

A Sustainable Energy Industry Is On the Rise: How Can America Make It Equitable?" National Urban League & Edison Electric Institute

The National Urban League has long been an advocate for economic opportunity, environmental justice and diversity equity and inclusion (“DE&I”) in all areas. The passage of the Infrastructure Investment and Jobs Actⁱ (“the Infrastructure Act”) is a once in a generation investment in the American people and their futures. It is providing \$1.2 trillion in historic investments in our nation’s core infrastructure; makes economic commitments to our children, families, and communities to ensure a more equitable economic future for all; and will create hundreds of thousands of new high-skilled jobs. In particular, the Infrastructure Act presents this country with a unique opportunity to modernize its power grid and combat catastrophic climate change by moving towards a healthy net-zero carbon environment, while at the same time promoting DE&I in this nation’s critical energy sector.

I. Why Energy, Why Now?

Now is the time for all of us to be concerned about climate change and to address DE&I and Environment, Social and Governance (ESG) issues in the energy industry in a decisive fashion.

First, as was made clear during the 2021 United Nations Climate Change Conference (“COP26”), the people of the world are facing a catastrophic climate crisis. Equity and common-sense demand that everyone has an inherent right to live in a healthy environment, not be adversely affected by pollution, and be protected as much as possible from adverse climate change.ⁱⁱ Black people are among those most affected by dirty air.ⁱⁱⁱ

Second, the energy industry is one of the most important industries in the United States. Individuals, communities, and businesses depend on it daily. As a result of the passage of the Infrastructure Act approximately \$75 billion dollars is being spent on modernizing energy infrastructure as part of the more general effort to move the country towards a net-zero carbon environment. The Act is creating important economic opportunities particularly in connection with electric vehicles (“EVs”), solar and other renewables, the construction and modernization of infrastructure, and the deployment and utilization of microgrids. Billions of dollars are being directed towards projects like modernizing the power grid, building a nationwide EV charging network, constructing microgrids, and promoting energy efficiency. This money will flow to states, localities, institutions, and businesses of all size throughout the U.S. This will create hundreds of thousands of jobs (*e.g.*, installation, construction, operation, and maintenance; professional services; supply *etc.*) as well as numerous entrepreneurial opportunities.

Black, communities of color and disadvantaged communities, workers, and entrepreneurs have not benefited fully from similar investments in infrastructure in the past. Those failures have exacerbated the pre-existing inequities of this country and led to the persistent wealth gap. The country cannot afford to leave these Americans out again.

II. This is not a New Issue for the League

The National Urban League has long been concerned about DE&I in the energy sector. In two recent papers—*21st Century Innovation in Energy: An Equity Framework* (Donald Cravins, Jr. 2016) (“Innovations Paper”) and *The Digital Revolution: Electrification & Smart Communities The Benefits and the Barriers* (Donald Cravins, Jr. and Gavin H. Logan 2019) (“Digital Revolution Paper”)—the National Urban League addressed the importance of energy and the energy industry in this nation's economy and everyday life; the billions of dollars that

had and would be spent on new energy infrastructure; and the need to adopt strong policies to promote economic and environmental equity.^{iv} To this end, we adopted an Energy Plan for working with private and public energy partners (“National Urban League Energy Plan”).

Attention to DE&I and ESG factors in the energy sector has become even more critical for several reasons. The energy sector is the second-largest contributor of greenhouse gas in the United States, accounting for one quarter of total emissions. Decarbonization of this sector will promote economy wide emissions reduction. Further, the energy industry is undergoing significant changes because of the introduction of new technologies and the growth of renewable sources of energy supply. America is witnessing a convergence of the energy, telecommunications and transportation technologies and industries. At the same time and because of world events, energy costs are increasing dramatically. All these changes are accelerating and if not addressed properly will result in a nation of energy "haves" and "have nots."

