On behalf of the BlueGreen Alliance (BGA), a coalition of the nation’s labor unions and environmental organizations, collectively representing millions of members and supporters, we thank the President and Secretary Granholm for prioritizing upgrades to transmission and grid infrastructure to ensure clean power is delivered to communities across the country, while also ensuring our infrastructure is resilient and reliable. The Grid Resilience and Innovation Partnership Program (GRIP) is an excellent opportunity to address the climate crisis, support and create good union jobs, advance environmental justice, and build a stronger, fairer economy. We thank the U.S. Department of Energy (DOE) for seeking input on the implementation of the three associated programs within GRIP: the Grid Resilience Program, the Smart Grid Investment Grants Program, and the Grid Innovation Program.

The world’s leading scientific organizations have been unambiguous that climate change is a dire and urgent threat and the longer we delay the stronger the action required. Over the last decade, we have witnessed the worsening impacts a changing climate has on our communities. To avoid the catastrophic consequences of climate change, we must ensure rapid greenhouse gas emissions reductions—based on the latest science and in line with our fair share—to put America on a pathway to reduce its emissions to net zero by 2050.

Critical to achieving this goal is the build out of transmission, distribution, and other infrastructure necessary to make the shift to a net zero economy. Today’s network of transmission and distribution equipment still includes components from over 100 years ago. Varying age, condition, and capacities make it difficult to provide reliable power, and unreliable equipment, severe weather, and overloading causes power disruptions and damages to electric equipment. Unfortunately, as climate change gets worse, so does the problem. More than half of major power outages between 2000 and 2016 were caused by natural disasters such as hurricanes, heat waves, and wildfires.

Investing in transmission and electric infrastructure is an excellent opportunity to put people to work in the clean economy. Most of the jobs associated with transmission
construction and operations and maintenance are already union jobs. New federal investment going towards the upgrading or construction of new lines should continue to reinforce these high-road, family sustaining jobs. DOE can do this by strategically targeting funding for projects utilizing high-road labor standards, such as project labor agreements (PLAs), Community Workforce Agreements (CWAs), and labor neutrality. Additionally, these investments can support good jobs across the supply chain through utilization of domestically sourced and manufactured materials for the construction of high-powered transmission lines, substations, distribution centers, circuit breakers, and other associated infrastructure. Grid infrastructure should be built consistent with the Build America, Buy America (BABA) Law, requiring the use of a domestic supply chain for electric grid materials. Utilizing a domestic supply chain supports downstream manufacturing jobs across the country and reduces reliance on vulnerable foreign supply chains.

**Category 1-**

How should DOE best assess and prioritize applications that further state objectives developed through the Grid Resilience formula grants under BIL section 40101(d), the State Energy Security Plans under BIL section 40108, and activities supported by the State Energy Program under BIL section 40109?

DOE should ensure that resiliency and reliability projects are built with a focus on interregional transmission, connecting the renewable energy queue, and with upgrading old and degraded infrastructure. This emphasis should include supporting and expanding energy storage capacity. Further, DOE should prioritize communities that have already been hit the hardest by extreme climate events and as a result have seen their reliability strained.

1. **Prioritize projects that would connect clean energy to the grid.** Currently, there are 930 gigawatts of carbon-free energy waiting to be connected to the grid. These projects need reliable connectivity and resilient infrastructure to add clean generation loads to the grid. By prioritizing these projects, GRIP will unleash trillions of dollars in investment in areas that have clean energy potential, with an estimated 1.2 million potential new jobs in the clean energy and transmission sector. These projects are reflective of clean energy generation such as wind and solar as well as battery storage. We applaud DOE for specifically mentioning energy storage as a priority and would encourage that mixed use generation and storage be prioritized for federal funding awards.

The interconnection queue reflects the changing resource mix in the power sector, primarily being made up of wind and solar generation. The U.S. Energy Information Administration estimates that currently 75% of new electricity
generation is from renewable generation. In order to harness this clean energy and facilitate economic development opportunities in the renewable sectors, DOE should prioritize transmission that will facilitate interconnection of renewable generation projects. DOE also should prioritize projects that reduce the energy burden of low-income households. Communities facing high energy burdens should have ample opportunity to participate in the planning process for grid connection projects. DOE must prepare for the future of clean energy deployment.

