



**Written Statement of Zachary Kahn
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Before House Transportation & Infrastructure Committee
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Chairman DeFazio, Ranking Member Graves, distinguished members of the Committee, thank you for the opportunity to speak to you this morning on the important topic of “The Impacts of State-Owned Enterprises on Public Transit and Freight Rail Sectors.” My name is Zach Kahn and I lead policy efforts and government relations for BYD Motors. I have been with the company for more than 4 years and began as a regional sales manager. Prior to this, I worked on charging infrastructure for heavy duty electric vehicles, so I have not only seen the growth of BYD, but also the maturation of zero emission vehicles in the United States. There is a lot of positive news in this space and I hope to come back in the future and tell that story.

I appreciate this opportunity to clarify that BYD is not a State-Owned Enterprise. BYD is a privately held, publicly-traded global company. BYD US Holdings Inc., is a subsidiary of the global BYD Company and is incorporated in Delaware with headquarters in Los Angeles. BYD Coach & Bus LLC and BYD Energy LLC are subsidiaries of BYD US Holdings Inc. with manufacturing facilities in Lancaster, CA. Our U.S. operations are run out of these companies. That being said, we welcome this opportunity to tell you about BYD and what we have been doing in the United States to create good union jobs and to help transit agencies across the country electrify their bus fleets. We have been, and will continue to be, transparent and open.

Since opening its Coach & Bus manufacturing facility in Lancaster in 2014, BYD has grown to nearly 900 total U.S. employees, including more than 775 union workers. To date, BYD has delivered more than 300 electric buses in North America and has sold over 500 all-electric heavy-duty buses to more than 50 municipal, transit agency, university, airport, and other commercial and private sector clients across 13 states including Massachusetts, Louisiana, Missouri, Oregon, Washington, and California, and four provinces in Canada. These buses are safe, economical,



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energy-efficient, quiet and environmentally friendly. Riders benefit from the smooth and quiet ride and the absence of tailpipe emissions, while we all benefit from the low environmental impact all-electric public transportation provides.

In Lancaster, we recently completed an expansion of our state-of-the-art, ISO 9001, certified manufacturing facility to over 550,000 square feet, and our American workers now have the capacity to domestically build 1,500 electric buses per year.

In April of this year, BYD opened our first service center in San Carlos, CA. It is the first of several we plan to open around the country to better support customers with parts, training and technical support, ultimately creating more jobs and opportunity for American workers while providing better service to our customers. Additionally, BYD plans to expand its manufacturing presence in California and the U.S. by at least 2 million square feet in the coming years and expects to continue to significantly expand our employee base.

BYD Buses are Made in America

All BYD buses sold to U.S. transit agencies are made in America and meet the Federal Transit Administration's regulatory requirements. These buses exceed Buy America standards and have undergone numerous third party Buy America audits, each of which confirmed BYD's compliance with Buy America requirements. Each purchase of BYD buses includes both a pre-award Buy America Audit and a Post-Award Audit. These audits are conducted by a third party Buy America expert who is compensated by the customer, not BYD.¹ In fact, during the Senate Banking Committee's work on the FAST Act in 2015, BYD encouraged committee staff to push the Buy America content requirements up to 70 percent U.S. content.

BYD also surpasses the regulatory requirements related to safety and testing. For example, BYD has had three bus models approved for sale to U.S. transit agencies based on

¹ Buy America auditors who have worked on audits on BYD bus projects include: Steve Policar, LLC, Transit Resource Center, and Global Innovations, USA.



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Altoona testing.² In addition, we currently have two other electric bus models on the track in Altoona undergoing the certification and approval process – our five door, 60' all-electric K11 bus, and our 45' over the road all-electric coach bus.

BYD Supports Local U.S. Vendors

BYD has invested more than \$250 million on U.S. operations since initiating domestic operations in 2014. Last year alone, BYD invested more than \$70 million on components made by American vendors located all across the nation, which is a 3400% increase over what BYD spent on U.S. operations in the first year of U.S. operations and twice what the company spent in 2016. BYD sources components from more than 1,000 U.S. vendor partners across the country, including Trussville, Alabama; Windcrest, Texas; Murfreesboro, Tennessee; Elkhart, Indiana; Upper Sandusky, Ohio; Bronson, Michigan; and Neenah, Wisconsin. Our procurements allow our vendors to create and maintain thousands of American jobs across the country.

