

**CLEAN ENERGY INFRASTRUCTURE AND THE
WORKFORCE TO BUILD IT**

HEARING
BEFORE THE
SUBCOMMITTEE ON ENERGY
OF THE
COMMITTEE ON ENERGY AND
COMMERCE
HOUSE OF REPRESENTATIVES
ONE HUNDRED SIXTEENTH CONGRESS
FIRST SESSION

—————
FEBRUARY 27, 2019
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Serial No. 116-10



Printed for the use of the Committee on Energy and Commerce
govinfo.gov/committee/house-energy
energycommerce.house.gov

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36-527 PDF

WASHINGTON : 2019

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CLEAN ENERGY INFRASTRUCTURE AND THE WORKFORCE TO BUILD IT

WEDNESDAY, FEBRUARY 27, 2019

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:30 a.m., in room 2322, Rayburn House Office Building, Hon. Bobby L. Rush (chairman of the subcommittee) presiding.

Members present: Representatives Rush, Peters, Doyle, McNerney, Tonko, Loeb sack, Butterfield, Schrader, Kennedy, Veasey, Kuster, Barragan, McEachin, O'Halleran, Blunt Rochester, Pallone (ex officio), Upton (subcommittee ranking member), Latta, Rodgers, Olson, McKinley, Griffith, Johnson, Bucshon, Flores, Hudson, Walberg, and Duncan.

Staff present: Jeffrey C. Carroll, Staff Director; Adam Fischer, Policy Analyst; Waverly Gordon, Deputy Chief Counsel; Rick Kessler, Senior Advisor and Staff Director, Energy and Environment; Brendan Larkin, Policy Coordinator; John Marshall, Policy Coordinator; Lisa Olson, FERC Detailee; Mel Peffers, Environment Fellow; Tim Robinson, Chief Counsel; Tuley Wright, Energy and Environment Policy Advisor; Bijan Koohmaraie, Minority Counsel, Consumer Protection and Commerce; Mary Martin, Minority Chief Counsel, Energy and Environment; Brandon Mooney, Minority Deputy Chief Counsel, Energy; and Brannon Rains, Minority Staff Assistant.

Mr. RUSH. The Subcommittee on Energy will now come to order, and the Chair recognizes—will the witnesses please take their seat at the table? Will the witnesses please take their seat at the table?

We want to welcome all of our witnesses to this inaugural hearing of the 116th Congress, and we are delighted to see all of the witnesses here.

The Chair now recognizes himself for 5 minutes.

OPENING STATEMENT OF HON. BOBBY L. RUSH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. RUSH. Once again, I would like to welcome everyone here today. I really want to, once again, welcome our witnesses. You brighten up the room here, and we certainly thank you for your attendance and your sacrificing your time.

I am truly excited to hold this morning's hearing focused on H.R. 1315, the Blue Collar to Green Collar Jobs Development Act. We have an excellent panel of majority and minority witnesses, who

represent me on the same diverse groups that this bill is designed to reach.

While I am eager to hear from all of our guests, please allow me this great pleasure to acknowledge Ms. Anne Pramaggiore, who is here representing one of the most forward-looking utilities in the Nation, Exelon, based out of one of the most forward-looking cities in the Nation, my great home city of Chicago, that only yesterday had an election, and for the first time in history nominated two African American women to be in the runoff for election as mayor of the city of Chicago.

I must say that right from the outset, I want to make it clear that the bill that we have before us today should be viewed as a work in progress.

I am pleased that so many stakeholders have reached out to my office, up to and including this very moment that this hearing is commencing. My objective is to continue to work with and incorporate constructive feedback from as many organizations that truly share my goal of putting Americans back to work.

And let me be as frank as possible. My primary and sole objective is exactly that: putting as many American citizens to work in good-paying energy and manufacturing jobs as humanly and legislatively possible. The substance of this bill has not changed since the bill was passed through the full committee and through the House—under Republican control I might add—with overwhelming bipartisan support over the last two Congresses.

However, what we have heard time and time again throughout these last few years is that we were not always able to truly help the very same individuals that this bill was designed to reach. Many potential candidates from low-income homes and minority communities, women who serve as heads of household, returning veterans, out-of-work coal and other energy workers, were not always able to take advantage of training programs.

These individuals have stressed to me that they needed assistance just to enroll in these facilities. Initially, many of these very same candidates were not able to leave one low-paying job or even give up their job searches simply because they couldn't afford to go through the training if they were not getting paid as they worked to advance their careers.

This is just the reality of many of the candidates that this bill is designed to reach, and this is also the reason why we needed to beef up this legislation with actual resources and assistances to help these American citizens. So I truly hope that moving forward we can, once again, for the third time, make this a bipartisan bill.

My office is eager, willing, and anxious to work with any Member on this subcommittee or beyond to address any legislative concerns and put forward legislation that will not—that will hit the mark and help put hundreds or even thousands of hardworking Americans back to work in good-paying jobs and careers.

But, once again, I want to thank all of our distinguished witnesses for being here today, and now I would like to call on my friend and colleague from my neighboring State, the great State of Michigan, Ranking Member Upton, for his opening statement.

[The prepared statement of Mr. Rush follows:]

PREPARED STATEMENT OF HON. BOBBY L. RUSH

I would like to welcome everyone here today. I am truly excited to hold this morning's hearing focusing on HR 1315, the Blue Collar to Green Collar Jobs Development Act.

We have an excellent panel of majority and minority witnesses who represent many of the same diverse groups that this bill is designed to reach.

While I am eager to hear from all of our guests, I must acknowledge Anne Pramaggiore, who is here representing one of the most forward-looking utilities in the Nation, Exelon, based out of one of the most forward-looking cities in the country, my great home city of Chicago.

Right from the outset, I want to make it clear that the bill we have before us today should be viewed as a work in progress.

I am pleased that so many stakeholders have reached out to my office, up to and including the moment that this hearing commenced.

My objective is to continue to work with and incorporate constructive feedback from as many organizations that truly share my goal of putting people to work.

And let me be as frank as possible, my primary and sole objective is exactly that, putting as many people to work in good-paying energy and manufacturing jobs as possible.

The substance of this bill has not changed since the bill was passed through the full committee and through the House, under Republican control I might add, with overwhelming bipartisan support the last two Congresses.

However, what we have heard time and time again throughout these last few years is that we were not always able to truly help the very same individuals that this bill was designed to reach.

Many potential candidates from low income homes and minority communities, women who serve as heads of households, returning veterans, out-of-work coal and other energy workers were not always able to take advantage of training programs.

These individuals have stressed to me that they needed assistance just to enroll in these facilities.

Additionally, many of these very same candidates were not able to leave lower paying jobs or even give up their job searches simply because they couldn't afford to go through training if they were not getting paid as they worked to advance their careers.

This is just the reality for many of the candidates that this bill is designed to help.

And this is also the reason why we needed to beef up this legislation with actual resources and assistance to help reach these individuals.

So, I truly hope that moving forward we can make this a bipartisan bill once again.

My office is eager and willing to work with any Member, on this subcommittee and beyond, to address any legitimate concerns and put forward legislation that will hit the mark and help put hundreds or even thousands of hardworking Americans back to work in good-paying jobs and careers.

Once again, I want to thank all of our distinguished witnesses for being here today.

Now I would like to call on my friend and colleague from the great State of Michigan, Ranking Member Upton for his opening statement.

OPENING STATEMENT OF HON. FRED UPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. UPTON. I like that "great State of Michigan," but even better I like being called your friend, because in fact we are. We have been very good friends for a long, long time and share many, many things together.

Mr. Chairman, I do thank you for holding this hearing to continue our efforts on the workforce development. This hearing marks the first in the Energy Subcommittee under your chairmanship, and I look forward to working very closely with you, and your staff, and Members on both sides of the aisle.

I want to welcome our newest Member on the Republican side, Cathy McMorris Rodgers, to our subcommittee.

Mr. Chairman, I am confident that we can continue our long history of bipartisan cooperation and set aside some of our differences. Working together, we have delivered some very big wins—some would call them huge—for the American people over the years, and I remain hopeful that we will continue in that tradition.

Since our first hearing is billed as a legislative hearing, I should note that under my chairmanship of the committee we strived for regular order. In fact, you will remember that we moved your workforce legislation in the 114th Congress to promote a 21st century energy and manufacturing workforce, with both background and legislative hearings and markups.

We worked together again in the last Congress, the 115th, to pass a bill a second time, the same bill a second time, by unanimous consent in the committee, and also on the House floor. Sadly, the Senate didn't get it done, but that doesn't mean that we can't keep trying.

I hope that I would take you at your word that this hearing doesn't start a precedent of rushing to move new legislation without thorough analysis and oversight. This new bill was just sprung on us last week, and we haven't had much of an opportunity to work with you. But I remain open-minded, and I have serious concerns that this legislation unfairly picks winners and losers and has the potential to waste valuable taxpayer dollars.

My colleagues and I on this side of the aisle were pleased to support your bill last Congress because it did take an all-of-the-above approach that recognized the benefits of reliable, affordable, and plentiful energy jobs in manufacturing competitiveness. We both made some compromise, and in fact we found a sweet spot.

I am afraid that this bill strays from our bipartisan agreement from last Congress. It appears that it simply recycles the failed Obama administration Green Jobs agenda by promising nearly a billion dollars of new spending to retrain workers for the so-called Green Jobs.

The record has shown that the Obama Green Jobs agenda did waste billions of dollars and failed to deliver on its promises. There were many lessons learned, and we should take our time to get this one right rather than repeat the mistakes of the past, and I look forward to working together on that.

I especially look forward to hearing from our witnesses today, so that we can better understand the needs and opportunities for expanding private sector workforce development initiatives to improve diversity in the energy and manufacturing industries. I believe that we both share a desire to expand opportunities for minorities, for women, and certainly our veterans, in the energy industry, although that we may differ on the strategy to accomplish that goal.

Today we are going to hear from witnesses representing veterans and women in the types of traditional energy jobs that would be unfairly excluded by the legislation before us. I would ask that you listen to the voices of those who work in nuclear, fossil, energy, and manufacturing industries and open this process up, so that in fact it is more transparent and inclusive.

We should also receive testimony from the Department of Energy and incorporate the lessons learned from the Green Jobs Program

before rushing to move this bill. I remain hopeful that these important workforce development issues don't get bogged down in partisan politics. As we have done in the past, when we give all sides an opportunity to participate and adhere to regular order, there is no limit in terms of what we can achieve.

The bipartisan bills we passed into law last Congress are prime examples. We streamlined the licensing process for renewable hydro power projects. We promoted zero emissions nuclear energy. We amended the Federal Power Act to provide more transparency on electric rates for consumers, and we advanced solutions to modernize our infrastructure and harden our grid.

There is a lot that needs to be done this Congress, and Republicans are certainly eager to go to work. We are going to continue to put consumers first in everything that we do as we propose solutions to encourage technological innovation and energy, ensure a sound regulatory environment, promote American workforce development, and foster free markets and competition.

With that, I look forward to working with you in this Congress, and I yield back the balance of my time. Thank you, my friend.

[The prepared statement of Mr. Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON

Thank you, Mr. Chairman for holding this hearing to continue our efforts on workforce development.

This hearing marks the first in the Energy Subcommittee under your chairmanship. I look forward to working closely with you and the new Members who have joined the subcommittee.

I would like to welcome our newest Member on the Republican side, Mrs. Cathy McMorris Rodgers of Washington.

Mr. Chairman, I am confident that we can continue our long history of bipartisan cooperation and set aside some of our differences. Working together, we've delivered some big wins for the American people over the years, and I remain hopeful that we'll continue in that tradition.

Since our first hearing is billed as a legislative hearing, I should note that under my chairmanship of the committee, we strived for regular order. In fact, you'll remember that we moved your workforce legislation in the 114th Congress, to promote a "21st Century Energy and Manufacturing Workforce" with both background and legislative hearings and markups. We worked together again in the 115th Congress to pass the bill a second time by unanimous consent in the committee and on the House Floor. Unfortunately, the Senate didn't get it done, but that doesn't mean we can't keep trying together.

I hope, and I would take you at your word, that this hearing doesn't start a precedent of rushing to move new legislation without thorough analysis and oversight. This new bill was just sprung on us last week, and we haven't had the opportunity to work with you.

I remain open-minded, but I have serious concerns that this legislation unfairly picks winners and losers, and has the potential to waste valuable taxpayer dollars.

My colleagues and I on this side of the aisle were pleased to support your bill last Congress, because it took a balanced, "all-of-the-above" approach that recognized the benefits of reliable, affordable, and plentiful energy jobs and manufacturing competitiveness. We both made some compromises, and we found the sweet spot.

I am afraid this bill abandons our bipartisan agreement from last Congress. Worse yet, it appears this bill simply recycles the failed Obama administration's Green Jobs Agenda by promising nearly a billion dollars of new spending to retrain workers for so-called "green collar" jobs.

The record has shown that the Obama Green Jobs Agenda wasted billions of dollars and failed to deliver on its promises. There were many lessons learned, and we should take our time to get this one right, rather than repeat the mistakes of the past.

As you may remember, President Obama's stimulus package included a program that sounds very similar to legislation before us today. The stimulus included a \$500 million Department of Labor-run program to train workers for green jobs, such

as installing solar panels or insulation in homes and buildings. As we found through committee oversight, the green jobs did not materialize and job placement had been much less than expected. Let's take our time to avoid the same mistakes.

I especially look forward to hearing from our witnesses today, so we can better understand the needs and opportunities for expanding private-sector workforce development initiatives to improve diversity in the energy and manufacturing industries. I believe we both share a desire to expand opportunities for minorities, women, and veterans in the energy industry, although we may differ on the strategy to accomplish that goal.

Today, we'll hear from witnesses representing veterans and women in the types of traditional energy jobs that would be unfairly excluded by the legislation before us.

I would ask that you listen to the voices of those who work in nuclear, fossil energy, and manufacturing industries and open this process up so that it's more transparent and inclusive.

We should also receive testimony from the Department of Energy and incorporate the lessons learned from the Obama Green Jobs program before rushing to move this bill.

I remain hopeful that these important workforce development issues don't get bogged down in partisan politics. As we've done in the past, when we give all sides an opportunity to participate and adhere to regular order, there is no limit to what we can achieve.

The bipartisan bills we passed into law last Congress are prime examples. We streamlined the licensing process for renewable hydropower projects, promoted zero-emissions nuclear energy, amended the Federal Power Act to provide more transparency on electric rates for consumers, and advanced solutions to modernize our infrastructure and harden our grid.

There's a lot that needs to be done this Congress, and Republicans are eager to get to work. We're going to continue to put consumers first in everything we do, as we propose solutions to encourage technological innovation in energy, ensure a sound regulatory environment, promote American workforce development, and foster free markets and competition.

With that, I look forward to working alongside you this Congress, and I yield back the balance of my time.

Mr. RUSH. Thank you, and your comments will be considered.

The Chair now recognizes Mr. Pallone, chairman of the full committee, for 5 minutes for his opening statement.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Chairman Rush. Today we are discussing Chairman Rush's Blue Collar to Green Collar Jobs Development Act of 2019. For many years, Chairman Rush has been Congress' champion for developing a more diverse and robust energy workforce, and I commend him for his longtime commitment to this important effort.

As we approach the end of Black History Month, this hearing is an important opportunity to look at the diversity gaps in the energy industry, why they are occurring, and what we can do to make the industry more inclusive. Minorities are significantly underrepresented in the science, technology, engineering, and math, or STEM, fields. African Americans and Hispanics represent 27 percent of the overall nationwide workforce, but only make up 16 percent of the STEM workforce.

And it is not just a question of minorities being underrepresented in STEM fields, there is also an earnings gap for minority workers who hold these jobs. The average African American STEM worker earns 81 percent of the salary of a white STEM worker, while a woman holding a STEM job makes just 72 percent of the salary of

the average man. So preparing workers for the energy jobs of the future through training and educational opportunities can help narrow this unacceptable gap.

Chairman Rush's legislation takes important steps to bridge the diversity gaps that currently exist in the energy sector. The bill establishes a comprehensive nationwide program at the Department of Energy to improve education and training for jobs in energy-related industries.

The legislation provides DOE new authority to offer direct assistance to schools, workforce development boards, and labor organizations, and the bill also establishes a grant program to provide funds to businesses to pay employees who are receiving training to work in the renewable energy, energy efficiency, or grid modernization sectors. And these are areas critically important in our efforts to combat climate change.

Chairman Rush has been working on this bill since the 113th Congress. Previous versions have enjoyed strong bipartisan support, including last Congress when a version of the bill passed the House on a voice vote. In the 114th Congress, Republicans included his bill in the base text of the North American Energy Security and Infrastructure Act, a broad energy bill introduced by then-full committee Chairman Fred Upton.

So I commend my colleagues on both sides of the aisle for recognizing the importance of this legislation and the issues it addresses. The energy workforce in our country is growing, particularly in the area of wind energy, energy efficiency, and grid modernization.

Our challenge is to ensure the appropriate training and educational opportunities are available to workers who can fill these jobs. And at the same time, we must develop policies to provide opportunities for minorities and unrepresented groups to expand their participation in the energy workforce.

It is also important that we ensure participation both to the traditional energy sector and the rapidly growing clean energy and efficiency sectors, and the goal is to have an energy workforce that reflects the demographics of the country as a whole, and this bill puts us on the pathway to achieving that objective.

So, again, I thank the chairman, and I yield back.

[The prepared statement of Mr. Pallone follows:]

PREPARED STATEMENT OF HON. FRANK PALLONE, JR.

Today, we're discussing Chairman Rush's "Blue Collar to Green Collar Jobs Development Act of 2019." For many years, Chairman Rush has been Congress' champion for developing a more diverse and robust energy workforce, and I commend him for his longtime commitment to this important effort.

As we approach the end of Black History Month, this hearing is an important opportunity to look at the diversity gaps in the energy industry, why they are occurring and what we can do to make the industry more inclusive. Minorities are significantly underrepresented in the science, technology, engineering and math—or STEM—fields. African Americans and Hispanics represent 27 percent of the overall nationwide workforce, but only make up 16 percent of the STEM workforce. And it is not just a question of minorities being underrepresented in STEM fields—there is also an earnings gap for minority workers who hold these jobs. The average African American STEM worker earns 81 percent of the salary of a white STEM worker, while a woman holding a STEM job makes just 72 percent of the salary of the average man. Preparing workers for the energy jobs of the future through training and educational opportunities can help narrow this unacceptable gap.

Chairman Rush's legislation takes important steps to bridge the diversity gaps that currently exist in the energy sector. The bill establishes a comprehensive, nationwide program at the Department of Energy (DOE) to improve education and training for jobs in energy-related industries. The legislation provides DOE new authority to offer direct assistance to schools, workforce development boards and labor organizations. The bill also establishes a grant program to provide funds to businesses to pay employees who are receiving training to work in the renewable energy, energy efficiency or grid modernization sectors. These are areas critically important in our efforts to combat climate change.

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The energy workforce in our country is growing, particularly in the areas of wind energy, energy efficiency and grid modernization. Our challenge is to ensure the appropriate training and educational opportunities are available to workers who can fill these jobs. At the same time, we must develop policies to provide opportunities for minorities and other underrepresented groups to expand their participation in the energy workforce. It's also important that we ensure participation in both the traditional energy sector and the rapidly growing clean energy and energy efficiency sectors. The goal is to have an energy workforce that reflects the demographics of our country as a whole, and this bill puts us on a pathway to achieving that objective.

Thank you. I yield back.

Mr. RUSH. I want to thank the chairman of the full committee. And the Chair now recognizes Mr. Hudson, who has been given Mr. Walden, the ranking member on the full committee's time. So the Chair now recognizes Mr. Hudson of North Carolina for 5 minutes for his opening statement.

OPENING STATEMENT OF HON. RICHARD HUDSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NORTH CAROLINA

Mr. HUDSON. Thank you, Mr. Chairman. And, first, let me say congratulations to you on your chairmanship of this subcommittee. I am optimistic that together we can do big things.

And thank you, Mr. Chairman, for holding this hearing on energy workforce development, an important issue for me and the constituents I represent back home in North Carolina.

I would also like to thank Mr. James Simpson, a 25-year Marine Corps veteran and North Carolinian, for appearing before us today on behalf of Pike Enterprises, who is headquartered in Mount Airy, North Carolina, and has operations all across the country.

Mr. Chairman, as has already been mentioned, this is the first Energy Subcommittee hearing of this Congress, and we are starting with a legislative hearing on a bill that you and I have worked together on over the past two Congresses. I was disappointed to learn that Republicans were cut out of the process this time around, and the bill was reintroduced with some major changes, including a new title and hundreds of millions of dollars in new spending.

Mr. Chairman, the bill text was released last Friday and has not been made widely available. This is not regular order, and it is not the way I would have hoped to handle this bill, given our history of working together. I was also surprised to learn that the new lan-

guage is not all of the above. In fact, it excludes fossil, nuclear, and manufacturing altogether.

We have worked hard to make sure the bills the last two Congresses were bipartisan, all of the above, and inclusive of all under-represented groups in the energy industry, including minorities, women, and veterans. This new version falls well short of the agreement we have had in the last two Congresses.

I look forward to working closely with you. I respect you, Mr. Chairman, and I trust you. But because Republicans were not included on this new draft, I am afraid we are not putting our best foot forward. This is a legislative hearing, so we should also have an opportunity to hear from the appropriate Department of Energy representatives on their workforce development initiatives to ensure that this legislation doesn't unfairly pick winners or losers or add new layers of duplicative programs.

In addition, this legislation would amend the DOE Organization Act and establish a new office within the DOE. These are significant actions that warrant examination through a full and complete legislative process. Even if the way we got here today is disappointing, I will try to keep an open mind because we owe it to our constituents to put aside our differences and work together.

With that said, I look forward to receiving testimony from our witnesses today and gathering feedback from the Department of Energy in additional legislative hearings. If you are willing, as you said in your opening statement, Mr. Chairman, to make this a bipartisan effort, I would also look forward to offering constructive solutions to get this bill back on track.

I thank you, Mr. Chairman, and I yield back the balance of my time.

Mr. RUSH. I want to say to Mr. Hudson, I look forward to working with you. And I want to, just for the record to be clear, the staffs on the Republican side received this copy of the bill last Wednesday, not Friday. So we wanted to give you ample time to prepare for this hearing, and so it was last Wednesday.

The Chair would like to remind Members that, pursuant to committee rules, all Members' opening statements shall be made part of the record.

And now, once again, it is my great pleasure and distinct honor to introduce our diverse panel of witnesses for today's hearing. And they are not in—well, I am going to start with our—from my left and your right, Mr. Gilbert G. Campbell, III, who is the cofounder of Volt Energy. And seated next to Mr. Gilbert is Ms. Katie Walthall Mehnert, the founder and chief executive officer of Pink Petro and Experience Energy. I think I got that right.

And then next to Ms. Mehnert is Ms. Vien Truong, who is the president of Dream Corps, all right? And next to Ms. Truong is Mr. James Simpson, who is the manager of Military Talent Acquisition at Pike Enterprises, LLC.

And then next is Ms. Leticia Colon de Mejias, who is the chief executive officer of the Energy Efficiencies Solutions, LLC. And, finally, once again, Ms. Anne Pramaggiore, the senior executive vice president and CEO of Exelon Utilities, which is headquartered in my home State of Illinois.

And now we will have—first, I want to thank all of our witnesses for joining us today, and we look forward to your testimony. At this time we will now recognize each witness for 5 minutes to provide an opening statement.

Before we begin, I would like to explain the lighting system. In front of you is a series of lights. The lights will initially be green at the start of your opening statement. The light will turn yellow when you have 1 minute remaining. Please begin to wrap up your testimony at the point of the yellow light. The light will turn red when your time expires.

Our first witness today is Mr. Gilbert G. Campbell, III, the co-founder of Volt Energy. Mr. Campbell, you have 5 minutes for your opening statement.

STATEMENTS OF GILBERT CAMPBELL, COFOUNDER, VOLT ENERGY; KATIE WALTHALL MEHNERT, FOUNDER AND CHIEF EXECUTIVE OFFICER, PINK PETRO AND EXPERIENCE ENERGY; VIEN TRUONG, PRESIDENT, DREAM CORPS; JAMES SIMPSON, MANAGER, MILITARY TALENT ACQUISITION, PIKE ENTERPRISES, LLC; LETICIA COLON de MEJIAS, CHIEF EXECUTIVE OFFICER, ENERGY EFFICIENCIES SOLUTIONS, LLC, AND POLICY COCHAIR, HOME PERFORMANCE COALITION; AND ANNE R. PRAMAGGIORE, SENIOR EXECUTIVE VICE PRESIDENT, EXELON CORPORATION, AND CHIEF EXECUTIVE OFFICER, EXELON UTILITIES

STATEMENT OF GILBERT CAMPBELL

Mr. CAMPBELL. Chairman Rush, Ranking Member Upton, and members of the committee, I am truly honored to be here today to testify on the Blue Collar to Green Collar Jobs Development Act of 2019.

My name is Gilbert Campbell. I am the cofounder of Volt Energy, a national renewable energy development firm that finances, develops, and builds solar energy, micro grid, electric vehicle charging station projects for governmental, educational, commercial, and nonprofit institutions.

Our mission as a company is to uplift communities through the opportunities and benefits that are provided by clean technology. Some of our notable clients include The Cheesecake Factory, Subaru, Pepco, Howard University, Wake Forest University, KIPP Charter Schools, and the District of Columbia Government.

We are at an exciting time in American history where our energy infrastructure is being modernized real time by clean technology. America's transition to a cleaner, advanced, and more resilient energy infrastructure is a key driver of job growth that will forever change the fabric of this wonderful nation.

The renewable energy sector currently employs 770,000 people, roughly the same as the U.S. telecommunications industry. Solar and wind jobs outnumber coal and gas jobs in 30 States, including the District of Columbia. Last year, energy storage jobs surged to over 90,000. Grid modernization efforts have created more than 55,000 jobs, and there are 174,000 Americans who develop and manufacture electric vehicles currently.

As you can see, clean energy is one of our Nation's fastest growing sectors, and the transition from blue collar jobs to green collar jobs should not be viewed as a blue issue or Democratic issue, or a red or Republican issue. Rather, it should be viewed as a red, white, and blue opportunity for our Nation to modernize our energy infrastructure while providing good-paying jobs and wealth creation opportunities for all Americans.

I am a strong supporter of this bill for the following reasons. Number 1, in order to achieve our clean energy goals, we need a talented, trained, and diverse workforce. Number 2, given our Nation's history, we need to remedy the disproportionate negative impact of energy policies on diverse communities and double down our investments in those communities.

We have already seen the impact of these policies nationally, and this bill will enhance and scale the impactful efforts to ensure that all Americans benefit from the growth of clean energy.

In order for us to accomplish the goals set forth in this bill, it is critical that we make investments in workforce development training through STEM programs that cultivate the untapped but abundant talent that resides in our underrepresented communities and our rural communities.

As I mentioned before, we also must be honest that our country's aging energy infrastructure was built at the expense of minority and rural communities. Our country has picked losers. For example, studies show that 71 percent of African Americans live in counties that violate Federal air pollution standards, and nearly 70 percent of African Americans live within 30 miles of a coal power plant.

African American children are 4 times more likely to be hospitalized for asthma, and 7.1 times more likely to die from asthma than white children.

While the coal industry is rapidly declining, the incidences of premature deaths continue to rise, amounting to over 50,000 deaths per year. As we transition to a cleaner infrastructure, it is only equitable that minorities, women, veterans, the disabled, returning citizens, and other marginalized Americans must be given the opportunity to thrive in a clean energy economy that received \$333.5 billion in global investments in 2017.

Here in the District of Columbia, Mayor Bowser and regional utilities Pepco, WGL Energy, and others, have supporting things like the DC Infrastructure Academy, where the mission is to train a diverse and underrepresented workforce.

Additionally, I serve on the board of the Energy Advisory Board of the Fauntery Community Enrichment Center that serves low-income residents in DC. In a community stricken by extreme poverty, high unemployment, and high incarceration rates, we were able to launch a solar training program, enrolled 71 students, but more importantly, employed 48 of those students into full-time jobs.

My company is also developing numerous solar installations at Howard University, one of our Nation's most prominent historically black colleges and universities. But we are also working with each school and university to make sure our future leaders and students are learning the career paths in alternative energy.

In closing, I support this bill because it would help us to achieve our clean energy goals and restore our standing as a global leader in energy, remedy the wrongs of our past, and continue to enhance the lives of all Americans around the country.

Thank you for my time.