2. **Prioritize interregional projects.** According to a report published by the Americans for a Clean Energy Grid, there are 22 high-voltage transmission projects that are ready to commence construction. These projects would support over 600,000 direct jobs, while the renewable generation facilities connected by these lines would support an additional 640,000 jobs. By focusing on interregional connection, DOE would be supporting interconnections to ensure clean energy loads are delivered to where they are most needed, while providing thousands of high-road jobs in the process. Further, focusing on interregional connections will reduce the overall impact of severe weather events that either damage or disrupt power distribution.

3. **Prioritize Upgrades and Damaged Infrastructure.** Between rising average summer temperatures, a western drought, and increased wildfires, the US is seeing an increased strain on our power generation and distribution infrastructure. DOE should look to existing models to forecast which geographic areas need prioritization and fund projects that aim to meet those challenges. For example, an analysis done by the North American Electric Reliability Corporation (NERC) identifies specific regional needs and challenges due to an increase of extreme weather and elevated summer temperatures. Advanced monitoring technologies distributed across the electric grid can help ensure that peak load is met with appropriate amounts of power more quickly. Further, additional points of interconnects between regional operators will ensure that power can flow more easily to areas that are experiencing higher than normal peak load.

Additionally, DOE should prioritize communities that have recently experienced disruptions in reliable power due to damages caused by extreme weather, wildfire, or other natural disasters. Low income communities, aged infrastructure, and communities located in the Wildland Urban Interface (WUI), are more susceptible to power outages due to damages or disruptive electric service. These communities should see increased investment to repair and prepare for the next extreme weather event. We encourage DOE to work with state energy offices to identify which projects and communities need specific attention and additional resources to meet the challenges at hand.
4. **Prioritize Projects that will be Built, Owned, Operated, and Maintained by Public Utilities or Regulated Utilities.** Expanding transmission and coordinating investments in energy infrastructure at the scale envisioned by DOE and energy experts requires extensive coordination at the local, state, regional, and national level. Each piece of this expansion should have structured venues for ratepayer oversight and public engagement. Public utilities, such as rural electric co-ops, Tribal utilities, and municipal utilities have widely recognized structures and by-laws to facilitate the necessary public/ratepayer engagement and cross-utility coordination. For-profit utilities receiving GRIP funding should also be subject to regulatory oversight and ensure that federal investments go toward increasing reliability and resiliency and reducing consumer costs. DOE should require the same type of public engagement and comment form privately owned, unregulated utilities. This will enhance public safety, cost efficiencies, ratepayer equity, and inter/intra-regional coordination.

5. **Work in close coordination with DOE State Energy Program (SEP).** As DOE looks to implement the GRIP Program, the agency should also work to integrate planning and project prioritization with the SEP. DOE should also produce guidance on workforce and community agreements (or community benefit plans) that states can incorporate into both GRIP and SEP planning and funding applications. If done correctly, integration with SEP and state energy offices, these programs will have significant impact on the success of the outlines programs. Increased funding and new directives within the State Energy Program, Loan Program Office, and OCED mean that coordination with grid modernization and transmission expansion planning at DOE will be critical. Ensuring there is coordination between DOE Offices will ensure recommendations are consistent for each state and region, and that workflows are streamlined for capacity-strapped state agencies. Furthermore, the GRIP planning efforts should be closely coordinated with the new SEP regional collaborative working groups for State Energy Offices on 5 topics, including transmission and grid infrastructure.

**Are existing or expected supply chain concerns anticipated to delay or impact development of potential applications or project implementation, if awarded? What might be some of the potential barriers to timely delivery and how can DOE support the timely delivery of projects?**

**Ensure use of domestic content in the construction of transmission and grid infrastructure projects.** DOE, as required by law, should ensure use of domestic content and Buy America standards in the construction of transmission, grid technologies, and other associated components. As the Build America, Buy America (BABA) provisions in the Bipartisan Infrastructure Law (BIL) come into effect and strengthen the Buy America
requirements associated with federal investments, the positive market and employment effects of the GRIP Program will be further magnified. Supply chain reporting and disclosure should also be encouraged while incentivizing assembler/supplier commitments and accountability. Further, a waiver process for unavailability should be limited as the vast majority of component parts can be sourced domestically, e.g. steel and aluminum. It is in the public interest to avoid waivers for these requirements considering the environmental and economic impacts of sourcing from foreign manufacturers.