The mission of the National Urban League Movement and its 92 affiliates in 36 states including the District of Columbia is to enable African Americans and other underserved urban residents to secure economic self-reliance, parity, power, and civil rights. The energy industry is a conduit to achieving this mission. Action must be taken to ensure that minority owned businesses, institutions, and workers are afforded meaningful opportunities to participate and benefit. Inside the energy companies, these actions should encompass everyone from entry level employees to the C-Suite and the Board of Directors. Workforce development is also a critical aspect because of the thousands of skilled labor jobs that are being created. For some prospective employees, these jobs will represent a lifeline out of poverty or a pathway to better compensated employment. Many of these jobs will not require a four-year college education; but

instead will require skill training at the high school or community college level, or in job training programs run by entities such as National Urban League Affiliates, local governments, unions, and energy companies (We need to add something here on Workforce Development)

Likewise, we must strive to promote environmental justice. Often it is the poor and disadvantaged that suffer first and the most from environmental harms, and who benefit least from environmental fixes. We must adopt energy policies that fairly and meaningfully involve all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies ensuring African Americans and communities of color have access to clean and healthy environments.^v

Moreover, there must be a just transition to clean energy. No community should be left out or behind. The deployment of smart energy and EV infrastructure, and the provision and utilization of clean energy technology must be accomplished in a manner such that access to service is universal, that rates are fair and affordable for all customers, and that all neighborhoods and customers receive the benefits and share the costs.^{vi} The poorer, older, or later adopters should not subsidize the richer, younger early adopters.

According to one commentator:

Mitigating and adapting to the effects of our changing climate— and driving the broader transformation of the electric power industry—will require diverse, equitable, and inclusive ideas and approaches to clean energy, electrification, energy grid modernization, energy affordability, reliability, resilience, safety, and cybersecurity. No one person or single way of thinking truly can address the complex set of challenges ahead to fulfill our critical mission and repower our society. Our collective success depends on actively seeking diverse perspective.^{vii}

This is true across the entire energy sector.

This paper will not focus on the more recent technological developments because others have done so. Instead, it will focus on strategies to achieve true DE&I results in the clean energy sector by promoting:

- Environmental Justice
- Universal deployment of and access to energy infrastructure
- Equity in access to safe and reliable service at reasonable rates
- Equity in employment from the C-Suite and Board to every employee, and to future employees.
- Equity in entrepreneurial opportunities (*e.g.*, contracting, procurement, professional services)

III. National Urban League Energy Papers

A. 2016 Paper: 21st Century Innovations in Energy: An Equity Framework

In the Innovations Paper, the League (1) provided an overview of the domestic electricity, solar, and oil and natural gas industries; (2) presented then current employment numbers in each sector; and (3) highlighted economic and employment opportunities in each sector. The paper concluded by launching The National Urban League's Energy Plan which set forth a framework for building a dialogue and partnerships with the various aspects of the energy industry on issues important to the Urban League, its mission, and the constituents it serves.

The Paper noted that as a country increasingly dependent on technology, we have become more reliant upon energy in our everyday lives. Much of this nation's critical infrastructure (*e.g.*, healthcare, telecommunications, defense, transportation, energy, and water) is dependent on the power grid. Consequently, having a reliable, cost-efficient, and secure energy supply has become

particularly important in urban communities, not only for quality of life, but also because it is a competitive plus, a job creator, and can affect the overall economy of a region or locality.

The National Urban League's Energy Plan is as relevant (and perhaps more relevant) today as in 2016. The Plan had ten elements:

1. **Jobs:** To advocate for and work with a diverse set of stakeholders including labor organizations, the Center for Energy Workforce Development, the oil and natural gas industry, and the renewable energy sector to promote meaningful skills development, technical training, internships and job placement opportunities for African Americans and urban community members.
2. **Diversity:** To develop written community-based diversity plans which clearly define measures for success advancing diverse employment across all levels and sectors of the energy industry including in its C-Suites, Boards, and outside consultants.
3. **Ownership:** To promote entrepreneurial activities, not just in the traditional fields of construction and procurement, but also in other areas by expanding utility MOU programs and developing financing mechanisms.
4. **STEM:** To develop and promote programs which lead to jobs and ownership through partnerships among utilities, energy companies, HBCUs, NUL affiliates and others. To lend our advocacy for a broader definition of STEM that works to educate and engage diverse communities about the critical importance of STEM – as fields of study, in related career opportunities, and through practical application with a focus on all disciplines that incorporate science, technology, engineering and math.
5. **Universal Service:** To work to ensure that electric rates are fair and affordable for all customers and that all neighborhoods and customers receive the benefits and share the costs of the energy transformation regardless of the technology used.
6. **Housing:** To work in conjunction with NUL affiliates, utilities, and energy companies to promote increased funding for LIHEAP, the broader utilization of energy efficiency programs, and the development in all communities of projects such as solar gardens, microgrids and EVs.
7. **Environmental Justice:** To promote energy policies that fairly and meaningfully involve all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies ensuring African Americans have access to clean and healthy environments
8. **Renewable Energy:** To recognize renewable energy as a vital part of an overall energy strategy that recognizes all sources of energy. To promote the expanded utilization of renewable energy in a manner which ensures that its benefits are shared, promotes jobs, builds local economies, address environmental concerns, and reduces overall energy costs.
9. **Consumer Protection:** To educate consumers on energy issues and advocate for increased consumer protections.
10. **Supplier Diversity:** To proactively promote business programs which encourage the use of African American owned business concerns as suppliers of goods and services. These programs and policies should emphasize the creation of a diverse supply chain that

ensures the inclusion of diverse groups in the procurement plans for the entire energy industry.

B. 2019 Paper: The Digital Revolution: Electrification & Smart Communities The Benefits and the Barriers

The Digital Revolution paper was a follow up to the Innovations Paper. It was motivated by the ever-increasing pace of the energy revolution and focused on electrification and specifically on EVs. Regarding EVs, the paper concluded that given the need to curb the amount of pollution generated by transportation, there were real and immediate benefits to be gained by a transition to EVs—particularly mass transit and commercial EVs.

We noted that the speedy deployment of EVs, particularly mass transit and commercial EVs, could provide important environmental benefits. Consequently, it was important to prioritize EV access in underserved communities because such areas could benefit the most from the clean air and cost-saving benefits of EVs:

These communities should not be relegated to being passive or potential users of EVs. After all, residents of these communities are more likely to live near busy roads and freight hubs, where exposure to pollution from heavy-duty vehicles and freight is greater. Furthermore, these residents are more likely to be renters and/or live in multi-unit dwellings and not have access to residential charging stations.^{viii}

IV. Game Changing Developments

Since the release of the League Papers there have been several developments in the clean energy sector. Although many are significant, we would like to highlight two of them that have influenced this paper.

A. Help Wanted Diversity in Clean Energy Report

In 2021 a number of energy groups released the *Help Wanted Diversity in Clean Energy Report*.^{ix} The Report noted that although millions of jobs will be created in the clean energy sector, the sector has a diversity problem with most clean energy workers being white non-

Hispanic. It concluded that this lack of diversity threatened to cause women, Hispanic and Latino, and especially Black workers to miss out. It offered recommendations for workers, businesses, and communities many of which paralleled the League's Energy Plan.^x

For example, regarding workers the Report recommended, among other things, supporting education and job training for members of historically underserved communities; investing in apprenticeship programs; and enhancing and enforcing hiring and procurement policies that benefit low-income communities, people of color, and women. For businesses it proposed creating and funding "green banks" and other financing mechanisms to help jump-start clean energy companies; collaborating with the clean energy industry to increase business opportunities for minority entrepreneurs; and supporting and advancing clean energy programs in economically disadvantaged areas. The report also made several recommendations for communities designed to ensure accessibility, and universal service.^{xi}

B. The Infrastructure Investment and Jobs Act

The passage of the Infrastructure Act, President Biden's subsequent executive order^{xii} establishing an Infrastructure Implementation Task Force and setting priorities for executive agencies in implementing the act, and the Biden Harris EV Charging Action Plan^{xiii} have created significant opportunities. As noted previously, the Infrastructure Act allocates \$75 billion to the energy sector. One of the important goals of the Act is that 40% of the overall benefits from Federal investments in climate and clean energy flow to disadvantaged communities.

