



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

WRITTEN TESTIMONY

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and Commerce**

LIFT America: Modernizing Our Infrastructure for the Future

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Thank you Chairman Pallone, Ranking Member Walden, and distinguished members of the committee. My name is Jessica Eckdish, and I am the Legislative Director of the BlueGreen Alliance. On behalf of my organization, our partners, and the millions of members and supporters they represent, I want to thank you for convening this hearing today.

The BlueGreen Alliance unites America's largest labor unions and its most influential environmental organizations to solve today's environmental challenges in ways that create and maintain quality jobs and build a stronger, fairer economy. Our partnership is firm in its belief that Americans don't have to choose between a good job and a clean environment—we can and must have both.

Investing in repairing and modernizing our nation's infrastructure—the topic of today's hearing—is a clear example of this principle. If done right, a federal infrastructure package will boost our economy and create millions of jobs, while simultaneously reducing pollution, combating climate change, and strengthening our communities.

American infrastructure systems today are in dire need of repair and modernization. The American Society of Civil Engineers (ASCE)'s latest *2017 Report Card for America's Infrastructure* gave the nation's infrastructure a

grade of “D+.”ⁱ This is not just a grade on paper, it means real threats to our communities, from failing bridges and contaminated drinking water to inefficient and unhealthy schools, power outages, and dangerous and leaky gas pipes under our cities.

These problems are only getting worse. The 2017 historic hurricane season laid waste to Puerto Rico, the U.S. Virgin Islands, Texas, and Florida, in some areas destroying critical infrastructure systems, plunging millions of Americans into darkness, and further aggravating an already desperate need for safe water.ⁱⁱ

The world’s climate continues to change, and the deteriorating state of our infrastructure creates a vicious circle. As our systems crumble and become more inefficient, the excess pollution exacerbates climate change. And as our climate changes, more extreme weather—floods, stronger storms, droughts, and other impacts—test our already strained infrastructure systems, endangering the health and safety of our communities.

It is past time for Congress to move forward a plan to meet this challenge. BlueGreen Alliance research has found that investing an estimated \$2.2 trillion in a variety of infrastructure sectors to improve them from a “D+” grade overall to a “B” grade has the potential to support or create an additional 14.5 million job-years across the U.S. economy, add a cumulative \$1.66 trillion to Gross Domestic Product (GDP) over 10 years, and reduce greenhouse gas and toxic chemical pollution—versus a business-as-usual approach.ⁱⁱⁱ

Last week, we released a set of fourteen infrastructure policy priorities in key sectors, including energy transmission, distribution and storage, transportation, water, schools and other buildings, broadband, natural infrastructure and climate resilience, and manufacturing.^{iv} Our full list of priorities is included as an attachment with this testimony.

Making these smart investments has the potential to deliver millions of good jobs. They will also pay dividends for our environment and communities by reducing air and water pollution—including the emissions driving climate change—reducing the use of materials and chemicals that are hazardous to human health, and making our communities more resilient to the impacts of climate change.

However, we will accrue these benefits only if we tackle this challenge the right way. To ensure we maximize the benefits of our infrastructure investments for communities, the environment, and workers, any federal infrastructure package must deliver in five key ways:

1) Create Good-Paying Jobs

First, any infrastructure package must create good-paying jobs. The people who build and rebuild our infrastructure projects should be well-trained, make a decent living, and work in a safe environment. This means enforcing Davis-Bacon provisions that ensure workers are paid prevailing wages. It means utilizing project labor agreements (PLAs), community benefit agreements, local hire, and other provisions and practices that improve training, working conditions, and project benefits. These requirements and benefits should extend across infrastructure projects and to manufacturing of infrastructure related equipment and technology.

Investing in infrastructure not only creates jobs at projects themselves, but can lead a revival in the U.S. manufacturing sector, with the expansion of good job opportunities at all levels of the domestic supply chain, and increased cost savings and competitiveness among manufacturers that reduce their energy waste through energy efficiency. Effective procurement policies—both long standing measures, and new, innovative approaches—can help infrastructure projects achieve these objectives.

First and foremost, any infrastructure package must ensure all projects built with public resources are subject to Buy America and Buy American standards that maximize the return to taxpayers and bolster American manufacturing. It must also include respect for collective bargaining agreements and workers' organizing rights such as neutrality, majority sign-up, and first contract arbitration. Lastly, it means maintaining and growing jobs in the public sector necessary to effectively maintain and operate assets, ensure project quality, protect worker and environmental safety and health, and deliver continued cost-effective operation in the public interest.

2) Deliver Climate Benefits and Reduce Pollution

Second, an infrastructure package must deliver climate benefits and reduce pollution. Targeted investments could deliver significant greenhouse gas emissions reductions. Take drinking water investments: 6 billion gallons of clean water is leaked daily from public drinking water systems—enough for 15 million households—which has significant associated greenhouse gas (GHG) impacts.^v A 5 percent reduction in leaks reduces climate change pollution by an equivalent of 225,000 metric tons of carbon dioxide.^{vi} Similarly, full implementation of a nationwide smart grid could reduce U.S. carbon dioxide emissions by 12 percent, equal to preventing 442 million metric tons of carbon emissions from entering the atmosphere each year.^{vii}

A range of other investments—from expanding natural infrastructure, to making our public buildings more energy efficient, to repairing and replacing aging gas distribution pipes—could all significantly reduce climate pollution, as well as air and water pollution. Ensuring that we “Buy Clean” and prioritize use of the most efficient, resilient, and cleanest materials and products with the lowest carbon and toxicity footprints can also significantly reduce emissions while rewarding manufacturing companies that invest in reducing their carbon footprints.

Any infrastructure package should also follow processes that ensure effective environmental review and public participation in infrastructure decisions while also prioritizing the resources needed to ensure these projects move forward quickly and deliver benefits to communities and workers quickly.