According to a WIRES/Brattle Group report, nearly 65% of the steel associated with the transmission towers, structures, and related components are currently sourced domestically, while 35% of the aluminum and other components for transmission wires are sourced domestically. 70% of substations, including circuit breakers and transformers are made domestically. Towers, wires, and transformers make up about 95% of the materials cost for any given project.

It is in the public interest to avoid waivers for these domestic content requirements, given the environmental and economic benefits of sourcing from domestic manufacturers. On average, U.S. manufacturing of steel and aluminum produces fewer greenhouse gases and pollutants than in most other countries that are major producers. Steel production in the US is the 2nd cleanest in the world. Ensuring domestic manufacturing for steel and aluminum in transmission projects would support not only U.S. manufacturing job growth, but also a reduction in global industrial emissions. DOE also should ensure that the establishment or expansion of manufacturing facilities to produce steel and aluminum for transmission projects supports the health, environmental, and economic needs of workers and fenceline communities. Early consultation with workers and fenceline communities is vital to ensure that they see benefits, not harm, from such projects.

DOE should identify weak points and gaps in the supply chain and work with manufacturers and developers on ways to address the gap, without slowing down transmission and grid deployment. The GRIP Program should work with other offices with DOE, such as the Loan Programs Office, to identify opportunities for additional federal resources that will speed up a domestic supply chain. Further, interagency coordination with Office of Manufacturing and Energy Supply Chains will ensure that gaps in and vulnerabilities in the supply chain are identified and addressed.

By boosting demand for U.S. manufacturing of steel, aluminum, and other materials in transmission projects, domestic content provisions also could help to mitigate the increase in economic and racial inequality driven by the decline in U.S. manufacturing. The erosion of domestic manufacturing is responsible for a significant rise of income
inequality in the U.S. The loss of manufacturing jobs has been disproportionately worse for Black workers and workers of color. According to an EPI report, Black workers have lost more than 600,000 manufacturing jobs since the late 1990’s, a 30% fall in Black manufacturing employment. This has further exacerbated the wage gap between Black and white workers. DOE must ensure that the Buy America provisions in the Bipartisan Infrastructure Law are strictly enforced. Strong domestic content standards would yield a significant impact for manufacturing jobs, and specifically for Black workers and workers of color across the country if targeted correctly.

DOE should regularly share information with utilities and state partners about domestically manufactured and sourced materials required for grid resilience and transmission expansion. Smaller utilities and rural utilities especially have little capacity for researching these materials and would benefit greatly from technical expertise from DOE.

**Category 5-**

How can DOE best support the creation and retention of high-quality jobs, and the clear workforce training pathways into those jobs, through the GRIP program?

In addition to considering plans to make grid infrastructure more resilient, reliable, and ultimately reduce carbon emissions, DOE must also ensure that any federal funding related to these projects supports workers and communities and translates into high-road, union jobs, and accessible jobs for workers of color and other segments of the population historically left behind. The GRIP Program across all three programs should also support the growth of good union jobs in the construction, operations, and maintenance, and along the supply chain associated with transmission, grid infrastructure, substations, and all other relevant technologies.

To demonstrate a broad and strong commitment to these considerations, DOE should ensure the following in its implementation of the GRIP Program:

1. **Family-sustaining, union jobs must be created and retained across the energy infrastructure sector and the associated manufacturing supply chain.** To do this, DOE must consider the following high-road labor standards:
   - **Prevailing Wage:** As required by the BIL, DOE should require all contractors and subcontractors to comply with the Davis-Bacon Act and Related Acts (DBRA). Contractors and subcontractors shall therefore agree that all employees shall be paid the local prevailing wages and receive accompanying benefits as identified under DBRA in the construction of projects funded by this program.
   - **Project Labor Agreements (PLA):** Large construction projects, not subject to Executive Order 14063 requiring use of Project Labor Agreements (PLA) for
Federal Construction Projects over $35 million, can still benefit from a PLA. PLAs control the terms and conditions of employment of workers on specific construction projects, including wages, hours, working conditions, and dispute resolution methods. These agreements can be utilized at the state and local level to ensure high-road labor standards, a qualified workforce, and timely projects.