[The prepared statement of Mr. Campbell follows:]

**Testimony of Gilbert Campbell
Co-Founder
Volt Energy**

**Committee on Energy and Commerce
Hearing on the Blue Collar to Green Collar Jobs Development Act of 2019**

February 27, 2019

Chairman Rush, Ranking Member Upton, and members of the Committee, I am honored to be invited to testify on the *Blue Collar to Green Collar Jobs Development Act of 2019* (the “Bill”). My name is Gilbert Campbell and I am the co-founder of Volt Energy, a clean energy development firm that finances and develops solar projects, electric-vehicle charging stations, and micro grid solutions for commercial, governmental, educational and non-profit institutions. Volt Energy’s mission is to uplift communities through the opportunities and benefits provided by clean technology. Volt’s notable clients include: The Cheesecake Factory, Subaru, Pepco, Howard University, Wake Forest University, KIPP DC, and the District of Columbia Government.

We are at an exciting time in American history, where our energy infrastructure is being modernized by clean technology. America’s transition to a cleaner, technologically advanced, and resilient energy infrastructure is a key driver of job creation and growth, that will forever change the fabric of this nation. The renewable energy sector employs 770,000 people, roughly the same as the U.S. telecommunications industry. Solar and wind jobs outnumber coal and gas jobs in 30 states, including the District of Columbia. Last year, energy storage jobs surged to over 90,000, grid modernization efforts have created more than 55,000 jobs, and there are 174,000 Americans who develop and manufacture electric vehicles. As you can see, the clean energy sector is one of our nation’s fastest growing sectors and the transition from blue collar to green collar jobs should not be viewed as a blue issue or a red issue, rather it should be viewed as a red, white, and blue opportunity for our nation to modernize our energy infrastructure while providing good paying jobs and wealth creation opportunities for all Americans.

I am a strong supporter of the Bill, for the following reasons:

- 1) In order to achieve our clean energy goals, we need a talented, trained and diverse workforce.
- 2) Given our nation's history, we need to remedy the disproportionate negative impact of energy policies on diverse communities and double down on our investment in those communities.
- 3) We have already seen the impact of these policies nationally and the Bill will enhance and scale these impactful efforts to ensure that all Americans benefit from the growth of clean energy.

Private-public partnerships have been the primary driver of new solar, wind, geothermal and biomass projects to power our country's emerging clean energy infrastructure, along with investments in new transmission, energy storage, micro grid, energy efficiency, and electric transportation systems. We need to invest in all of these opportunities as a country since a primary goal of climate legislation must be to create jobs here in the United States. In order to accomplish this goal we must make investments in workforce development training through STEM programs that cultivate the untapped but abundant talent that reside in the under-represented communities in urban and rural America.

We also must be honest that our country's aging energy infrastructure was built at the expense of minority and rural communities. For example, studies show that 71 percent of African-Americans live in counties that violate federal air pollution standards and nearly 70 percent of African-Americans live within 30 miles of a coal-fired power plant. African-American children are 4 times more likely to be hospitalized for asthma, and 7.1 times more likely to die from asthma than white children. Hispanics are also 165 percent more likely to live in counties with unhealthy levels of power plant pollution than non-Latino whites. Another example lies within rural America in the coal industry. While the coal industry is rapidly declining, the incidences of premature deaths continue to rise, amounting to over 50,000 deaths per year. As we transition to a cleaner energy infrastructure, it is only equitable that minorities, women, veterans, the disabled, returning citizens, and other marginalized Americans must be given the opportunity and training to thrive in the clean energy economy that received \$333.5 billion in global investment in 2017.

This Bill will positively impact Americans and there are plenty of success stories all across the country that highlight how this Bill will further enhance this transition from blue collar to green collar jobs. The February 24, 2019 edition of the Washington Post, featured the story of a soybean farmer in Illinois who wants to convert a portion of his 6,500 acres of land typically dedicated to soybeans and corn to a revenue generating solar farm. He anticipates that his small conversion would produce earnings three times his normal crop yield.

Here in the District of Columbia, Mayor Muriel Bowser and regional utilities Pepco, WGL Energy and others are supporting the DC Infrastructure Academy whose mission is to train a diverse and under-represented workforce to fill the current need for skilled labor in the electric and natural gas industry as well as the emerging renewable markets. I also serve on the Energy Advisory Board of the Faunteroy Community Enrichment Center (FCEC) that serves low-income residents of DC. In a community stricken by extreme poverty, high unemployment and high incarceration rates, we were able to launch a solar training program, enroll more than 71 students, and employ 48 of those students into full time jobs with an average wage of \$18 per hour.

My company, Volt Energy, is currently developing numerous solar installations at Howard University, one of our nation's oldest and most prominent historically black colleges and universities. We have also partnered with Howard to ensure that students at all schools (i.e. business, law, engineering, communications, etc.) are gaining a first hand understanding of the numerous career paths in clean energy.

In closing, I support the Bill because it will help us to achieve our clean energy goals and restore our standing as a global leader in energy, remedy the wrongs of our past and continue to enhance the lives of Americans all around the county.

Mr. RUSH. I now recognize Ms. Mehnert for 5 minutes.

STATEMENT OF KATIE WALTHALL MEHNERT

Ms. MEHNERT. Mr. Chairman, Ranking Member Upton, committee members, and fellow witnesses, my name is Katie Mehnert, and I am the founder and CEO of Pink Petro and Experience Energy. It is an honor here today to be with you to have my 8-year-old daughter, Ally Rees Mehnert, present to see what is possible for women in American.

After two decades of working for global oil and gas companies, notably Shell and BP, in safety, environment, and culture change, I left the corporate path to become an entrepreneur to fill unmet needs I saw in our workforce.

Pink Petro is working on four fronts to address the gap. We help women inside the sector network to understand career paths and connect to role models. We funded the nonprofit mentoring program, Lean In Energy, to provide mentors for women across the energy value chain. We are marketing the energy industry through personal storytelling, career opportunities on our Experience Energy careers site, with the aim to attract new recruits, women, minorities, and millennials for all forms.

We help companies to shape culture by bringing peers together to learn from each other. My company and our community of members believe that it is critical we bring all forms of energy and talent together to look at the workforce of the future to make necessary investments to position America to take a leading role in the global energy transition.

I launched Pink Petro in 2015 amidst a sharp drop in crude prices. Our community connects oil and gas members to share around best practices and storytelling. We have a Web site, we have an app, and we also have a global corporate Community Council which provides a neutral platform for dialogue and actions to address gender equality and inclusive culture.

In January of 2016 when oil plummeted to \$29, the World Economic Forum and 22 oil and gas and energy CEOs publicly published a call to action to end the gender gap. Pink Petro gathered stakeholders and prepared a response and action plan for consideration that you can look at on our Web site.

After extensive research, we determined that oil and gas is not the only part of the sector with projected job growth, as well as gender and minority gaps. We are extending our Community Council presently to connect with other energy firms in utilities, renewables, and diversity organizations to develop a wider network of resources to address these gaps together.

In 2017, when we launched Experience Energy, a careers site geared at helping energy companies to connect to diverse candidates, my thought and vision is we need to educate new recruits on the exciting benefits and social impact one can achieve in a career in energy.

In 2018, in an effort to address those mentoring needs at scale, Pink Petro, Hess Corporation, Emerson, FedEx Corporation, Worley Parsons, and Vantage Energy supported the formation of a nonprofit, Lean In Energy, which uses technology to match mentors across the world and across all forms of energy.

This work is all addressing opportunities the industry faces in creating a diverse workforce. First, we need to make the industry a more highly sought-after career choice. Billions of people are being lifted out of low incomes and helping to drive economic growth and the demand for energy. And the transition to a lower carbon energy system is opening up a wide range of economic possibilities. These are all reasons to involve women and underrepresented populations.

Second, we need to increase understanding around the diversity of jobs and skill-sets. There is a mind-set in America that everyone needs a 4-year college degree. While that is desirable, it is not necessary. Workforce development programs in welding, electronics, technical operations, safety, go unfilled because of the perception of these roles.

The Blue Collar to Green Collar Jobs Development Act of 2019 recognizes these needs and the government role. I agree with the recommendation to language develop a comprehensive and detailed understanding of the workforce skills needed in the energy-related industries.

Finally, diversity is critical to energy, but we need to be inclusive and work across all forms and all people. It truly is the use case for diversity and inclusion—the energy sector.

I am very happy that you, as leaders in Congress, are looking to take action and welcome any questions you have. However, for us to accelerate this work, we must work together, join forces, all aspects of energy and all people to progress.

Thank you for having me a part of this discussion.
[The prepared statement of Ms. Mehnert follows:]

Testimony

Katie Walthall Mehnert, CEO and Founder of Pink Petro & Experience Energy

Before the U. S. House of Representatives

Committee on Energy and Commerce Subcommittee on Energy

Hearing on **“Clean Energy Infrastructure and the Workforce to Build It”**

Wednesday February 27, 2019

BACKGROUND

Dear Chairman Rush, Ranking Member Upton, Committee Members and fellow witnesses:

My name is Katie Mehnert and I'm Founder and CEO of Pink Petro. It's an honor to be here today to testify before this hearing and to have my 8-year old daughter, Ally Rees Mehnert present to see what's possible for women in America.

After two decades working for global oil and gas companies, notably Shell and BP in safety, environment and culture change, I left the corporate path to become an entrepreneur to fill unmet needs I saw in our workforce.

Pink Petro is working on four fronts to address the gender gap

- We help women inside the sector network to understand career paths, connect to role models, and to share their own experiences, so they can advance to their full potential.
- We funded the non-profit mentoring program, Lean In Energy that leverages software technology to pair mentors for women in energy across the value chain.
- We are marketing the energy industry through personal storytelling and career opportunities on our Experience Energy careers site with the aim to attract new recruits, women, minorities and millennials.
- We help companies to shape culture by bringing peers together to learn from each other.

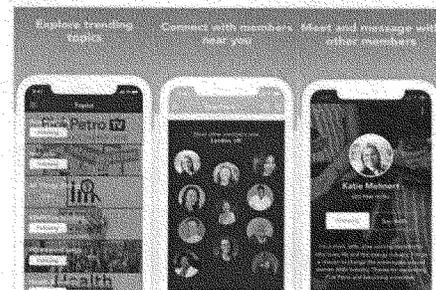
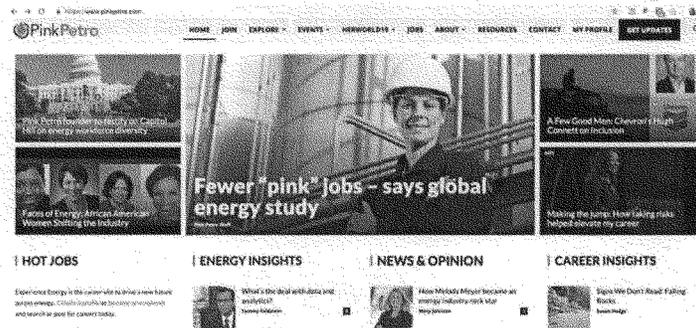
My company and our community of members believe that it is critical we bring all forms of energy and talent together to look at the workforce of the future to make the necessary investments to position America to take a leading role in the global energy transition.

OIL AND GAS INDUSTRY / INTERNAL FOCUS

Pink Petro launched in 2015 amidst a sharp drop in crude prices. Our digital community connects oil and gas members to knowledge share around best practices and storytelling. The website shares the stories of role models, career resources, jobs, continuing education and diversity research. Corporate and academic members provide a delegate to sit on our Global Community Council which provides a neutral platform for dialogue and actions to address gender equality and inclusive culture.

On an individual level, we keep members connected through a desktop and mobile app that allows for peer development, coaching, networking and knowledge sharing.

EXTERNAL WEBSITE



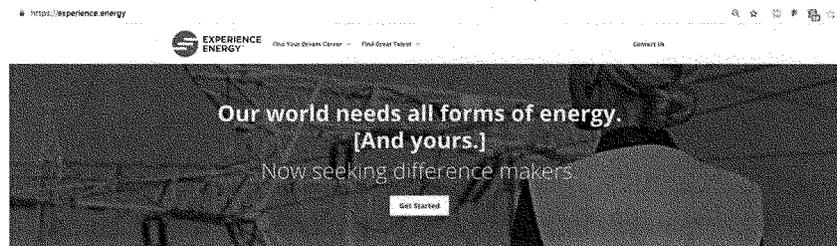
PRIVATE MEMBER APP

In January 2016 when oil plummeted to \$29 USD, The World Economic Forum and 22 energy and oil and gas CEOs published a Call to Action to End the Gender Gap¹. Pink Petro gathered stakeholders and prepared a response and action plan for consideration².

External Focus

After extensive research we determined that oil and gas is not the only part of the sector with projected job growth, as well as gender and minority gaps. We're extending the Community Council to connect with other energy firms in utilities, renewables and diversity organizations to develop a wider network of resources to address these gaps together.

In 2017, Pink Petro launched **Experience Energy**³, a careers site geared at helping energy companies connect to diverse candidates. My vision is to educate new recruits on the exciting benefits and social impact one can achieve in energy.



In 2018, in an effort to address growing mentoring needs at scale, Pink Petro, Hess Corporation, Emerson, FedEx Corporation, WorleyParsons and Vantage Energy

¹ [WEF Call to Action to End the Gender Gap signed by 22 oil and gas CEOs](#)

² [Pink Petro Community Response to WEF Call to Action, November 2016](#)

³ [Experience Energy Careers Website](#)

supported the formation of a non-profit organization **Lean In Energy**⁴. Utilizing **Chronus**⁵ Mentoring technology to match mentors, Lean In Energy has matched mentoring groups across oil and gas, utilities, and renewables in the US, Europe and some parts of the Far East. The organization is presently exploring ways to resource itself through returnship programs offered by major universities across the USA.

OPPORTUNITIES

This work is addressing three opportunities the industry faces in creating a diverse and inclusive workforce.

First, we need to make the industry a more highly sought-after career choice.

Energy underpins everything we do. There's a strong correlation between human development and energy consumption⁶, however there is a misperception of its positive impact on society. It's an exciting time, however. Billions of people are being lifted out of low incomes, helping to drive economic growth and the demand for energy. And the transition to a lower-carbon energy system is opening up a wide range of economic possibilities. These are all reasons we need to involve women and underrepresented populations in the workforce.

Second, we need increased understanding around the diversity of jobs and the skillsets needed.

There is a mindset in America that everyone must have a 4-year college degree, which is desirable but not necessary. Workforce development programs in skills like welding, electronics, technical operations and like go unfilled because there is a perception that they are lower status roles despite offering well-paying careers. Companies need a wide

⁴ [Lean In Energy Website](#)

⁵ [Chronus Matching Site](#)

⁶ [2040 Energy Outlook, BP](#)

range of talent. The skills of the energy workforce for tomorrow are not the same as they were in the past. As the industry moves into the transition, new ways of working and new technologies like artificial intelligence, drones, big data, robotics and blockchain are play a role in the jobs of the future.

The Blue Collar to Green Collar Jobs Development Act of 2019 recognizes theses needs and the government's role. I agree with the recommendation to language develop a comprehensive and detailed understanding of the workforce skills needs of energy-related industries, and job opportunities in such energy-related industries, by State and by region; and sharing this information with the public in an annual report on numbers of jobs and diversity within the energy industry. We need to make energy careers visible, well understood, and attractive.

Finally, diversity is critical to energy, but we need to be inclusive and work together across all forms and all people.

As I explained to **CNBC**⁷ and **Barron's**⁸, our economy and our nation stands to gain tremendously from having greater diversity and inclusion in energy. The time to act is now. With the best and the brightest coming together in a diverse and inclusive energy workforce America has the opportunity to lead in the global energy transition. However, for us to accelerate this work, we must work together and join forces, all aspects of energy and all people to progress.

I'm very happy that you, as leaders in Congress, are looking to take action and welcome any questions you have. Thank you for having me a part of this conversation.

Respectfully submitted,

Katie Walthall Mehnert, CEO & Founder, Pink Petro & Experience Energy

⁷ [Just 15% of the oil and gas workforce is female – these women want to change that](#) – CNBC, January 2019

⁸ [The Financial Case for Hiring More Women in Energy](#) – Barron's, January 2019

Mr. RUSH. I want to thank you, Ms. Mehnert. And is Alice in the room? Is Alice——

Ms. MEHNERT. Ally.

Mr. RUSH. Ally. Is she in the room? I want to recognize her.

Ms. MEHNERT. She is sleeping.

[Laughter]

Mr. RUSH. She is sleeping. OK.

Ms. MEHNERT. She actually was having a meltdown right as we were starting, so I was——

Mr. UPTON. Maybe we should have a few more opening statements over there.

[Laughter]

Mr. RUSH. Absolutely. All right.

Now we will recognize Ms. Truong.

STATEMENT OF VIEN TRUONG

Ms. TRUONG. Good morning, everyone. Thank you for having me. Thank you, Mr. Chairman, and members of the subcommittee, for this hearing.

My name is Vien Truong. I am the president of the Dream Corps and here on behalf of Green For All, our national initiative. We are working to build an inclusive green economy strong enough to lift people out of poverty. We are facing two major crises in this country: poverty and pollution.

And for too long we thought about and addressed these issues separately, developing programs and tackling our economic and environmental issues in separate silos, even though they have been deeply connected, and that has been a problem because low-income communities are hit first and worst by pollution. It is for many reasons: our proximity to pollution, our increased vulnerability to climate disasters, our increased cost because of increased living resulting from scarce resources.

It is for this reason that working families stand to gain the most from moving towards a cleaner and more sustainable economy. As a mom of 6-year-old twins, I have fought for policies and programs that have prioritized families, the economy, and the environment for over a decade.

Our team at Green For All have launched a Moms Mobilize campaign, where we mobilize hundreds of thousands of moms to lobby to protect the Environmental Protection Agency, to unify the country around the health, safety, and security of our kids and our families and our communities.

Thankfully, the EPA's budget was secured because people across this country stood up, and we did so because we understood the EPA's main reasons to protect to health and children, our topic priority, but also that protecting the environment and supporting our economy are not contradictory.

The clean energy sector is a pool for potential job growth, larger than any other in the United States. As we heard earlier from Mr. Campbell, we can already see this growth in both the solar and the wind power industries. Solar panel installations and wind turbine technician jobs are increasing at a faster rate in this country than most others.

According to the International Renewable Energy Agency, jobs in the solar industry increased by 24 percent between 2015 and 2017 alone, while the rest of the economy experienced only a 2 percent job growth rate. In 2017, the solar employment expanded 17 times faster than any other industry.

If we invest in clean and renewable energy, we can and will protect this planet, our families, our future, and we can revamp our economy at the same time, creating millions of jobs. Investing in clean and renewable energy means investing in a new job market, including jobs to retrofit existing buildings, meet increased energy efficiency standards of new buildings, and install and manufacture solar panels, wind turbines, and other needed materials.

These jobs have the potential to pay good wages, provide benefits, that helps working families meet ends, and to help improve health outcomes by advancing renewable and energy efficiency sectors.

These new jobs have the potential to employ workers in places where bias has been prevalent, where we see exclusion and sustained disinvestment has been producing communities with concentrated poverty.

To reach our goals of a clean energy economy, we have to challenge the two problems of job access and job quality. We must ensure that our investments result in robust, fulfilling, and career-oriented job pathways. We must take proper measures to prevent low quality, seasonal, or temporary jobs that fail front-line communities and fossil fuel workers, too.

A transition to a clean energy economy has to mean a just transition, including uplifting those most impacted by fossil fuels and most in need of well-paying, secure jobs.

Finding and training the workers are going to have to begin long before the jobs are filled. That process must begin with our young people, our students. We must begin developing the job skills and a career pathway now, and that is what this bill will help to do. Helping to make sure that traditional and nontraditional educational platforms, ensuring that energy-oriented skill sets become fiscally, educationally, and culturally accessible.

Apprenticeship and internship programs have to provide opportunities for young people to begin these job skills processes early and to gain mentors, compensation, and career visioning in the process.

This bill is going to help us do that by outreaching to minority-serving institutions, nonprofit organizations, and State and local organizations at the same time.

I am here because we have to begin transitioning to a new energy economy. And as we do so, we must develop and bring on new communities at the same time. Our communities depend on across the country.

We are facing economic and environmental peril, and this is the time for bold leadership, for us to take America forward to a more cleaner and sustainable future, and supporting this Act will help to do so.

Thank you, Mr. Chairman.

[The prepared statement of Ms. Truong follows:]

#GREEN FOR ALL

Vien Truong, Esq.
President, the Dream Corps / Green For All
Oakland, CA

Testimony before the House Committee on Energy and Commerce
Subcommittee on Energy

February 27, 2019

Good morning and thank you, Chairman Rush and members of the Subcommittee on Energy, for this hearing to discuss "Clean Energy Infrastructure and the Workforce to Build It."

My name is Vien Truong, President of the Dream Corps and here on behalf of Green For All, a national initiative dedicated to building an inclusive, green economy strong enough to lift people out of poverty. We are here in support of "Blue Collar to Green Collar Jobs Development Act of 2019."

We are facing two major crises in our country: poverty and pollution. For too long, we've thought about and addressed these issues separately. Developing programs and policies to tackle our economic and environmental problems in different siloes - even though they are deeply interconnected. Low income communities are hit first and worst by pollution. This is for many reasons - from their proximity to pollution, to their increased vulnerability to climate disasters, the increased costs of living resulting from scarce resources. It is for this reason that working families stand to gain the most from moving towards a cleaner and more sustainable economy.

I have fought for policies and programs that prioritized families, the economy, and the environment for over a decade. Our team at Green For All launched our Moms Mobilize campaign, lobbying congress to maintain the EPA's funding, and unify the country around the health, safety, and security of our communities. And thankfully, 100% of EPA funding was secured, because people stepped up to stop this attack on our public health.

We worked with Congress to protect the EPA funding for two reasons: first, the health and safety of our children is a top priority; and second, protecting the environment and supporting our economy are not contradictory. The clean energy sector is a pool of potential job growth, larger than any other in the United States.

We can already see this growth in both the solar and wind power industries. Solar panel installation and wind turbine technician jobs increasing at the fastest rate in the market.

According to the International Renewable Energy Agency, jobs in the solar industry increased by 24% between 2015 and 2017 alone, while jobs in the rest of the economy experienced only a 2% growth rate. In 2017, solar employment expanded at 17 times the rate of any other industry.

If we invest in clean and renewable energy, we can and will protect our planet, our families, and our future, and revamp our economy in the process, creating millions of jobs. Investing in clean and renewable energy means investing in a new job market, including jobs to retrofit existing buildings, meet increased energy efficiency standards on new buildings, and install and manufacture solar panels, wind turbines and other materials needed for improved energy efficiency and renewable energy. These new jobs have the potential to pay good wages, provide benefits that help families make ends meet, and improve health outcomes by advancing renewable energy and energy efficiency.

These new jobs also have the potential to employ workers in places where racial bias, exclusion, and sustained disinvestment have produced communities of concentrated poverty.

To reach our goal of a clean energy economy, we must consider two challenges that lie ahead of us: job access and job quality. We must ensure our investments result in robust, fulfilling, and career-oriented job pathways, and take the proper measures to prevent low-quality, seasonal, or temporary jobs that fail frontline communities and fossil fuel workers along the way. A transition to a clean energy economy means a just transition, uplifting those most impacted by fossil fuels and in need of well-paying, secure jobs.

Finding and training workers must begin long before we are ready to fill jobs; that process can and must begin when our youth -- our students -- begin to develop job skills and envision career pathways. That means working both with traditional and non-traditional educational platforms, ensuring energy-oriented skill-sets become fiscally, educationally, and culturally accessible. Apprenticeship and internship programs provide the opportunities for young people to begin these skills-developing processes early on, and gain mentors, compensation, and career visioning in the process. A clean energy economy must include long-term visions and career ladders for potential employees, establishing a stable, secure job market that allows for personal and professional growth.

The workforce bill's emphasis on outreach to minority-serving institutions allows for students, young people, and underserved community members to participate in multiple forms of clean energy engagement, and thereby sustainably implement clean energy practices. Supporting a clean energy economy means starting with the folks most impacted and ensuring that they are the ones to make an impact, too.

By working with and supporting minority-serving institutions and target communities, the Workforce Bill sets itself up both for environmental and economic success. To ensure that communities most impacted by pollution are served by the bill, we must continue to consider

long-term career planning and unforeseen community needs through amplifying on-the-ground voices and including folks in the planning process.

Similarly, we must collaborate with companies and workers to ensure a just transition from fossil fuels to clean energy. As we transition our energy sector, we want to leave no workers behind, no communities behind. By emphasizing outreach to displaced and unemployed energy workers, the Workforce Bill takes the proper measures to provide stable and secure employment pathways for all.

We must develop new access point for candidates to enter the energy sector, as this bill promises to do by providing the support, training, and security to families, workers, and underserved communities alike. While challenges lie ahead of us, institutional and network collaboration, long-term market planning, and centering underserved communities will ensure our transition to a just, sustainable, and profitable clean energy economy.

Our country is facing a time of economic peril *and* grave environmental catastrophes. This is the time when bold leadership is required to take America forward to a cleaner and more sustainable future. Fully funding this Act will help us move towards building that sustainable economy that can lift all boats.

Thank you.

Mr. RUSH. Mr. Simpson, you are recognized for 5 minutes.

STATEMENT OF JAMES SIMPSON

Mr. SIMPSON. Chairman Rush, Ranking Member Upton, members of the committee, thank you for the invitation to participate in today's hearing and allowing me the opportunity to discuss Pike's initiatives in hiring underrepresented populations into the energy sector, and in particular our commitment to hiring and training veterans to join the energy field.

My name is James Simpson. I am manager of Military Talent Acquisition at Pike Corporation. Pike Corporation is a privately owned and operated business founded in 1945. The principal business of the company is power line construction, both overhead and underground, and maintenance, gas line construction, and also engineering.

Pike offers turn-key solutions for customers, and our customers range from the largest energy producers in the country to the smaller local cooperative utilities. In my opinion, this hearing is perfectly timed. In today's market, we are seeing about a 14 percent growth in the industry, resulting in a need of several thousand new employees annually for the foreseeable future to keep up with demand.

As a lot of other industries today, the energy sector has struggled to find willing and able employees to fill the thousands of current openings throughout the country, let alone the thousands of new jobs I just referenced that will be needed on an annual basis.

The jobs at Pike are hard work. There can be long days and most work is done outside. One of the biggest things we are known for, you all here in Northern Virginia are probably familiar with seeing our blue and white trucks out in the community after storms. We do storm restoration work. When citizens are speeding out of the path of a hurricane or an incoming storm, our crews are rushing in to face that crisis and battle the storm and restore your power as quickly as possible.

Pike realized not long ago that our retention rate for veteran employees was higher than our nonveteran retention rates. We studied deeper. We realized that our veteran population was an untapped pool of diverse talent, carrying the same vision and work ethic as our primary workforce today.

They desire to serve others. They desire to run headlong into the face of adversity, and the ability, the desire to work in teams, are all fundamental tenets of our workforce. Many veterans bring out of the military with them that desire, that need to serve others.

I was honored with the opportunity to spend 25 years as a Marine, and recently retired from the military service. I was approached by Pike and hired in July of 2018 with the sole purpose of expanding our outreach, training, and ultimate hiring of our Nation's veterans.

While there is a lot of confusion and naivete about what exactly alignment is or what the skills are that are required, linemen are very intelligent people. They have to have math skills, the STEM skills that we have talked about today, in order to perform the jobs, identifying the type of transformers and fuses that are required, the type of wire.

The gauge of wire used to deliver the electricity from production to your home or business is critical, and they have to have the knowledge to know how to work with those things.

Pike has developed and been approved to administer a Department of Labor veterans' apprenticeship program. Our apprenticeship program allows new employees to enroll in the program, document their work history and training toward attaining a journeyman-level certificate or credential. Veterans with GI Bill benefits are eligible to draw a housing allowance from their GI Bill while they participate in the program.

Some of those veterans also use their military apprenticeship program skills from their service in the military to boost their performance in our program. Pike is a participating member of a group called the Center for Energy Workforce Development. CEWD has developed a career roadmap for veterans to identify a path into the energy industry.

So we have a roadmap. They have a jobs database. We have access to the jobs. It is simply gaining access to the service members.

In our Talent Acquisition Program, we go to all of the military installations. We engage the service members as they are in their transition process. And what we run into is differing rules and regulations to access that transitioning workforce as they leave the military and enter the civilian workforce.

What we run into is each base has their own criteria for gaining access. We also work with the Department of Labor. The Department of Labor has programs such as WIOA, the Workforce Innovation Opportunity Act, which allows us funding to train service members for jobs.

The issue we run into is that workforce development boards determine how that funding is used in each local area. So some States have a workforce development board. In other areas—in North Carolina, for instance—we have 23 workforce development boards determining how to use the funds for our programs.

You can see with 23 different groups setting rules on their own in individual regions how hard it would be to access that funding. Community college programs are often continuing education programs, and, therefore, aren't allowed in some of these other programs because they are not curriculum development. So resolving those issues would be key.

We also work with the DOD Skill Bridge Program. DOD Skill Bridge allows service members to train while they are leaving the military, which is a great benefit to us because we can get some access to their services and skills.