3) Increase Community Resilience

Third, this package must make our infrastructure and communities more resilient. This means driving forward-looking planning and investments that build for the future, not the past, and that make our infrastructure systems and communities more resilient to the impacts of climate change, like extreme weather events and rising sea level. It means prioritizing investments in natural infrastructure solutions, like restoring the nation's forests, wetlands, floodplains, grasslands, and coastlines—all of which make communities safer and serve as carbon sinks. It also includes building efficient, safe, and connected schools, hospitals, and public buildings that provide critical community services daily and in extreme weather.

Building infrastructure with future conditions in mind is also smarter and more cost-effective than rebuilding systems that have proven to be vulnerable. Strategic investments in climate-resilient infrastructure—and a workforce that is well trained to ensure the work is done right to maximize the efficiency benefits and build in climate resilience, as well as trained to aid in emergency response—can make sure that our communities are prepared for these impacts and come out stronger, more sustainable, and more resilient to meet the challenges of the next century.

4) Maximize Benefits to Workers and Communities

Fourth, an infrastructure package must maximize benefits to workers and communities—especially those most in need. This can be done by enhancing

workforce training and registered apprenticeship programs to expand the number of skilled workers in new and existing industries and in the public sector. It means enhancing and enforcing hiring and procurement policies that spur local job creation and benefit low-income communities, people of color, and women. It means prioritizing investments in communities impacted by historic inequities, disinvestment, and deindustrialization. Policies like these can help ensure our infrastructure investments provide economic opportunities for communities and local workers across the United States.

5) Ensure Robust, Public Investment

Finally, any infrastructure package must begin with a robust, public investment and tackle the broad array of our infrastructure needs—from repairing our failing roads and bridges, water systems, and natural gas distribution pipelines, to modernizing our schools, buildings and electric grid, and transforming our transportation systems.

Public investment in infrastructure is flagging. As a share of GDP, public expenditures on infrastructure spiked toward the end of the recession due both to shrinking GDP and investment funded by the American Recovery and Reinvestment Act of 2009.^{viii} As a result, our overall infrastructure grade remained consistent with the 2013 grade—sadly only a “D+”^{ix}—but more recently, transportation and water infrastructure investment at the federal level has fallen to the lowest levels since the 1970s as a share of GDP.^x Our need has not stopped growing, however. The gap between planned infrastructure expenditures and the amount of funding needed to bring it to an overall “B” grade has risen to more than \$2 trillion dollars, up from \$1.6 trillion in 2014.^{xi}

The longer we wait to repair these basic systems, the more it will cost in the long run in terms of investment needed, interest accrued, and other factors. If these investments were accomplished under the present form of government

expenditure and at today's interest rates of roughly 3 percent—versus the pre-recession rate of 4.5 percent—taxpayers would save nearly \$1 trillion dollars over 30 years financing the \$2 trillion in additional funding needed to close the gap necessary to achieving an overall “B” grade.^{xii}

ASCE estimates the economic cost of allowing the gap to perpetuate would be approximately \$3.9 trillion lost GDP and 2.5 million lost jobs through 2025.^{xiii} It is critical that any federal infrastructure package delivers robust, direct public spending and it's in America's best interest to fix our infrastructure sooner rather than later.

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The LIFT America Act embodies these five principles and takes a significant step towards addressing our country's infrastructure challenge. We are particularly pleased to see efforts included in the bill to create or expand programs and increase funding for drinking water infrastructure, electric grid resiliency and modernization, building energy efficiency—including schools—reducing methane emissions from natural gas distribution pipelines, expanding broadband access, and brownfield redevelopment. While the bill also includes necessary conditions to ensure domestic content, prevailing wage, and other benefits for workers and communities, there are opportunities to expand these provisions across the bill. We look forward to working with the committee and identifying opportunities to strengthen and advance this important effort moving forward.

Repairing America's infrastructure systems is both urgently needed and an enormous opportunity; it should be a bipartisan legislative priority in the 116th Congress.

In closing, I want to reiterate that tackling the crisis of our aging infrastructure—if done right—is a significant opportunity to increase U.S.

global competitiveness, create quality, family-sustaining jobs across the country, significantly reduce greenhouse gas emissions and other pollution, and make our children healthier and our communities more more resilient.

We look forward to working with this Committee as you move forward your infrastructure agenda for the 116th Congress. Thank you again for the opportunity to testify today.

Endnotes

ⁱ American Society of Civil Engineers (ASCE), *2017 Infrastructure Report Card*. Available online: <https://www.infrastructurereportcard.org>

ⁱⁱ National Geographic, "2017 Hurricane Season Was the Most Expensive in U.S. History," November 30, 2017. Available online: <https://news.nationalgeographic.com/2017/11/2017-hurricane-season-most-expensive-us-history-spd/>

ⁱⁱⁱ BlueGreen Alliance, *Making the Grade 2.0: Investing in America's Infrastructure to Create Quality Jobs and Protect the Environment*, September 7, 2017. Available online: <https://www.bluegreenalliance.org/resources/making-the-grade-2-0-investing-in-americas-infrastructure-to-create-quality-jobs-and-protect-the-environment/>

^{iv} BlueGreen Alliance, *Investing in America's Infrastructure to Create High-Quality Jobs and Protect the Environment*, May 15, 2019. Available online: <https://www.bluegreenalliance.org/resources/investing-in-americas-infrastructure-to-create-high-quality-jobs-and-protect-the-environment/>

^v ASCE, *Infrastructure Report Card: Drinking Water*, 2017. Available online: <https://www.infrastructurereportcard.org/wp-content/uploads/2017/01/Drinking-Water-Final.pdf>

^{vi} Chicago State University, *The Carbon Footprint of Water*, 2009. Available online: <http://www.csu.edu/cerc/researchreports/documents/CarbonFootprintofWater-RiverNetwork-2009.pdf>

^{vii} Pacific Northwest National Laboratory, "Smart grid could reduce emissions by 12percent," 2010. Available online: <http://www.pnnl.gov/news/release.aspx?id=776>

^{viii} Congressional Budget Office, "Public Spending on Transportation and Water Infrastructure, 1956 to 2017," October 2018. Available online: <https://www.cbo.gov/system/files/2018-10/54539-Infrastructure.pdf>

^{ix} ASCE, *2017 Infrastructure Report Card*. Available online: <https://www.infrastructurereportcard.org>

^x Ibid.

