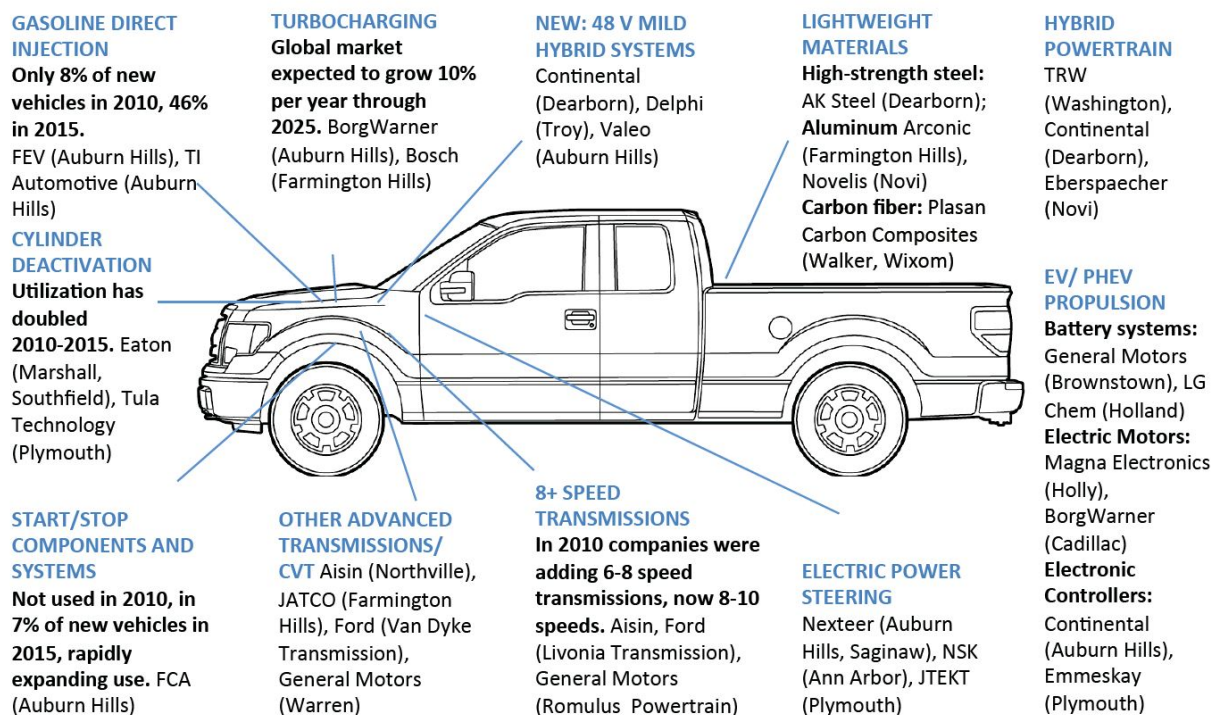
Figure 3: Ohio factories and engineering facilities building technology that improves fuel economy for today's innovative vehicles⁶



⁵ *Supplying Ingenuity II*, at 9

⁶ Source *BlueGreen Alliance Factsheet: Preview of Supplying Ingenuity II: Ohio Suppliers of Key Clean, Fuel-Efficient Vehicle Technologies, 2017*

Figure 4: Examples of Michigan Suppliers of Fuel-Efficient Vehicle Components⁷



Today, innovation and investment to build advanced vehicle technology of all kinds is taking place nationwide, however. For example, Indiana has long been a leader in heavy-truck manufacturing, so it is not surprising to find that it is host to diesel engine and heavy-duty transmission innovators. But the state is also home to extensive innovation in hybrid and electric-drive technology. California is seeing growth in auto assembly; steel mills in Ohio are bringing back jobs developing and producing cutting-edge automotive materials; Texas is producing the components that make SUVs cleaner and more fuel efficient; and South Carolina is building advanced gasoline engine technology and electric buses.⁸