Anyway, I would like to thank you for your time today. Thank you for the opportunity to speak, and I look forward to your questions.

[The prepared statement of Mr. Simpson follows:]



**Testimony Submitted
By:**

**Mr. James Simpson
Manager of Military Talent Acquisition**

**Pike Enterprises, LLC
100 Pike Way
Mt. Airy, NC 27030**

**U.S. House of Representatives
Committee on Energy and Commerce
Subcommittee on Energy
2322 Rayburn House Office Building**

"Clean Energy Infrastructure and the Workforce to Build It."

10:30 AM

February 27, 2019

Chairman Rush, Ranking Member Upton, Members of the Committee,

Thank you for the invitation to participate in today's hearing and allowing me the opportunity to discuss Pike's initiatives in hiring underrepresented populations into the Energy sector, and in particular, our commitment to hiring and training veterans to join the energy field.

My name is James Simpson and I am the Manager of Military Talent Acquisition at Pike Corporation.

Pike Corporation is a privately owned and operated business that was founded in 1945. The principle business of the company is powerline construction and maintenance, gas line construction, and engineering. Pike offers turn key solutions for our customers. Our customers range from some of the largest energy producers in the United States to smaller local cooperative utilities. In my opinion, this hearing could not have come at a better time. In today's market, we are seeing growth of about 14% in the industry resulting in a need of several thousand new employees annually for the foreseeable future to keep up with demand.

As like a lot of industries today, the energy sector has struggled to find willing and able employees to fill the thousands of current openings throughout the country, let alone the thousands of new jobs I just referenced that will be needed on an annual basis. The jobs at Pike are hard work; there can be long days; and most work is done outside. One of the biggest aspects Pike is known for, and you might have seen our trucks in Northern Virginia, is storm restoration work. When citizens are speeding out of the path of hurricanes, our crews and trucks can be seen speeding the other direction, right into the eye of the storm.

Pike realized not too long ago that the average retention rate for our veteran employees was a lot higher than non-veteran employees. When we studied this deeper we realized that the veteran population was an untapped pool of diverse talent that carries the same vision and work ethic as our workforce. The desire to serve others, the desire to run headlong into the face of adversity, and the ability and desire to work in teams are all fundamental tenants of our workforce which many veterans bring out of the military with them. I was honored with the opportunity to spend over 25 years in the US Marines and recently retired from the military service. I was quickly approached by Pike and was hired in July of 2018 with the sole purpose of expanding our outreach, training, and ultimate hiring of our nation's veterans.

While there is a lot of confusion or naivety about what exactly a lineman is and the skills that they must develop and hone let me take just a little time to explain some of the background that is needed in our field. While this might seem simple, there is a significant amount of knowledge required to understand and work safely with electricity. Math is a critical skill for Linemen; geometry, trigonometry, basic industrial math and algebra involving linear equations, quadratic equations and determinants are all needed. A lineman must be able to determine the proper gauge wire for each application, the proper transformer size, fuses, etc., to ensure a safe transfer of power from the point of production, across transmission lines, into substations, and eventually into distribution systems where the power will be delivered to a business or residence. Linemen have to understand electrical energy distribution, circuit analysis and Ohm's law. Knowledge of

capacitors and inductors, alternating circuits, and magnetism and electromagnetism are also necessary. While intellect is a requirement so is strength. These are physical jobs requiring strength or the knowledge of pulleys, winches, and other mechanical devices to safely distribute a load for those lacking physical strength. Linemen are required to climb wooden, concrete, and metal poles with all their required tools in many areas where the use of a bucket truck is not practical. These are not simple tasks where mistakes can be made and Pike has made safety and job training the foundation of our work.

For example, Pike has developed and been approved to administer a Department of Labor and Veterans Administration On-the-Job Training/Apprenticeship Program. New employees can enroll in the program to document their work and training history toward attainment of a Journeyman level credential. Military veterans with GI Bill benefits are eligible to draw a Monthly Housing Allowance from their GI Bill while participating in the program. In some cases, veterans who have been participating in the U.S. Military Apprenticeship Program are able to attain credit for previously completed hours in another apprenticeship program where the skills overlap.

Pike is also a participating member of the Center for Energy Workforce Development (CEWD). The CEWD has developed a career roadmap for veterans to identify a path into the energy industry. Through their Troops to Energy Jobs portal CEWD has several resources available for veterans. Veterans can view and follow a roadmap to an energy career, they can register in an Energy Jobs database to show an interest in energy careers, they can research the energy related industries in each state, and they can identify training programs in many states.

As I briefly mentioned above, Pike has established a Military Talent Acquisition program, of which I am the lead, to engage service members as they near transition as well as to engage veterans who have already separated from the military. This program includes conducting continuous outreach at military installations, participation in military employment events, and one-on-one engagement with military candidates. Each military applicant at Pike is the subject of a targeted notification sent to their hiring manager for the position they apply for. We highlight their industry skills and compare their existing skills to skills required by the industry. We maintain one-on-one engagement with candidates as they progress through our applicant tracking system and notify them of new opportunities as they become available. Since implementing this program just last year we have seen a 7% gain in veteran hiring. This effort is part of our CEO mandate to make veteran employment a companywide priority.

We are constantly developing our network of military base contacts to identify ways to connect with the transitioning workforce from the military. Soldier for Life, Marine and Family Programs, Fleet and Family Readiness, and Airman and Family Services centers are all working to support transitioning service members, military spouses, and military family members with transition training, employment and educational opportunities. The opportunities to connect through these resources is extremely limited especially within the 5 day seminar transitioning service members are required to attend. Some bases offer weekly or monthly job fair style events, others allow a few minutes in the curriculum to provide an overview of a company, some even offer to post and share employment opportunities on their organizational website or social media pages. There is no singular

source of policy or guidance to refer to. Each base is its own domain with local rules and policies that must be adhered to in order to connect to their populations.

In the same state, Ft. Bragg, Seymour Johnson Air Force Base, and Camp Lejeune all have different processes. Even Camp Lejeune and MCAS Cherry Point, both Marine Corps locations within 50 miles of one another, have different processes. As a company operating in over 40 states with over 250 open positions at any given time it is almost impossible to keep up with all the unique criteria to access veterans and educate them about career opportunities. Simply attaining and maintaining points of contact for each base can be an issue.

We work with federal agencies including the Department of Labor and individual state One Stop offices to connect with candidates. Here too, access is an issue. There are several layers of service in each office. There are core services staff who deal with military spouses and veterans without "significant barriers to employment". Disabled Veterans Outreach Program Specialists work with veterans who have significant barriers to employment. There are partner agencies who manage Workforce Innovation Opportunity Act WIOA grant programs to aid in funding job skills or curriculum education programs. Even internally these organizations can be disconnected due to differing service criteria. Our positions are listed in each state where we have operations through a "scraping service" offered by Direct Employers. This service pulls new positions from our website daily and publishes them to the state workforce agency. Scraped positions are treated differently than those input manually. Manually posted positions are reviewed by veteran services staff they use an electronic search to identify and notify registered veterans of new job opportunities that match their skill sets. Scraped in positions are not able to receive this service. This means that unless a veteran is intentionally searching for a position in the energy industry they will not be aware of our open jobs. Employing an HR team large enough to manually post every position in the appropriate state, while still maintaining our corporate postings on our website is cost prohibitive. While we operate in 40 states our Human Resources function is consolidated at our corporate headquarters.

While a worthwhile program, as you may be aware, Workforce Innovation Opportunity Act funding has different rules for who qualifies to use it and which educational programs can be paid for. Workforce Development Boards in each state generally determine how the funds are used. In some states there is one board in others there are multiple regional boards. In North Carolina there are 23 independent Workforce Development Boards that determine criteria for use and qualification of WIOA funding.

On the other hand, the Department of Defense Skillbridge program represents an incredible opportunity to engage and train servicemembers as they transition. However, today there are only a few programs teaching skills required for linework. Individual organizations can create their own training, but there is considerable risk in doing so. Employers have no guarantee that the students they train will accept employment upon completion of their certification. If individual companies create a program they may be training people who exit the military and then take positions with competitors who have positions closer to the service members desired location. A collaborative approach between several companies or a federal workforce development program teaching

industry standardized material meeting pre-apprenticeship training criteria would help the industry attract military candidates who are ready to enter the workforce immediately.

On a local level we are engaging community colleges and private training programs who have established pre-apprenticeship programs. Many of these programs do not fall within the DoD SkillBridge or Army Career Skills Program because there is no employer associated with the programs to guarantee employment opportunities after graduation. At this time long waits for openings/limited seats are the biggest limiting factor for local programs. In military communities Skillbridge would potentially allow entire classes of military candidates. Reducing wait times with all military classes/cohorts would be invaluable to the transitioning service members and to the industry. Military students have a small window of opportunity to engage with training, transition, and to ultimately attain employment.

Skillbridge program attendance is at the discretion of local commanders. Commanders who have never had to transition back into the workforce are determining whether attendance of a training program is beneficial to candidates and whether a transitioning service member can attend the training or not. Military commanders still have a mission to accomplish and the service members are not replaced through the training pipeline until they depart the unit. As such, a military commander may hesitate to approve training because he needs personnel to meet other requirements (field training, guard, etc.).

One of the biggest needs in the energy industry is for employees to be able to obtain a commercial driver's license (CDL). While there are a number of Skillbridge programs that offer Commercial Driver's License training there remains barriers to veterans in obtaining a CDL. The number one question from many field managers is, "Does the applicant have a CDL?". Operating a bucket truck and trailer requires a CDL permit or license. Most if not all states now offer a CDL Waiver for military candidates. However, the waiver has a very short 1-year window of availability and some states limit the waiver to select occupational specialties. In my personal experience as a Marine, many non-motor transport personnel operated vehicles that would require a CDL in the civilian sector. Opening up the criteria at the state level to ensure that any MOS where a unit commander is willing to endorse the vehicle operating experience should be allowed a waiver not just motor transport MOS'.

In conclusion, it is my belief that reducing the obstacles in connecting with transitioning service members and veterans would serve all industries well. Creation of an energy industry training program which develops more job ready candidates would likely reduce DoD expenditures of unemployment benefits, result in lower expenditures from GI Bill benefits, and give veterans careers to meet the long-term needs of themselves and their families. The opportunities being offered at Pike are high paying, career developing jobs that can offer stability, while at the same time offering challenging, satisfying work. I appreciate the Committees attention to opening the energy sector to many underrepresented communities in the sector and the opportunity to share with you my experience. I look forward to answering any questions you may have.

Mr. RUSH. I want to thank you, and the Chair now recognizes Ms. Colon de Mejias for 5 minutes for purposes of an opening statement.

STATEMENT OF LETICIA COLON de MEJIAS

Ms. COLON DE MEJIAS. Honorable Chairman Rush, Ranking Member Upton, and members of the subcommittee, I am Leticia Colon de Mejias of Energy Efficiency Solutions, policy cochair of the Home Performance Coalition.

I founded Energy Efficiencies Solutions in 2010 in Windsor, Connecticut. My company has completed weatherization and comprehensive energy efficiency upgrades to over 12,000 Connecticut homes and over 10 million square feet of multifamily housing. In addition, we have served churches, schools, and municipalities, and reduced energy demand and consumption in those buildings and communities.

As the policy cochair of the Home Performance Coalition, I helped to identify policies and opportunities to advance the energy efficiency and home performance industries. We create local and well-paying jobs across every State in the Nation while simultaneously making our building stock more efficient, safe, and comfortable, and affordable by reducing the energy bills for millions of Americans in businesses.

In addition to my work in the building science and energy sector, I have also worked as a workforce consultant for 22 years. I have been the recipient of national awards for the Department of Energy and the Department of Education. And I have worked in engaging urban and minority populations and STEM education as it relates to energy literacy, civic engagement, and fiscal responsibility.

I have personally trained over 150 people for jobs in the green industry in relationship to efficiency and renewable resources. I am honored to be here to testify in front of you today in support of the Blue Collar and Green Collar Job Development Act of 2019.

As a female minority contractor and a small business owner, I am here to tell you that the energy efficiency doesn't have a jobs problem. We have lots of jobs to fill. The problem that we have is finding workforce that are ready and trained and certified to work in our industry.

Efficiency, while not as sexy as solar and wind, is simply efficient. It gets the job done. And conservation is simply a conservative way to reduce our energy demands and lower bills for all Americans.

We need the resources to help train our existing employees and to keep them up to date on their certifications and technologies and health and safety measures to make America's building stock great. What we need is a comprehensive nationwide program to improve education for the workers and efficiency and clean energy industries, including manufacturing, engineering, construction, and building retrofits. This is exactly what the Blue Collar to Green Collar Jobs Initiative would do.

The energy efficiency and renewable energy industries represent a growing workforce, and in 2018 the energy efficiency jobs in America, the E4TheFuture report, reports that over 2.25 million Americans work in the energy efficiency industry. Efficiency is lit-

erally the fastest-growing job sector, adding new jobs which outnumber elementary and middle school teachers, nearly double, and law enforcement—and double the law enforcement officers that we have.

More importantly, these jobs are local and cannot be outsourced, and 99 percent of U.S. counties have energy efficiency jobs. We have a real need to ramp up the implementation of workforce programs and prepare career changers like myself—women and veterans that I employ—and underrepresented minority and at-risk populations for the jobs that exist already today. We need to fill these roles to meet our Nation's demand for reliable and resilient energy production.

I have served as the policy cochair for the Connecticut Workforce Consortium for 5 years. In this role, I have heard countless business owners explain the difficulties in hiring staff which have proper credentials and training to work in this industry. Many of these businesses are small. In fact, the majority of efficiency businesses across the country have fewer than 20 employees. I myself employ 22.

These small businesses are the backbone of our country, and they are the ones that are in need of assistance when it comes to making new hires and investing in education and training for these employees and incumbent workers.

One of the main pillars of the Blue to Green Collar Jobs Act is an energy workforce grant program which would provide assistance to businesses seeking to educate and train new hires or help existing employees move into higher level jobs. By covering the wages for these workers during the time they are receiving training, the program will significantly help small and medium-sized businesses invest in their employees.

These are considered OGT training funding jobs, and I have personally myself participated in these programs and hired people. I have some people who still work for me 10 years later.

Of particular importance, it is—I am pleased to present this legislation which gives priority to businesses who recruit employees from local communities, minority groups, women, and veterans. These are often hardest working people in our society, and they have already vested interest in bettering their communities. With the proper training, they can excel to positions in our economy and get off of things like subsidy, but we need to do this broadly as a nation.

In addition to helping the businesses invest in their employees, we need to take action to engage young people and today's youth who will be tomorrow's workforce in the STEM education fields. As a contractor, I have spent 22 years encouraging underrepresented groups and ethnic minorities and women to enter the science and technology, engineering, and math fields.

Through the Green Eco Warriors, which I serve as the president and cofounder, I have helped over 10,000 children in over 100 United States schools participate in these programs. It is important that we continue mentorship and training to increase emerging clean energy and efficiency in our economy.

We must work together nationally on these goals, and I fully support the objectives embodied in the Blue to Green Collar Jobs

Act. The goals in this program included will support economic growth and energy security in our Nation, and we will enhance the ability of businesses to invest in employees. And when we invest in our youth and employees, we prepare them meaningfully to contribute to our economy and our Nation, and that is a win for all of us.

Thank you.

[The prepared statement of Ms. Colon de Mejias follows:]

TESTIMONY OF LETICIA COLON DE MEJIAS
CEO OF ENERGY EFFICIENCY SOLUTIONS AND POLICY CO-CHAIR OF THE HOME
PERFORMANCE COALITION
BEFORE THE U.S. HOUSE OF REPRESENTATIVES ENERGY SUBCOMMITTEE,
IN SUPPORT OF THE BLUE COLLAR TO GREEN COLLAR JOBS DEVELOPMENT
ACT OF 2019 – FEBRUARY 27, 2019

Chairman Rush, Ranking Member Upton, and members of the Subcommittee, I am Leticia Colon de Mejias, CEO of Energy Efficiency Solutions, and Policy Co-Chair of the Home Performance Coalition. I founded Energy Efficiency Solutions in Windsor, CT in 2010. My company, together with Best Insulation of Connecticut, which I also co-founded, has completed weatherization and comprehensive energy efficiency upgrades in over 12,000 Connecticut homes and 10 million square feet of multifamily properties. As Policy Co-Chair of the Home Performance Coalition, I help to identify policies and other opportunities to advance the home performance industry, which creates local and well-paying jobs across every state in the nation while simultaneously making our country's residential building stock more efficient, safe, comfortable and affordable by reducing energy bills for millions of Americans.

In addition to my work in the home performance sector, I have also worked as a workforce consultant for twenty two years. I have been the recipient of several national workforce awards and National the Department of Energy awards for my work with the Department of Energy and for engaging urban and minority populations in STEM education as it relates to the energy literacy, civic engagement, and fiscal responsibility. I am honored to be here to testify in support of the Blue Collar to Green Collar Jobs Development Act of 2019.

As a female minority contractor and small business owner I am here to tell you that we in the efficiency industry do not have a jobs problem— we have a labor problem. Jobs in the energy efficiency and clean energy industries exist, and we need qualified workers to fill them. We also need resources to help train our existing employees, keeping them up to date on certifications and trained in the latest technologies and health and safety practices. What we need is a comprehensive, nationwide program to improve education and training for these workers in the efficiency and clean energy industries, including manufacturing, engineering, construction, and building retrofitting jobs. This is exactly what the Blue Collar to Green Collar Jobs Act of 2019 would create.

The energy efficiency and renewable energy industries represent a growing workforce. According to the 2018 Energy Efficiency Jobs in America report issued by E4TheFuture, over 2.25 million Americans work in the energy efficiency industry alone. Energy efficiency is the

fastest growing jobs sector in energy, adding more new jobs in 2017 than the renewables and fossil industries.¹ Efficiency workers now outnumber elementary and middle school teachers and are nearly double those in U.S. law enforcement. Importantly, these jobs are local - 99.7% of U.S. counties have energy efficiency jobs. We have a real need to ramp up implementation of workforce programs that prepare career changers, women, veterans, and other job seekers for the roles which need to be filled if we are to meet our nation's demand for reliable and resilient energy production.

I currently serve as the Policy Chair for the Connecticut Energy Workforce Consortium. In this role I have heard countless energy business owners explain the difficulties they have in hiring staff that have the proper credentials and training required to work in the energy industry. Many of these businesses are small. In fact, a large majority of energy efficiency businesses across the country have fewer than 20 employees. These small businesses are the backbone of our country, but they are also the ones that are in need of assistance when it comes to making new hires and investing in the education and training of their existing employees.

One of the main pillars of the Blue Collar to Green Collar Jobs Act of 2019 is an energy workforce grant program, which would provide just such assistance to businesses that are seeking to educate and train new hires and existing employees in the energy efficiency and renewable energy industries. By covering the wages for these workers during the time they are receiving training, this grant program would significantly help small and medium sized businesses invest in their employees, allowing workers to expand their skill set, do better work, and earn higher wages in the long run.

Of particular importance, which I am pleased to see represented in the legislation, is to give priority to businesses that recruit employees from local communities, minorities, women, and veterans. These are often the hardest working people in our society, who already have a vested interest in bettering their communities. With the proper training, they can excel at positions in the clean energy economy, improving not just their own community, but the nation more broadly.

In addition to helping businesses invest in their employees, we also should be taking steps to engage and educate our young people, as today's youth are tomorrow's workforce. As a contractor and workforce consultant I have spent the last twenty years encouraging underrepresented groups, including ethnic minorities and women, to enter into the science, technology, engineering, and mathematics (STEM) fields. Through Green Eco Warriors, of which I serve as the President and co-founder, I have helped educate over 10,000 children in

¹ E4TheFuture. "Energy Efficiency Jobs in America 2018." September 2018. <https://e4thefuture.org/wp-content/uploads/2018/09/EE-Jobs-in-America-2018.pdf>

over 100 schools, and I continue to work hard to encourage our country's education system to better equip students with the skills, mentorships, training, and technical expertise needed to fill jobs in our emerging clean energy economy.;

What I have learned is that we must work together nationally on these goals. I fully support the objectives embodied in the Blue Collar to Green Collar Jobs Act, and strongly agree that:

We should strengthen and more fully engage the Department of Energy programs and national labs in carrying out the Department's Minorities in Energy Initiative.

We should implement direct assistance (including financial assistance awards, technical expertise, and internships) to educational institutions, local workforce development boards, State workforce development boards, nonprofit organizations, labor organizations, and apprenticeship programs.

We should establish a clearinghouse to maintain and update information and resources on training and workforce development programs for energy-related jobs; Develop a comprehensive understanding of the workforce needs of energy-related industries and job opportunities by State and by region and publish an annual report on job creation in the energy-related industries.

We should solicit input from the Secretaries of Education, Commerce, Labor, the National Science Foundation, and energy-related industries to develop best practices and grade-specific guidelines for teaching energy efficiency and conservation initiatives to educate students and families.

We should take special care to engage underserved populations and give special consideration to increasing outreach to minority-serving institutions and training providers and make resources available with the objective of increasing the number of skilled minorities and women trained for jobs in energy-related industries; Encourage additional opportunities for MSI students to participate in industry internships and cooperative work-study programs; Partner with the national laboratories to increase underrepresented groups' participation in internships, fellowships, traineeships, and employment opportunities.

We should give special consideration to increasing outreach to employers and job trainers preparing displaced and unemployed energy workers for emerging energy-related jobs; make resources available to institutions serving displaced and unemployed energy workers with the objective of increasing the number of individuals trained for jobs in energy-related industries.

The goals and programs included in the Blue Collar to Green Collar Jobs Act of 2019 would support economic growth and energy security in our nation. When we enhance the ability of our businesses to invest in employees, and when we as a nation invest in our youth in a way that prepares them to meaningfully contribute to the energy economy of the future, we all win.

Thank you for your service to the people of United States of America. I look forward to your questions.

Contact Information:

Leticia Colon de Mejias

CEO, Energy Efficiencies Solutions LLC

Policy Co-Chair, Home Performance Coalition



Mr. RUSH. Now I recognize Ms. Pramaggiore for 5 minutes for the purposes of an opening statement.

STATEMENT OF ANNE R. PRAMAGGIORE

Ms. PRAMAGGIORE. Thank you, sir. Good morning, Chairman Rush. Thank you for the warm welcome. Exelon is delighted to serve the great city of Chicago, as well as our other great cities and communities, including the District of Columbia now.

Good morning, Congressman Upton, and members of the committee. Exelon operates 6 utilities, is the largest operator of nuclear plants in the United States, and participates in retail energy markets in 48 States. I lead Exelon's 6 utilities which deliver electricity and natural gas to approximately 10 million customers.

We appreciate very much the opportunity to share our perspective today as your committee explores expanding opportunities in the energy field through the Blue Collar to Green Collar Jobs Act. We see tremendous opportunity in our industry as we transform the electric grid for the 21st century, and we are enthusiastically committed to creating pathways for the diverse people of the communities we serve.

The electric power industry is a major economic engine for America. In addition to its role supporting every other sector of the economy, electric power generates significant economic activity in its own right, providing some 2.7 million jobs and \$880 billion of economic impact.

This is a snapshot of our industry as it exists today, but this industry is anything but static. In fact, it is reinventing itself to the traditional tenets of reliable, safe, and affordable power. The advances of the 21st century require we add the features of clean, resilient, and connected—connected to more and more devices and uses to meet the country's needs.

This is nothing short of a transformation that will require both retooling our current workforce and cultivating a workforce of the future with new skills and talents. In the next 10 years, job requirements in the electric power industry will include a need for more engineers to design a new grid to accommodate solar, wind, storage, and other clean technologies; information technology experts, skilled high voltage technicians who understand digital as well as analog technology; solar installers, wind turbine technicians, and energy efficiency experts and technicians. In other words, we need STEM workers, and increasingly we need skilled craft workers, particularly in clean energy.

At Exelon, we are committed to diversity in our company and industry, and that commitment drove us to launch Chicago Construct, a unique job training program that increases skilled labor employment opportunities in the utility and construction arena for minorities in the Chicago region.

More than 500 participants have completed the construct program in its 6 years of existence, and 80 percent of those participants were offered jobs by our utility or other construction companies that work with us and participate in the program.

Right here in Washington, Pepco recently partnered with the district leadership to launch the DC Infrastructure Academy, similarly preparing District residents for well-paying careers in the

electric utility industry. PECO has a similar program in Philadelphia, in partnership with the community colleges for gas industry workers.

Another aspect of our commitment to developing the workforce of the future is increasing educational opportunities for women and minorities in STEM fields. Six years ago, we launched the Ice Box Derby, a summer program in which teams of young ladies from our communities are given the engineering task of turning recycled refrigerators into electric race cars and racing them at the end of the summer project.

Delmarva Power has worked with Delaware State to create a renewable engineering program, and BG&E in Baltimore has launched a successful internship program for high schoolers in Baltimore City.

As we work to build the workforce of the future, we welcome the support offered in this bill. The national effort laid out in the Blue Collar to Green Collar Jobs Act will help to ensure we have a diverse workforce with the right skill sets to help build this bold, new energy future.

Innovation of necessity requires diversity. A diverse group of people sharing ideas and innovating together is truly the 21st century's competitive edge. The transformation of this industry creates the need. The technical nature of the transformation means the jobs have a future, and the fact that this is occurring in the ubiquitous electric energy industry means the impacts will be seen in every U.S. community.

Thank you very much.

[The prepared statement of Ms. Pramaggiore follows:]

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Introduction

Good morning Chairman Rush, Ranking Member Upton and members of the Energy Subcommittee of the House Committee on Energy and Commerce. My name is Anne Pramaggiore and I am Senior Executive Vice President of Exelon Corporation and CEO of Exelon Utilities. Exelon operates six electric and three gas utilities, is the largest private operator of nuclear plants in the U.S. and participates in retail energy markets in 48 states. As the CEO of Exelon Utilities, I lead Exelon's six utilities, Atlantic City Electric, Baltimore Gas & Electric (BGE), Commonwealth Edison Company (ComEd), Delmarva, PECO and Pepco. Our utilities deliver electricity and natural gas to approximately 10 million customers in the cities and metropolitan areas around: the District of Columbia; Wilmington, Delaware; Chicago, Illinois; Baltimore, Maryland; Atlantic City, New Jersey; and Philadelphia, Pennsylvania. Thank you for the opportunity to share my company's perspective today as your Committee explores expanding opportunities in the energy field through the Blue Collar to Green Collar Jobs Act. We see tremendous opportunity in our industry as we transform the electric grid for the 21st century, and we are enthusiastically committed to creating pathways for the diverse people of the communities we serve.

The electric power industry is a major economic engine for America. In addition to supporting virtually every other sector of the economy, energy and electric power generate significant economic activity in their own right, providing high-quality jobs and business opportunities across the country. According to a 2017 report commissioned by the Edison Electric Institute and the American Public Power Association, the electric power industry is directly responsible for some 2.7 million jobs, a figure that is inclusive of workers at: investor-owned electric companies, public power utilities, electric cooperatives, and independent power producers; contractors and suppliers; as well as design, construction and other jobs connected to the electric

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power industry's significant capital investments.¹ In total, when accounting for the jobs it creates and economic activity it enables, the electric power industry's economic impact is approximately \$880B, or approximately 5% of the nation's GDP.² That is our industry as it exists today.

Building the Workforce of the Future

The electric power industry, however, is anything but static. In fact, it is reinventing itself amid a second electric energy revolution. While the electric power industry served the 20th century U.S. economy and its citizens well, based on adhering to the three tenets of providing reliable, safe, and affordable power, the technological, economic, and social advances of the last 100 years have changed the world our industry now serves. As a result, the 21st century demands all that the 20th century did from our sector, and more. To reliable, safe and affordable we must add clean, resilient and connected.

- Clean to adapt to consumer preference and policy responses to climate change;
- Resilient to withstand more volatile weather and increasing security threats; and
- Connected to accommodate the expanding uses of electricity, especially the impending addition of the transportation sector to the electric system.

This will require a redesign of the electric power industry, both in physical configuration and function and of its economic and pricing model. As our industry connects to more customers, businesses, and devices, and plays a larger role in the economy, our social interface with customers

¹<http://www.eei.org/resourcesandmedia/newsroom/Pages/Press%20Releases/New%20Report%20Find%20U-S-%20Electric%20Power%20Industry%20Supports%20More%20Than%207%20Million%20American%20Jobs.aspx>

² <https://mibradley.com/sites/default/files/PoweringAmerica.pdf>

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and communities will also require a redesign. This represents the greatest transformation of this industry – and requires the most innovation – since its advent over 100 years ago.