^{xi} BlueGreen Alliance, *Making the Grade 2.0: Investing in America's Infrastructure to Create Quality Jobs and Protect the Environment*, September 7, 2017. Available online: <https://www.bluegreenalliance.org/resources/making-the-grade-2-0-investing-in-americas-infrastructure-to-create-quality-jobs-and-protect-the-environment/>

^{xii} Ibid.

^{xiii} ASCE, "Economic Impact", 2017. Available online: <http://www.infrastructurereportcard.org/the-impact/economic-impact/>



BLUEGREEN ALLIANCE

BLUEGREEN ALLIANCE POLICY PRIORITIES

Investing in America's Infrastructure to Create High-Quality Jobs and Protect the Environment

Our nation must move forward with an ambitious plan to rebuild and transform America's infrastructure that will boost our economy, create millions of jobs, and strengthen our communities, while simultaneously reducing pollution and combating climate change. We should be leading the world in building the innovative infrastructure systems that will ensure our global competitiveness in the 21st century and beyond.

BlueGreen Alliance research has found that investing an estimated **\$2.2 trillion** in key sectors of America's infrastructure to improve them from a "D+" grade overall to a "B" grade has the potential to **support or create an additional 14.5 million job-years across the U.S. economy**, add a cumulative \$1.66 trillion to Gross Domestic Product (GDP) over 10 years, and reduce greenhouse gas pollution and boost climate resilience—versus a business as-usual approach¹

This document is intended to guide policymakers in the development of federal legislation to invest in our nation's infrastructure. This should not be considered an exhaustive list of BlueGreen Alliance recommendations.² The following recommendations are BlueGreen Alliance infrastructure policy priorities for legislation in the 116th Congress, which build on issues identified in the BlueGreen Alliance's [Making the Grade 2.0](#) infrastructure platform.

There are fourteen specific priorities listed here, ordered roughly by sector (not by importance), as well as overarching standards that are relevant to all legislation.

Sector: Energy Transmission, Distribution, and Storage

Priority 1: Finance, Plan for, and Build High-Voltage Transmission Lines

Priority 2: Increase Funding for Energy Storage and Grid Resiliency Research, Development, and Deployment

Priority 3: Reduce Methane Leaks from Natural Gas Distribution Pipelines

Sector: Transportation

Priority 4: Modernize Transit and Enhance Public and Jobs Benefits

Priority 5: Deploy Innovative and Electric Transportation Infrastructure

Sector: Manufacturing

Priority 6: Support Clean Technology Manufacturing Leadership, Industrial Energy Efficiency, and Advanced Manufacturing

Sector: Water

Priority 7: Increase, Improve, and Expand Funding for Water Infrastructure

Priority 8: Support Green Stormwater Infrastructure

Sector: Buildings

Priority 9: Improve the Energy Efficiency of Schools and Health and Safety for Teachers and Students

Priority 10: Invest in the Energy Efficiency of MUSH (Municipal, University, School, Hospitals) Buildings

Sector: Broadband

Priority 11: Deploy High-Speed Broadband Internet to Close the Digital Divide, Reduce Emissions, and Spur Economic Development

Sector: Natural Infrastructure, Reclamation, and Climate Resilience

Priority 12: Restore Our Public Lands

Priority 13: Reclaim Abandoned Mine Lands and Clean Up Hazardous Waste and Brownfield Sites

Priority 14: Plan, Manage, and Build for Climate Resilience

Overarching Recommendations: Ensure High-Road Standards Apply to All Infrastructure Legislation

To ensure we maximize the benefits of our infrastructure investments for communities, the environment, and workers, any infrastructure package must:

Create family-sustaining jobs:

- Ensure all projects built with public resources are subject to **Buy America** standards that maximize the return to taxpayers and the American economy;
- Enforce **Davis-Bacon** provisions that ensure workers are paid prevailing wages;
- Utilize **project labor agreements (PLAs), community benefit agreements, local hire**, and other provisions and practices that prioritize improving training, working conditions, and project benefits, including respect for collective bargaining agreements and workers' organizing rights such as neutrality, majority sign-up, and first contract arbitration;
- Ensure these requirements and benefits **extend across infrastructure projects and to manufacturing of infrastructure related equipment and technology**; and
- **Maintain and grow jobs in the public sector** necessary to maintain and operate assets, and ensure compliance and project quality.

Reduce pollution and make our communities more resilient:

- Drive forward-looking planning and investments that meet environmental standards and **build resilient infrastructure systems and communities**; and
- Ensure that we **Buy Clean** and prioritize use of the most **efficient, resilient, and cleanest materials and products** with the lowest carbon and toxicity footprints.

Maximize benefits to our workers and communities, especially those most in need:

- Enhance and enforce workforce training and development programs to **expand the number of skilled workers** in new and existing industries;
- Enhance and enforce hiring and procurement policies that **benefit low-income communities, people of color, and women**; and
- Increase **economic opportunities for communities and local workers**, especially for people of color and low-income communities.

Make a robust, impactful investment:

- Make a **robust, public investment** in our infrastructure systems; and
- Distribute investment **broadly**—tackling the full array of our infrastructure needs.





SECTOR: ENERGY TRANSMISSION, DISTRIBUTION, AND STORAGE

Priority 1: Finance, Plan for, and Build High-Voltage Transmission Lines

Need: One of the fundamental needs of our rapidly growing clean energy economy is sufficient new and upgraded transmission capacity to deliver renewable power from our nation’s most resource-rich regions—such as the Great Plains for wind and the Southwest for solar—to centers of population and industry where demand for electricity is greatest. Unfortunately, our aging and inefficient network of transmission lines does not adequately provide such capacity.