- **Registered Apprenticeship, Pre-apprenticeship, and Labor-Management Partnerships**: One of the main mechanisms for building career pathways is through registered apprenticeship, pre-apprenticeship, and other union-affiliated training programs. Apprenticeships are registered through a state apprenticeship agency or through the DOL. Registered apprenticeships are paid positions that combine on-the-job training with classroom instruction in a trade. Construction unions operate robust registered apprenticeship programs while industrial unions work with employers on joint labor management training programs that also provide a combination of classroom and on-the-job skills training. Additionally, many unions offer training throughout a member’s career to enable them to stay up to date with changes in technology. Pre-apprenticeship programs have become a key tool for improving equitable access to jobs in the building trades. Such programs aim to ensure that workers can qualify for entry into an apprenticeship program and have the skills and support they need to succeed. These programs are generally designed to support certain populations or demographics such as low-income workers, workers of color, women, and other marginalized communities. The most successful pre-apprenticeship programs are those affiliated with registered apprenticeship programs or other contractually agreed on-the-job training programs. Wraparound services such as transportation and childcare also help with recruitment and retention of underrepresented and disadvantaged workers.

DOE also should consider additional high-road labor standards, such as: union neutrality; high-road wages and benefits; occupational health and safety standards and programs. Furthermore, it is imperative that all program guidance sets parameters and incentives to avoid misclassification and excess use of contracted or temporary employees. Finally, in order to maximize public and worker safety, DOE should limit the distribution of GRIP funds to contractors operating at a journeyperson-to-apprentice ratio developed in coordination with the DOL and with impacted, regional/local labor organizations.

Upgrading grid infrastructure can also be a key strategy in mitigating the economic and workforce impacts of transitioning to a clean economy with a recognition that the best approach is one that prevents economic disruption and employment loss in the first place. Projects that increase interconnection in a region with numerous clean energy projects, projects that look to upgrade energy infrastructure in an economically disadvantaged community, or projects located in areas that historically have employment
in the traditional energy sectors should prioritize retention of those jobs and employment for workers dislocated from traditional energy sectors. Selecting new construction or upgraded projects that utilize union labor (i.e. a union organization in the construction trade or maintenance of electric grid infrastructure) would create opportunities for skilled training and long-term employment to the greatest number of residents in a region.

2. Benefits must be maximized for workers and communities that need it most. This should be done by:
   a. Consistent with the administration’s Justice40 Initiative, targeting investments in disadvantaged communities with a focus on deindustrialized, impacted, and underinvested in communities;
   b. Utilizing hiring and procurement policies that benefit low-income communities, people of color, and women; and requiring or incentivizing community benefit/community workforce agreements that increase economic opportunities for communities and local workers—especially for people of color and low-income communities;
   c. Ensuring investments and policies are in line with the scale of change needed to meet targets for climate action, quality job growth, and economic, racial, and environmental justice. DOE should prioritize projects that will result in the greatest net decrease in GHG emissions and the greatest benefits for impacted workers and fenceline communities;
   c. Community Workforce Agreements (CWA) and Community Benefit Agreements (CBA) would offer clear means of ensuring meaningful community and worker engagement in projects funded by this program. A CWA reflects a common pledge between labor and the community to work together to build a high-road path to economic revitalization that includes good jobs. In addition to the collective bargaining aspects of a PLA, CWAs frequently include local hire provisions, targeted hire of low-income or disadvantaged workers, and the creation of pre-apprenticeship pathways for careers on the project. A CBA typically includes more than economic benefits and utilizes a community input process to develop an agreement with the community for a broader array of benefits (i.e., housing or transportation priorities).

3. DOE should coordinate with DOL to conduct stakeholder engagement on workforce development and job quality.

DOE should solicit the input of labor leaders, workers, and utility operators to help develop a long-term workforce pipeline strategy. This should be a robust combination of stakeholder workshops, hearings, and individual meetings to ascertain workforce pipeline issues and how to build long-term job quality. This outreach effort should be as
localized as possible as workforce development and worker needs vary regionally. In addition to efficiently addressing the needs of workers and understanding how best to create high road jobs, this outreach will be an opportunity for stakeholders to become more familiar with DOE’s transmission plans and planning processes.

**Conclusion**

The Grid Resilience and Innovation Partnership Program is a critical opportunity to expand, secure, and fortify the electric grid in our country. This historic investment of nearly $10.5 Billion will invest in infrastructure that will provide high-quality jobs across the country, connect thousands of megawatts of clean energy to the grid, and support domestic manufacturing across the country. We are at a critical point and ensure our electric infrastructure is prepared to handle the threats of the present and future. Investing now supports that goal, while also supporting the transition to a clean economy.