Accomplishing this transformation will require both preparing our current workforce to meet these challenges, and cultivating a workforce of the future with skills and talents very different from our legacy workforce. This challenge is especially urgent considering the pace of technological and policy change and the rapid aging of the industry workforce. The average age of electric power industry employees is now reaching 50,³ and one quarter of electric and natural gas utility employees could retire within 5 years.⁴

As a corollary, in the next 10 years, job requirements in the electric power industry will include a need for more engineers to design the new grid to accommodate solar, wind and storage technology. The industry needs information technology experts to incorporate new cyber security technologies and to architect the communications systems that will allow for automation of grid functions necessary to run a grid with variable supply resources like wind and solar. The industry needs skilled high-voltage technicians who understand digital as well as analog technology, solar installers and wind turbine technicians to build out the new systems. The industry needs energy efficiency experts and increasingly electric transportation expertise to provide the opportunity to customers to reduce their bills and their carbon footprint. And of course, coders and software designers to create the platforms and apps that open up a new world of energy choice to customers. In other words, the industry needs experienced STEM (science, technology, engineering and math) workers to take our grid, and our industry, into the future. And increasingly the industry needs skilled craft workers, particularly in clean energy.

³ <https://www.popsoci.com/aging-grid-aging-workforce-rising-demand>

⁴ <https://www.ibm.com/blogs/insights-on-business/energy-and-utilities/preparing-aging-utility-workforce/>

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The future job market has two clear paths: STEM and clean. STEM careers are the fastest growing category of jobs in the U.S. and students with STEM degrees start with salaries 30 percent higher than those without STEM degrees.⁵ The clean energy workforce has skyrocketed in recent years, with the growth of solar and wind sectors rising by 24.5 percent and 16 percent, respectively, in a single year.⁶

As a result, the energy industry has a business imperative to help lead workforce development efforts in these fast-growing, good-paying fields and to support programs that produce the next generation of workers. The utility industry is unique in its relationship to its communities and its relationship to place. As universal service providers with an essential social purpose and with assets situated in virtually every community in the U.S., we are a place-based business that is physically embedded in the places we operate and naturally engaged in economic development, jobs, and the civic life of our community. As a result, job development programs in this sector of the economy can impact communities across the U.S.

Our employees are called out to work in the middle of the night, whether to replace a broken pole or work a bug out of an IT system and must necessarily be located in our community or nearby. Our companies have a unique interest in employing people who live right in our communities. This means ensuring that under-represented groups, including minorities, women and people with disabilities, are given access to the training, tools and educational opportunities that will position them to reinvent and lead this business in this new era.

Exelon Utilities' Workforce Development Programs

⁵ <https://finance.yahoo.com/news/stem-jobs-pays-much-long-142540588.html>

⁶ http://edfclimatecorps.org/sites/edfclimatecorps.org/files/edf_in_demand_clean_energy_sustainability_and_the_new_american_workforce.pdf

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We are committed to diversity in the ranks of our skilled labor workforce and that commitment drove us to launch **CONSTRUCT**: a unique, nine-week job training program that increases employment opportunities in the utility and construction arena for minorities in Chicago and northern Illinois. Led by our Chicago-based utility ComEd, an alliance of 25 construction companies, four labor unions, and community organizations formed to prepare workers for entry-level jobs in construction, engineering, solar power, energy efficiency and project management. Our community organization partners identify candidates, the labor union and construction companies develop curriculum and the utilities and construction companies hire candidates. More than 500 participants have completed the CONSTRUCT program's 9-week "no-cost" training program in its 6 years of existence. And 80 percent of those participants were offered jobs by companies participating in the program.

Take LeeJohn Johnson, a father of two who was struggling to make ends meet when he joined the CONSTRUCT program. LeeJohn had a background in construction and during his time in the program, he learned the skills that were more specific to our industry. One of the companies participating in the CONSTRUCT program hired LeeJohn after he graduated. Today, LeeJohn works for ComEd and he was just promoted to lineman in early January. LeeJohn told us no one in his life had ever seen him as a leader before, but our CONSTRUCT instructor did. And now, LeeJohn is leading a ComEd crew of his own and earns a salary that will allow him to raise his two sons and support their educational and job aspirations in the future.

Right here in Washington, Pepco recently partnered with the District leadership to launch the **DC Infrastructure Academy**. Pepco and the District recruit, train and prepare residents for well-paying careers in the electric utility industry. In 2017 and 2018, the program launched in a limited way with classroom training that was geared to help students pass the utility industry

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prerequisite CAST test – a test of basic energy, technology and math principles. While just recently launched, Pepco has hired 16 graduates from the program into positions such as cable splicer mechanics, substation technicians and trainee line mechanics.

Moving forward, Pepco and the DC Infrastructure Academy are expanding and developing a comprehensive 12-week Utility Training School in the District of Columbia modeled on ComEd's CONSTRUCT program. The curriculum will be robust and students will learn in the classroom as well as get hands-on technical training and physical training in a fully functional Utility Training Yard. Graduates from the program will possess the skills to succeed in overhead, underground, or transmission and substation positions and all successful graduates from the Utility Training School will be guaranteed a job at Pepco or one of the four other contracting firms in the District of Columbia.

Our utility BGE is developing talent at the high school level with its **Baltimore City Schools Partnership** which involves partnering with Baltimore City high schools to host conferences and workshops for high school students on the topics of construction, computer-aided design, engineering and automotive technology. Over the last three years 11 students from the program became BGE employees. In 2018 alone, BGE hired 50 high school students for summer internship programs.

On the generation side of our business, Exelon Generation has funded a **STEM Academy** program at Everett High School, which is located in a low-income, diverse community near its Mystic Generating Station. In fall 2018, Exelon Generation agreed to provide all 125 Everett High School STEM Academy students with their own laptop to use for schoolwork. In addition, Mystic personnel have volunteered to mentor STEM Academy students. There are also plans to donate robotic kits to the program to reduce the kit-to-student ratio in the robotics course.

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Another aspect of our commitment to developing the workforce of the future is increasing opportunities for women and minorities in STEM fields. Although women hold 48 percent of jobs in the U.S. workforce, they hold just 24 percent of STEM positions. That is why ComEd launched the **Icebox Derby** to empower young women to become the scientists and engineers of tomorrow. Each summer, for the last five years, ComEd has selected 30 young ladies aged 13-18 from its communities to form "STEM" teams. Each team is given a refrigerator recycled through our energy efficiency program, a set of engineering drawings, and a ComEd engineer. The teams engineer electric race cars from the old refrigerators and race them at the end of the summer. In addition to exposing these young women to the STEM fields, ComEd has paired several with college opportunities and summer internships at ComEd.

Last year, Exelon launched a one week on-campus STEM experience for young women in Chicago and the District in conjunction with the United Nation's HeForShe program. Exelon's **STEM Innovation Leadership Academy** introduces young women to experiential learning projects, tours of science-oriented museums and STEM experts. This year, Exelon will add a program in Philadelphia as well.

The company has run weekend **Solar Spotlight** STEM camps during Black History Month and Hispanic Heritage Month to expose young people of both genders to STEM and technical careers. We invite middle and high school students from our communities to participate in an experiential learning project in which they construct a solar panel and engage with a companion STEM expert of color. Last year, the project produced solar powered emergency kits that were sent to Puerto Rico.

In a more broad-based effort, one that incorporates the new energy paradigm in an effort to demonstrate the capability of future technologies and simultaneously examine the social value

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that can be produced, ComEd is building its **Bronzeville Connected Community of the Future** in a South Side neighborhood in Chicago.

Bronzeville will host the country's first microgrid cluster, connecting a ComEd-designed microgrid with an existing college campus microgrid, to test the efficacy of microgrids to enhance grid resiliency. ComEd has commissioned a local diverse engineering firm, KDM Engineering, to work with ComEd and other engineers in designing the microgrid infrastructure. As part of this project:

- ComEd launched a first-mile, last-mile electric vehicle ridesharing program for seniors;
- Bronzeville residents have access to an app that allows them to choose to donate monthly savings from energy efficiency programs to a school or community group;
- ComEd developed a 4-year, 70-hour curriculum at the local Dunbar high school around energy and STEM fundamentals using the energy project taking place in their neighborhood. We have conducted a technology "Ideathon" with scholarship money awarded to prize winners for 8 schools in the area: Bronzeville Scholastic Institute, De La Salle Institute, Hales Franciscan High School, King College Prep, Urban Prep Bronzeville, Walter H. Dyett High School for the Arts, Wendell Phillips Academy High School, and Young Women's Leadership Charter School.

We believe these community energy empowerment zones are a model for enhancing the quality of the grid, improving community quality and educating our young people around important aspects of the new energy paradigm.

Our perspective on inclusion is broad. We create meaningful job opportunities for people with disabilities who have historically high unemployment rates. Only 34 percent of adults with developmental disabilities are employed. This unfortunate statistic prompted our utilities ComEd

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and PECO to launch the **Energy Force Program**, the country's first program that empowers people with intellectual disabilities to act as ambassadors and teach others about energy efficiency. ComEd and PECO train adults with developmental disabilities to serve as ambassadors for their energy efficiency programs, and the ambassadors attend community events to inform customers.

From rebuilding our skilled workforce to exciting young people about STEM to establishing an energy efficiency ambassador corps, Exelon, its utilities and generating companies are mentoring, training and employing American workers to be the workforce of the future.

Blue Collar to Green Collar Jobs Act

It's clear there are growing workforce opportunities in the energy industry. And as we work to build the workforce of the future, we welcome support from, and partnerships with, congressional, state and local leaders. With the demands on our industry for a 21st century energy system, the national effort laid out in the Blue Collar to Green Collar Jobs Act will help to ensure we have a diverse and inclusive workforce with the right skillsets to help us build this bold new energy future. Because electric and gas utilities sit in virtually every community in the U.S., the impact will be broad-based.

The Blue Collar to Green Collar Jobs Act is a major step forward in improving education and training for energy-related jobs and will be a tremendous asset in increasing the pool of skilled and diverse workers that our utilities need. The investments proposed in this bill will serve as a force multiplier, inciting others in the private and public sector to make these essential investments in creating the energy workforce of the future.

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Innovation of necessity requires diversity: of identity, background, perspective, and experience. A diverse group of people sharing ideas and innovating together is truly the 21st century's competitive edge.

Conclusion

Now is the time to prepare for this energy future. We're eager to work with the Committee and other stakeholders to drive the vision of the Blue Collar to Green Collar Jobs Act forward.

Mr. RUSH. I want to thank all of the witnesses for their opening statement. We have now concluded opening statements, and now we will move to Member questions. Each Member will have 5 minutes to ask questions of our witnesses, and I will begin by recognizing myself for 5 minutes.

Ms. Pramaggiore, Exelon is one of the leading companies that have not only talked the talk but have actually invested its own money and resources into making sure that there is diversity in the ranks of a skilled labor workforce. Thus, Exelon knew the concept of training historically overlooked and underserved segments of the population, as our bill does, as solely a moral or social issue. Or is it preparing qualified minority women, veterans, and other targeted candidates in a way that is—for you is just good business sense?

Ms. PRAMAGGIORE. Thank you, sir. At Exelon, we believe that diversity in our workforce is all of the above. It is the right thing to do for our communities, but it is also smart business. We are entering, and in actually, a knowledge-based economy. Innovation is the coin of the realm. It is what will allow our economy to excel in the future.

You don't get innovation without diversity. If you put the same people in a room together who have the same perspective on the world, you are not going to create and innovate. And so we think it is critically important to have this diversity in our workforce. And when we think about innovation, it is not just about creating technology, it is about the very smart people, as Mr. Simpson indicated, who are out climbing poles and on the line who can figure out a smarter, more efficient way to do something to improve a process.

So we need innovation in every part of our business, and we think diversity is crucial to that.

Mr. RUSH. As I stated in my opening statement, Exelon is one of the most forward-looking utilities in our Nation. And you mentioned in your statement the connected communities of the future, which is located in my home district. And I look forward to highlighting this activity and this project.

And you will host the Nation's first microgrid cluster, if I am not mistaken. And this project, the connected community project of the future, will help example the effectiveness of micro grids as a means for enhancing grid resiliency while also utilizing what you have termed to be community energy empowerment zones.

Can you briefly discuss the concept of utilizing local talent, such as the Ideathon, where scholarships are awarded to prize winners at local schools as a way to foster excitement around energy and STEM fundamentals?

Ms. PRAMAGGIORE. Yes. Thank you. We view that our industry has not only technical and economic impacts but social impacts as well. And we have a project in the Bronzeville neighborhood, south of the Loop in Chicago, to build the world's first micro grid cluster. We actually have a grant from the Department of Energy. We are building a micro grid, which is a small self-sufficient grid, in the Bronzeville neighborhood.

It will connect to a campus micro grid at Illinois Institute of Technology. The two micro grids will actually be able to dispatch

generation back and forth, and it is a very new and innovative project. The idea is that if you have disruptions on the grid, you can actually isolate portions of the grid to make the grid more resilient.

We looked at this project as very much an exciting technical project, but we also wanted to involve the community. So we worked in a number of different programs. We have a ride sharing program for seniors, electric vehicles, partnered with electric vehicle company to do that. We have used diverse engineering talent to help us design this micro grid from the local Chicago community.

And we launched an Ideathon at one of the local schools involving about 8 of the area high schools, bringing in high schoolers to form teams, working with teachers as well as ComEd and Exelon engineers to create projects and compete for scholarship money.

So we have already created a curriculum at Dunbar High School around the micro grid. It is a 70-hour curriculum. So we are really looking to take this exciting technical project that is occurring in the community and involve the whole community and be able to bring—you know, bring our kids into this new energy world.

Mr. RUSH. My time is up. The Chair now recognizes the ranking member, Mr. Upton, for 5 minutes.

Mr. UPTON. Well, thank you, Mr. Chairman. And I want to thank all of you for your testimony. There is no question that we need to increase STEM education. We know the real need to increase diversity, and we also know the opportunities that should be there as we look to jobs in the future and the need for qualified folks to be able to tackle those jobs and to earn good wages for their families.

A couple of questions. Mr. Simpson, I was prompted by your introduction. I know that your company, Pike, was not associated at all with Whitefish, but there were a number of us on this committee on a bipartisan trip that went down to Puerto Rico shortly after the hurricane, and we saw firsthand the devastation that was there. I think we were all appalled by the lack of progress to really connect people back with the difficulties that I think still remain there.

You talked a little bit about Pike being a company that works with putting lines underground as well, and I think for a number of us that witnessed what went on in Puerto Rico, you know, this is going to probably happen again at some time in the future. And wouldn't it be a lot smarter to actually build these lines underground than having them exposed to the elements that we saw with the devastation that was there?

Did you all actually do any underground work in trying to put Puerto Rico back together again as it related to the power structure there?

Mr. SIMPSON. Sir, to my knowledge, no. We were rebuilding the grid that was already in existence, so we weren't doing modifications or changes necessarily.

Mr. UPTON. Did anyone ask, or did you all raise your paw and say, you know, this is something that might be worthwhile to do?

Mr. SIMPSON. I am not aware, sir.

Mr. UPTON. OK. Maybe if you could come back to us?

Mr. SIMPSON. Absolutely.

Mr. UPTON. And I know this is a little bit—was out of bounds from your testimony today. In your testimony, you gave an example about commercial driver's licenses where veterans could get a waiver based on their military experience. I think that is a very good idea as we try to encourage vets to get into this sector.

What are some of the other areas perhaps, beyond that, that we might be able to make a difference that would involve and encourage more veterans to be involved?

Mr. SIMPSON. Sir, I think if you look at the educational system itself, if you look at the Workforce Innovation Opportunity Act, and the uses of those funds, and identify specifically that veterans entering into an energy type of a curriculum would be allowed to use those funds whether it is at a curriculum-based program or a continuing education program, that the funds would still be available, that that would make a huge difference. And it is money that is already set aside through the Department of Labor to fund this training.

So it is just tweaking the way we use the funds that are already available. Other things, the GI Bill. The GI Bill doesn't currently allow the use of funds from the GI Bill for continuing education type courses. They have to be degree-granting types of courses. So our GI Bill is actually forcing people to go to college for a degree that they don't necessarily want, just to attain the job skills to get into the workforce.

And then, of course, with the Federal Motor Carrier Safety Administration, the waiver that you discussed for the CDL, that waiver is only good for 12 months. If I drove a truck for 10 years in the military, it is very doubtful in the 12 months that I am going to forget how to drive that truck, yet my skills have to be qualified very quickly or I lose the opportunity to attain that CDL.

So I think expanding the opportunity to get the CDL not only to different populations in the military—I was supply chain. My job is not truck driver, but I assure you most of my guys had CDL-type licenses to operate equipment because it was required to move things around in theater.

Mr. UPTON. Thank you. Ms. Mehnert, congratulations on what you have done, and your daughter is waking up now. What are some of the greatest challenges that you see to try and increase women in the workforce in this field? You—as one that has gone from a really large company to what you are doing now—what are some of the things that we can do to encourage more women to participate?

Ms. MEHNERT. Really, the number one answer is visibility. I am often struck by the lack of knowledge around what opportunities exist, what skills are required. So the joke is, everyone thinks I am an engineer. I am actually educated as a journalist by background, so I tell people I am a people engineer, and I make it my business, you know, to learn, to show, you know, curiosity, to ask questions.

It wasn't until I went to an offshore rig, lived in a man camp literally, and had been to petrochemical facilities and sites all over the world that I truly had an appreciation for what it takes out of a very complicated value chain to get energy to live, and why I did a study not too long ago that looked at perceptions, positive perceptions of industries as a whole.

And it is probably no surprise to anyone in this room that the tech industry is seen as the most popular place, you know, for anyone to work. But at the end of the day, energy drives those things. And I just think that when we talk to young people, when we talk to just—you know, the population at large does not understand what it takes to get energy to the doorstep, and the more technology we use, the more we expect, you know, the more things we do, people need to really understand that.

So I think visibility of the opportunities and really driving people to understand that this is a great place to work and it is a meaningful place to work.

Mr. UPTON. Thank you. I know my time has expired. Thank you.

Mr. RUSH. The Chair now recognizes the chairman of the full committee for 5 minutes for questioning.

Mr. PALLONE. Thank you, Chairman Rush. And I want to stress how important this hearing is, and I am pleased we are able to continue—can you hear me? All right. Well, let me just—I just thank you, Chairman Rush, for continuing—starting and continuing the committee's efforts to expand training and promote diversity. I know we have done this on a bipartisan basis always, and he has always been out front on it.

But let me start with Ms. Pramaggiore. In your testimony, you discussed the need to focus on clean energy jobs, and I thought it was interesting when you mentioned that consumer preference is driving companies like yours to make cleaner energy choices. And as a result of those trends, the vast majority of job growth in the energy sector currently comes from clean energy jobs.

So just a few questions. Where are you currently seeing the largest share of job growth at your company? How is that focused on newer and expanding technology, such as renewable energy or grid modernization, for example?

Ms. PRAMAGGIORE. Thank you, sir. We have clean energy, distributed energy, coming on to our systems across all of our 6 utilities, and that requires us to rethink how we are designing the system. The system has to be much more dynamic. It has to be much more automated as we think about having variable resources on the system that are not always there, and so you have to adjust the grid to take them when they are there and adjust when they are not.

And so to answer your question, we are looking for—we always have job growth in the skilled craft areas, and skilled craft who understand analog as well as digital technologies is going to be important in the future. Data scientist is a huge area for us. We now have sensors all over the grid that tell us what is going on in a way that we didn't before.

We have to be able to take that information in and do something with it in a very short order. And so data scientists who can help us crunch that data are very important, and there is a shortage of data scientists in the United States. We need power systems engineers who also understand information technology. Those are some of the big areas from the utility side of the business that we are in need of as we bring on these new types of resources onto the system.

Mr. PALLONE. And I assume that you will tell me, but those are the areas where we need the—we should focus the training, correct, in those areas you just mentioned?

Ms. PRAMAGGIORE. For our business as the utility, but you have a tremendous number of companies out there who are in the business, in the solar business, in the storage business, in energy efficiency.

My company, through our multiple utility, spends \$600 million a year on energy efficiency programs that help customers reduce their bill and control their energy usage. They are hugely important. We don't do that work ourselves. We hire other companies who bring in those workers. So there is a whole universe of connected companies that will need—you know, need workers who can do the installation of solar, energy efficiency work in homes, and that sort of work.

Mr. PALLONE. Now, is that a different challenge to build the workforce for—you know, for offshore wind or more efficiency, you know, the efficiency jobs that you are talking about as opposed to, you know, more established technologies like coal and natural gas? Does that involve a different challenge?

Ms. PRAMAGGIORE. Well, I think because they are new, you know, we have got a pretty good, you know, track record in the industry of producing the kinds of skill sets that serve the grid that we have and the kinds of resources that we have—nuclear, you know, coal, gas. These new resources, they are new, so you just need to develop that pipeline. I would say that is the only difference. I don't think the skill sets are particularly unique, but they just—we haven't had that pipeline in the past.

Mr. PALLONE. But is it important for us to—because my time is running out—is it important for us to focus in building a workforce on those newer industries, renewables, efficiency, as opposed to emphasizing, you know, the legacy sectors at this point in order to be successful and create a workforce?

Ms. PRAMAGGIORE. Well, I think you need both. I think there is momentum in the legacy sectors. You have got that sort of foundation. I think the new sectors, you know, require some momentum, a push behind them, and that would be—you know, that would be the difference.

Mr. PALLONE. OK. Thanks so much.

Ms. PRAMAGGIORE. Thank you.

Mr. PALLONE. Thank you, Mr. Chairman.

Mr. RUSH. The Chair now recognizes Mrs. McMorris Rodgers for 5 minutes.

Mrs. MCMORRIS RODGERS. Thank you, Mr. Chairman. Thank you, everyone, for being here. I appreciate the witnesses and hearing each of your perspectives, especially on the importance of green energy and the infrastructure and the workforce necessary to meet our Nation's energy needs.

I am a proud supporter of a wide variety of clean energy initiatives, including hydro power, which is—it plays a dominant role in my district in eastern Washington, as well as all across the country. And clean, renewable, reliable hydro power I believe needs to remain part of the solution as we have these discussions moving

forward. It also is very important in many of the rural communities that I represent.

I also appreciated hearing your thoughts on how we improve diversity in the energy sector, and I wanted to ask a question of Ms. Mehnert. Really applaud your leadership at Pink Petro. It was great to hear of your work, and really focusing on addressing the lack of diversity within the energy companies.

Appreciate you working also on an all-of-the-above energy approach. So I know that we would like to have—we are not going to hear from DOE today, and I think that we should have included them. I am hopeful that my colleagues across the aisle will open up this process as we consider this legislation to be more inclusive of women in energy.

As a woman that works every day to make her mark in a traditionally male-dominated field, I believe it is crucial to support those who serve as role models and encourage young women in this country to strive for jobs that are typically found in the male-dominated fields.

So to Ms. Mehnert, as a woman with a background in oil and gas, how do you recommend—I know you have spoken some to that, but I just would like to give you some more time. Any specific recommendations on how we open up traditionally male-dominated fields to women? And especially those in the rural areas. What kind of approach do you believe is most valuable in targeting women and other minorities who are underrepresented in the energy sector?

Ms. MEHNERT. Thank you so much for the question. I believe engagement is key, having face-to-face conversations. A number of years ago when I worked for Shell, we did a 50-city tour, and we had conversations with Americans. We had conversations with people to try to understand their perceptions.

I think the way to reach people, too, is through social media. We live in a world where information is ongoing. Information is more readily available today than it has been in the past. And so I think that it is key that we use digital to reach folks, but also have real, honest conversations about these opportunities and make those opportunities available and visible to those communities.

Mrs. MCMORRIS RODGERS. You spoke about the importance of role models and mentors and the work that you are doing there. I have two young daughters. They are 8 and 5. And part of what I have learned is the importance of reaching our girls younger and introducing them to what is available much younger.

I really applaud your work to create this Lean In Energy mentorship program, which is really trying to reach women and partner them with the mentors. I would like to just hear you talk a little bit more about how you have gone about recruiting both the mentors and the mentees, how do you go about identifying individuals to serve as mentors, and those that wish to be mentees.

Ms. MEHNERT. So thank you for the question. When I launched Pink Petro, what we found was that women wanted access to mentors and mentees, and we—I decided that because I am a for-profit company that mentoring was not something that I was going to, you know, commercially monetize.

And so we sought to develop a nonprofit organization that all companies could participate in funding, and what we did was we flew to Silicon Valley, I met with a number of technology companies, and through my own experience with Pink Petro what we learned was that technology can connect.

So we have been able to use social media to get the word out. What we have found, interestingly enough, is we have—10 percent of our community are male mentees. So it is kind of interesting when you use technology to harness the power of diversity, bringing people together, accessibility. It is a pretty powerful outcome to be able to bring folks together.

So we just launched the platform a few months back, and we are in our first round right now and I look forward to getting more results as we progress.

Mrs. MCMORRIS RODGERS. That is great. Great to hear. I, first of all, appreciate that my parents always encouraged me that I could be anything that I wanted to be. But I am also grateful for the male mentors in my life and believe that we need both, and we need those role models and those that dedicate to that next generation. So thank you all very much.

Mr. RUSH. The Chair now recognizes Mr. Doyle for 5 minutes.

Mr. DOYLE. Thank you, Mr. Chairman. I want to thank you and Ranking Member Upton for calling the hearing today. Boy, I tell you, workforce development in Pittsburgh, we have 9,000 jobs open that aren't being filled because we don't have people with the skill sets that are needed to fill those jobs. And I can't tell you how frustrating that is when we see this disconnect between what—you know, the jobs that are out there and the skill sets people need, and we are not making those marriages.

I had convened a group of 30 CEOs in my city, and I asked them what kept them awake at night, you know, taxes, government regulation. It was none of those things. It was—one CEO pointed at another and said, "I am afraid he is going to steal my employees." That is how desperate the situation gets.

But we also realize, you know, we have universities like Carnegie Mellon and University of Pittsburgh that have these great programs in technology, but you have got to get to these kids in grade school. That is what I think especially in the underrepresentative communities. Young people don't understand what a career in STEM looks like because maybe nobody in their neighborhood or in their house is in that field.

So how do we expose young people, especially in underrepresentative communities, to STEM? And what can we be doing—and maybe I will start with you, Ms. Pramaggiore. What can businesses like yours do to partner with early education centers to start to introduce these kinds of programs at the grade school level, so that as children go through the process—because a lot of STEM, you know, starts with very simple things at an early age, that it keeps building upon it, and it—you know, it puts more people into that track where they can be trainable.

So what can business—because that is what I said to the CEOs. I said, "This is a problem. What are you doing about it? You know, how are you reaching out into these communities and getting them?" So I am just curious. You have got a very progressive com-

pany that has done a lot of these things, and I am curious to hear what business can do to expand those kind of programs.

Ms. PRAMAGGIORE. I think we absolutely have a responsibility here. You know, we have done a lot of research on why women and people of color aren't in the STEM field. I call it the three A's—awareness, access to educational opportunities, and what I call attitude, which is really about, do I see myself in that industry? Do I feel like I have the confidence to make a step into that kind of an industry? And those are the three things that tend to develop that we see that you have to—you know, you have to cut through.

And I absolutely agree it starts very young. One of the things that, you know, we have studied is the fact that summertime is so critical for young people, that kids who get experiential learning and opportunities and spend their summers, you know, being stimulated do so much better than kids who don't have those opportunities.

One of the reasons why we started some of the summer programs that I referred to, the Ice Box Derby, it is for girls a little bit older. We start in middle school into high school, but to bring these kids in in the summer and give them an experiential learning, that access to experiential learning awareness that there is these jobs out there.

And then, finally, the confidence. They meet with other, you know, professionals, who they can relate to and work with them. So we are doing that at the high school level, middle school level. We have educational programs that get out into the elementary schools. We work to help develop curriculum that we then train teachers and provide to elementary and middle schools.

So we are looking to—you know, to encourage—you know, raise awareness, provide educational opportunities for younger and younger people, and I completely agree you have got to get to them early, and the summertime becomes critically important. So we do—you know, we work on programs that keep these kids engaged over the summer.

Mr. DOYLE. Yes. And I think they need to see what a career in these fields looks like. I remember the first time I went into Google in Pittsburgh. They have a large presence in our city, and the first thing I noticed when I walked in there, they had a pool table and a pinball machine, and they ate for free. And I was thinking, this is a cool place to work.

So what do you have to know to work at a place like this? I will tell you, if grade schools were taking kids through companies like that, a lot of kids would be saying, "What have I got to do to work at a company like this?" And I do—I think that is so important that we start to reach down at the lower grade levels and make these matches.

And it also seems to me that, you know, community colleges and other institutions in the area I think need to do a better job talking to employers and saying, you know, what are you looking for? A lot of these jobs don't require a graduate degree of Carnegie Mellon, but they do require some specialized training that some people can get in a 2-year program, and then go outside and actually get a job that pays a family-sustaining wage.

I see a lot of kids going to college with bachelor's degrees in journalism—just kidding—and, you know, \$30-or-40,000 of student loan debt on them, and they can't get a job that pays any money is the problem.