Legislative Requests:

1. Increase availability of federal loan guarantees and grants for high-voltage transmission lines:

- A federal investment of \$20 billion over five years in the form of loan guarantees and tax credits would leverage additional private sector investment in transmission projects that are key to enabling the continued growth of renewable energy, while reducing costs, improving reliability and resiliency, and lowering the carbon intensity of the electricity supply.
- Increase funding for the Department of Energy (DOE) to provide technical assistance to state and regional entities to identify, site, and ultimately approve transmission projects that are in the public interest.

2. Direct DOE to develop a national transmission plan:

- DOE should develop a national transmission plan and use its authority under the Energy Policy Act to designate National Interest Transmission Corridors based on the national interest in building a low-carbon electricity system. Federal loan guarantees or grants to states should be provided for transmission projects within these corridors—consistent with the national plan. FERC should similarly adopt enabling carbon pollution reductions as part of its public interest mandate along with reliability and ensuring just and reasonable rates for wholesale power.

3. Empower FERC to engage in enhanced transmission planning between regions:

- To date, FERC has not required the type of large-scale, proactive transmission planning between regions that would enable a national transmission network. Due to different planning approaches and methodologies among regions, the current process has failed to advance projects that would supercharge the transition to renewable electricity. To remedy this situation, Congress should direct FERC to develop and implement interregional planning requirements subject to baseline standards established by Congress, based on the following principles:
 - Interregional planning should be conducted on regular triennial cycles and require the use of joint or coordinated models, assumptions, benefit metrics, and approval criteria.
 - Regions should remove additional regional reviews once interregional criteria are agreed upon. This creates a “single standard for approval” for interregional projects, which is needed for effective planning.
 - FERC should develop cost allocation methodologies that account for broad and varied benefits offered by interregional transmission solutions, including the ability to integrate low-cost generation sources.

4. Strengthen and clarify federal authority:

- Strengthen Section 216 of the Federal Power Act (FPA) to clarify DOE and the Federal Energy Regulatory

through DOE's triannual transmission congestion study and subsequent identification of National Interest Electric Transmission Corridors to enable approval of transmission projects that are in the public interest of maintaining a reliable and resilient national electric supply.

- Strengthen Section 1222 of the Energy Policy Act to increase DOE authority over permitting and siting and to expedite the process of DOE permitting approval.

Priority 2: Increase Funding for Energy Storage and Grid Resiliency Research, Development, and Deployment

Need: Because some renewable energy technologies have variable outputs, storage technologies have great potential for smoothing out the electricity supply from these sources and ensuring that the supply of generation matches the demand. Energy storage is also valued for its rapid response—most storage technologies can begin discharging power to the grid very quickly. Energy storage also becomes more important the farther you are from the electrical grid.

In addition to energy storage, we have the opportunity to invest in 21st-century “smart grid” technologies, including two-way communication between utilities and consumers to manage electricity supply, demand, and usage in real time. Smart grid investments will increase efficiency and lower energy costs for consumers, reduce the impacts of intermittent power failures on the local grid, support renewable energy growth, and help to reduce pollution from power generation.

Legislative Request

1. Increase funding to DOE for storage and grid resiliency research:

- Increase funding for the Energy Storage program and Smart Grid Research and Development program in the DOE's Office of Electricity Delivery, building on its successful track record partnering with the private sector and increasing emphasis on collaboration with utilities.

2. Pursue more energy storage and smart grid demonstration projects:

- The federal government should pursue more demonstration projects in the field, utilizing states and communities as laboratories of innovation.

3. Accelerate storage deployment:

- Build on the success of the Energy Storage Technology Advancement Partnership by providing funding of \$50 million annually over 10 years for competitive grants to communities for the installation of energy storage technologies—prioritizing disadvantaged or underserved communities and at critical facilities—such as hospitals and fire stations.

Relevant Legislation

S. 3376 – Advancing Grid Storage Act (Smith) (115th)

Section 2301 directs the Secretary of Energy to conduct a research, development, and demonstration program for electric grid energy storage to address challenges identified in the 2013 DOE Strategic Plan for Grid Energy Storage.

S. 1868 – Energy Storage Tax Incentive and Deployment Act of 2017 (Heinrich/Doyle) (115th)

S. 1434 – Energy Storage Deployment Act of 2015 (Heinrich) (114th)

Priority 3: Reduce Methane Leaks from Natural Gas Distribution Pipelines

Need: Tripling the rate of repair and replacement to our natural gas distribution systems could create over 2 million job-years through the economy over the next 10 years. Large-scale investment will allow us to accelerate current efforts to repair America's distribution pipelines, enhance system reliability, ensure customers are not

paying for gas they do not use, and increase public safety. Additionally, these investments will curtail the release of methane into the atmosphere, reducing contributions to climate change. Methane is more than 87 times as potent as carbon dioxide at trapping planetary heat in the near-term.

Legislative Requests:

1. Accelerate the repair and replacement of distribution pipelines:

- Create a state revolving loan fund for natural gas distribution pipeline repair and replacement to provide additional tools to states and utilities to address old, leaking distribution pipelines.
- As recommended in the DOE's *Quadrennial Energy Review*, establish a program that provides financial assistance to states to incentivize reducing emissions in the gas distribution system. This can be achieved through targeted funding to offset costs to low income households and funding for enhanced directed inspection and maintenance programs.