The Infrastructure Act also allocates \$7.5 billion to build out a national network of EV chargers. It also provides funding for deployment of EV chargers along highway corridors to facilitate long-distance travel and within communities to provide convenient charging. The Biden-Harris EV Charging Plan proposes to build a nationwide network of 500,000 EV chargers

to accelerate the adoption of EVs, reduce emissions, improve air quality, and a multiplicity of jobs across the country.

In adherence to the statute, the Executive Order directs agencies in their implementation of the Act to prioritize investing public dollars equitably toward a goal that 40 percent of the overall benefits from Federal investments in climate and clean energy flow to disadvantaged communities. A number of Federal agencies are already developing new programs, enhancing older programs, and adopting implementing regulations. This is a “forty acres” promise that we must make sure is fulfilled.

V. Areas of Concern and Greatest Opportunity

Due to the significant economic opportunities that will be created (particularly those related to EVs, solar, the construction and modernization of energy infrastructure, and the deployment of microgrids) the time has come to act on the approach outlined in the League’s Energy Plan by addressing particular areas of concern inherent in all DE&I efforts and then focusing on several areas of opportunity in that context.

A. General Areas of Concern

The \$75 billion that will go towards infrastructure modernization and new construction, as well as the other funds, will create thousands of good paying jobs and other opportunities. There is nothing new or magic about what must be done. Meaningful workforce development and diversity supplier plans should be expanded, or if nonexistent, established.

Workforce development is a critical issue if people of color are to take full advantage of the new opportunities. It is estimated the energy industry will hire 215,000 employees for select positions over the next three years for the utility sector alone. The electric power industry is

particularly focused on increasing diversity through various programs that range from education in elementary schools to bootcamps in underrepresented communities.

Unfortunately, preparing for the future energy workforce is complicated by the fact that energy industry jobs are becoming increasingly technical and dynamic. Energy is currently recommended for inclusion in the new National Career Cluster Framework, structured by Advance CTE as the framework for national education. This would make it easier for all students in K-12 to be exposed to energy careers throughout their education journey.

To address the workforce problem, the National Urban League is partnering with the Edison Electric Institute (“EEI”) to host Urban League affiliates for an informational forum on DE&I in the energy sector in addition to networking forums for NUL affiliates and energy companies. Energy companies such as ConEd, Exelon, Duke, Southern, PG&E, and other have solid workforce development and diverse supplier procurement programs that are good models. These are the types of activities that should be undertaken by more sectors of the energy industry.

To the extent that they are not already doing so, such workforce development and diverse supplier procurement programs should partner with League affiliates, HBCUs, MSIs, local governments and other institutions. These programs should be geared towards training for current opportunities, and towards developing long-term pipelines and thereby avoid having to “reinvent the wheel” every few years.

Utilization of these types of supplier diversity programs that will permit diverse suppliers to grow and move from subcontractors to prime contractors is critical. Some diverse suppliers are already either primes or have the capacity and experience to function as prime contractors. However, the doors must open even wider.

To increase the number of diverse businesses doing substantial work with energy companies will require even more active collaboration and partnerships among energy companies and minority owned businesses. The goal should not only be to increase the MBE spend, but also to grow the capacity of and opportunities for minority companies of all types—particularly opportunities as primes, as well as in law and finance.

Unfortunately, because of historic inequity and other reasons, some diverse companies lack the size, corporate capacity and structure, and access to financial resources necessary to become either significant suppliers or customers of these large energy companies. This is a problem that must be addressed. We must focus on ways to promote the growth of diverse businesses so that they can become major suppliers, customers, and employers. Another resource provided by the Infrastructure Act was the passage of the Minority Business Development Act of 2021, making the Minority Business Development Agency (MBDA) permanent. Such action makes the MBDA permanent and elevated in stature, assigns presidentially appointed and Senate-confirmed leadership, authorizes the creation of regional offices and rural business centers, and mandates grants to minority serving institutions to cultivate future generations of minority entrepreneurs.^{xiv} Hopefully this expanded agency will lead to the growth and global competitiveness of minority owned business.