Ms. PRAMAGGIORE. If I can respond, I think businesses are becoming more and more aware of community college opportunities, to have those, you know, more truncated degrees, but that actually end up with some sort of certificate that allows somebody to go out and get a good-paying job. I think we are getting better at that. I think we have got a ways to go.

Mr. RUSH. The Chair now recognizes Mr. Olson for 5 minutes.

Mr. OLSON. I thank the Chair. To start out the first subcommittee hearing in a very bipartisan manner, I want to thank Mr. Doyle. He is a proud cosponsor with myself of a bill that will be dropped tomorrow that is designed to help FERC fill some very needed open positions for pipeline safety.

We are doing this, but I gave them a chance to charge market salaries, give market salaries to FERC employees, so they don't lose them to the private sector. This will be dropped tomorrow, so thank you, Mr. Doyle.

Also, congratulations, Chairman, on your ascension to the chairmanship of this committee.

Welcome to all the witnesses. A special welcome for Mrs. Mehnert. You and I have a same bond—Rice University. I know you are hearing some tough times. November, LSU 72, Bill Flores' A&M 74 in seven overtimes. January, uncalled mugging that cost the Saints a chance to play the Patriots in the Super Bowl. And now you are here in the primetime for crawfish boils back home.

So thank you very much, and thank you, Ally, for joining your mom this morning. She dropped off one more time.

[Laughter]

Mr. OLSON. This bill is important for me because I represent the most diverse district in America, Texas-22. The census that will come out in 2022 after the census is taken in 2020, we expect my home county of Fort Bend to be 25–25–25–25 percent divided equally between Asians, Hispanics, African Americans, and Caucasians. And that is why I want everybody, regardless of creed or religion or race, to have a good, high-paying job in the energy sector.

And I am proud to have local partner schools, like Wharton County Junior College, Alvin Community College, and San Jacinto College, involved in this endeavor to open those jobs up to all colors. These schools are running 2-year programs that give all Texans a chance to learn key skills and get work without going to a 4-year university.

For example, for this upcoming fall 2019 enrollment, about 58 percent of STEM majors at Alvin Community College are minorities. Minorities, 58 percent. At San Jacinto College this past fall, that was almost 80 percent. That is incredible. That is Texas-22.

But, of course, Mr. Chairman, we have some work to do here in DC. I am still reviewing your new bill. There were big changes from the last Congress, but I hope we can come together and get something done on this important issue.

I want to ask you all—I will start off with you, Mrs. Mehnert—one theme here is over and over to get kids into STEM, we have

two challenges. First of all, they don't think it is cool. It is cool to go to Wall Street. It is cool to go to Silicon Valley. It is not cool to go into energy. It is low tech. It is not low tech. We all know that.

Also, as was mentioned, we try to capture them at the college level. That is way, way, way too late. So my question is: have you all talked to local school districts, local—kind of get them engaged, try to catch maybe middle school, maybe elementary school.

Mrs. Mehnert, you are up first, so just go around the table there.

Ms. MEHNERT. Great. So I absolutely agree we need to reach sooner. My daughter is 8. I talk about energy all the time. I think the two DOEs—the Department of Education and the Department of Energy—need to talk together about elementary level education, right? We need to look at what we are teaching, how we are exposing kids.

We have great schools in Texas, the energy high school. We have a number of ISDs that have STEM-focused education. It is too late, though. It is way too late to reach kids in high school. We have got to get to kids much earlier if we think that we are going to be successful at getting them in energy.

Mr. OLSON. Mr. Campbell?

Mr. CAMPBELL. Yes. I was just going to add, kids love technology, and once they—I think the biggest thing is access. We work with a lot of schools. I do a lot of mentoring with elementary school and middle school students. And once you can do the tie-in to say, you know, this is how your iPad is powered, this is how your PlayStation is powered, they get it. I think the biggest thing is showing up.

And to your second part, we have to make it cool. And one of the things, we work very closely with the Dream Corps, and they have done an excellent job of doing unique events where they will bring in diverse artists to reach a younger population, and there is emerging things like the Broccoli City Festival in DC, which brings over 100,000 people yearly to talk about sustainability in energy.

So I just think there is a tremendous amount of opportunity, but we have to show up, and kids need to see role models and really break it down to them. And once they get that, they are very engaged.

Mr. OLSON. And one form, too, back home is robotics competitions. Kids do these amazing things with robots. They get involved in science, technology. I played a banana peel piano, banana peels, dried banana peels wired up with wires. I played Chopsticks at a local elementary school.

So thank for your time. I am out. I yield back.

Mr. RUSH. Mr. McNerney is recognized for 5 minutes.

Mr. MCNERNEY. Well, I thank the chairman. It is always tough to follow the gentleman from Texas, but I will give my best at it there, Pete.

I thank the witnesses this morning. Ms. Pramaggiore, given the lack of new nuclear construction, can we ensure that there is a trained workforce for advanced nuclear such as small modular reactors?

Ms. PRAMAGGIORE. So we are, obviously, quite interested in that as a business—our nuclear skill sets—and we do fund nuclear

scholarships for engineers to ensure that, you know, we have got a strong pipeline. But it is something that concerns us. It concerns us as the nuclear power industry wanes.

I don't think that that is a skill set that we want to concede to the rest of the world. I think that we want to maintain our dominance, our leadership, in nuclear skill sets, and I think it is a very important area. As I said, we devote a significant amount of dollars to scholarships to bring people through the nuclear programs and the nuclear engineering programs, but I think it is something that we should pay attention to.

Mr. MCNERNEY. Thank you. Well, in California, the wildfires are an increasing threat, and I would like to expand the definition of workers in the energy to include jobs that make sure our system is resilient, such as clearing out underbrush around our transmission lines. Can you speak about the diversity in that sort of job?

Ms. PRAMAGGIORE. So vegetation management is, you know, what we would call that, and it is very important to manage, you know, the vegetation around our lines and our systems. Obviously, California has felt that, you know, quite acutely, but we see that across the United States.

You know, there is a fair amount of diversity in those ranks, but I do think there is opportunity there as well, and I think that we will see those businesses grow also. One of the things we have looked for in the vegetation management ranks is to find additional—there are some companies that are quite strong and quite large that do this, and, you know, we would like to see—you know, we like to help companies grow. So the opportunity to grow small businesses, diverse businesses, I think that is an area of tremendous opportunity.

Mr. MCNERNEY. Thank you. Ms. Truong, do you have any data on the number of jobs per unit of energy produced in the renewable or clean energy fields versus the fossil fuels?

Ms. TRUONG. That is a level of metric I don't have access to. But I will say to your question around, how do we actually begin to address the opportunities that we are seeing in California where we literally saw Paradise burning, and the opportunities for us to diversify the workforce for a State as diverse as California.

I think what we need to begin thinking about is really, how do we create the supply and demand that we need in order for this to happen? In the policy realm, we really need to think about diversifying our supply from grade school on to on-the-job experience with employers to others. We can create a demand for diverse workforce.

But having policies that actually incentivize that, at the school level, with on-the-job employment, with on-the-job internship and opportunities, to making sure that we are really demanding that through policies, having a demand for renewable energy, having a demand for clearing the underbrushes around the grids, having a demand for those, actually creates the opportunities for the people who actually get trained to get jobs that are going to be created by these employers.

Mr. MCNERNEY. Thank you. Ms. Colon de Mejias, what does certification in energy efficiency look like? Is that sort of a degree, or what does it—what do you mean when you say “certification”?

Ms. COLON DE MEJIAS. So there are multiple careers in energy efficiency. HVAC is a career, an insulator is a career, energy assessment is a career, and each of those has their own set of certifications. So, for example, there is a Building Performance Institute that certifies building scientists as analysts or envelope specialists. That ensures that when you are running a building that you take into account all of the factors that it requires.

Energy is something that, like air, we don't really think about, but we are using it from the moment that we are waking and even while we are sleeping, right? It is a huge demand as every part of our daily life. And so what my industry does is look at the way that those things work together and ensure safety and high performance. So there are all kinds of certifications you could get in my industry.

Mr. MCNERNEY. Thank you. Mr. Campbell, what is the match up of employment opportunities in the energy field versus the geographic available potential employees?

Mr. CAMPBELL. Can you repeat the question?

Mr. MCNERNEY. Yes, sure. What is the match up between job opportunities in the energy field and the geographic availability of workers to take those jobs?

Mr. CAMPBELL. Yes. Very good question. So, I mean, there is parts of the country that when you look at renewables that you see more, for example, in solar, and that is more driven by State policy, renewable portfolio standards. In California, for example, you have a very aggressive renewable portfolio standard. But then as parts of the country in the south, like North Carolina, South Carolina, where they have passed better renewable portfolio standards, that you are seeing solar there as well, too.

But if you just take a step back and look at energy jobs in general, you have got generation, which is all across the country, whether it is natural gas, solar, wind, geothermal, biomass. We have resources all throughout the country. The delivery as far as getting that energy to consumers and businesses, that workforce is all throughout the country.

And then we talk about storage and micro grid, and one of the things that we haven't talked about is electrifying our transportation sector. And that is one of the biggest sources, if not the biggest sources, of carbon pollution. And most utilities across the country are now looking at how to electrify the transportation sector.

So I think all of these opportunities are geographically constrained, I think the opportunity across the board.

Mr. MCNERNEY. Thank you. I will yield back, Mr. Chairman.

Mr. RUSH. I thank the gentleman, and now will recognize Mr. McKinley for 5 minutes.

Mr. MCKINLEY. Thank you, Mr. Chairman. This is something you have been interested in I know for years, and I really welcome having this discussion. If for no other reason, it helps to underscore the diversity or the differences we have between urban and rural settings, because this panel primarily is all from urban centers. I see them from District of Columbia, from Connecticut, California, but I have not seen it from the coal fields.

And so my concern here is when I think about—in the corridors of—in West Virginia, in Kentucky we have got Harlan, Kentucky. In West Virginia, we have Gary, West Virginia, Welch. We could go on. We could say—War, Big Chimney, Thurmond, all of these little communities. All of you have ignored this transition. All of you.

Where are we going to put—where are we going to train these people for—it may be, indeed, a movement into the renewable energy field. But are we going to do for those communities? Companies for years have ignored them. They are not investing in Thurmond or Welch or other—all across, not just West Virginia, but Kentucky and Wyoming and elsewhere. There is a reason that companies haven't located there, despite the incentives that might be out there, as promulgated or put forth in this legislation.

So I was hoping that we would hear how we help those communities, because I know the chairman and I have talked about that. How do we reach out to those people to help them make this transition? And that transition may be, as it was in the '50s after the war, they left and they went someplace else. That may be the solution. They have to abandon war in Thurmond and Big Chimney and Harlan.

I want to know who is going to buy their homes. I want to understand what we are doing with this, because for the coal miners and their related industries their biggest asset is their real estate. And so when we tell them, you can get a job in creating solar panels, but it is just not going to be in Thurmond, so you will have to locate someplace else. What happens to them? What happens to the community? What happens to the school systems, the churches, the fire departments, anything else that occurs with them, when we abandon those communities to do our retraining for someplace else.

And we can—I know it is a noble idea to talk about the transitioning over to the renewables, and the possibilities for that. But I am enormously frustrated with that. I don't understand why we are not helping to transition using the resources and assets that we have to be able to make a better transition from fossil fuels to that later on by doing innovation, finding out how we use what we have cleaner and more efficiently, but that is not the program. That is not what I am hearing coming up in this discussion.

All of it seems to be—I know you are chomping at the bit, and maybe I could soften it. I am just looking at a little county, Pleasants County, West Virginia. That because of rules and regulations that have been promulgated here, they are going to lose a power plant there that represents 30 percent of all of the revenue generated for that county. Thirty percent. What are they going to do for their education system? It is just going to collapse.

Or you can go out to Arizona to the Navajo and the Hopi Tribe, where they have a generating plant out there that is being threatened. And we are saying they can be trained. That is fine. But if they—what they are doing right now is 30 percent for the Navajo Tribe comes from that power plant; 85 percent the operation of the Hopi Tribe.

Folks, let's be realistic about it. These people like being in their communities. They like being there. That is why they are there. What are we doing to train them there? What jobs are going to go

there for them? Are we making—by this, are we saying you have to leave your town?

I have run out of time, but, Ms. Mehnert, do you have some thoughts?

Ms. MEHNERT. I have a thought, and I think the thought is this is the group that needs to think about that, because we are all—we all come from a different place. We all come from different parts of the sector. The oil and gas industry is a boom-bust, OK? I see this all the time. We rush into an area, right, and when prices collapse we leave.

And so I think it is something we need to think about, working together, because over time we are going to have these challenges of displaced workers, and we need a way to solve that problem. But I think this is a group to ask of thinking about what that might look like.

Mr. MCKINLEY. You see, I am—how do we do them, train them, so that they can work in Thurmond or War or Big Chimney, not abandon their towns to go someplace else? That is what I have not heard. And I hope somehow in this—as this legislation matures over the next year or so that we will have more of an opportunity to talk about how we take care of the folks that are living in those towns, not about the future.

Ms. COLON DE MEJIAS. I would like the opportunity—

Mr. RUSH. Do you want to answer?

Ms. COLON DE MEJIAS. Yes. I would love the opportunity to respond. I haven't had much opportunity to say anything, and I am a minority, and I am a female, and I am a business owner, and I have trained people in workforce. It is what I do.

And the intention of this bill, to my understanding having read it, and the summary, is that we would be looking to train people in their communities. So Connecticut actually isn't an urban center. It is quite suburban, and we do serve the entire State of Connecticut. But I am not the only State that does that. These jobs that we are talking about creating training for, they exist already, and those people who work in Pennsylvania or West Virginia absolutely could participate in working in this industry and make really good earning wages.

And so the intention of this would be to engage people, one, at a younger age in the public school system and introduce them to science-based concepts to prepare them for the jobs; and, two, the people who are displaced workers, it is to train them to take the positions that are available right now today, to be part of the community and work and engage in active—

Mr. MCKINLEY. Ms. Colon de Mejias, I am sorry. I have run out of time. They are already making a good wage. They are making \$80,000 a year, but because of regulations and things we are imposing on them in Washington, they are losing their jobs. That is why the decline in the fossil fuel industry across this country. We are taking those wages away, and we are going to replace them with something that is a hope that something will happen for them.

I yield back.

Mr. RUSH. Mr. Loeb sack is recognized for 5 minutes.

Mr. LOEBSACK. Thank you, Mr. Chair. I am going to have to look around my colleague, Ms. Barragán here, because I want to direct my first question at least to Mr. Simpson. But before I get to that, I would like to brag about Iowa and how well we are doing when it comes to wind energy. We are at almost 40 percent of our electricity generated by wind.

We have got 66 solar companies, over 800 jobs. We are doing a pretty darn good job in the State of Iowa when it comes to renewable energy, and we do take an all-of-the-above approach to it. We have a nuclear plant, coal-fired plants. A new hydroelectric plant is going in in my district as we speak, too.

But these are great jobs that get created by all of these different approaches, you know, to our energy portfolio, but especially in that renewable field, we are very proud of the thousands of jobs in wind energy and solar and what have you, as I mentioned.

Workforce development is a big issue. We started up in northwest Iowa in 2004 at Iowa Lakes Community College. They have a wind energy program up there, and other community colleges throughout the State have adopted that program as well. Kirkwood in Cedar Rapids has a big wind turbine on its campus, and so they do train folks there.

But I want to go to Mr. Simpson to begin with. Thank you for your service, first of all, in the Marine Corps. I did not have the honor or privilege to serve in the military myself, but I have a stepson and his wife who are both active duty Marines still at Camp Pendleton, so I want to thank you very much for that service, and your focus on veterans.

You brought up a couple of things in your testimony today. You mentioned a veterans apprenticeship program. Can you elaborate on that a little bit, what that is exactly?

Mr. SIMPSON. Yes, sir. So there are a couple. So the military has several occupations that are recognized already by the Department of Labor through the U.S. military apprenticeship program where your job you do in the military gains credited hours toward an apprenticeship.

Mr. LOEBSACK. As should be the case.

Mr. SIMPSON. So that is one of the things that already exists. And as industries, we have the ability to implement VA and Department of Labor approved apprenticeship programs to train our new workforce as they come on board. So that is what Pike has done is establish a training program approved through Department of Labor and the Veterans Administration.

Mr. LOEBSACK. And you mentioned one of the roadblocks that you face is that when you go to these different bases, each one has sort of its own rules and regulations as to how you can gain access; is that correct?

Mr. SIMPSON. That is correct, sir. As I mentioned in my testimony, you know, as simple as North Carolina, Fort Bragg has one set of rules, Seymour Johnson Air Force Base has another, Camp Lejeune Marine Corps Base has a different set of rules, and then Marine Corps Air Station Cherry Point, 50 miles down the road that falls under the same command, has different rules.

Mr. LOEBSACK. Yes. I was on Armed Services for 8 years. I understand your concern about the different rules, and I don't want

to put you in the hot seat too much here. It is not really your job to figure out how the DOD should deal with this, but do you have any thoughts about how we can standardize access across bases? Any thoughts at all on that?

Mr. SIMPSON. I do, sir. I think if—when you look at the transition program as a whole, the transition program was developed in these halls.

Mr. LOEBSACK. Right.

Mr. SIMPSON. You all approve legislation that created a transition program to ensure that veterans had the appropriate skills entering the workforce to be able to attain a job or go to college, whichever they chose to do. So those things were created here. I think that establishing a set of core foundational rules that allows contact between employers, the commercial sector, and the DOD sector is the key.

Mr. LOEBSACK. Right.

Mr. SIMPSON. The opportunity to go in and present my business to those service members as they transition, so that they understand that you don't necessarily have to work in a bucket truck out in the weather and all of the elements that we work in, that you can also be an engineer, that you can be a work management technician going into our customer's database, pulling jobs out, and then sending those jobs to our crews that are in the field. There are so many other opportunities than just line work.

Mr. LOEBSACK. We politicians are really good at expressing—on a bipartisan basis at expressing our concerns for veterans and our support for veterans, but we have got to find better ways, so that folks like you can interface with them and get to them and have that access to them.

I am a strong supporter of community colleges. I already mentioned some of the colleges in Iowa. I have my own saying that community colleges are the principal intersection between workforce development and education. Any thoughts on that? I hate to just focus on Mr. Simpson here, but I have limited time.

Mr. SIMPSON. Absolutely. I worked in workforce development with the State of North Carolina for 2 years running a veterans program, and in that process interacted a lot with the community colleges, with their folks that go out and integrate with business to identify training areas that are needed and develop a new workforce.

So I believe that community college is a great place to obtain the education. I think, again, the funding issue is the problem, making the funding available so that continuing education is acceptable as well as curriculum education.

Mr. LOEBSACK. Well, thank you. And thank you, Mr. Chair. I don't want to abuse my time. I yield back. Thanks to all of the participants here.

Mr. RUSH. I thank the gentleman. Mr. Griffith is recognized for 5 minutes.

Mr. GRIFFITH. Thank you, Mr. Chairman. I appreciate that. This is an interesting and valuable topic, and I hope that we have the opportunity to work through regular order to learn about this bill and other workforce development programs that already exist at DOE and other agencies. I will have some questions for DOE when

the time is right, and hopefully they will be at another hearing and I can ask them at that time.

I also would note that if we are going to look at workforce development in a holistic way, we should look at populations that have seen a decline in industry jobs, such as many localities in my district, and we need to make sure that economic development is a part of this as well, so that we can train folks for local jobs.

You may be hearing, you know, Mr. McKinley and I come from States where coal has been king—or for areas where coal has been king, so you are hearing a similar vent. I do appreciate, Mr. Chairman, that you did include so many areas in your development skills section of the bill, including energy efficiency.

We actually have a group out of Christiansburg, Virginia, that I represent, Community Housing Partners, that I toured recently where they are going into homes and helping the people who are doing the HVAC systems and doing the energy efficiency at the homes, actually understand getting the certifications that you mentioned earlier. And Ms. Colon de—

Ms. COLON DE MEJIAS. de Mejias.

Mr. CAMPBELL [continuing]. Mejias. Thank you. And they are doing that there. Chemical manufacturing is listed in the bill, and I appreciate that because just outside of my district in Kingsport, Tennessee, we have Eastman, also in Martinsville, but they do—in Eastman they do chemical manufacturing using coal and natural gas as their feedstocks to make all kinds of different plastics that we use every day.

Likewise, I would be remiss if I didn't mention oil and natural gas, and of course the bill does include coal and training folks for coal jobs. Mr. Olson said we have got to convince folks that it is cool to get into energy. Folks in my district, because of the money, if you can find a job—and they are better today than they were a couple of years ago, but they are paying anywhere from 75 to 90. If you get overtime, and you work overtime, you can make \$120,000 a year.

Wind and solar is great, but we have to recall that wind and solar are paying roughly 40 to 60 if you are not one of the top folks in the industry. So it is important to remember that.

But, still, even at that amount of money, the folks want to stay in their communities. They love the mountains. They don't want to leave, and they will be looking for jobs. So I am going to ask you all how you feel this bill in particular can help, because we have some opportunities at surface mines for wind and solar, depending on the wind. Every mountain is different, so you can't say you would do it on every mountain, but wind and solar.

And then we got some bills passed last year, and I think most people are supportive in a bipartisan fashion, for doing closed loop pump storage inside abandoned mines. They already have the electricity. They already have the vertical built into a lot of the mines, and you could use the mines to use water that is already—you don't have to look for critters. It is already water that you are bringing in from the outside, and so that is an opportunity.

But how do you think this bill might help that? And I will open it up to whoever wants to answer. Mr. Campbell, you seem rather interested, but I may have gone off topic for you.

Mr. CAMPBELL. I am happy to start. I agree with both you and Congressman McKinley that rural areas have been overlooked, but I think we also have to have better public-private partnerships, and it also includes stronger policy. Some of the reasons in, you know, places and States that you don't see as much solar and wind is at the State level, not being in—

Mr. GRIFFITH. What in this bill do you think would help my region get some of those things?

Mr. CAMPBELL. Sure. One of the things I think directly is not just segmenting to solar, wind, or picking winners in technology, but training people to understand energy. What is an energy job? When you look at utility companies, they have an aging workforce.

Mr. GRIFFITH. My folks understand. They understand energy because we have natural gas, coal bed methane, and we have coal. They understand energy, and they understand energy jobs pay good. What we have got to do is find them a job.

Mr. CAMPBELL. So I think we have to work together. I think we need better policy. But on the other hand with the training component, you also have to take a long-term view. So I talked about like the transportation sector is coming around the corner, so there is real-time changes that we have to prepare the workforce for the future. Some of those jobs might not be there now, but I think it would be shortsighted not to train people for the jobs that are going to be there 3 years, 5 years, 10 years down the road. So—

Mr. GRIFFITH. And I appreciate it. Can anybody else tell me how this bill in particular might help my region on the areas that I have touched on? Yes, ma'am.

Ms. COLON DE MEJIAS. I would absolutely love to help you, because efficiency is applicable to absolutely any type of energy use.

Mr. GRIFFITH. Everywhere. Absolutely.

Ms. COLON DE MEJIAS. Not just buildings, not just cars, our lights, every single thing, our heating, our cooling, our cooking, our refrigeration. Efficiency is something that draws down demand. It is literally the concept of using less to do more, right? So it applies to everything.

And anyone can be trained in my industry. And so there are entry-level jobs, and there are high-level jobs. There are jobs at the public utilities and demand reduction in energy efficiency, and those people can make up to \$250,000 a year. Many people don't know the industry exists and don't understand energy.

It is great that people in the community do understand energy, but there are so many people that have no idea where electricity comes from. They don't understand their heating and cooling systems, and so there are real opportunities for people who are needing jobs to find entry-level jobs and high-level jobs.

Mr. GRIFFITH. And I will agree that energy efficiency is a conservative idea, because we are conserving the energy.

I yield back, Mr. Chairman.

Mr. RUSH. I want to thank the gentleman.

Now I will recognize Mr. Veasey for 5 minutes, and let me take a moment to welcome you as a new member of this subcommittee.

Mr. VEASEY. Thank you, Mr. Chairman. I appreciate the welcome, and I just want to, again, thank the chairman, the com-

mittee, and the witnesses today. I am really glad that we are here discussing this bill today. I think it is very timely.

Last Congress, myself and Congressman Brendan Boyle of Pennsylvania, we founded the Blue Collar Caucus, and there are several members of E&C that are members of the Blue Collar Caucus. And one of the goals that we have is to bring attention and solutions to the dwindling career opportunities that we see in some spheres of manufacturing and the building trades, and see how we can increase those.

And I clearly think that there is an opportunity to leverage our need to transition to a more sustainable energy mix and to rethinking what a blue-collar job is. We know that a green-collar economy is here in many aspects today, and that that is going to continue to grow. And we have heard from witnesses today that it is not the lack of jobs, that there are already green-collar jobs here. We see some of those in the Dallas/Fort Worth area.

One of those companies, Encore, is one of our electric utilities in Dallas/Fort Worth, and the largest utility in Texas. And right now they are preparing for the challenge of forming a new electric fleet of vehicles. These are large EVs, Class 6 or 8 trucks, that are going to be used for delivery that would operate during the day and return to a central depot to charge at night.

This overnight time capitalizes on the cheap and clean wind energy that we have in Texas. A lot of people think of Texas as an oil and gas State, and indeed we are, particularly in the Permian Basin, but we are also one of the leaders on wind.

Our wind story in Texas is absolutely and unbelievably incredible, and we have the space, obviously, to be able to achieve a lot of that. But a lot of these vehicles are going to be charged at night, which is when the wind is more likely to be utilized into the grid.

The challenge, which is really the opportunity of our time, is ensuring that we have a diverse and trained workforce that is ready to work in these jobs. And, again, I am going to remind everybody that a lot of these jobs are already on the horizon, and my question to the panel is that you have all been at the forefront of efforts to reduce the gap in training and representation of minority groups in the clean energy workforce.

I want to know what kind of impact could funding and programs in a bill like Representatives Rush make in ensuring a diverse workforce in our growing green economy.

Anybody that wants to jump in and answer could.

Ms. COLON DE MEJIAS. Investing in education for underrepresented populations or all people of America opens the doors to opportunity for employment. You know, it is very hard to get a job if you don't have the right skill set, and there are many areas of America that currently don't offer strong STEM courses in public schools, and there are areas in the community colleges where there are not programs for green jobs.

And I do agree that, you know, earlier Mr. Simpson and also Mr. Campbell mentioned that, you know, energy, basic skills and STEM skills are applicable to any job, right? So by investing the money on the front end, we are allowing the opportunity for people who are not able to find employment to have access to those jobs.

And I think that is what the key part of this bill is, is opening those doors for opportunities through education and training.

Mr. VEASEY. And I want to also remind everybody as well, and something that I don't know—I have to leave momentarily, and it may have been touched on, but we were in Seattle, several members of the Congressional Black Caucus were in Seattle a couple of years ago.

And because of the evolution in technology that is going on right now, not only are we talking about many of these blue-collar jobs transitioning to more green-collar type jobs, but they are going to be white-collar positions because of technology where people are going to see those jobs move to blue-collar, green-collar, gray-collar type status because of the technology, and that is something that we also need to focused on as we talk about the various challenges and bringing more of this technology onto the grid.

Thank you very much, Mr. Chairman. I yield back the balance of my time.

Mr. RUSH. I want to thank the gentleman for yielding back.

Now the Chair recognizes Mr. Bucshon for 5 minutes.

Mr. BUCSHON. Thank you, Mr. Chairman, and thank you to the panel. It has been interesting. A couple of things quickly. Mr. Simpson, the CDL driver's license for veterans, you probably don't know but I had a bill many years ago that actually put the current situation into law to streamline the process for CDLs for veterans, and so I would be interested in the pitfalls of what we have in place and how we can improve it. I mean, just briefly, because I have a number of questions. I mean, we want to—we can revise what we did years ago to improve it.

Mr. SIMPSON. Thank you for the question. I think that, really, if we look at it, it is the timeline that has been established, the 12 months in order to get certified. If you miss that 12-month window, then your license, basically you start over from scratch as if you had never driven a truck before.

Mr. BUCSHON. So that is the biggest—

Mr. SIMPSON. That is the biggest.

Mr. BUCSHON [continuing]. That is the biggest deal?

Mr. SIMPSON. And then the MOSs, having specific MOSs associated, the original—the Federal Motor Carrier Safety Administration form doesn't indicate MOSs, but when you get to the State level in a lot of States they have indicated specific MOSs.

So in the Marine Corps I have got one truck driver MOS, but I have got many more people that drive trucks than just that MOS.

Mr. BUCSHON. So let me—yes. Please contact my office if you would at some point.

Mr. SIMPSON. Yes, sir.

Mr. BUCSHON. And send out that information to us, because we can hopefully expand that. So thank you.