2. Address economic incentive to leak:

- DOE, in consultation with the Environmental Protection Agency (EPA) and the Department of Transportation (DOT), should create a challenge grant program to incentivize states to create cost effective safety and environmental improvements across the natural gas supply chain. To be eligible to receive funds:
 - Each state regulatory authority and each nonregulated gas utility must adopt leak detection and repair strategies that achieve incremental methane emissions reductions beyond the previous administration's 45 percent federal government goal; and
 - The state's Public Utilities Commission (PUC) must have adopted leak identification and repair strategies that are cost effective, technologically viable, and factor the environmental impact of leaks into repair strategies. The state's PUC must have adopted best practices for defining and reporting "lost and unaccounted for" gas, and a revenue adjustment mechanism that incentivizes minimizing this category.

Relevant Legislation

S. 1209 – Pipeline Revolving Fund and Job Creation Act (Markey) (114th)

S. 1208 – Pipeline Modernization and Consumer Protection Act (Markey) (114th)



Priority 4: Modernize Transit and Enhance Public and Jobs Benefits

Need: America's transit systems—buses, subways, streetcars, light rail, and commuter trains—provide crucial transportation and access to jobs and opportunity for millions of Americans. At the same time, with smart multi-modal, inclusive, and integrated planning, transit investment can be a powerful driver of local economic development. Demand has outstripped supply across the board, with urban, suburban, and rural residents all lacking sufficient access to the efficient and affordable multi-modal transportation options they need. In addition to the tens of thousands of Americans employed operating and maintaining transit systems, investing in transit also provides an opportunity to strengthen local economies through domestic manufacturing, maximizing the benefit of federal transportation dollars in communities across the United States. Strengthening our transit

system also has notable environmental and health benefits, such as reduced local air and climate pollution. Improved traffic congestion also has economic benefit through increased worker productivity and more efficient commerce.

Legislative Requests:

1. Increase funding and financing for DOT's Federal Transit Administration (FTA) and enhance block and competitive grant programs to spur integrated community infrastructure investment, deliver local environmental and economic development benefits, and expand clean and affordable options for transit between communities:

- These programs include DOT's BUILD (formerly TIGER), Private Activity Bonds, the National Highway Freight Program, TIFIA, and RIFF, and Capital Investment Grants (CIG)—including New Starts, Small Starts, and Core Capacity.

2. Enhance funding for programs that enable the federal government, states, and localities to increasingly test, purchase, and deploy domestically manufactured electric municipal and school buses and other public and government fleets.

- This includes programs such as DOT's Congestion Mitigation & Air Quality Improvement and Advanced Transportation and Congestion Management Technologies Deployment Program, EPA's Diesel Emissions Reductions Act (ERA), LoNo grant program, and DOE's Vehicle Technologies Program.

3. Ensure innovative mobility results in cleaner, safer transportation, and equitable access:

- While encouraging U.S. leadership in emerging autonomous, shared, and networked transportation systems, ensure that DOT (FTA, the National Highway Traffic Safety Administration (NHTSA), or other relevant agencies as appropriate) tracks and issues reports on transportation network companies (TNCs) to evaluate the impacts on emissions, traffic congestion, and communities—including access, ridership, and demographic trends, and impacts on publicly funded transit.
- Ensure that any publicly funded integration of new transit modes and technologies are held to existing transit safety, workforce, access, environmental, and other standards. Ensure enforcement of Title VI of the Civil Rights Act, which prohibits discrimination on the basis of race, color, and national origin in any programs and activities receiving federal financial assistance.
- Any revision of vehicle safety standards to address autonomous vehicles (AVs) should hold AVs to at least as stringent safety standards as today's vehicles.

Relevant Legislation

H.R. 904 – Buy American Improvement Act of 2017 (Lipinski) (115th)

H.R. 1428 – Transportation Infrastructure for Job Creation Act (Waters) (115th)

H.R. 180 – Build America Act of 2019 (Hastings) (116th)

Priority 5: Deploy Innovative and Electric Transportation Infrastructure

Need: Countries worldwide are rushing to lead in building and deploying electric vehicles (EVs) and technology. Building the next generation of clean transportation technology here in America will create good jobs and help move us to a globally competitive clean energy economy. In particular, ramping up a passenger, municipal, and commercial electric vehicle fleet will spur advanced technology investment across the automotive supply chain. Facilitating the deployment of cutting-edge charging infrastructure is critical to advanced vehicle deployment while also creating jobs in construction and accelerating our move to a smart grid—the kind of investment we need to put people to work, revitalize our economy, and ensure America is competitive in the 21st century economy. The transportation sector is currently the largest emitter of CO₂ in the U.S., largely due to vehicle combustion engines.

Legislative Requests:

1. Facilitate expansion of electric vehicle charging infrastructure:

- Authorize and fund the DOE's Vehicles Technologies Office to provide competitive grants to states or utilities to ramp up financing for electric vehicle charging infrastructure, especially in typically under-served markets such as low-income communities and government-supported housing. Authorize installation of EV charging services at federal facilities.
- Include eligibility for EV charging infrastructure in financing programs—DOE's 1703 loan program, and DOT's TIFIA program, and RRIF for charging infrastructure at "mobility hubs" at rail stations.

2. Spur low-carbon freight:

- Provide direct funding and incentives through DOE's Office of Energy Efficiency and Renewable Energy (EERE) Vehicle Technologies Office (VTO) program, DOT's Private Activity Bonds, Congestion Mitigation and Air Quality (CMAQ) program, Advanced Transportation and Congestion Management Technologies Deployment program, National Highway Freight Program, Diesel Emissions Reduction Act (DERA), and others to sharply cut carbon and criteria pollution from commercial vehicles and trucking, and at ports and their associated infrastructure, which would provide emissions reductions and air quality and environmental benefits to local communities.

3. Encourage U.S. competitiveness and technological leadership through a national initiative to boost domestic manufacturing of advanced and electric vehicles, infrastructure technology, and related materials:

- Expand the Sec. 136 Advanced Technology Vehicles Manufacturing Loan program to include medium and heavy duty vehicles and their components.
- Fund the sec. 132 Domestic Manufacturing Conversion Grants program.