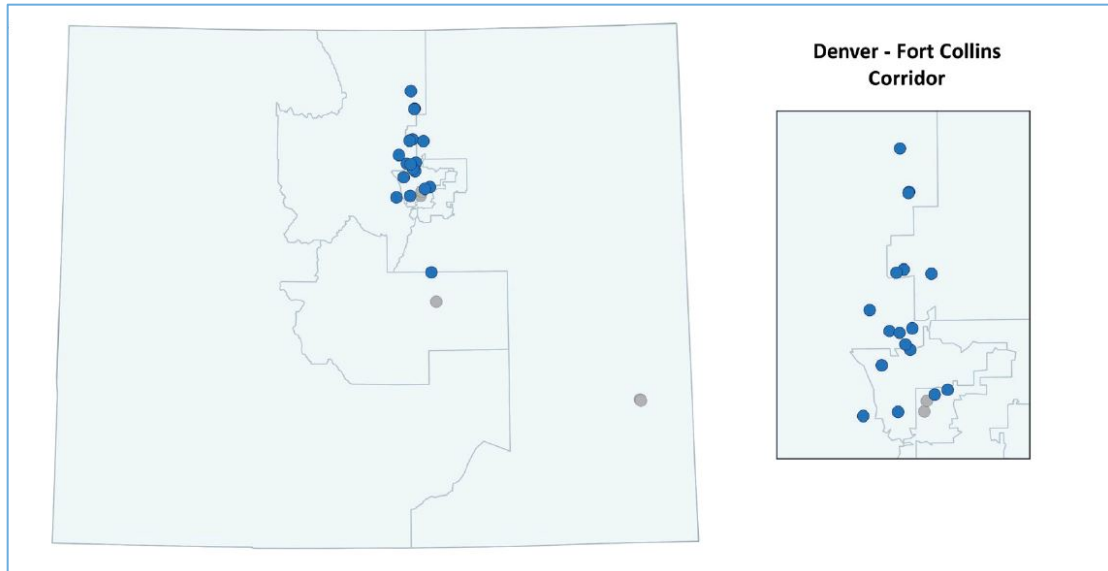
Figure 6 in the Appendix shows the broad geographic spread of fuel-efficient technology manufacturing and engineering facilities by technology type, while the map below shows the impact of innovation in this sector even outside “traditional” automotive manufacturing centers. Colorado, for example, ranks 34th nationwide in our assessment of employment in fuel efficient vehicle technology manufacturing, but it is still host to a significant cluster of innovative automotive components facilities.

Figure 5: Colorado Suppliers of Clean, Fuel-Efficient Vehicle Technologies⁹

⁷ Source: BlueGreen Alliance Factsheet: Preview of Supplying Ingenuity II: Michigan Suppliers of Key Clean, Fuel-Efficient Vehicle Technologies, 2017

⁸ Ibid.

⁹ Source: BlueGreen Alliance Factsheet: Preview of Supplying Ingenuity II: Colorado Suppliers of Key Clean, Fuel-Efficient Vehicle Technologies, unpublished 2017



Not surprisingly, our 2017 study finds two and a half times as many facilities and nearly twice as many jobs building this technology as the original *Supplying Ingenuity* study did in 2011.¹⁰

Most forward-looking economic modeling studies of clean vehicle standards since 2010 have predicted that the standards would increase jobs through two major pathways:

- inside the auto manufacturing sector as requirements for new, added and upgraded content drives enhanced investment in manufacturing and more labor hours, and
- across the economy as consumers save on fuel and re-spend those savings on a broad basket of generally more locally and labor intensively produced goods and services¹¹

Together these pathways have been predicted to deliver net increases of at least several hundred thousand jobs by 2030 relative to business as usual, even accounting for much lower current gas prices, and even in studies utilizing very conservative underlying assumptions about technology cost reduction, consumer valuation of fuel economy, etc.¹²

While we have not yet seen a comprehensive retrospective study of actual impacts, our analysis to date of manufacturing and job growth in the automotive sector today suggests that this job growth is real, underway, and additional to business as usual. In addition, the increased

¹⁰ Ibid., and NRDC, National Wildlife Federation, and UAW, “*Supplying Ingenuity: U.S. Suppliers of Clean, Fuel-Efficient Vehicle Technologies*” August 2011.

¹¹ Studies, approaches summarized and underlying references available at: BlueGreen Alliance, “Backgrounder: Sound Vehicle Standards & Policies Drive Strong Job Growth,” August 2016, <https://www.bluegreenalliance.org/resources/sound-vehicle-standards-policies-drive-strong-job-growth/>.

¹² Union of Concerned Scientists, “Even With Low Gas Prices, Vehicle Standards Offer Consumers Big Savings”, 2016; Sanjay Carley, Denvil Duncan, John D. Graham, Saba Siddiki, and Nikolaos Ziropiannis, “A Macroeconomic Study of Federal and State Automotive Regulations”, Indiana University School of Public and Environmental Affairs, March 2017; and also discussed in comments submitted by Synapse Energy Economics, Inc on October 5th, 2017.

reinvestment in automotive manufacturing innovation in the US is underpinning a gradual but real revitalization of American manufacturing as a whole in ways not seen in decades.