Mr. Campbell, you were talking about solar, somewhat about solar. Many of the panelists have. But what are we doing in trying to advance recycling of solar panels who are—that are at the end of life? Because Europeans, for example, have that in their process, you know, through the manufacturing of the panels, a plan for end of life, because if you look at where we are now, and we are going

to continue to expand solar—and I am an all-of-the-above energy supporter, even though I am in coal country.

Is there anything anybody on the panel knows about what we are doing for 20 to 30 years from now because with all of these solar panels as they end their life, because right now in the U.S. we put them in landfills. Did anybody have any—I will start with you. Do you have any idea about what we are looking at there?

Mr. CAMPBELL. I am not as well-versed on the recycling, but I can definitely circle back and find out for you.

Mr. BUCSHON. Does anybody on the panel have any input on that at all? I think that kind of proves my point, because I have been looking at this—I mean, starting to look at this, and I want—you know, I think if we look at the environmental impact of any industry, right, we need to look at the industry in total, and that includes the production of panels and the end-of-life what we do with panels. That is true with electric cars, too, with the batteries and all of that, and I think that is important.

I support those industries, but we just need to recognize that we are going to landfill hundreds of millions of tons of solar panels, probably 25 or 30 years from now. So I support an all-of-the-above energy. In fact, I mean, Indiana is a big manufacturing State per capita, and I was a little disappointed to see the new bill as introduced did not include some of the bipartisan language we worked on regarding the fossil fuel and industry and nuclear energy and some manufacturing.

Ms. Mehnert, who are we potentially leaving out with this limited focus on the green-collar jobs, I mean, in this bill? Are we leaving out anyone in what we are trying to do?

Ms. MEHNERT. Yes. I believe we need to look at oil and gas, and I also believe—when I went to research this, I actually went to this committee's Web site page, and I didn't see the words "oil and gas" even listed on the front page.

Mr. BUCSHON. I think that kind of answers—

Ms. MEHNERT. No. And I am glad you asked the question, because let's face it, the word "oil" and the word "gas" and the word "climate," there are all of these terms that in our language, right, they create visceral responses when I look back and say to myself, "We are here because of those things."

And I think everyone in this room recognizes that we are in an energy transition, and it is a great economic opportunity, but we absolutely have to make sure that we are inclusive, particularly when we are talking about diversity and inclusion, you know, of folks. We have got to have folks and forums.

Mr. BUCSHON. Understood. Ms. Colon de Mejias, is that right?

Ms. COLON DE MEJIAS. Thank you. That is perfect.

Mr. BUCSHON. Yes. I would really—the energy efficiency thing is really important, and why can't we convince some of our citizens to look at their house and do things that improve our energy efficiency, because we—that is struggle, right? People just—I mean, they just won't do it. I mean, is it money? What is—is it knowledge? What is it?

Ms. COLON DE MEJIAS. I would love to answer you, and I have no seconds left. But I will answer you anyway.

Mr. BUCSHON. Well, with some discretion from the chairman I think. Go ahead.

Ms. MEHNERT. Is that OK? So it is a great question. Energy efficiency is something that is very—is not talked about, right? It is not sexy like wind or solar. It is not as cool as an EV car. It just gets the job done. I call it the unsung workhorse of America.

Just in my State alone, energy efficiency in the last 10 years has removed the need to build two new power plants. The other thing about efficiency is it is comprehensive, and it is collaborative with any type of energy source. I like to talk about energy efficiency in a very simple way.

I say that when we create energy policy, we are not really making sausage; we are making rice and beans. And the efficiency is really the rice with a long-acting carbohydrate that would sustain us as a society. And the beans are the proteins or the energy. It is like nuclear, fossil fuels, or renewables.

And you can write energy policy with any type of beans, right? But if you create a dish and you have the parts that you need, it is going to sustain you longer than if you don't think about how you are creating the dish.

Mr. BUCSHON. Thank you. My time has expired. I would like you to expand more, but it is a very important subject. Thank you very much for your answer.

Ms. COLON DE MEJIAS. Thank you.

Mr. RUSH. The Chair now recognizes Mr. Kennedy for 5 minutes.

Mr. KENNEDY. Thank you, Mr. Chairman. I want to thank the witnesses for appearing today and to the committee for holding this important hearing. I want to thank you also as well for your perspectives and for your leading efforts to develop, promote, and employ a diverse labor force and a growing green economy.

I am particularly interested in the development of offshore wind resources. We know offshore wind holds an immense opportunity for abundant renewable energy, and that offshore projects are in the development pipeline. Some report that ISL New England has around 10 gigawatts of offshore wind project development in the interconnection queue, and the lease results from December show a significant interest in potential, particularly off the south coast of Massachusetts, an area that I represent.

Locally, there is already active economic mobilization from businesses to education institutions to civic organizations, to ensure that our region is poised to capitalize on that potential.

Folks, it is hard to overestimate how promising this is for cities like Fall River and New Bedford, Massachusetts, and for communities like them around the country that have too often been afterthoughts in a modern economy and deserve to have a central seat at the table as these new industries emerge.

But domestic offshore U.S. wind development is in its infancy, and as a result we don't have the robust offshore wind workforce that is needed. I know this is a challenge that we have to tackle locally, and we have tried to tackle locally, and I have a few questions on that piece specifically.

So, first, this bills seeks to address the critical need for a diverse labor force, and I want to focus on that for a second. Ms. Truong, is that right? Close?

Ms. TRUONG. Yes.

Mr. KENNEDY. Thank you. Forgive me. How do we ensure that our workforce training and development efforts in this emerging sector are inclusive, and intentionally target populations that most need and most stand to gain from access to these new good-paying jobs?

Ms. TRUONG. Well, that is a very good question. And, first, I think what we want to start with is, how far away are we from developing the offshore wind? We want to time the development and the training of the workforce with the demand of the employers that is going to be upcoming, right?

And so once we understand that, how do we make sure, then, we are reaching out to where the diverse workforce will be? Whether it is in schools, whether it is in middle schools, or high schools, how to begin to provide the on-the-job training, the internships, the apprenticeships necessary as the employers, the offshore wind projects, are being developed at the same time.

We want to make sure that we actually match the demand with the supply itself. We don't want to train young people, especially in diverse communities, for jobs that won't exist, especially if they are going to be sacrificing other opportunities, the opportunity costs that will entail. At the same time, we don't want them to miss the opportunities that will be presented in itself with the offshore wind projects. So I think matching the supply and the demand of the employers and the employees would be really important there.

Mr. KENNEDY. And building off of that a moment, ma'am, targeting amongst the groups that you indicated, minorities, women, lower income communities, and other populations currently under-represented in the energy sector, how do we assure that they have access to the training and employment in that offshore—as we try to bring offshore wind to market?

Ms. TRUONG. Education and outreach, making sure that we are going to where the people are, making sure that we are engaging the community-based organizations, the workforce investment boards, and the local communities, making sure that we are connecting the investment in the pipelines that the potential employees will be to the jobs, to the job market, and making sure—

Mr. KENNEDY. When you say “we,” do you mean through the design of that legislation and the implementation thereof?

Ms. TRUONG. Absolutely.

Mr. KENNEDY. OK.

Ms. TRUONG. Yes.

Mr. KENNEDY. And forgive me, Ms. Pramaggiore?

Ms. PRAMAGGIORE. Yes.

Mr. KENNEDY. Close? Forgive me. From the utility and resource planning perspective—and, Mr. Campbell, from the project financier and development perspective—how do we, simply put, make these jobs a reality?

Ms. PRAMAGGIORE. Thank you. So we are actually thinking about that right now. We have a utility in New Jersey, and there is some discussion in that State of offshore wind, and that is not our job to build the turbines. We are a utility transmission and distribution.

But we are thinking through what it takes to take transmission out to those assets, and what that looks like from an economic standpoint, what that looks like from a job skill set standpoint.

So I think the industry is thinking about this. I think those projects are becoming real. We have the skill sets in the utility or, you know, can build them. They are for us the, you know, the traditional transmission technician skill set and transmission engineering skill set.

We just, you know, I think to the point that Ms. Truong was making, you know, to continue that pipeline, make these projects and great opportunities accessible, create awareness around them, and just, you know, ensure that we are supporting that pipeline.

Mr. KENNEDY. Thank you. Mr. Campbell, briefly?

Mr. CAMPBELL. Yes. Currently, we don't have the capabilities in wind. We have the access to capital. As, you know, that market matures a little bit, I think the partnerships and/or acquisition would be an area that we could look at, but right now we are not currently operating in wind.

Mr. KENNEDY. And what can we do to help? In four seconds.

Mr. CAMPBELL. Products. And the partnerships will come. And I know we talked a lot about job creation, but also small businesses are the backbone of our country. And I think part of, you know, once you train and learn energy, an opportunity like what I did, to be able to create your own companies as well, too.

Mr. KENNEDY. Thank you, sir. I yield back.

Mr. RUSH. The Chair now recognizes Mr. Johnson for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman. And I want to thank our panel for being with us today. You know, the world has changed, I think, because I spent 27 years in the Air Force, joined in '73 and retired in '99. And I can remember the day when employers were clamoring to get military folks to come and work for them.

It was a big deal at every base that I was stationed at over that nearly 27 years. Employers would offer you a part-time job, whether it was in technology or food service or manufacturing, you name it. How we got into this situation where we are no longer able to tap into that huge talent pool with veterans, with military folks that are exiting their active service, is beyond me, and I think Congress should be doing everything that we can do to make it easier for those veterans to utilize resources and to get into the job market.

I really wish that we were hearing from the Department of Energy also today, because I know that Secretary Perry has really worked hard to expand veterans programs and increase the communication and collaboration between the VA and the Department of Energy, and that is an issue that I have worked on myself with him.

So, Mr. Simpson, as you alluded to in your written testimony, there are already many Federal programs for veterans. DOE also works with partners on training and certification programs to assist veterans and active duty service members on their transition into civilian jobs. Do you support this idea of a clearinghouse to consolidate these resources and make them easier to use?

Mr. SIMPSON. I think, sir, if you look at it for us, we support anything that develops a better workforce for industry. I think if you look at the existing platforms that are already available, what has happened to the resources that are there, and then after doing that look at how the industry has responded, how people have responded about getting into the industry, then you look at those things. That would make sense.

Mr. JOHNSON. OK. All right. Despite the great work already occurring, both in government and in the private sector, do you believe specific barriers remain to companies successfully tapping the unique skills and abilities of our veterans within the energy industry?

Let's see, yes, such as issues involving transitioning from the military culture to private sector culture, issues with private sector certification requirements or the need to supplement veteran skills with additional training. In other words, what gaps remain or could be improved upon to make this transition from the military to the private sector most successful for veterans in your industry?

Mr. SIMPSON. So I am going to answer that in a couple of different directions. I am going to start with something I have been meaning to say the majority of the day. Education has been something that we have talked about at this table pretty consistently, and I think that as we educate our educators on interacting with young students teaching them—right now Department of Education grades our school systems and our educators on how many kids we send to college.

As long as we are evaluating the performance of a counselor on how many kids he sends to college and how many kids get into top tier schools, we are taking people away from the other workforce that may have entered that workforce. So educating people about all of the jobs that are available, and all of the careers that are available, that would triple into the military side.

But on the military side, it is access. Give us more access. Give us the opportunity to be on the base, in the community of the veterans, and educate them on what our careers are.

Mr. JOHNSON. I think we—and I was going to get into it, but I see I am not going to have time, I think it is definitely a problem that we have convinced many young people that their only pathway to success is a 4-year university. Many of them don't want to do that, don't need that, and we need workers in all of the different areas.

I am limited on time. So, Mr. Simpson, one final question for you. Why do think jobs in your industry are attractive to veterans, and do you think it is shortsighted to limit Federal programs to only green-collar jobs?

Mr. SIMPSON. I think that anytime you limit funding to specific industries or jobs you limit opportunity. So I do think that we look at all of the opportunities that are available. But as far as the industry being attractive to veterans, a lot of us joined the military because we didn't want four walls and fluorescent lights.

It is great to be able to work outside and in the elements and with a small team, and we continue that when we leave the military by entering into the energy workforce.

Mr. JOHNSON. I was raised on a tobacco farm. I love the four walls and the bright lights. So I get that, but thank you very much. Mr. Chairman, I yield back.

Mr. RUSH. I thank the gentleman. The Chair now recognizes Ms. Barragán. And before she begins, I want to welcome you as a new member to this subcommittee.

Ms. BARRAGÁN. Thank you, Mr. Chairman.

Mr. RUSH. Thank you.

Ms. BARRAGÁN. Thank you so much, Mr. Chairman, for having this discussion today and everybody who is here. I have heard a lot just sitting here, and I represent a district in southern California that includes areas like Compton and Watts, where not everybody is going to college.

So bills like this are so critically necessary and important because there is a lot of folks in parts of the country, including my district, who want to have opportunities for jobs where they may not go to college. And so, Mr. Chairman, I want to thank you for having this conversation, and I think this is a bill that is desperately needed.

And, you know, the focus of the bill is obviously to move toward clean energy, and that is why the bill language is the way it is. It is because we have a climate change crisis. It is because communities of color and low-income communities are suffering health impacts. There is really a public health crisis.

And so that is why the language isn't there talking about the oil industry, and that doesn't mean we don't include them in the conversation. As a matter of fact, when I meet with them oftentimes my conversation with them is, what are you doing to transition? How can we help you transition?

And that is the great part about this bill. One of my colleagues from Virginia asked, what is in the bill for people where he is, and Section 202 of the bill is very clear. It prioritizes who is going to benefit from this. So the question is, do you have women in your district? If it does, if you do, this benefits you.

If you have persons who are transitioning from fossil fuel energy sector jobs, are they in your district? Well, then they benefit you. Do you have veterans in your district? Because if you do, this bill is going to benefit you and your district. I don't see anything in the bill that restricts money from going to rural areas. I haven't seen anything.

Ms. Colon de Mejias, have you seen anything in a bill that restricts money to rural areas?

Ms. COLON DE MEJIAS. Absolutely not. I think that the bill is very competently written to ensure that it supports people in urban and suburban areas, and I agree that it would specifically support women and minorities and career changers and veterans. That is the way I read the bill.

Ms. BARRAGÁN. Thank you. Now, Ms. Colon de Mejias, can you provide an example from your experience where you have had difficulty hiring staff for an available job and how this legislation would help small businesses like yours?

Ms. COLON DE MEJIAS. I currently have 7 positions that are open. Oftentimes, I hire people from those populations, and I train them, and then they actually end up leaving about 2 years later

to go work for the public utilities, because they become such highly skilled workers that they are sought after by other companies and other industries, including solar, electric vehicles.

Many of the skills are transferrable. So once someone is trained, they would have the opportunity to work in other areas as well, including public utilities.

Ms. BARRAGÁN. Right. And how—rather, why should small businesses get more robust incentives than maybe larger businesses? And do you have an example that supports the distinction?

Ms. COLON DE MEJIAS. Yes. Specifically, I hired a veteran 2 years ago who I absolutely loved, but he didn't come with the right skill set because the programs that are available for vets do not allow them to participate in the noncredit education or continuing education.

So I had to invest in those courses to allow him to get the certifications he needed, and then after he got the certifications he was rightfully hired by a much larger entity, the Department of Energy and Environmental Protections, and he works there now. But I invested a lot of money in his training, and I also paid him for the job for the 2 years, and then I had to start from the beginning to retrain.

Ms. BARRAGÁN. Thank you. Ms. Truong, if I can ask you a couple of questions. What are some of the key barriers to equal minority representation in the energy workforce? And a follow up, what types of obstacles have you come across, and how can smart Federal policy help address those challenges?

Ms. TRUONG. Training and access. Oftentimes minority and communities in low-income communities don't get access to these jobs. A lot of times the energy companies and utilities interview and hire people who they may know in their communities, and they may not have outreach to the communities that have not been traditionally seen as candidates in this industry.

And so outreach and education, both from the employer's side to the communities that otherwise are not included in the conversation, but also investing in the communities that hasn't—that has seen a traditional disinvestment in education and training programs and making sure that they are connected now to the new industry that is growing and booming.

Ms. BARRAGÁN. Great. Well, thank you. And I want to thank you for making the connection between poverty and pollution earlier in your remarks.

With that, I will yield back.

Ms. TRUONG. Thank you.

Mr. RUSH. I want to thank the gentlelady, and the Chair now recognizes Mr. Walberg for 5 minutes.

Mr. WALBERG. I thank the chairman, and thank you for—the panel for being here today. I am pleased that the committee is holding a hearing on workforce development for the energy industry. As a senior member of the Education and Labor Committee, I have been passionate about and working on these issues for a long time.

The Education and Labor Committee actually has primary jurisdiction. So I will be following this issue closely in the days ahead.

Also, my district is the number 1 district. It is the energy district of the State of Michigan, with over 35 percent of all of the energy produced in Michigan produced in the 7th district. It is an all-of-the-above district, everything from wind to solar to natural gas, coal, and Fermi, the only plant recently to receive a license for a third facility. So we are appreciative of this issue.

Ms. PRAMAGGIORE, I was taken with the ice box challenge, the refrigerator electrification, and racing those refrigerators made me think, with what is going on in my district, with self-driving vehicles, that maybe we ought to have a self-driving refrigerator, so when I am watching Michigan beat Ohio State, hopefully in the future, I don't have to leave and have the refrigerator brought to my—let's forget that.

Ms. PRAMAGGIORE. I think you will have some takers for that science project.

Mr. WALBERG. Good deal. Let's move that on, with the young ladies or with the young men as well, putting that together.

When I was back visiting just this last week our ISD in Jackson, Michigan, and their career center, I saw firsthand what our communities are doing to promote hands-on learning opportunities and create high-schooled, high-wage jobs. I wish this hearing had been held before that. We could have talked about this as well in the energy industry.

At Exelon, are you partnering with your local communities similar to the career center to collaborate on the workforce development training this bill discusses?

Ms. PRAMAGGIORE. Yes. Thank you, sir. Yes, we are. We have a number of different programs. We have programs that are designed around workforce development and training where we partner with community colleges and other community groups to develop these training programs. We also have educational programs, dollars that go to different entities to create educational programs through elementary schools, middle schools, high schools.

So we overall in our company spend about \$10 million a year on education alone, and then there is a separate funding for training programs themselves.

Mr. WALBERG. OK. Thank you. With that in mind, from my understanding, it appears that a lot of what this bill proposes already exists either by private sector companies like the one Ms. Mehnert leads, for instance, or through existing DOE programs.

Do you see a need to duplicate these efforts with Federal funding? And then, second, if so, what should be the role of the Federal Government?

Ms. PRAMAGGIORE. So what I described was efforts that my company makes, and many large companies and particularly utilities have experience in. Our industry is changing pretty dramatically, and so what we are seeing is that more and more aspects of the industry are being served by smaller businesses, different kinds of businesses. Mr. Campbell's is one. Ms. Colon de Mejias has another business that works in our industry.

Traditionally, this was done by the utility industry, but no longer. These are businesses that need support. These are businesses that don't have the capacity to develop training programs like we do, and yet I think they have a tremendous impact on com-

munities, particularly smaller communities. A small business in a particular neighborhood or community can have an enormous impact, economic impact, on that community if you can get them up and running.

And so I think that it is—as our industry becomes more fragmented, segmented, and there is more actors and players of different sizes and capacity and capabilities, that this is very important to ensure that those businesses can develop and find workforce and add value.

Mr. WALBERG. OK. Thank you. Let me just jump to nuclear power. The Fermi plant in Monroe provides important baseload generation with zero carbon emissions. Is Exelon already partnering with any local career centers or private organizations to ensure skilled workers are prepared for the innovations in the nuclear industry? And is your company leading that way?

Ms. PRAMAGGIORE. Yes, we do. We, as you know, have a number of nuclear plants. We think maintaining nuclear skill sets is absolutely essential to the United States economy, to the United States leadership in nuclear power in general. We fund scholarships for nuclear engineering. We have training programs for nuclear craft skill sets as well.

Mr. WALBERG. Thank you, Mr. Chairman. I yield back.

Mr. RUSH. I want to thank the gentleman, and now I am going to recognize Mr. McEachin for 5 minutes.

Mr. MCEACHIN. Thank you, Mr. Chairman, and let me start off by thanking you for—

Mr. RUSH. Let me take a moment just to welcome you to this subcommittee. I want to thank you, and we look forward to working with you. And you are now recognized for 5 minutes.

Mr. MCEACHIN. Thank you, Mr. Chairman. And I am appreciative of being on this committee, as well as this subcommittee. And let me start by thanking you for your leadership in introducing the legislation that we are discussing today.

In my judgment, nothing is more important than speeding our transition to a sustainable green-collar economy. As we make that change, we can and must work to ensure that the benefits are widely and fairly shared. We need to ensure that the most direct benefits of our transition—cleaner air, cleaner water, better health—accrue to all Americans, but we also need to ensure that the opportunities in the form of new jobs, community development, and economic growth are broadly shared.

And I will just also say to my good friend of 30 years from southwest Virginia that I feel you. You and I have worked together for many, many years, and I look forward to that continued relationship and partnership and would suggest to you that whether it is Petersburg or southwest Virginia, we are all in the same boat when it comes to trying to get investments in this new collar, this new green-collar economy, into our districts.

Commendably, this bill keeps both of those goals in sight, and I look forward to working with everyone here to ensure that we make the most of this strong foundation and ultimately pass a bill that reflects both the scale of the needs we face and the urgency of the moral imperative to help our most vulnerable friends and neighbors.

Mr. Chairman, along with the work that you have been doing, I discovered an article talking about investment in low-income neighborhoods. Of course, your bill addresses that. It also seeks to prevent gentrification, which is a thing that I think we need to keep our eye on, because as we improve these low-income neighborhoods, we want the people who have been there all their lives to be able to stay there and can afford to stay there, and are just being handled with a certain caution in this country through some green jobs.

So I would submit this article, if there is no objection, as part of the record.

[The information appears at the conclusion of the hearing.]

Mr. MCEACHIN. And as far as my questions are concerned, Mr. Campbell, as you have already stated, the transportation sector is now an even bigger source of greenhouse gas pollution than the energy sector, and auto emissions powerfully affect air quality and public health. Can you speak to how we continue to green our transportation system, for instance, by helping facilitate a greater use of electric vehicles? And how does this bill help or could it help advance that work?

Mr. CAMPBELL. Great question. So I will start, first—again, I go back to collaboration. So utilities around the country are now seeing the benefits of building out the electric vehicle infrastructure that our country desperately needs.

I was on a panel recently that Pepco hosted with some of the ride-sharing companies like Uber and Lyft, and even FedEx. They all want to swap their vehicles to electric vehicles, but they can't do so until the infrastructure is put in place. So we need some more policy that will allow for that infrastructure to put it in place.

Now, what do the jobs look like, and how does this bill directly correlate to that? You are going to need electricians to install the EV charging stations. Once that infrastructure is put in place, who is going to service these new cars that are different from the past?

So part of this training that we haven't really talked about today is also providing grants, because it is hard for people to leave for 5 or 6 weeks, however long a training program is, with no income. And having some level of a grant or subsidy to be able to allow you to go to training is critical, and I commend you all in the way this bill was drafted to be able to provide that support.

But I do strongly believe that the greening or the electrification of our transportation sector is one of the biggest opportunities that we are going to see, and it is a lot of work that is being done real time. GM, for example, has 20 new electric vehicles they are rolling out over the next 5 years.

Mr. MCEACHIN. Thank you. Ms. Truong, this bill is designed to help vulnerable communities, in large part by helping individual members of those communities. But we need to guard against the danger that in helping certain individuals we do not simply help them out of their communities, such that their neighbors' lives get better even as their friends and neighbors get left behind.

If we do not guard against that possibility, we will be simply repeating past injustices. We can't do that. So as an example question, how do we ensure that creating clean energy jobs in a given neighborhood does not just lead to that neighborhood being

gentrified? What can we do to maximize the extent to which the bill really truly has its intended effect?

Ms. TRUONG. I think we can incentivize and prioritize smart development that has transit-oriented development, clean green jobs, that pays good wages. So that even as people are getting into those jobs, they are able to afford the costs of living in their community.

And we can prioritize the investments in helping to create sustainable communities that invest in things like public transit, which is actually good for the environment, actually reduce the cost of living, and at the same time improve the ability for people to pay for the cost of living in their community. So reducing the cost of living, improving the quality of life at the same time.

I will say that we do run major campaigns across the country on electric vehicles in the transition to transportation. I am happy to answer questions on that, too.

Mr. MCEACHIN. Thank you very much. And thank you, Mr. Chairman. I yield back.

Mr. RUSH. I thank the gentleman. I now recognize Mr. Hudson for 5 minutes.

Mr. HUDSON. Thank you, Mr. Chairman. And as I said in my opening statement, I have been proud to work with you on this issue for many years.

Mr. RUSH. So have I, Mr. Hudson, and I look forward to working with you as closely in the future.

Mr. HUDSON. Great. I appreciate that. And, you know, I am committed, just as you are, to making sure that we are preparing our workforce, particularly women, veterans, other minority groups, for the future jobs that are going to be out there, making sure that our education systems are in line, so that our folks are in place to take advantage of this new economy, but also to help bring this economy about, because we have those skills.

And I do want to respond to my dear friend from California when she said that the scope of this ought to be narrowly focused on green jobs only, because of the crisis with climate, and so forth and so on. And I certainly look forward to these new technologies coming forth, but I would just hate for us to miss out, the people in the workforce, the folks coming into the workforce looking for jobs, and we have got industries with jobs looking for people.

And I would just hate for us to narrow the scope on this legislation so much that we miss those opportunities in the meantime. So I look forward to working with you on that, Mr. Chairman.

And I will start my first question to Mr. Simpson, who I would like to begin again by saying thank you again for your 25 years of service to this country is because of men and women like you willing to serve that we get to enjoy the freedoms we have. So I thank you for that.

And I am proud of the work Pike is doing to hire veterans, and I want to commend you for that. It is a great service to our Nation to take care of our veterans because of their sacrifice. As many members of this committee know, I represent Fort Bragg, the epicenter of the universe, one of the largest military installations in the world. The Marine is laughing because we also have a large Marine base in North Carolina. But I look forward to any oppor-

tunity to support our men and women in uniform, both during and after their service.

With that in mind, Mr. Simpson, in your testimony you stated that we are seeing growth of about 14 percent in the industry, resulting in a need for several thousand new employees annually for the foreseeable future, just to keep up with that demand. With the growth you all are facing—and Pike's hire veterans initiatives—I think you have touched on this a little bit before, but could you describe some of the barriers you are facing on the front lines to find potential veterans to hire and train them for the workforce?

Mr. SIMPSON. Yes, sir. I can. So as I mentioned several times earlier, the access issue is huge, just being able to get to the veterans and make sure that they understand what the career opportunities are. But when you look at this as a workforce development issue across the board, gaining access and being able to get into the institutions, I have got veterans that tell me "I would really like to do this, but I have got to support my family."

So there is that gap that several people have talked about today that is big. But for us, if we can get into the installation, access the service members earlier, establish the skill bridge programs on the base where they can train through that program while they are still active duty service members and being paid by the military with benefits, then we can transition them directly into the industry.

Right now, the issue is there aren't enough training programs to do that effectively, and that we don't have access to the veterans to get them into the programs.

Mr. HUDSON. Got you. Now, you mentioned in your testimony the Center for Energy Workforce Development. Could you please elaborate on what that center does, and is that what you are talking about now as part of this transition and sort of talk about what Pike's role is with the center?

Mr. SIMPSON. So Pike is a member of the Center for Energy Workforce Development. It is a national program, and I think when you look at it they address several issues. They have got a program called Get Into Energy, which gets into the elementary schools and the lower grade levels to start teaching people about industry jobs at the earliest stages of their education.

Later on when folks leave the military, we have the Troops to Energy jobs that are available. So that program, again, addresses how to attain those jobs at that point in time. So there are a couple of places where the Center for Energy Workforce Development has really done a really good job of developing pathways and educational programs that can be delivered at any school to teach kids how to get into the industry and get specific certifications to attain industry jobs immediately upon graduation.

Mr. HUDSON. Got you. Now, are there other specific programs that you have undertaken to access veterans?

Mr. SIMPSON. Of course, with ours, the apprenticeship program is huge, being able to tap into a veteran and give them a housing allowance while they are learning the skills to attain our jobs is very beneficial, so we use that.

Mr. HUDSON. I guess—well, I am about out of time, so I will just, again, say thank all of the panelists for being here this. This has been a very worthwhile discussion. I appreciate your help.

Mr. Chairman, with that, I will yield back.

Mr. RUSH. I want to thank the gentleman. The Chair now recognizes Mr. O'Halleran.

Mr. O'HALLERAN. I would like to thank—

Mr. RUSH. Mr. O'Halleran, I want to welcome you also to the committee, and look forward to working with you.