Relevant Legislation

S. 3449 - Electric CARS Act of 2018 (Merkley) (115th)

S. 674 - A bill to amend title 23, United States Code, to establish a grant program for the installation of electric vehicle charging infrastructure and hydrogen fueling infrastructure along the National Highway System, and for other purposes (Carper) (116th)

Sec. 126 & 132 of the Energy Independence and Security Act of 2007 (EISA)

Sec. 1703 of Energy Policy Act of 2005



Priority 6: Support Clean Technology Manufacturing Leadership, Industrial Energy Efficiency, and Advanced Manufacturing

Need: One immediate step to protect and grow U.S. manufacturing that shares the diverse support of the labor, business, and environmental communities is to make significant, nationwide improvements in industrial energy

efficiency and pollution reduction. Measures to help reduce energy costs, decrease pollution, and boost productivity and efficiency within the industrial sector will support U.S. manufacturers and help maintain our competitive edge in the global economy. At the same time we need to spur a major nationwide investment in manufacturing clean energy, transportation, and infrastructure technologies in the United States—keeping job growth strong and advanced technology supply chains operating here in the United States.

Legislative Requests:

1. Create a program modeled after the successful DOE Industrial Technologies Program to provide matching funds for major industrial efficiency projects, which was the direct driver for ArcelorMittal’s Indiana Harbor Combined Heat and Power project.

2. Expand and adapt clean technology manufacturing loan and grant programs such as DOE’s Advanced Technology Vehicles Manufacturing Loan Program and the Sec. 132 Domestic Manufacturing Conversion Grants program.

3. Renew the advanced energy manufacturing tax credit (48C) to once again support manufacturers as they expand into the clean economy.

4. Establish a revolving loan fund to provide loans to manufacturers for producing clean energy, transportation, and infrastructure technology and energy efficient products and for reducing greenhouse gas emissions from manufacturing facilities—with criteria for domestic, high-quality job creation, particularly in low-income communities.

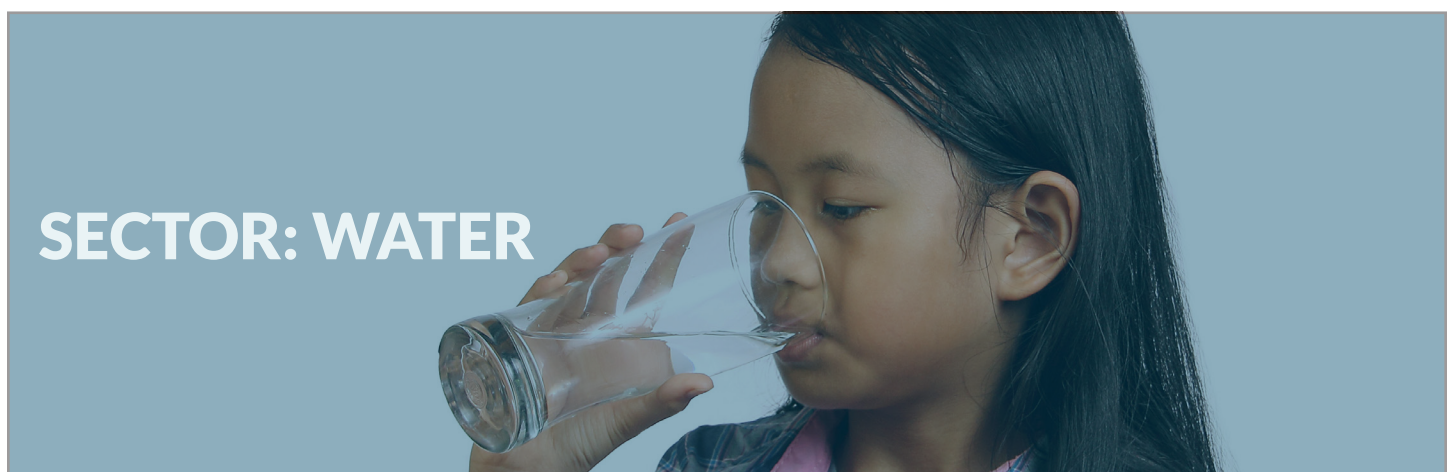
5. Enact “Buy Clean” procurement standards requiring the federal government to buy goods in key industrial sectors from clean manufacturing firms that meet limits for local and climate pollution, and to prioritize manufacturing firms that uphold strong labor standards and create good jobs in low-income communities.

Relevant Legislation

S. 661 - Restoring America’s Manufacturing Leadership through Energy Efficiency Act of 2009 (Bingaman) (111th)

S. 1617 - IMPACT Act of 2009 (Brown) (111th)

Sec. 126 & 132 of EISA 2007



Priority 7: Increase, Improve, and Expand Water Infrastructure Funding

Need: Our nation’s drinking water, wastewater, and stormwater infrastructure is vital to the protection, treatment, and distribution of clean water. Yet age, strain from population growth, lack of investment,

the pervasiveness of lead pipes, and emerging threats from climate change have increased the burden on the current water infrastructure system and the health risks to our communities. Significant investments and upgrades in appropriate water infrastructure will be necessary for communities to adapt to the effects of climate change, increase access to safe drinking water, and adequately treat storm and wastewater. Climate change, shifting demographics and business activities, the need for water treatment methods that address multiple contaminants, and environmental constraints all demand a more integrated, holistic approach to water services.