Too often in the past the sponsoring entities have viewed such efforts through a charitable lens and have failed to recognize that promoting the growth and utilization of diverse companies was actually “smart business.” This is tragic because diverse businesses represent a source of new suppliers, a way to expand business with new and existing customers, and, particularly in the case of utilities, a way to benefit the communities they serve and in which their employees

reside. This is a classic way to achieve the goal of serving “People, Purchasing and Philanthropy.”

Since clean energy is a relatively new area of business, many companies—both diverse and other—are starting from a relative ground zero. Consequently, this is a good area on which to focus. However, even in this area, a number of diverse companies are hampered by their above-described deficiencies in size, corporate capacity and structure, and access to financial resources. Simply being on a diverse suppliers’ list might not be sufficient.

One way to address this is by using what is known as the “Top-Down/Bottom-Up” approach.^{xv} The Top-Down segment requires energy companies make it a measurable priority (*i.e.* what gets measured gets done) for their procurement staff to identify suppliers with strong potential and then to actively employ strategies similar to those used in the world of venture capital where committed investors often step in to assist such companies by providing strategic advisors, corporate guidance, assistance in obtaining access to additional financial resources etc. This goes far beyond the traditional strategies of developing supplier lists and holding business seminars—which although valuable are not sufficient. Admittedly in certain situations this might cause internal conflicts for some energy companies and/or the energy companies might not possess the proper entrepreneurial skill sets. This could be addressed using outside advisors such as the National Urban League and other legacy civil rights organizations. The Bottom-Up segment is also important because it emphasizes strong workforce development programs and requires the energy companies and diverse suppliers work together to ensure that the suppliers (a) hire younger employees who are then trained and promoted, and (b) develop a true succession plan to ensure business continuity. Last, but certainly not least, increasing racial and ethnic

diversity in both the boardrooms and the C-suites of energy companies will be critical to success of these efforts.

We cannot discuss supplier diversity without addressing the issue of access to capital and financial support. Garnering more private financial support through various financing and investment mechanisms will be important. Exelon is to be congratulated for establishing its \$36 million Racial Equity Capital Fund to support minority-owned business growth.^{xvi} Likewise, Energy Impact Partners and its global corporate partners are to be commended for launching the Elevate Future Fund to advance diversity, equity, and inclusion in energy transition.

Additionally, energy companies and state regulatory commissions should enter voluntary memorandums of understanding—agreements to develop programs designed to expand opportunities. Maryland’s Public Service Commission Supplier Diversity Program has been very successful.^{xvii} This can be done in cooperation with the Select Committee on Regulatory and Industry Diversity of the National Association of Regulatory Utility Commissioners.

All is not doom and gloom as progress is being made. This year EEI hosted its “The 38th Annual Business Diversity Conference.” This conference brings together energy professionals, diverse suppliers, prime suppliers, regulatory and community stakeholders. The event attracts 300-400 attendees and features innovative industry topics, networking, one-on-one matchmaking, awards, diverse business scholarships, and community volunteer service. Also, Ameren has an innovative supplier diversity program that addresses some of these issues. The strategies that it uses include establishing and supporting corporate supplier diversity goals, creating access and development opportunities, diverse supplier mentoring and curriculum based-training, diverse bid debriefs, supplier diversity symposiums and summits, and legal. Duke’s new Diversity In Clean Energy (“DICE”) program shows real promise as well.

B. Electric Vehicles

As previously noted, \$7.5 Billion has been allocated towards the deployment of EV charging infrastructure throughout the country. A target of 500,000 charging stations has been established. Recently, the Departments of Energy and Transportation released guidance for how they will manage \$5 billion in funds under the National Electric Vehicle Infrastructure (“NEVI”) Formula Program for states to create alternative fuel corridors. Another \$2.5 billion will be distributed outside the NEVI program for discretionary grants supporting chargers in rural and disadvantaged communities.^{xviii}

Most states and the District of Columbia already offer incentives to support the deployment of EVs, alternative fuel vehicles and supporting infrastructure either through state legislation or private utility incentives within in the state. Additionally, the National Electric Highway Coalition (“NEHC”), a coalition of over 50 utilities led by the Edison Electric Institute (“EEI”), have banded together to install EV fast-charging ports along major U.S. travel corridors by the end of 2023.^{xix} To date, EEI’s member companies have invested more than \$3.2 billion in EV infrastructure to-date, with more than \$750 million going toward underserved areas.