Mr. O'HALLERAN. Same here, Mr. Chairman. I would like to thank you and Ranking Member Upton and other witnesses before us today to join us in this important conversation regarding our Nation's energy resources, and to discuss the Blue Collar/Green Collar Jobs Development Act, which is an important first step toward this critical issue for my district.

About my district, talking about jobs is important. I have the largest Native American population in the United States in my district. The Navajo Nation has a 50-plus percentage unemployment rate, Hopi are about 80 percent, the White Mountain Apache 60-plus percent. One of their towns is at 95 percent unemployment, San Carlos 60-plus percent. This has a profound impact on rural America also, since our unemployment rate is higher than urban areas.

It has an impact on our schools, our fire districts, police, anybody that is concerned with our tax base. We are losing—I have 4 power plants in my district. We are likely to lose one here in the next few months.

And so it also is a situation where it affects people that are already in such hardship across Indian land and rural America in general.

I hope this hearing is the first of many actions we as a committee take, and a key priority of mine, supporting economic opportunity across rural America and Indian country.

It is important to note, Mr. Simpson, that with the veterans issue, as a per capita—I base it on per capita—Native Americans have the highest per capita of service to our country than any other population.

Rural America is at a crossroads as market forces in the energy sector and beyond have drastically changed, and economic realities in communities like those I represent. We must ensure energy workers of all trades are not left behind as the energy marketplace continues to evolve.

I cannot understate the unique and dire circumstances and the intimate closures of coal-fired plants like the potential for the Navajo generation station. It is one of the largest coal generation stations in America. What it presents those communities—the potential loss of hundreds of jobs, the best-paying jobs, in my district by far, along with loss of operating revenue for those rural and tribal communities has had devastating implications.

This decision today has real implications for real people and real families, and I want to make sure we know that it just isn't theoretical. If we fail to help energy workers, such as those in my district, transition to new opportunities and pay competitive salaries,

if we fail to boost economic diversification efforts, then we have failed at our jobs.

Whatever the future holds, and for the energy realities of today, we must act now to make sure workers in rural America and across Indian country have every tool to compete and thrive in the new economy.

Why is that so important to rural America? I think we, as a country, take it for advantage. I think urban America has to start to understand what rural America is about, and it is about water, where the electricity comes from, natural resources. This is the foundation of our urban centers.

They wouldn't survive without what comes from rural America, and rural America can't survive without having the appropriate education, the appropriate jobs available, the appropriate quality of life to keep people there.

The transmission lines alone—if we are talking about energy, it is not going to come from the core of our urban centers right now. It is going to come from those areas. And so we have to address that accordingly.

I will move along here quickly. Mr. Simpson, I see in your testimony that Pike Corporation is very engaged in employing and encouraging veterans to contribute to the energy workforce. I thank you. How do you view this legislation's potential to further increase opportunities and flexibility when it comes to energy workforce training for veterans?

Mr. SIMPSON. As I mentioned earlier, sir, I think any program that gives us the opportunity to educate a workforce and develop a workforce is beneficial, but I do think that we have to look at this against all of the other programs that already exist. The Workforce Innovation Opportunity Act provides a lot of funding for education. It is simply how that funding is applied in reducing the limitations on that funding to apply to energy programs.

I feel like there may be opportunities already in existence to fund some of this, and we may be duplicating an effort, but I love hiring folks into the energy industry. So if you will train them, we will hire them.

Mr. O'HALLERAN. I think there is a lot more work to do, and I look forward to working with my colleagues on that effort, which I believe builds on the important work we have discussed today.

Again, I thank the witnesses. I hope we continue this important conversation. Rural America is counting on it.

I yield back. Thank you, Mr. Chairman.

Mr. RUSH. I want to thank the gentleman. The Chair now recognizes Mr. Flores for 5 minutes.

Mr. FLORES. Thank you, Mr. Chairman. I would like to echo the concerns of my colleagues on this side of the dais that we are not following regular order with today's hearing. We were able to work together on a great bill in the last two Congresses, and I hope that your side of the aisle will continue working with us in a bipartisan manner to address this critical issue for the American people.

At this time, Mr. Chairman, I would like to ask for unanimous consent to insert into the record a statement from the Nuclear Power Institute, which discusses nuclear power education jobs and careers.

Mr. RUSH. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. FLORES. Thank you, Mr. Chairman. The Nuclear Power Institute is located in my district and is a joint center of the Texas A&M experiment station and the Texas A&M University. This institute works on important workforce issues within the world's leading emissions-free baseload energy technology industry, that being nuclear power.

As I mentioned in our last Environment Subcommittee hearing, if we are serious about the threats of climate change, we need to accelerate the deployment of more emissions-free next-generation nuclear power. In the near term, we should also continue to highlight the climate benefits of lower emissions fuels like natural gas, which have contributed immeasurably to our country's global leadership in emissions reduction.

Ms. Mehnert, I want to thank you for your testimony and for everything you do for women and increase diversity in the oil and gas industry. And as a fellow Texan, and a former member of the oil and gas industry, I am pleased for my colleagues to hear your perceptions about our industry and to dispel some of the myths about our industry, and also to talk about the great opportunities it creates for job opportunities and career development.

Over the last two Congresses, I have worked on a bipartisan basis on legislation to streamline the permitting process to modernize our infrastructure, including pipelines. This is good for jobs and paychecks and careers. And if you think about what we are talking today, there is two elements to this. One, we have to educate the workforce; but, two, you have got to make sure there is a job for that workforce to go to after you have educated them.

And so, Ms. Mehnert, I am going to ask you this question on the second part, and that is, having the jobs available, do you agree that it is important for Congress to remove out-of-date permitting barriers so that we can amplify workforce growth, development initiatives, and employment opportunities?

Ms. MEHNERT. I do. And I think as my colleague to the left here, Mr. Simpson, has talked about, it sounds like it is very difficult and complicated, the processes and procedures we have put in place for veterans. So I would echo support for elimination of complicating the process. If we are going to spend a lot of effort to engage and get people engaged, we absolutely need to make it easier for them to take those jobs and for us to accelerate that process. So, yes.

Mr. FLORES. I totally agree with you on both points. That is great. It seems that we could and should do both, so we are creating the right environment where companies can have the confidence to invest in new jobs, in new projects, and invest in their workforce.

You are not just oil and gas. You are talking about expanding to renewables and all forms of energy; is that correct?

Ms. MEHNERT. Absolutely. Experience Energy is about experiencing our energy, truly in the fullest form, and it sounds like I need to connect with my colleague to the left here about efficiency because it is not an area that I was aware of. So—

Mr. FLORES. Yes. Efficiency is a critical part of an emissions control strategy. How would you compare the business climate for energy jobs in Texas along the Gulf Coast compared to the rest of the country?

Ms. MEHNERT. It is pretty significant. Right now, we are in a—in Texas alone, I speak often to industry about a middle skills gap. We have initiatives already in place in Houston and other areas of Texas where we are trying to find folks to put into jobs. We do have a number of jobs that go unbilled.

Mr. FLORES. OK. And what would you attribute the difference in opportunity to between Texas and Gulf Coast and the rest of the country? I will let you think about that.

Ms. MEHNERT. I am going to have to think about that.

Mr. FLORES. OK. I am going to go to Ms. Pramaggiore, right? Would you also agree on the importance of an efficient permitting system for energy infrastructure projects, whether it is for pipelines for natural gas or for transmission lines so that you can get the electrons from where they are generated either by nuclear or other emissions-free sources like wind and solar to the consumer?

Ms. PRAMAGGIORE. Yes. Thank you, sir. Absolutely. I think that we—you know, we have an interest in moving forward more quickly on infrastructure buildout. We are very interested in enhancing the infrastructure, modernizing the infrastructure, and extending the infrastructure where need be. And, you know, there are certainly—we could certainly be moving faster on that.

Mr. FLORES. Thank you. I think infrastructure is really a 4-letter word. That's jobs.

Thank you. I will yield back.

Mr. RUSH. I want to thank the gentleman. And now, lastly, we want to recognize Ms. Blunt Rochester. And I just want to make sure that you know that we really are looking forward to working with you, and we welcome you to the subcommittee.

Ms. BLUNT ROCHESTER. Thank you so much. Thank you, Mr. Chairman, and thank you to this incredible panel. Mr. Chairman, I am pleased to be here at my first Energy Subcommittee meeting, and really to be discussing a real bold and ambitious plan to invest in America's energy infrastructure, with a specific focus on ensuring a well-educated and trained diverse workforce.

As the former Secretary of Labor in the State of Delaware, and also the founder of the Future Work Caucus here in the House, there is no more important issue at this time for me. And I wanted to also highlight Ms. Pramaggiore—I want to say the whole—Pramaggiore and the work of Exelon and Delmarva in Delaware, because you are working with the Boys and Girls Club, our community colleges, and our HBCU, Delaware State University.

And my question is really going to be—the whole panel can pick one. In Delaware, we have a saying, “It is good being first,” because we are the first State. Today it is tough being last, because I am the last. So I am going to just give you the 3 questions I have, and if each of you can take a minute or a second to give an answer. And if not, we can follow up afterwards.

So the 3 questions are: How can we best support small businesses, particularly MBEs and DBEs, as we are looking at the green-collar energy, you know, future? That is number 1.

The second is, we talked a lot about different groups that are impacted, but not a conversation about individuals coming out of prison. And I am really curious about both the challenges and opportunities in the energy sector for individuals coming out of prison.

And then the last question—and I am going to start with Mr. Campbell—you can pick any of those, but for those of you who have gone into this, these fields, what great programs did you personally participate in that might become models that we need to, you know, expand on?

So it is really small business, prison, and your personal journey, things that you would recommend. And will start with Mr. Campbell.

Mr. CAMPBELL. I will try to be as brief as possible. So I have been blessed with wonderful mentors. Green for All/Dream Corps was one of our first mentors when we launched our company through a partnership with then Accenture. It now became our corporate mentor, and we are doing work across the country with Accenture.

Exelon/Pepco is a mentor company. You would think that, you know, the electric utility and a solar company would be aligned, but we share the same goals as far as making sure our community is moving forward and people have jobs.

As far as what are some of the things that this bill and this body can do to support small businesses, I think it is providing procurement opportunities, but holding our feet to the fire. So if we have procurement opportunities, making sure that we are hiring the local community and we are providing mentorship opportunities and creating other small businesses that come behind us.

And then, lastly, with returning citizens, that is a huge emphasis and something I am working on. I think a big part of that is just reach-back support as well. So once—you know, really preparing people when they are coming out and returning to the society to be successful in jobs, not just to get the job but to stay in the job. And so that is definitely something that I would hope maybe there would be some consideration to include returning citizens as part of this bill.

Ms. BLUNT ROCHESTER. I am going to jump to Ms. Colon—I have got to get it right, too.

Ms. COLON DE MEJIAS. Colon de Mejias.

Ms. BLUNT ROCHESTER. Colon de Mejias.

Ms. COLON DE MEJIAS. I am going to shorten my name for the next hearing.

[Laughter]

Ms. COLON DE MEJIAS. My answer is that in order to help small businesses and women-owned businesses, OJT funds are phenomenally helpful. Training support programs are extremely helpful because as a small business one of the biggest expenses—and I think—I don't know who said it earlier today—that, you know one of our biggest issues is filling those roles, and then filling them and worrying about someone taking those people because they need to fill their roles. That is a big problem.

Ms. BLUNT ROCHESTER. Thank you. All right. Ms. Truong?

Ms. TRUONG. We talked about earlier about wanting to get more women into these industries. Getting my personal journey, I talked

to women across this country, women who have a lot of credentials, and they are so intimidated by the STEM barriers. They think they can't talk the science or the math, and they can't get into these areas.

So I think demystifying that, I think if we want to increase diversity in small businesses we can require reporting of how many of our large utilities and businesses actually subcontract or subgrant to small or diverse businesses. We can also set targets to improve percentage-wise every year. Can we improve 5 percent every year?

And then, finally, around prison, we can start training inside of prisons now. We have a shortage of labor, dire problem around the country. We can start training programs inside of prison. We can make sure we provide wrap-around services to employers to encourage them to hire people coming out of prison, to stop the gap between the hiring processes and then provide wrap-around services so that they stay in the jobs.

Ms. BLUNT ROCHESTER. Thank you. I have 5 seconds. I want to thank Mr. Simpson so much, especially for talking about the workforce investment boards and making sure that we have some coordination across.

And also, Ms. Mehnert, I want to also say hi to Ally, and thank you for bringing her.

Thank you so much. I yield back.

Mr. RUSH. I want to thank the gentlelady. The matter before the subcommittee now is the unanimous consent request for the submission of articles and items for the record. And those items include a letter from the Alliance on Safe Energy, a letter from Duke Energy, a letter from the Solar Energy Industries Association, a letter from the Texas A&M University System, a letter from the Center for Energy Workforce and Development, and a letter from the National Urban League, and, finally, a letter—an article, rather, from my colleague Mr. McKinley, an article entitled “In Minneapolis, low-income neighborhoods see influx of clean energy investment.” Or it is Mr. McEachin, I am sorry. Mr. McEachin is the one who requested the unanimous consent decree.

Hearing no objection—

Mr. MCKINLEY. We would like to see—we would have preferred seeing a few of these in advance to review them. But, yes, of course we are going to accept, in cooperation with you on this. But we would like to see in the future more—to have a chance to review them.

Mr. RUSH. Well, certainly. The chairman will adhere to that request. Thank you so very much. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. RUSH. And we want to make sure that we thank all of the witnesses for your participation in today's hearing. You have given us some very informative, insightful, and exciting testimony, and we certainly want to thank you.

And I want to remind Members that, pursuant to committee rules, they have 10 business days to submit additional questions for the record to be answered by the witnesses who have appeared before us today. And I ask each witness to respond promptly, if there are any such questions that you may receive.

And so, again, thank you, thank you, thank you for your participation.

At this moment, the subcommittee now stands adjourned. Thank you so much.

[Whereupon, at 1:25 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]



116TH CONGRESS
1ST SESSION

H. R. 1315

To amend title II of the Department of Energy Organization Act to reauthorize an office within the Department of Energy, to direct the Secretary of Energy to establish and carry out a comprehensive, nationwide energy-related industries jobs program, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 22, 2019

Mr. RUSH introduced the following bill; which was referred to the Committee on Education and Labor, and in addition to the Committee on Energy and Commerce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

To amend title II of the Department of Energy Organization Act to reauthorize an office within the Department of Energy, to direct the Secretary of Energy to establish and carry out a comprehensive, nationwide energy-related industries jobs program, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the
5 “Blue Collar to Green Collar Jobs Development Act of
6 2019”.

1 (b) TABLE OF CONTENTS.—The table of contents for
2 this Act is as follows:

Sec. 1. Short title; table of contents.

TITLE I—OFFICE OF ECONOMIC IMPACT, DIVERSITY, AND
EMPLOYMENT

Sec. 101. Name of office.

Sec. 102. Energy workforce development programs.

Sec. 103. Authorization.

TITLE II—ENERGY WORKFORCE DEVELOPMENT

Sec. 201. Energy workforce development.

Sec. 202. Energy workforce grant program.

Sec. 203. Definitions.

3 **TITLE I—OFFICE OF ECONOMIC**
4 **IMPACT, DIVERSITY, AND EM-**
5 **PLOYMENT**

6 **SEC. 101. NAME OF OFFICE.**

7 (a) IN GENERAL.—Section 211 of the Department of
8 Energy Organization Act (42 U.S.C. 7141) is amended—

9 (1) in the section heading, by striking “MINOR-
10 ITY ECONOMIC IMPACT” and inserting “ECONOMIC
11 IMPACT, DIVERSITY, AND EMPLOYMENT”; and

12 (2) in subsection (a), by striking “Office of Mi-
13 nority Economic Impact” and inserting “Office of
14 Economic Impact, Diversity, and Employment”.

15 (b) CONFORMING AMENDMENT.—The table of con-
16 tents for the Department of Energy Organization Act is
17 amended by amending the item relating to section 211 to
18 read as follows:

“Sec. 211. Office of Economic Impact, Diversity, and Employment.”.

1 **SEC. 102. ENERGY WORKFORCE DEVELOPMENT PRO-**
2 **GRAMS.**

3 Section 211 of the Department of Energy Organiza-
4 tion Act (42 U.S.C. 7141) is amended—

5 (1) by redesignating subsections (f) and (g) as
6 subsections (g) and (h), respectively; and

7 (2) by inserting after subsection (e) the fol-
8 lowing:

9 “(f) The Secretary, acting through the Director, shall
10 establish and carry out the programs described in sections
11 201 and 202 of the Blue Collar to Green Collar Jobs De-
12 velopment Act of 2019.”

13 **SEC. 103. AUTHORIZATION.**

14 Subsection (h) of section 211 of the Department of
15 Energy Organization Act (42 U.S.C. 7141), as redesign-
16 nated by section 102 of this Act, is amended by striking
17 “not to exceed \$3,000,000 for fiscal year 1979, not to ex-
18 ceed \$5,000,000 for fiscal year 1980, and not to exceed
19 \$6,000,000 for fiscal year 1981. Of the amounts so appro-
20 priated each fiscal year, not less than 50 percent shall be
21 available for purposes of financial assistance under sub-
22 section (e).” and inserting “\$100,000,000 for each of fis-
23 cal years 2020 through 2024.”

1 **TITLE II—ENERGY WORKFORCE**
2 **DEVELOPMENT**

3 **SEC. 201. ENERGY WORKFORCE DEVELOPMENT.**

4 (a) IN GENERAL.—Subject to the availability of ap-
5 propriations, the Secretary, acting through the Director
6 of the Office of Economic Impact, Diversity, and Employ-
7 ment, shall establish and carry out a comprehensive, na-
8 tionwide program to improve education and training for
9 jobs in energy-related industries, including manufacturing,
10 engineering, construction, and retrofitting jobs in such en-
11 ergy-related industries, in order to increase the number
12 of skilled workers trained to work in such energy-related
13 industries, including by—

14 (1) encouraging underrepresented groups, in-
15 cluding religious and ethnic minorities, women, vet-
16 erans, individuals with disabilities, unemployed en-
17 ergy workers, and socioeconomically disadvantaged
18 individuals to enter into the science, technology, en-
19 gineering, and mathematics (in this section referred
20 to as “STEM”) fields;

21 (2) encouraging the Nation’s educational insti-
22 tutions to equip students with the skills,
23 mentorships, training, and technical expertise nec-
24 essary to fill the employment opportunities vital to

1 managing and operating the Nation's energy-related
2 industries;

3 (3) providing students and other candidates for
4 employment with the necessary skills and certifi-
5 cations for skilled, semiskilled, and highly skilled
6 jobs in such energy-related industries;

7 (4) strengthening and more fully engaging De-
8 partment of Energy programs and laboratories in
9 carrying out the Department's Minorities in Energy
10 Initiative; and

11 (5) to the greatest extent possible, collaborating
12 with and supporting existing State workforce devel-
13 opment programs to maximize program efficiency.

14 (b) PRIORITY.—In carrying out the program estab-
15 lished under subsection (a), the Secretary shall prioritize
16 the education and training of underrepresented groups for
17 jobs in energy-related industries.

18 (c) DIRECT ASSISTANCE.—In carrying out the pro-
19 gram established under subsection (a), the Secretary shall
20 provide direct assistance (including financial assistance
21 awards, technical expertise, and internships) to edu-
22 cational institutions, local workforce development boards,
23 State workforce development boards, nonprofit organiza-
24 tions, labor organizations, and apprenticeship programs.
25 The Secretary shall distribute such direct assistance in a

1 manner proportional to the needs of, and demand for jobs
2 in, energy-related industries, consistent with information
3 obtained under subsections (e)(3) and (i).

4 (d) CLEARINGHOUSE.—In carrying out the program
5 established under subsection (a), the Secretary shall estab-
6 lish a clearinghouse to—

7 (1) maintain and update information and re-
8 sources on training programs for jobs in energy-re-
9 lated industries, including manufacturing, engineer-
10 ing, construction, and retrofitting jobs in such en-
11 ergy-related industries; and

12 (2) act as a resource for educational institu-
13 tions, local workforce development boards, State
14 workforce development boards, nonprofit organiza-
15 tions, labor organizations, and apprenticeship pro-
16 grams that would like to develop and implement
17 training programs for such jobs.

18 (e) COLLABORATION AND REPORT.—In carrying out
19 the program established under subsection (a), the Sec-
20 retary—

21 (1) shall collaborate with educational institu-
22 tions, local workforce development boards, State
23 workforce development boards, nonprofit organiza-
24 tions, labor organizations, apprenticeship programs,
25 and energy-related industries;

1 (2) shall encourage and foster collaboration,
2 mentorships, and partnerships among industry, local
3 workforce development boards, State workforce de-
4 velopment boards, nonprofit organizations, labor or-
5 ganizations, and apprenticeship programs that cur-
6 rently provide effective training programs for jobs in
7 energy-related industries and educational institutions
8 that seek to establish these types of programs in
9 order to share best practices and approaches that
10 best suit local, State, and national needs; and

11 (3) shall collaborate with the Bureau of Labor
12 Statistics, the Department of Commerce, the Bureau
13 of the Census, and energy-related industries to—

14 (A) develop a comprehensive and detailed
15 understanding of the workforce needs of such
16 energy-related industries, and job opportunities
17 in such energy-related industries, by State and
18 by region; and

19 (B) publish an annual report on job cre-
20 ation in the energy-related industries described
21 in subsection (i)(2).

22 (f) GUIDELINES FOR EDUCATIONAL INSTITU-
23 TIONS.—

24 (1) IN GENERAL.—In carrying out the program
25 established under subsection (a), the Secretary, in

1 collaboration with the Secretary of Education, the
2 Secretary of Commerce, the Secretary of Labor, and
3 the National Science Foundation, shall develop vol-
4 untary guidelines or best practices for educational
5 institutions to help provide graduates with the skills
6 necessary for jobs in energy-related industries, in-
7 cluding manufacturing, engineering, construction,
8 and retrofitting jobs in such energy-related indus-
9 tries.

10 (2) INPUT.—The Secretary shall solicit input
11 from energy-related industries in developing guide-
12 lines or best practices under paragraph (1).

13 (3) ENERGY EFFICIENCY AND CONSERVATION
14 INITIATIVES.—The guidelines or best practices devel-
15 oped under paragraph (1) shall include grade-spe-
16 cific guidelines for teaching energy efficiency tech-
17 nology, manufacturing efficiency technology, commu-
18 nity energy resiliency, and conservation initiatives to
19 educate students and families.

20 (4) STEM EDUCATION.—The guidelines or best
21 practices developed under paragraph (1) shall pro-
22 mote STEM education in educational institutions as
23 it relates to job opportunities in energy-related in-
24 dustries.

1 (g) OUTREACH TO MINORITY-SERVING INSTITU-
2 TIONS.—In carrying out the program established under
3 subsection (a), the Secretary shall—

4 (1) give special consideration to increasing out-
5 reach to minority-serving institutions;

6 (2) make resources available to minority-serving
7 institutions with the objective of increasing the num-
8 ber of skilled minorities and women trained for jobs
9 in energy-related industries, including manufac-
10 turing, engineering, construction, and retrofitting
11 jobs in such energy-related industries;

12 (3) encourage energy-related industries to im-
13 prove the opportunities for students of minority-
14 serving institutions to participate in industry intern-
15 ships and cooperative work-study programs; and

16 (4) partner with the Department of Energy lab-
17 oratories to increase underrepresented groups' par-
18 ticipation in internships, fellowships, traineeships,
19 and employment at all Department of Energy lab-
20 oratories.

21 (h) OUTREACH TO DISPLACED AND UNEMPLOYED
22 ENERGY WORKERS.—In carrying out the program estab-
23 lished under subsection (a), the Secretary shall—

24 (1) give special consideration to increasing out-
25 reach to employers and job trainers preparing dis-

1 placed and unemployed energy workers for emerging
2 jobs in energy-related industries, including manufac-
3 turing, engineering, construction, and retrofitting
4 jobs in such energy-related industries;

5 (2) make resources available to institutions
6 serving displaced and unemployed energy workers
7 with the objective of increasing the number of indi-
8 viduals trained for jobs in energy-related industries,
9 including manufacturing, engineering, construction,
10 and retrofitting jobs in such energy-related indus-
11 tries; and

12 (3) encourage energy-related industries to im-
13 prove opportunities for displaced and unemployed
14 energy workers to participate in industry internships
15 and cooperative work-study programs.

16 (i) GUIDELINES TO DEVELOP SKILLS FOR AN EN-
17 ERGY INDUSTRY WORKFORCE.—In carrying out the pro-
18 gram established under subsection (a), the Secretary shall,
19 in collaboration with energy-related industries—

20 (1) identify the areas with the greatest demand
21 for workers in each such industry; and

22 (2) develop guidelines for the skills necessary
23 for work in the following energy-related industries:

24 (A) Energy efficiency industry, including
25 work in energy efficiency, conservation, weath-

1 erization, retrofitting, or as inspectors or audi-
2 tors.

3 (B) Renewable energy industry, including
4 work in the development, engineering, manufac-
5 turing, and production of renewable energy
6 from renewable energy sources (such as solar,
7 hydropower, wind, or geothermal energy).

8 (C) Community energy resiliency industry,
9 including work in the installation of rooftop
10 solar, in battery storage, and in microgrid tech-
11 nologies.

12 (D) Fuel cell and hydrogen energy indus-
13 try.

14 (E) Manufacturing industry, including
15 work as operations technicians, in operations
16 and design in additive manufacturing, 3-D
17 printing, and advanced composites and ad-
18 vanced aluminum and other metal alloys, indus-
19 trial energy efficiency management systems, in-
20 cluding power electronics, and other innovative
21 technologies.

22 (F) Chemical manufacturing industry, in-
23 cluding work in construction (such as welders,
24 pipefitters, and tool and die makers) or as in-
25 strument and electrical technicians, machinists,

1 chemical process operators, engineers, quality
2 and safety professionals, and reliability engi-
3 neers.

4 (G) Utility industry, including work in the
5 generation, transmission, and distribution of
6 electricity and natural gas, such as utility tech-
7 nicians, operators, lineworkers, engineers, sci-
8 entists, and information technology specialists.

9 (H) Alternative fuels industry, including
10 work in biofuel development and production.

11 (I) Pipeline industry, including work in
12 pipeline construction and maintenance or work
13 as engineers or technical advisors.

14 (J) Nuclear industry, including work as
15 scientists, engineers, technicians, mathemati-
16 cians, or security personnel.

17 (K) Oil and gas industry, including work
18 as scientists, engineers, technicians, mathemati-
19 cians, petrochemical engineers, or geologists.

20 (L) Coal industry, including work as coal
21 miners, engineers, developers and manufactur-
22 ers of state-of-the-art coal facilities, technology
23 vendors, coal transportation workers and opera-
24 tors, or mining equipment vendors.

1 (j) ENROLLMENT IN TRAINING AND APPRENTICE-
2 SHIP PROGRAMS.—In carrying out the program estab-
3 lished under subsection (a), the Secretary shall work with
4 industry, local workforce development boards, State work-
5 force development boards, nonprofit organizations, labor
6 organizations, and apprenticeship programs to help iden-
7 tify students and other candidates, including from under-
8 represented communities such as minorities, women, and
9 veterans, to enroll into training and apprenticeship pro-
10 grams for jobs in energy-related industries.

11 (k) AUTHORIZATION OF APPROPRIATIONS.—There
12 are authorized to be appropriated to carry out this section
13 \$20,000,000 for each of fiscal years 2020 through 2024.

14 **SEC. 202. ENERGY WORKFORCE GRANT PROGRAM.**

15 (a) PROGRAM.—

16 (1) ESTABLISHMENT.—Subject to the avail-
17 ability of appropriations, the Secretary, acting
18 through the Director of the Office of Economic Im-
19 pact, Diversity, and Employment, shall establish and
20 carry out a program to provide grants to eligible
21 businesses to pay the wages of new and existing em-
22 ployees during the time period that such employees
23 are receiving training to work in the renewable en-
24 ergy sector, energy efficiency sector, or grid mod-
25 ernization sector.

1 (2) GUIDELINES.—Not later than 60 days after
2 the date of enactment of this Act, the Secretary, in
3 consultation with stakeholders, contractors, and or-
4 ganizations that work to advance existing residential
5 energy efficiency, shall establish guidelines to iden-
6 tify training that is eligible for purposes of the pro-
7 gram established pursuant to paragraph (1).

8 (b) ELIGIBILITY.—To be eligible to receive a grant
9 under the program established under subsection (a) or a
10 business or labor management organization that is directly
11 involved with energy efficiency or renewable energy tech-
12 nology, or working on behalf of any such business, shall
13 provide services related to—

14 (1) renewable electric energy generation, includ-
15 ing solar, wind, geothermal, hydropower, and other
16 renewable electric energy generation technologies;

17 (2) energy efficiency, including energy-efficient
18 lighting, heating, ventilation, and air conditioning,
19 air source heat pumps, advanced building materials,
20 insulation and air sealing, and other high-efficiency
21 products and services, including auditing and inspec-
22 tion;

23 (3) grid modernization or energy storage, in-
24 cluding smart grid, microgrid and other distributed

1 energy solutions, demand response management, and
2 home energy management technology; or

3 (4) fuel cell and hybrid fuel cell generation.