BYD Ownership – Privately-Owned & Publicly-Traded

BYD's founding and ownership are as transparent as every other multinational manufacturer and we strive to be as forthcoming as possible. Integrity and transparency are core values for BYD as a company. BYD was founded in February 1995, as a private company with 20 employees making cell phone batteries. BYD has grown into a global publicly traded corporation with more than 200,000 employees globally. Throughout its 24 years of growth, BYD has established over 30 industrial parks on six continents and has played a significant role in industries related to electronics, automobiles, clean energy and transit. From energy generation and storage to transportation, BYD is dedicated to providing zero-emission energy solutions for customers around the world. Two cornerstones of BYD's success is its dedication to innovation and transparency. The clean technologies it has developed benefit communities and transit

² BYD's completed Altoona Testing Reports can be found here: <http://apps.altoonabustest.psu.edu/buses/441>, <http://apps.altoonabustest.psu.edu/buses/476>



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agencies in the United States and all around the world, seeking to improve the environment with safe, quiet, efficient and affordable products.

BYD has been publicly listed on the Hong Kong Stock Exchange since 2002, and on the Shenzhen Stock Exchange since 2011. BYD has never been owned, operated, and controlled by any nation-state. The two founders of BYD together own 33.58 percent of the company.³ In September 2008, MidAmerican Energy Holdings Company (now renamed as Berkshire Hathaway Energy), a subsidiary of Berkshire Hathaway, based in Nebraska, entered into an agreement with BYD, pursuant to which it acquired approximately 8.25 percent of the Company, to become BYD's long term investment strategic partner and single largest stockholder outside of the founders.

Proud Union Company

BYD is a proud union company with a collective bargaining agreement with the International Association of Sheet Metal, Air, Rail and Transportation workers (SMART). As well as being the only electric bus manufacturer in the U.S. that employs union labor at every single one of its bus manufacturing facilities, we are also the only electric bus manufacturer in the country with a Community Benefits Agreement with Jobs to Move America and SMART. This legally binding agreement establishes training and apprenticeship programs for workers with traditionally high barriers to employment, and BYD has committed to work toward the goal of recruiting and hiring 40% of our workers from populations, such as veterans, who face significant barriers to employment. BYD has also initiated an effort to recruit workers from other populations that have been historically underrepresented in the manufacturing industry, including women and African Americans. We currently exceed the goals set out in our agreement and are immensely proud of our diverse and talented workforce. We are working with Antelope Valley College and our labor partners to create both a pre-apprenticeship program at the college level and an ambitious

³ BYD 2018 Annual Report, <http://www.byd.com/en/InvestorAnnals.html>



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apprenticeship program in 2019 that will include six months of classroom training and a year of on-the-job training. Our workers are diverse and reflect the communities in which we operate. We are proud of these workers and especially proud of the second chances we are providing to many of those working in our Lancaster facility. BYD stands by its products and its U.S. employees, which include over 775 proud American union members. We are especially proud of the relationship we have developed with the cities of Lancaster and Palmdale in the Antelope Valley. We are active civic participants in the community and have been supportive of numerous local charities and institutions – from sponsoring the Advanced Zero Emission Transportation Endowment Fund Program at Antelope Valley College to supporting the Boy Scouts and the California Poppy Festival – and are honored to build buses here.

BYD has increased competition in the U.S. benefiting taxpayers

BYD is a market leader and innovator responsible for many firsts in the bus industry – the first long range electric bus, the first electric bus to utilize in-wheel hub motors, the first manufacturer to offer a 12 year battery warranty, the first manufacturer to build a 60-foot electric articulated bus, and the first to build a 45-foot electric coach bus, to name a few of many notable achievements. BYD is helping to create a truly competitive market for buses in the United States for the first time in decades. We believe, the competition BYD provides to the U.S. market has led to rapid technological improvements in the electric bus sector from manufacturers across the industry, while also driving down costs and, most importantly helping public transit agencies meet clean air goals in a safe and economically viable way. Competition is the life blood of our country and rather than hurt the market, the competition represented by BYD and other participants in the U.S. electric bus market sparks innovation, reduces acquisition and lifecycle costs, and facilitates the growth and adoption of zero emission options for U.S. transit operators.