Given all the proposed governmental and private sector EV investments, significant and immediate opportunities exist for minorities in terms of jobs, business formation and growth, and community development. As we stated in the Digital Revolution Paper:

There will be significant economic opportunities in the EV infrastructure service area in terms of both jobs and supplier diversity. Companies and individuals will be needed to install charging infrastructure, provide repair and retail services, and upgrade the electricity grid. They will also be needed to implement various smart, clean energy upgrades to help consumers make conservation decisions that save energy and money and provide tangible clean air and health benefits. Much of this can and should be done by diverse businesses with a track record of hiring individuals living in their respective communities. Moreover, training programs will be necessary since for the most part these are new jobs that will require new skills.^{xx}

This is why the National Urban League has signed onto and endorsed the Guiding Principles of the EV Charging Initiative—a coalition of twenty-four groups that have agreed to push for deeper commitments from each other and the federal government to deploy the charging stations needed to improve air quality, create domestic jobs, address racial inequities, and curb climate change.^{xxi} These are the Guiding Principles:

1. A new level of collaboration among all stakeholders is required to meet the Biden Administration’s goals for transportation electrification.
2. The construction of EV infrastructure should build stronger, healthier, more prosperous communities by emphasizing community-driven solutions and increasing access to electric transportation options in historically underserved communities.
3. There is an urgent need to scale up and broaden access to charging infrastructure to serve light-, medium- and heavy-duty EVs.
4. The private sector should step up with unprecedented investment, augmenting government, and utility funding to finance charging infrastructure that serves all communities and vehicle types.
5. Construction of the charging ecosystem must create inclusive economic growth and good jobs at good wages.
6. Electric utilities, regulators, charging providers, and stakeholders should work together to accelerate transportation electrification in a way that supports the electric grid and benefits all utility customers.
7. The national EV charging ecosystem should provide a convenient, reliable, seamless, and secure experience for all drivers.

Demanding work in implementing Principles 2-6 will be especially important if we are to achieve the DE&I in clean energy contemplated in the National Urban League’s Energy Plan.

However, in addition to focusing on the potential economic benefits, we must not lose sight of the need to ensure that all communities—both urban and rural and disadvantaged and prosperous—have access to EV facilities and reliable service at reasonable rates. We encourage state regulators to continue to approve energy company EV pilot projects and innovative EV rates if they are comprehensive, fair, and reasonable. Likewise, steps must be taken to promote the use of ride share, transit and other commercial EVs in urban and other high travel corridors.

This will require subsidies for electric buses and freight trucks as well as for some passenger vehicles.^{xxii}

C. Solar

The continued health and growth of the United States solar industry are critical as we confront the problems of climate change. Community and private solar are important means by which to provide more homes, businesses, schools, and government entities across the United States with clean, reliable, and affordable electricity. The solar market should be open to all—to both utilities and non-utilities alike.

Although there has been much progress, there must be a continued effort to ensure African Americans and communities of color are part of the solar equation because of both the environmental benefits and the fact that in the future, Solar photovoltaic (PV) installers will be among the top occupations.

In 2021, the Black Owners of Solar Services (“BOSS”) released the *BOSS Policy Brief* that provided an “overview of national policy developments and opportunities that will galvanize a more equitable clean energy economy where Black-owned businesses are central to helping America reach its climate resilience goals.”^{xxiii} In its Policy Brief, BOSS made several important proposals about promoting Black prime contractors, funding for Black businesses, clean energy finance solutions, inclusive project siting and design, and workforce development. These proposals require serious study.

However, some progress is being made. For example, Microsoft recently entered a solar energy partnership with Volt Energy, a Black-owned solar energy development firm, to supply Microsoft with 250 megawatts of solar power. Also, Grid Alternatives conducts installation training programs as well as educational programs for K-14 students and college students.