Legislative Requests:

- 1. Create a clean water trust fund that dedicates \$35 billion a year to our nation's critical water infrastructure projects, prioritizing investments to communities most in need, ensuring that all communities can begin making a feasible plan to update their water and wastewater systems.**
- 2. Triple funds for the Clean Water and Drinking Water State Revolving Funds (SRFs) and permanently extend the Buy America provision for the Drinking Water SRF.**
- 3. Create grant programs at the EPA to assist low-income households with water and sewer services.**

Relevant Legislation

H.R. 1647 – Water Infrastructure Trust Fund Act (Blumenauer) (115th)

H.R. 939 – Buy America for Drinking Water Extension Act of 2017 (Bustos) (115th)

H.R. 1497 – Water Quality Protection and Job Creation Act of 2019 (DeFazio) (116th)

S. 3564 – Low-Income Water Customer Assistance Programs Act (Cardin) (115th)

Priority 8: Support Green Stormwater Infrastructure

Need: Green infrastructure helps stop runoff pollution by capturing rainwater and storing it—or letting it filter back into the ground—replenishing vegetation and groundwater supplies. These solutions have the added benefits of increasing biodiversity, improving outdoor recreation in urban neighborhoods, reducing urban heat island effects, heat-related illnesses and asthma, lowering heating and cooling energy costs, stimulating local investment, reducing the threat of flooding, and supporting American jobs.

Legislative Requests:

- 1. Through its wastewater programs, the federal government should promote low-impact development (LID) techniques like permeable pavements, vegetated roadside swales, and rain gardens that can reduce stormwater pollution while also lowering management costs and enhancing aesthetic character.**
 - The federal government could better support LID projects by providing them with priority funding under federal programs, or by increasing CWSRF's Green Project Reserve to boost the percentage of CWSRF funds used on low-impact infrastructure projects.
- 2. Leverage existing investments in federal transportation projects to improve water quality by incentivizing the inclusion of green infrastructure or other innovative technologies to capture and treat stormwater generated by a project's footprint.**
- 3. Support grants for water quality protection projects for centralized and decentralized wastewater treatment (including replacement of combined sewer/stormwater systems), nonpoint source pollution control, and watershed and estuary management.**

Relevant Legislation

S. 1137 – Clean Safe Reliable Water Infrastructure Act (Cardin) (115th)

H.R. 3906/S. 1695 – Innovative Stormwater Infrastructure Act (Heck/Udall) (115th)

H.R. 3275 – Water and Energy Sustainability through Technology Act (McNerney) (115th)

H.R. 6944 – Clean Water through Green Infrastructure Act (Heck) (115th)

H.R. 5596 – Water Infrastructure Resiliency and Sustainability Act (Carbajal) (115th)



Priority 9: Improve the Energy Efficiency of Schools and Health and Safety for Teachers and Students

Need: More than half of America’s school buildings were built before 1970, which means repairs, renovations, and modernizations are needed to ensure these buildings save energy, reduce emissions, and provide a healthy environment for students and teachers today. Many of these schools also have child care facilities. There are not just issues with the permanent buildings—outdoor facilities like parking or playgrounds also require repairs and are too often sited on or next to environmental hazards. Many of these facilities have maintenance issues—such as mold and asbestos or lead in drinking water and paint—that seriously affect student performance and may have lasting negative health impacts to occupants.

Legislative Requests:

1. Direct funds to address critical school infrastructure:

- Pass the Rebuild America’s Schools Act, which dedicates federal funding to school infrastructure to improve the safety and health of our students, enhance our communities, and reduce greenhouse gases, while creating quality, family-sustaining jobs at the same time.

2. Reduce lead in schools, especially those with child care operations.

Relevant Legislation

H.R. 865 / S. 266 – Rebuild America’s Schools Act of 2019 (Scott / Reed) (116th)

Priority 10: Invest in the Energy Efficiency of MUSH (Municipal, University, School, Hospital) Buildings

Need: Building efficiency is a key part of any strategy to reduce pollution and GHG emissions, cut energy bills, and create good jobs. A major part of this potential is in upgrading MUSH (Municipal, University, School, and Hospital) buildings. Strategies and technologies used to green MUSH buildings include LED lighting, efficient HVAC systems and climate control, window replacement, sealing air leaks, and insulation. MUSH buildings are cost-effective targets for energy efficiency because of the massive amounts of energy that they use. Energy efficiency investments in MUSH buildings could lay the groundwork for a much broader investment in upgrading and retrofitting America’s buildings. Beyond the direct impacts of GHG reductions and financial savings from energy efficiency on buildings in the MUSH sector, there is an opportunity to drive job growth through the use of energy efficient products. Investment in building efficiency will also create thousands of jobs in construction and building operations, providing opportunities for building owners to create good-paying, quality jobs in the community.

Legislative Requests:

1. Reauthorize the Hill-Burton Act:

- Reauthorization will provide \$2 billion over five years for hospital infrastructure, including targeted assistance to speed recovery from extreme weather events, install energy efficiency retrofits, energy storage, and implement microgrid systems to improve resilience. The reauthorization will also ensure the use of American iron and steel in funded projects.
- Provide \$1 billion over five years for healthcare infrastructure projects through the IHS. Create a pilot program and provide \$100 million to support laboratory infrastructure, including state laboratories involved in combatting the spread of the Zika virus.
- Create a pilot program and provide \$100million to fund infrastructure development for community-based care, including teaching health centers and mental health care centers.

2. Create a DOE grant program within the DOE's Building Technologies Office to award states with matching funds to institute a comprehensive program dedicated to meeting at least a 20 percent reduction in energy use in their MUSH sector (see our analysis of [Michigan](#) and [Minnesota](#) as examples).

- Energy efficiency retrofits should be designed to be compatible and complementary to possible microgrid installations.

Relevant Legislation

S. 2447 – Smart Building Acceleration Act (Cantwell) (115th)



SECTOR: BROADBAND

Priority 11: Deploy High-Speed Broadband Internet to Close the Digital Divide, Reduce Emissions, and Spur Economic Development

Need: The deployment of wired and wireless broadband is a critical element of modernizing the country's infrastructure. Our systems cannot keep pace with technology and combat their current state of deterioration without a reliable internet connection. The Federal Communications Commission (FCC) states that over 21 million Americans lack fixed broadband at 25/3 Mbps), 19 million of which are in rural areas. Smart cities and communities will create a large spectrum of benefits for citizens, and support the well-being of a city's infrastructure. A fully formed 5G network will also provide the reliable, far-reaching high-speed network connections needed to transform and strengthen our vast system of infrastructure, which can reduce emissions and spur economic development.