Competition in the transit market leads directly to innovation and job creation outside of the vehicle manufacturer space. For example, BYD is the only manufacturer with numerous



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projects deploying en route inductive charging technology. This technology has the potential to transform transportation electrification by virtually eliminating operator concerns regarding vehicle range. BYD has worked directly with two U.S. companies, Momentum Dynamics, from Malvern, Pennsylvania, and WAVE, from Salt Lake City, Utah, investing millions of dollars in initial projects including the first high powered 200 kW+ wireless chargers for each company. These two companies are now deploying their technology both inside and outside of the U.S., as well as expanding their wireless charging applications to other industries besides transit buses to include charging technologies for private vehicles and port equipment. Were it not for early support from BYD, these amazing and innovative U.S. startup companies would, in all likelihood, have stalled. Instead, they have been able to raise millions of dollars from investors and are now the international leaders in the wireless charging space. This is the kind of innovative technology that thrives in a competitive environment driving local investment and creating new manufacturing, engineering, and design jobs in the process.

This competitive dynamic supported by BYD's presence in the U.S. has also driven down costs for transit agencies. Simply by having another viable alternative in the marketplace has forced traditional manufacturers to better respond to the needs of their customers by introducing zero emission options, investing in their own zero emission bus technology, and knowledge base. The entry of BYD, and others, into the electric bus market in the U.S. has created a vibrant and competitive market for transit agencies interested in procuring electric buses. Unlike in the traditional diesel or CNG bus market, where competition is minimal, each public Request for Proposals for electric buses is likely to garner at least four responses from legitimate bus manufacturers. Each proposer will have different technologies, different solutions to offer, and will each be competing on pricing. Without this market in place, it is unlikely that the price of an electric bus would have come down as quickly as it has in the last five years. By our calculations, the base price of an electric bus has dropped by ~25% in the last five years, while conventional bus



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prices have stayed the same (or gone up). Competition is something to be encouraged in public transit as it benefits virtually all participants, with the possible exception of legacy manufacturers who have benefited from the lack of competition to date.

Finally, the transit bus manufacturing industry appears to be thriving with the new competition. Proterra has quickly established itself as a leading electric bus manufacturer in the U.S. building a second manufacturing facility in the last few years and growing its customer base to over 85 agencies across North America. The Canadian-based New Flyer wrote in a recent letter to the House Appropriations Committee that “New Flyer continues to expand its operations across the U.S. Our Anniston, Alabama facility, with 750 employees, is dedicated to the advancement of bus and coach technology, including electric, autonomous and telematics technologies. We’ve also invested \$28 million to establish a new part fabrication facility in Shepherdsville, Kentucky – and anticipate hiring over 550 employees.” And the California-based Gillig recently announced the launch of its electric bus program as well.⁴ In short, competition is doing exactly what policymakers want it to do – forcing manufacturers to build better products at lower prices for the end user, while creating jobs across America.

Before I close, I would also like to highlight just how important it is to have a robust electric bus market and why I choose to work for BYD. I believe we must do everything in our power to transition our nation to a cleaner, safer, more efficient, more economical, transportation system and meet our air quality and climate goals. This is why efforts in California and around the country to require all public transit buses be zero emission by 2040 are so important. And it is also why BYD is a proud California company that stands ready to help deliver on this promise. If we can improve the transit sector by lowering emissions through innovative technology, it opens the door

⁴ <https://www.masstransitmag.com/bus/vehicles/hybrid-hydrogen-electric-vehicles/press-release/21079183/gillig-llc-gillig-previews-new-zeroemission-battery-electric-bus>



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for other sectors to adopt electric vehicles. As BYD has proven, we can make these vehicles in America.

Thank you again for this opportunity to tell you about BYD. I welcome any questions you have and will answer them to the best of my ability.