The Chicago Urban League has undertaken several very impressive solar energy initiatives. It is leading the way in ensuring that “people in our community . . . [are] front and center for job opportunities.”^{xxiv} For more than three years it has run a successful Solar Energy Jobs Training Program. It is a 240-hour training program which utilizes classroom training and hands-on lab activities to prepare students for work in the solar industry. In May of 2019, Chicago Urban League’s solar program received accreditation as an “Accredited Training Unit” (ATU) by the National Center for Construction Education and Research (NCCER). Coursework helps students work toward various industry credentials, including those through the North American Board of Energy Certified Energy Practitioners (NABCEP). Hundreds of its students have been placed in lucrative jobs as solar panel installers.

The Chicago Urban League also conducts a Solar Sales and Finance course that covers the most critical concepts in evaluating a renewable energy project. The course guides students through a case study on a solar energy project. This course helps participants understand the development timeline and funding structure of a solar project.

This affiliate has gone even further and installed solar panels on the roof of its headquarters, as well as a solar car port and EV chargers. It is one of, if not the, largest solar installation projects in the city. The Affiliate has also entered into a power purchase agreement.^{xxv}

D. Natural Gas

The Innovations Paper found that the natural gas industry represented a significant opportunity for job growth among racially and ethnically diverse communities.^{xxvi} Unfortunately the paper also found that despite its meaningful efforts the industry still had a way to go.^{xxvii}

Improving DE&I in the natural gas industry is important because natural gas will play a key role in managing possible risks in the transition to renewables, *e.g.*, more expensive and potentially less reliable electricity.^{xxviii} As coal generation has diminished, the growth of natural gas use has coincided with significant reductions in U.S. greenhouse gas emissions and air pollution.^{xxix} Gas is a natural backstop to wind and solar because of its ability to serve as an instantly dispatchable source of electricity. In fact, the European Union is considering classifying natural gas as a transitional green energy source.^{xxx}

Additionally, developments in the areas of renewable natural gas, the blending of hydrogen into gas pipelines and the creation of “blue” hydrogen offer exciting possibilities in the effort to quickly move gas-fired plants toward zero carbon emissions.^{xxxi} The same is true about carbon, capture, and storage (CCS) technologies.

The natural gas industry also faces some of the infrastructure challenges faced by the electric industry and significant investment in pipelines may be necessary. Given all the above, the industry should undertake efforts like those that have been previously recommended.

E. Microgrid Related Opportunities

Microgrids will play an increasingly key role as we move towards truly Smart Communities as well as attempt to deal with severe weather events. Microgrids can serve communities, complexes, or single buildings. In addition to providing local power, they can prevent local blackouts and help restore larger parts of the grid. Such distributed energy resource adoption in low- and moderate-income communities and communities of color can help reduce local energy burdens and reduce pollution in these communities by providing a local, reliable source of clean energy. Utility-scale projects can also provide significant local tax benefits to

these communities. Hopefully, because of its unique circumstances, Puerto Rico will demonstrate to the world how a network of microgrids can be successfully deployed.^{xxxii} There are many urban locations, e.g., school campuses, brownfields, and empowerment zones, where utilities, private developers or public entities can build microgrids. For example, NYU has a microgrid connected to the Con Edison distribution system with the advantage that it can island from the distribution system during hurricanes.^{xxxiii} Similarly, the Marcus Garvey Village Microgrid has operated in New York since 2017.^{xxxiv} The Marcus Garvey project was funded by the New York City Energy Efficiency Corporation (NYCEEC)—a non-profit finance company.^{xxxv} This demonstrates the importance of obtaining financial support through various financing and investment mechanisms including green banks.

It is not necessary that all microgrids be owned by utilities. With proper regulatory and governmental support, microgrids can be developed by various parties including not only utilities but also public entities, non-profits, aggregators, and private developers. This is a fertile area for Public Private Partnerships.