As of January 2017, for example, not only had the auto industry brought back 300,000 direct manufacturing jobs (and another 400,000 at dealerships) post recession, but motor vehicle and parts manufacturing jobs accounted for 40% of all manufacturing jobs brought back since the recession, without accounting for jobs impacts in industries such as basic materials like steel and aluminum.¹³ In that sector, for example, investment to develop and produce advanced lightweight materials for the automotive sector has been a bright spot for domestic manufacturing jobs in an industry otherwise under intense pressure from international overcapacity, dumping and other trade related conditions.¹⁴

Our research further illustrates how the certainty provided by robust long-term standards enables the enhanced innovation and investments needed to lead globally. It shows how investments to more rapidly develop, enhance and deploy advanced and efficient technology not only result in huge savings to consumers, but directly translate into billions of dollars in orders for domestically made technology and into investments in upgrading and retooling factories and jobs all across America.

For example, in an issue brief we released in 2016, we detailed not only the very significant cuts in greenhouse gas emissions and fuel use being achieved under the standards by the Ford F150 pickup truck, but identified the investments made across the supply chain, and in manufacturing retooling and process innovation to achieve these gains¹⁵. These included rapid engine and transmission technology and manufacturing upgrades, a wide range of component innovation, novel steel and aluminum products, plus new adhesives, manufacturing technologies, and robotics. And, as of 2016, notwithstanding overall consolidation and increased capital intensity in the industry, the Missouri plant that builds the F-150 - Ford's Kansas City Assembly -- had grown to 6450 hourly employees, the most since the plant opened in 1951.¹⁶

While employment at specific plants may shift in response to external market factors, the stringency and structure of the standards has encouraged ongoing innovation and investment across all types and sizes of vehicles. It has helped ensure that vehicles manufactured in the US, whether cars, SUVs or pickups, and whether powered by gas, diesel, hybrid or electric powertrains, become and stay competitive with the rest of the world. As the agencies review the standard, they should exercise care to ensure that the standard retains the certainty, stringency

¹³ U.S. Bureau of Labor Statistics (BLS), <https://www.bls.gov/iag/tgs/iagauto.htm>. Analysis by BlueGreen Alliance. Also discussed in "Backgrounder" and *Supplying Ingenuity II*

¹⁴ Perkins, Olivera, "Why ArcelorMittal Succeeds Where LTV Failed: Heart of Steel," Plain Dealer, October 16, 2016, http://www.cleveland.com/business/index.ssf/2016/10/why_arcelormittal_succeeds_whe_1.html. and Arconic, "Alcoa Completes \$300 Million Automotive Expansion in Iowa to Meet Growing Demand for Aluminum Intensive Vehicles," January 14, 2014, http://www.arconic.com/global/en/news/news_detail.asp?pageID=20140114000184en&newsYear=2014.

¹⁵ BlueGreen Alliance, "Combating Climate Change 426,000 Pickup Trucks at a Time," June 2016, <https://www.bluegreenalliance.org/resources/combating-climatechange-426000-pickup-trucks-at-a-time/>

¹⁶ Ibid

and structure to sustain innovation, investment and jobs across vehicle platforms today, and to ensure that the nation remains in a position to lead in capturing manufacturing and jobs across vehicle platforms and technologies in the future.

In research the BlueGreen Alliance currently has underway, we find nearly \$60 billion dollars in specific plant level investments—at auto assembly and automaker -owned engine and powertrain facilities alone—since the promulgation of the first phase of standards in 2010. This includes over \$17B in announced investments still to be completed through 2020¹⁷. While our research is ongoing and incomplete, this appears to be significantly more intensive plant level investment than in previous comparable periods, and underscores the profound role these standards play driving reinvestment in America’s manufacturing sector.

In addition, as a 2016 report by automotive market analysts found, implementing strong standards through 2025 helps insulate automakers and suppliers against risks to market share and profits should gas prices rise¹⁸.

Continuing to strengthen vehicle fuel economy is also very strongly supported by the public, polling around 80% nationally in favor and over 50% across all political parties and in heavily automotive states. This is not surprising as major increases in vehicle efficiency are saving consumers billions annually at the pump while vehicle performance and functionality continues to improve.¹⁹

But this progress could be at risk if the nation’s long-term commitment to leading on fuel economy weakens or becomes uncertain—especially in the face of strong action being taken by America’s economic competitors such as China.

Any action that puts long term standards in question immediately undermines the certainty needed for corporations to commit to major investments in America. And should the US step back from fuel economy leadership it would threaten investment and jobs in facilities building advanced technology in the short term, and jobs across the industry in the medium term.

The evidence from the past decade shows that building a strong clean technology manufacturing recovery requires strong certain long-term standards together with the trade, manufacturing and labor policies needed to boost domestic manufacturing and good job growth. But we put the manufacturing recovery as a whole at risk if we lose the race to build the next generation of clean and efficient vehicle technology in America.