Legislative Requests:

1. Provide \$40 billion over five years to deploy secure and resilient broadband:

- Three-quarters of this funding will be used to deploy broadband in unserved areas; the remaining funds will be given to states to distribute through state-wide reverse auctions.
- If there are no unserved areas in a state, the state may use the funding to deploy broadband in underserved areas, to deploy broadband or connective technology, to schools and libraries, or to fund the deployment of Next Generation 9-1-1.
- Include provisions that require grant recipients to respect collective bargaining agreements and workers' organizing rights.

2. Restore the ability of local governments to regulate deployment of small cells in order to meet the needs of their communities:

- In 2018, the FCC limited local governments' authority to set access fees and other criteria for wireless providers' deployment of small cell equipment in public rights of way.

Relevant Legislation

H.R. 2479 – Leading Infrastructure for Tomorrow's America Act (Pallone) (115th)

H.R. 530 – Accelerating Broadband Development by Empowering Local Communities Act (Eshoo) (116th)



Priority 12: Restore our public lands

Need: America's public lands are noteworthy not just for their environmental value, but also for the deep cultural heritage and the economic opportunity they offer to the nation. America's public lands also act as critical environmental regulators. Despite the role that public lands play in our nation's economic and environmental well-being, governing agencies at all levels are challenged to support these resources. Across the country, cities and localities have increasingly been faced with declining state and federal funding for parks. For over 50 years the Land and Water Conservation Fund (LWCF) has generated funding to protect some of these public lands.

Legislative Requests:

1. Address public lands maintenance backlog:

- Establish a public lands maintenance fund to reduce the maintenance backlog by allocating from existing revenues.
- Create a guaranteed source of funding for projects that expand outdoor recreational opportunities in cities across the country, particularly in underserved areas.
- Connect veterans with employment opportunities in public lands maintenance.

Relevant Legislation

H.R. 1225 – Restore our Parks and Public Lands Act (Bishop) (116th)

S. 500 – Restore our Parks Act (Portman) (116th)

H.R. 134 – Outdoor Recreation Legacy Partnership Grant Program Act (Barragan) (116th)

H.R. 2274 – Veterans Conservation Corps Act (Neguse) (116th)

Priority 13: Reclaim Abandoned Mine Lands, and Clean Up Hazardous Waste and Brownfield Sites

Need: Along with protecting public lands, the federal government plays a large role in environmental remediation. Established through the Surface Mining Control and Reclamation Act in 1977, the Abandoned Mine Land (AML) Program provides funding to states and tribes to clean up legacy coal mine pollution, while regulating current mining to ensure that reclamation occurs simultaneously. The federal government also supports cleanup of

hazardous waste and other contaminated sites through existing programs such as EPA's Superfund and Brownfields programs. These programs provide an opportunity not only to clean up our environment, but spur new economic opportunities in hard-hit communities.

Legislative Requests:

1. Remediation and economic diversification:

- Federal efforts have been put forward that would expedite the use of existing funds in the AML Fund to reclaim abandoned mines and stimulate economic development on that reclaimed land. Not only would efforts like this benefit communities by restoring the natural environment, they would also invest long-term in the economic diversification of these communities.
- Increase federal funding for waste cleanup programs such as EPA's Superfund and Brownfield programs, including financing to identify new waste sites and to hire and train local workers for safe, family-sustaining remediation jobs.

Relevant Legislation

H.R. 2156 – The RECLAIM Act (Cartwright) (116th)

Priority 14: Plan, Manage, and Build for Climate Resilience

Need: As the risks from global climate change intensify, the consequences for our environment and humanity will also intensify. This includes disruptions to food, water, and energy supplies, as well as increased damages from extreme weather and rising sea levels.

Legislative Requests:

1. Reestablish Federal Flood Protection Standards that apply to all federal infrastructure spending:

- Ensure that all federal agencies' grants that support the construction of public buildings, facilities, and infrastructure provide an additional margin of safety for flood risk; account for the future impacts of climate change; and guide federal investments away from floodplains and coastal areas vulnerable to sea-level rise.

2. Update flood maps:

- Ensure that flood maps are updated, with community consultation, to include property level data and future projections of flood risk attributable to extreme weather events and sea-level rise.
- FEMA should create Advisory Flood Maps for coastal communities impacted by the recent hurricanes that account for future conditions that exacerbate flood risk.
- For impacted coastal communities with flood maps that are at least five years out of date, FEMA should issue Advisory Flood Maps that include a future conditions information layer and provide an updated assessment with community consultation.

3. Significantly increase federal funding for FEMA's Pre-Disaster Mitigation Grant Program, a continuation of HUD's Competitive National Disaster Resilience Grant (NDRG) Program, and NOAA's National Coastal Resilience Fund.

4. Establish a new revolving loan fund and grant program for climate resilient infrastructure investments across the country, with an emphasis on natural solutions that boost resilience, such as restoring wetlands, dunes, and native forests.

Relevant Legislation

S. 1798 / H.R. 7024 – Federal Flood Management Act (Van Hollen / Raskin) (115th)

S. 2783 – Coastal Communities Adaptation Act (Nelson) (115th)



Endnotes

1. BlueGreen Alliance, *Making the Grade 2.0 Investing in America's Infrastructure to Create High-Quality Jobs and Protect the Environment*. 2017. Available online: <http://www.bluegreenalliance.org/wp-content/uploads/2017/09/MakingTheGrade-2.pdf>
2. For a complete list of BlueGreen Alliance infrastructure policy recommendations, or for any questions or requests for further information regarding the policy priorities listed here, please contact Jessica Eckdish, jeckdish@bluegreenalliance.org.



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