F Opportunities in Nuclear

Because nuclear power does not produce carbon emissions^{xxxvi} and the U.S. gets approximately 20% of its total electric energy generation from aging nuclear plants^{xxxvii} it is important to discuss nuclear as a source of clean power. Also, like natural gas, the European Union is considering classifying nuclear as a transitional green energy source.^{xxxviii}

Although the cost of building new nuclear is prohibitive and siting is a legitimate issue, in states such as Maryland, power from a nuclear plant plays a significant role in providing affordable power. The Act authorizes \$6 billion to establish a civil nuclear credit program designed to preserve the existing nuclear fleet and prevent the premature shutdowns of nuclear

power plants. It is anticipated that this will help to preserve large amounts of carbon free electricity as well as many high-paying jobs.

Accordingly, further study should be given regarding how DE&I can be promoted in what has traditionally been an area dominated by white males—the population of which might be aging. At a minimum long-term STEM and workforce development programs should be developed in coordination with HBCUs and MSIs to begin the development of a pipeline. Also, means by which supplier diversity in the nuclear sector can be increased should also be explored.

*The National Urban League would like to thank H. Russell Frisby, Jr., The HRF Group, LLC., for his assistance in drafting this paper.

ⁱ Infrastructure Investment and Jobs Act Pub. L. 117-58 (“Infrastructure Bill”).

ⁱⁱ See E. Donald Elliott and Daniel C. Esty, *The End Environmental Externalities Manifesto: A Rights-Based Foundation for Environmental Law*, 29 NYU ENV’T L. J. 505, 511 (2021)

ⁱⁱⁱ The Afro-American at C2 April30, 2022 – May 6, 2022

^{iv} Donald Cravins, Jr. *21st Century Innovation in Energy: An Equity Framework* (2016) (“*Innovations Paper*”); Donald Cravins, Jr. and Gavin H. Logan, *The Digital Revolution: Electrification & Smart Communities The Benefits and the Barriers* (2019) (“*Digital Revolution Paper*”).

^v National Urban League Energy Plan #7

^{vi} *Id.* #5

^{vii} Pedro J. Pizarro, *Diversity, Equity, & Inclusion; Key to Our Clean Energy Future*, (Electric Perspectives (September/October 2021).

^{viii} *Digital Revolution Paper* at 3-4,

^{ix} *Help Wanted Diversity in Clean Energy* (2021).

^x *Id.*, at 3

^{xi} *Id.*

^{xii} Executive Order 14052 (November 15, 2021)

^{xiii} See *Smart Grid Today* (1/24/22)

^{xiv} <https://www.mdba.gov/minority-business-development-act-2021-0>.

^{xv} Interview with Andre J. Wallace, VP & Chief of Staff to the CAO, and Frank Kelly, Senior Director, Constellation Energy.

^{xvi} Exelon Newsroom, *Exelon Announces \$36 Million Equity Fund to Support Minority-Owned Business Growth* (October 27, 2021).

^{xvii} Conversation with Ho. Odogwu Obi Linton, Maryland Public Service Commissioner (7/5/2022)

^{xviii} Utility Dive, *As Biden plans EV charger rollout, location questions take the fore* (March 2, 2022).

^{xix} *Id.* *Major US utilities plan nationwide charging network anticipating 22M EVs by 2030*, (Dec. 8, 2021).

^{xx} *Digital Revolution Paper* at 5.

^{xxi} EV Charging Press Release (8/21/21).

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- xxii Joshua Linn and Wesley Look, *An Analysis of US Subsidies for Electric Buses and Freight Trucks*, Resources for the Future Issue Brief (January 2022).
- xxiii Executive Summary, BOSS Policy Brief 2021
- xxiv Statement of Marc Morial (April 27, 2022) <https://abc7chicago.com/chicago-urban-league-solar-energy-panels-carport/11797905/>
- xxv Interview with Andrew Wells, Head Workforce Development, Chicago Urban League.
- xxvi Innovations Paper at 6.
- xxvii *Id.*
- xxviii Progressive Policy Institute, *Memo to President-Elect Biden and Congress: Wind, Solar and Gas: Managing America's Clean Energy Transition*, p.2 (December 2020).
- xxix Richard Meyer, *The Value of Natural Gas*, American Gas Association—Natural Gas Markets Indicators (May 5,2020)
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