¹⁷ From not yet published BlueGreen Alliance research and analysis. The Center for Automotive Research finds similar annual totals at: Menk, Debra, and Swiecki, Bernard, “The Growing Role of Mexico in the North American Auto Industry: Trends, Drivers and Forecasts,” Center for Automotive Research, <http://www.cargroup.org/publication/the-growing-role-of-mexico-in-the-north-american-automotive-industry-trends-drivers-and-forecasts>

¹⁸ Ceres, “Analyst brief: Economic Implications of the Current National Program v. a Weakened National Program in 2022-2025 for Detroit Three Automakers and Tier One Suppliers” November 2016

¹⁹ “Floor It: NRDC Poll Shows Broad Bipartisan Backing for Clean Cars and Clean Transportation.” <https://www.nrdc.org/media/2016/160804-0>. ORC International poll results found here: <https://www.nrdc.org/sites/default/files/attitudesairpollutionfueefficiency.pdf> (last viewed 9/15/2017).

Conclusion

In summary, our existing sound, commonsense standards have been an important driver of domestic innovation, manufacturing investment, and job growth over the past decade – in addition to being a major step forward in addressing climate change and energy security. As we go forward, maintaining a trajectory of robust long-term fuel economy and clean vehicle standards through 2025— and beyond—is vital to continuing these gains.

Today more than ever, as America’s competitors in Europe and Asia are moving full speed ahead, securing existing jobs and continuing to create new ones will depend on retaining a domestic edge in innovation and manufacturing.

Strong, sound standards must go hand in hand with improving and enforcing trade, manufacturing, and labor policies to ensure we lead in manufacturing the next generation of automotive technology in America and create good, safe, family-supporting jobs doing so.

By contrast, stepping back from vehicle fuel economy and greenhouse gas standards – and from other sound labor and environmental standards – puts this economic success story and jobs at risk.

Over the past decade, American companies and workers have shown that we have what it takes to lead globally in the next generation of advanced vehicle technology and manufacturing; and we have shown that we can come together and craft effective solutions to our biggest environmental and economic challenges. This is no time for America to step back.

As the agencies complete their midterm evaluation of the clean vehicle standards and the prepare to set standards for the years 2022-25 and potentially beyond, we urge them to consider the hundreds of thousands of advanced manufacturing jobs in 48 states described in our research. As they consider these standards, the Agencies should understand that across America manufacturing jobs depend on keeping these standards strong.

Today we are seeing a powerful economic and environmental success story and to urge the administration to continue it.

Thank you.

Figure 6: Fuel-efficient technology facilities nationwide by technology type

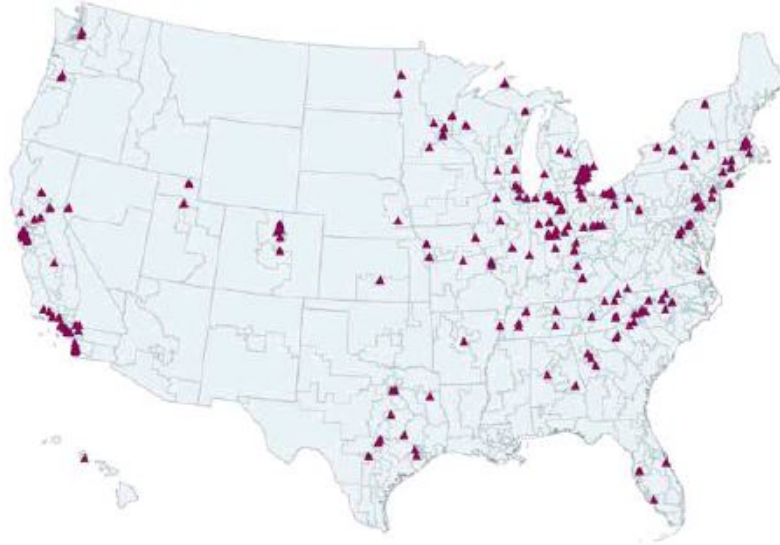
FACILITIES NATIONWIDE, BY TECHNOLOGY TYPE: ADVANCED GASOLINE OR DIESEL POWERTRAIN TECHNOLOGY



FACILITIES NATIONWIDE, BY TECHNOLOGY TYPE: ADVANCED MATERIALS AND COMMON COMPONENTS



FACILITIES NATIONWIDE, BY TECHNOLOGY TYPE: HYBRID, ALTERNATIVE FUEL, AND NATURAL GAS VEHICLE TECHNOLOGY



FACILITIES NATIONWIDE, BY TECHNOLOGY TYPE: ELECTRIC VEHICLE, BATTERY AND RELATED TECHNOLOGY