4 (c) USE OF GRANTS.—An eligible business with—

5 (1) 20 or fewer employees may use a grant pro-
6 vided under the program established under sub-
7 section (a) to pay up to—

8 (A) 45 percent of an employee's wages for
9 the duration of the training, if the training is
10 provided by the eligible business; and

11 (B) 90 percent of an employee's wages for
12 the duration of the training, if the training is
13 provided by an entity other than the eligible
14 business;

15 (2) 21 to 99 employees may use a grant pro-
16 vided under the program established under sub-
17 section (a) to pay up to—

18 (A) 37.5 percent of an employee's wages
19 for the duration of the training, if the training
20 is provided by the eligible business; and

21 (B) 75 percent of an employee's wages for
22 the duration of the training, if the training is
23 provided by an entity other than the eligible
24 business; and

1 (3) 100 employees or more may use a grant
2 provided under the program established under sub-
3 section (a) to pay up to—

4 (A) 25 percent of an employee's wages for
5 the duration of the training, if the training is
6 provided by the eligible business; and

7 (B) 50 percent of an employee's wages for
8 the duration of the training, if the training is
9 provided by an entity other than the eligible
10 business.

11 (d) PRIORITY FOR TARGETED COMMUNITIES.—In
12 providing grants under the program established under
13 subsection (a), the Secretary shall give priority to eligible
14 businesses that—

15 (1) recruit employees—

16 (A) from the communities that the busi-
17 nesses serve; and

18 (B) that are minorities, women, persons
19 who are or were foster children, persons who
20 are transitioning from fossil energy sector jobs,
21 or veterans; and

22 (2) provide trainees with the opportunity to ob-
23 tain real-world experience.

1 (e) LIMIT.—An eligible business may not receive
2 more than \$100,000 under the program established under
3 subsection (a) per fiscal year.

4 (f) AUTHORIZATION OF APPROPRIATIONS.—There
5 are authorized to be appropriated to carry out this section
6 \$70,000,000 for each of fiscal years 2020 through 2024.

7 **SEC. 203. DEFINITIONS.**

8 In this Act:

9 (1) APPRENTICESHIP.—The term “apprentice-
10 ship” means an apprenticeship registered under the
11 Act of August 16, 1937 (commonly known as the
12 “National Apprenticeship Act”; 50 Stat. 664, chap-
13 ter 663; 29 U.S.C. 50 et seq.).

14 (2) EDUCATIONAL INSTITUTION.—The term
15 “educational institution” means an elementary
16 school, secondary school, or institution of higher
17 education.

18 (3) ELEMENTARY SCHOOL AND SECONDARY
19 SCHOOL.—The terms “elementary school” and “sec-
20 ondary school” have the meanings given such terms
21 in section 8101 of the Elementary and Secondary
22 Education Act of 1965 (20 U.S.C. 7801).

23 (4) ENERGY-RELATED INDUSTRY.—The term
24 “energy-related industry” includes each of the en-
25 ergy efficiency, renewable energy, chemical manufac-

1 turing, utility, alternative fuels, pipeline, nuclear en-
2 ergy, oil, gas, and coal industries.

3 (5) INSTITUTION OF HIGHER EDUCATION.—The
4 term “institution of higher education” has the
5 meaning given such term in section 102 of the High-
6 er Education Act of 1965 (20 U.S.C. 1002).

7 (6) LABOR ORGANIZATION.—The term “labor
8 organization” has the meaning given such term in
9 section 2 of the National Labor Relations Act (29
10 U.S.C. 152).

11 (7) LOCAL WORKFORCE DEVELOPMENT
12 BOARD.—The term “local workforce development
13 board” means a local board, as defined in section 3
14 of the Workforce Innovation and Opportunity Act
15 (29 U.S.C. 3102).

16 (8) MINORITY-SERVING INSTITUTION.—The
17 term “minority-serving institution” means an insti-
18 tution of higher education that is of one of the fol-
19 lowing:

20 (A) Hispanic-serving institution (as de-
21 fined in section 502(a)(5) of the Higher Edu-
22 cation Act of 1965 (20 U.S.C. 1101a(a)(5))).

23 (B) Tribal College or University (as de-
24 fined in section 316(b) of the Higher Education
25 Act of 1965 (20 U.S.C. 1059e(b))).

1 (C) Alaska Native-serving institution (as
2 defined in section 317(b) of the Higher Edu-
3 cation Act of 1965 (20 U.S.C. 1059d(b))).

4 (D) Native Hawaiian-serving institution
5 (as defined in section 317(b) of the Higher
6 Education Act of 1965 (20 U.S.C. 1059d(b))).

7 (E) Predominantly Black Institution (as
8 defined in section 318(b) of the Higher Edu-
9 cation Act of 1965 (20 U.S.C. 1059e(b))).

10 (F) Native American-serving nontribal in-
11 stitution (as defined in section 319(b) of the
12 Higher Education Act of 1965 (20 U.S.C.
13 1059f(b))).

14 (G) Asian American and Native American
15 Pacific Islander-serving institution (as defined
16 in section 320(b) of the Higher Education Act
17 of 1965 (20 U.S.C. 1059g(b))).

18 (9) SECRETARY.—The term “Secretary” means
19 the Secretary of Energy.

20 (10) STATE WORKFORCE DEVELOPMENT
21 BOARD.—The term “State workforce development
22 board” means a State board, as defined in section
23 3 of the Workforce Innovation and Opportunity Act
24 (29 U.S.C. 3102).

○



February 27, 2019

The Honorable Bobby Rush
Chairman
Subcommittee on Energy
Committee on Energy and Commerce
U.S. House of Representatives

Re: H.R. 1315, The "Blue Collar to Green Collar Jobs Development Act of 2019"

Dear Chairman Rush:

Thank you for introducing H.R. 1315, the "Blue Collar to Green Collar Jobs Development Act of 2019." The Alliance to Save Energy appreciates your commitment to the critical issue of energy efficiency workforce development.

America is in dire need of an educated and trained energy workforce to meet the challenges of the 21st Century and its evolving energy industry. More than 60% of energy efficiency employers have reported some difficulty in hiring qualified workers due to a lack of experience, training, or technical skills among applicants, according to the U.S. Energy and Employment Report. This skills gap must be addressed to support an industry that created 67,000 jobs in 2017 and includes more than 2.25 million workers.

Energy efficiency is our nation's most abundant energy resource. Without the gains in energy efficiency made since 1973, the U.S. economy would today require 60% more energy than we currently consume. Between then and today, U.S. gross domestic product has tripled while energy consumption has only risen by about 40%. Improving energy efficiency is the single most effective policy strategy we have for addressing the threat of climate change, while also representing an extraordinary bipartisan opportunity to boost economic growth.

The Alliance looks forward to working with you this Congress to strengthen this legislation and secure the support it needs to pass the House and Senate on a bipartisan basis. We know that with your leadership, we can achieve the necessary policies to support a growing energy efficiency workforce that will improve the lives and livelihoods of millions of Americans.

Thank you for your consideration.

Sincerely,



Jason Hartke, Ph.D.
President



The Honorable Bobby Rush
2188 Rayburn HOB
Washington, DC 20515

Duke Energy
550 South Tryon Street
Charlotte, NC 28202

Mailing Address:
PO Box 1321
Charlotte, NC 28201

Dear Rep. Rush:

On behalf of Duke Energy, we are pleased to support the "Blue Collar to Green Collar Jobs Development Act of 2019" to establish a nationwide program to improve education and training for jobs in energy-related fields. We appreciate your leadership as we continue to think creatively about how to remove barriers for women, minorities and veterans to enter the energy industry.

Duke Energy is one of the largest electric power holding companies in the United States, providing electricity to 7.6 million retail customers across the Southeast and in the Midwest representing a population of approximately 24 million Americans (Florida, Indiana, Kentucky, North Carolina, Ohio, South Carolina). Our company also provides natural gas to 1.6 million customers in five states and operates a growing renewable energy portfolio across the country.

As we transform our customers' experience, modernize our energy grid and generate cleaner energy, we are planning for tomorrow's energy workforce to ensure we can meet these evolving demands. With nearly 40 percent of our workforce eligible to retire within the next three years, we are committed to attracting and retaining employees that reflect the communities we serve and recognize the need for greater alignment between course curriculum and in demand energy jobs. That's why we are building partnerships with community colleges, military bases, underrepresented groups and Historically Black Colleges and Universities (HBCUs) to close the skills gap and accelerate the time in which potential employees can begin a career in energy.

Attracting and retaining lineworkers is an area of focus for us and we offer extensive training for these individuals who maintain and restore equipment essential to providing reliable energy to our customers. By establishing an energy workforce grant program within DOE for utilities like ours, the Blue Collar to Green Collar Jobs Development Act will support our commitment to expand access to energy jobs and meet our customers' demands.

For additional information, please contact Colleen Moss (colleen.moss@duke-energy.com, 202-824-8010). We look forward to working with you to advance this important legislation.

Sincerely,

[Redacted Signature]
Joni Davis
VR Chief Diversity & Inclusion Officer, Talent Acquisition & Workforce Development

[Redacted Signature]
Sten Sherrill
VP Strategic HR Business Solutions, Employee & Labor Relations



February 26, 2019

Chairman Frank Pallone
House Committee on Energy and Commerce
 2125 Rayburn House Office Building
 Washington, DC 20515

Chairman Bobby Rush
Subcommittee on Energy
 2125 Rayburn House Office Building
 Washington, DC 20515

Ranking Member Greg Walden
House Committee on Energy and Commerce
 2322 Rayburn House Office Building
 Washington, DC 20515

Ranking Member Fred Upton
Subcommittee on Energy
 2322 Rayburn House Office Building
 Washington, DC 20515

Dear Chairman Pallone, Ranking Member Walden, Subcommittee Chairman Rush, and Subcommittee Ranking Member Upton,

On behalf of the one thousand companies that make up the Solar Energy Industries Association (SEIA), I write today in support of H.R. 1315, The Blue Collar to Green Collar Jobs Development Act, which provides additional support to help companies hire more Americans from diverse communities into the growing renewable energy industry.

Within the next five years, we anticipate the solar energy market in the United States to more than double in size. This important bill represents a serious investment in two of our country's top priorities – our transition to a clean energy economy and the development of our workforce. Within the solar industry, we're ushering in a clean energy revolution that's making our economy and environment stronger every day. Solar embodies American values – it gives us choice and independence, and it democratizes energy.

In order to make sure that clean, low cost solar energy is available for all, we must have a growing and dynamic workforce. SEIA members hire thousands of workers every year and a well-equipped, diverse talent pool is central to their success. Workforce development that reflects the diversity of the communities we aim to serve is one of our member companies' highest priorities. In order to meet the expected demand, the solar workforce will require tens of thousands of new employees over the next several years.

The solar economy continues to be primarily local with jobs paying above the national median average. According to The Solar Foundation's 2018 National Solar Jobs Census, the median wage for mid-level solar installers is \$32/hour for



electricians and \$28/hour for non-electricians, well above the national median of \$18/hr. Solar provides an opportunity for workers from all education levels. In fact, 79% of solar companies do not require a bachelor's degree for new hires. For those who are willing to pursue some training in solar-specific technologies, it's possible to move into sustainable, well-paying careers in as little as 12 months. Solar jobs also offer the promise of advancement. [An in-depth case study](#) by The Solar Foundation looked at several major solar installers and found that entry-level installers were typically promoted within 6 to 12 months of hire, with an average pay increase of 45%.

We must ensure that people of all races, genders, ethnicities, and economic backgrounds have access to both solar *jobs* and solar *energy* itself. Everyone deserves access to the incredible benefits of solar energy — cleaner air, lower energy bills, and well-paying jobs.

We commend the Committee for its work on this legislation and look forward to continuing this important conversation.

Sincerely,



Abigail Ross Hopper, Esq.
President & CEO



THE TEXAS A&M UNIVERSITY SYSTEM

February 26, 2019

The Honorable Bobby Rush
Chairman, Subcommittee on Energy
Energy and Commerce Committee
2125 Rayburn House Office Building
Washington, DC 20515

The Honorable Fred Upton
Ranking Member, Subcommittee on Energy
Energy and Commerce Committee
2322 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Rush and Ranking Member Upton:

I appreciate the opportunity to share our outreach experiences, efforts and successes. I am Valerie Segovia, Director for Outreach and Development of the Nuclear Power Institute (NPI). NPI is a joint center of the Texas A&M Engineering Experiment Station (TEES) and Texas A&M University in College Station.

Let me begin by thanking the Members for your longstanding leadership on key issues related to the nation's capabilities in energy. Today, 98 reactors operating in 30 states in the United States are among our nation's safest and most secure industrial facilities. These nuclear power plants produce nearly one-fifth of America's electricity. Nuclear energy represents more than 72 percent of the country's carbon-free electrical generation. As part of this emphasis, NPI is developing the human resources and preparing the workforce for the nuclear industry primarily in Texas, as well as some extending nationally and globally in some cases. NPI meets these vital workforce needs through a broad partnership with many entities including: private sector industry; two-year community and technical colleges; four-year universities; high schools; middle schools; teachers in science, technology, engineering, and math (STEM); state government; federal and international agencies; and elected and civic leaders. Since its creation in 2007, NPI has become internationally recognized as a leader in developing and maintaining the human resource infrastructure necessary for the nuclear industry.

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NPI's programs begin with outreach to public school students and teachers to encourage interest in STEM fields, including careers in the nuclear industry. To prepare students for these careers, NPI supports colleges and universities in developing and implementing new programs that take into consideration the needs of the nuclear industry. Both engineering students and professionals can gain a better understanding of nuclear power plant technologies through NPI's online certificate program. NPI also provides career guidance and help with job placement for students seeking careers in the nuclear industry.

NPI is recognized by leaders in the U.S. and internationally for including a wide range of stakeholders and decision makers in developing and implementing its programs to ensure that they meet both industry and public needs.

To inform students at the secondary school level about nuclear energy, two-year technical and four-year bachelor degrees, nationally recognized curriculum utilized at the college level, and the numerous options for careers and studies surrounding nuclear applications, NPI has created a strong outreach program. Early introduction to STEM courses is key to future educational and career success in these areas. NPI's public school programs encourage STEM studies, support mentoring, and facilitate visits to colleges, universities, and industry sites. The goal is to provide information and guidance to students as they learn about nuclear industry career options. Through outreach to local Texas schools, NPI also gives educators the knowledge and tools they need to promote the study of science and technology in the classroom. Realizing the current issues and sensitivities to climate change, the passion of young people, the cultural and ethnic diversities of our partner-communities, and the fact that nuclear energy is the most abundant of all clean energies, NPI has positioned itself a leader in providing opportunities and accurate information for over a decade.

In terms of specific programs, Powerful Opportunities for Women Eager and Ready for Science, Engineering, and Technology (POWER SET) gives young women the educational tools and support to pursue careers in science, technology, engineering, and math. Through POWER SET, high school female students visit NPI industry partners, colleges and universities, medical sites, and other places of interest to students in Texas looking to pursue STEM careers. They also attend presentations by industry and academic speakers and mentor younger female students. Workforce Industry Training (WIT) was modeled after the POWER SET program, WIT is

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designed for both male and female high school students who are primarily interested in two-year technical degrees or certificates. Through WIT, students are exposed to nuclear industry career opportunities and gain the confidence to consider further technical education. They also visit local industry partners, universities, and community colleges and are mentored by industry professionals.

To encourage primary students to stay academically motivated and take advantage of science and mathematics offerings at the secondary level, two mentoring programs (Power GRID and BRT) have also been organized. The POWER SET and WIT students meet regularly with the younger students, serve as role models and mentors, and encourage them in their STEM studies all the while demonstrating that it is possible to be academically motivated and socially respected and active. Power GRID is a student mentoring program that engages POWER SET members with girls in primary and middle schools, sparking interest in STEM studies at an early age. A range of academic and non-academic activities helps create a collaborative and nurturing relationship with secondary student mentors. In addition to encouraging STEM studies, this type of interaction has been shown to cultivate leadership skills and improve self-esteem in pre-teen girls. BRT is a student mentoring program that pairs WIT participants with younger male students to encourage them to focus on a strong STEM educational path. WIT student mentors motivate pre-teen boys to cultivate leadership skills, boost character development, and encourage STEM study. Altogether in these four programs, during the 2018-2019 academic year alone, 1,775 students participated in 18 school districts in Texas.

POWER SET and WIT members want to do more to share their excitement and enthusiasm for STEM; therefore we created Science on Saturday (SOS). As these secondary students become “nuclear” enthusiastic and empowered in their STEM interests, abilities, and influence, they now lead SOS. SOS are events that connect with the broader community to demonstrate the excitement, appeal, and every day application of science. During SOS, the emphasis is on STEM and is designed to stimulate students’ interest and heighten awareness of science, implications, and appreciation outside the classroom setting. Participants are family members of all levels, community leaders, local industry/business partners, and higher education staff in Texas. The most recent event took place in January 2019 at El Campo High School with 600 participants.

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Mr. Chairman, since 2009, these programs have effectively demonstrated their impact, primarily for audiences in Texas. National averages indicate that students graduating from secondary schools and going on to further education, approximately 15% will study in STEM fields. For NPI secondary participants, the percentage is self-reported over 80%. The average ethnicity participation of our participating students are: White- 52%, Hispanic/Latina-32%, Black-7%, Asian-8%, Other-1%. This is seen as a dramatic demonstration of the value of these programs as our young people are envisioning themselves as interested in and capable of careers they would have otherwise never considered. Diversity is thriving and an appreciation and understanding that nuclear energy is clean energy is growing. Our activities in fact extend to other areas as well, but I appreciate the opportunity to describe these particular efforts. In conclusion, thank you for your continued leadership on these issues that contribute to the well-being of our country.

Thank you again for the opportunity to submit this testimony. If you have any questions, please don't hesitate to contact me.

Sincerely,

/S/ [Valerie Segovia]

Valerie Segovia
Director for Outreach and Development
Nuclear Power Institute (NPI)



February 27, 2019

The Honorable Bobby L. Rush
Chairman
Subcommittee on Energy
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

The Honorable Fred Upton
Ranking Member
Subcommittee on Energy
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Rush and Ranking Member Upton:

On behalf of the Center for Energy Workforce Development (CEWD), I am writing with respect to the legislative hearing, “Clean Energy Infrastructure and the Workforce to Build it,” that the Subcommittee held on February 27 and H.R. 1315, “Blue Collar to Green Collar Jobs Development Act of 2019.”

The electric power industry supports more than 7 million jobs across the country—about 1 out of every 20 jobs. We are responsible for \$865 billion of our nation’s GDP—about 5 percent. And, electric companies invest more than \$100 billion each year in smarter energy infrastructure.

We want to commend Chairman Rush for his leadership in promoting a 21st century energy workforce. This long-standing goal of the Chairman’s has been reflected in legislation introduced during the last several Congresses. The energy industry appreciates the Chairman’s willingness to work with us on these bills.

CEWD is a non-profit national organization that brings together the energy industry, educators, government, and communities to build the alliances, processes, and tools to develop a diverse, qualified workforce for the energy industry. Originally formed in 2006 to address concerns about an aging skilled workforce, CEWD members today include more than 100 electric and natural gas companies, six trade associations (Edison Electric Institute, American Gas Association, Nuclear Energy Institute, National Rural Electric Cooperative Association, American Public Power

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Association, and Distribution Contractors Association), large supplemental labor contractors, and unions (the International Brotherhood of Electrical Workers and Utility Workers Union of America). CEWD focuses on delivering proven workforce development solutions, curriculum, tools, and data that improve the rate and quality of hiring into industry jobs.

Career Awareness—In a series of CEWD surveys with member companies and state consortia in 2018, career awareness continued to be one of the most important priorities in building a diverse, qualified energy workforce. CEWD launched its national career awareness brand, Get Into Energy (GIE), in 2006 and has since launched a family of brands and career awareness resources.

CEWD and its members engage in a wide variety of career awareness activities. Career awareness activities are aimed at five key demographics: youth, low-income young adults, women, veterans, and transitioning workers. The overall intent of these activities is to make it easier for students and jobseekers to find us, understand our jobs, and understand what education pathways will lead to an energy job.

The Get Into Energy website (getintoenergy.com) was created to raise awareness of jobs in the energy industry. Energy jobs offer competitive pay and benefits, are widely available and generally immune from outsourcing, and provide a valuable service to the community.

CEWD energy career websites are targeted to key demographic populations:

- **Get Into Energy:** CEWD's national website, getintoenergy.com, provides resources for each key demographic to understand the pathways for critical jobs, where to find training, and a jobs site that lists all jobs currently posted by CEWD members.
- **Get Into Energy/Get Into STEM** was launched at stem.getintoenergy.com. The web site positions all energy careers as STEM careers and has a teacher's section as well as pages with energy and STEM-related competitions and contests and scholarships.
- **Troops to Energy Jobs:** The veteran-focused site for Troops to Energy Jobs, troopstoenergyjobs.com, includes a roadmap for veterans seeking jobs in the industry, a unique-to-CEWD military occupation code translator that ties military jobs more specifically to energy jobs, a registration site that allows veterans to enter basic information about themselves (such as military occupation, field of expertise, resumes, and geographical area they would like to work in) and see information about companies located in their region. Veterans now make up 11 percent of our workforce, and in Nuclear Operations that number is 22.5 percent. Companies from across the industry are reaching out to veterans for their training, leadership, and service mentality to fill these critical positions.

National Energy Education Network—Over the past several years, CEWD has worked to create the National Energy Education Network (NEEN), a national consortium of energy companies and their education partners. Members of NEEN include community colleges and other educational institutions that have active partnerships with CEWD member companies, have relevant programs of study for our four critical job categories (lineworkers, technicians, operators, and engineers), and are producing quality candidates who are being hired into industry jobs. These partnerships

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and programs provide the baseline for documenting what works, sharing curriculum and best practices, and identifying the potential supply of candidates from high schools, technical and community colleges, and universities. NEEN partnerships currently include over 200 educational institutions representing more than 350 energy programs.

Energy Competency Model—CEWD, in partnership with the U.S. Department of Labor, developed the Energy Competency Model that defines basic competencies, industry fundamentals, industry technical competencies, and job-specific competencies in eight separate tiers. The Energy Competency Model is designed to provide a consistent definition of the competencies required to work in the industry. The CEWD Energy Competency Model has proven to be a valuable tool for educators, workforce investment professionals, and businesses to articulate the skills required to perform successfully in various jobs in the energy industry.

Energy Career Clusters—Career Clusters are groupings of occupations/career specialties used as an organizing tool for curriculum design and instruction. Career Clusters identify pathways from secondary school to two- and four-year colleges, graduate school, and the workplace. But there is not a national Career Cluster for energy education that links to industry jobs. Since 2006, CEWD has encouraged states to develop an Energy Career Cluster and Energy Pathways in the secondary and post-secondary education systems to build awareness of how energy careers fit within this system, and to give industry an opportunity to provide input into curriculum and provide context to what students are learning. Several states now have state Energy Career Clusters.

State Energy Workforce Consortia—Each state differs in its education systems, as do the energy companies operating in a state. That means that the workforce development solutions must be tailored to the individual needs of the companies and the demographics of the talent pool available.

Today, nearly 30 states are represented by State Energy Workforce Consortia. The purpose of each state consortium is to identify and develop programmatic solutions that consortium members use to meet the current and future workforce needs of the energy industry in their state. Each consortium is encouraged and supported in developing a strategic workforce plan that takes into account specific challenges of the industry in the state. CEWD provides assistance in organizing and starting a consortium and has a state consortium page on the CEWD Members Implementation Wizard with resources and tools for starting and maintaining a state consortium.

CEWD Communities of Practice—These communities have grown in number and importance over the past two years and have evolved into true “think tanks” for CEWD and its members. The communities encompass areas such as Diversity and Inclusion, State Energy Workforce Consortia, Troops to Energy Jobs Employers, Contractors, High School implementation and others.

As mentioned above, the energy industry appreciates the focus of H.R. 1315, “Blue Collar to Green Collar Jobs Development Act of 2019,” on promoting a strong energy workforce. The energy industry is undergoing a transformation, based on customer expectations for clean energy, low natural gas prices, and declining costs for renewable energy technologies. While developing

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capabilities to meet future needs, the industry must continue to develop a workforce with skills for traditional energy production and delivery.

H.R. 1315 requires the Department of Energy (DOE) to provide direct assistance to entities to carry out a comprehensive, nationwide program to improve education and training for jobs in energy-related industries. The bill also would establish a clearinghouse to provide information and resources on training programs. We appreciate that the bill requires the Secretary to work with different organizations, including energy-related industries, in carrying out the program. We believe that CEWD and its members can be instrumental partners in ensuring that this program best meets the needs of the energy industry.

The bill encourages underrepresented groups, including minorities, women, and veterans to enter into the science, technology, engineering, and mathematics (STEM) fields. This focus mirrors the outreach that CEWD is doing with these same groups. In addition, our industry believes that both new and incumbent employees must have strong skills that range from academic skills such as STEM to employability and technical skills. Competencies such as problem solving, critical thinking, teamwork, collaboration, and the ability to learn are equally as important as technical skills in addressing the workforce needs.

The bill also requires the development of voluntary guidelines or best practices for educational institutions to help provide graduates with the skills necessary for jobs in energy-related industries, again with the input from energy-related industries. We believe that CEWD's experience with curriculum design and instruction will be invaluable in DOE's development of these guidelines.

While educators are working more closely with industry to fill the talent pipeline, the reality is that all educational programs are not created equal. The most successful ones are based on a common set of competencies and industry requirements, which readies graduates to have the necessary qualifications for the same job in different parts of the country or with different companies in the same state. When curriculum is not built on a common set of foundational skills that are common to all jobs, a student graduating from one program may have to start over in another program if a job is not available in the area or location they originally targeted.

Section 202 of the bill establishes a new energy workforce grant program. We believe the grant program would be more effective if the grants could be used to pay for stipends for potential employees and not just wages for existing employees. We look forward to working with the Chairman on this issue.

Based on the energy industry's workforce needs and CEWD's experience in working with educational institutions to design curriculum, we believe it is important that the definition of "educational institution" in section 203 of the bill include community colleges, vocational schools, and technical schools. The energy industry offers many high-paying, skilled jobs that do not require a traditional four-year degree. By ensuring that the program established in this legislation

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is available to a wide variety of educational institutions, it can provide valuable career pathways to a much broader group of workers.

Energy companies are essential partners in workforce development efforts and in building strong, stable communities. We look forward to working with you to strengthen energy workforce development programs as this legislation moves forward.

Sincerely,

A solid black rectangular redaction box covering the signature area.

Mary Miller
President



***The Digital Revolution: Electrification & Smart Communities
The Benefits and the Barriers***

***By
Donald Cravins, Jr.
SVP for Policy, National Urban League
&
Gavin H. Logan
Director, Tech and Telecom Policy***

Overview

This paper is a follow-up to the National Urban League’s (“NUL”) 2016 White Paper, *21st Century Innovations in Energy: An Equity Framework and the State of Black America 2018 Report—Powering the Digital Revolution* (“2018 State of Black America Report®”). In the 2016 White Paper we put forward an Energy Plan (“NUL Energy Plan”). In the 2018 State of Black America Report we discussed (1) the promise of the digital age, (2) the potential offered by the growth of smart communities, and (3) the need for League involvement in order to harness the enormous economic promise of the digitization of America.

The energy revolution we described in 2016 is continuing at a rapid pace. Today, energy plays as critical a role in the Digital Revolution, as does telecommunications. We have reached the point where each is dependent upon the other. Telecommunications is dependent upon energy for everything from powering their systems, to the poles on which many of the 5G antennas will be placed. Energy is dependent upon telecommunications as the vital part of the emerging smart grid. All are linked by Internet of Things (“IoT”) technologies.

Beneficial or smart electrification—the adoption of more efficient electric end-use technologies—is occurring at an increasing rate.¹ Although the volume of electricity used throughout the country has remained relatively stable, electricity is being used as the power source for many more applications. This counter-intuitive proposition has resulted from the fact that beneficial electrification has led to the growing adoption of IoT energy management control and end-use appliances. This phenomenon of the increasing connection of applications and appliances *etc.* to the electric grid has been referred to as the “Integrated Energy Network” (“IEN”) or the Energy IoT.²

The benefits of electrification and the IEN include facilitating both economic efficiency (*i.e.* lower costs) and energy efficiency (*i.e.* lower energy use). It has special benefits for consumers.

¹ “Beneficial electrification” is defined as “the use of electricity in place of end-uses that directly combust fossil fuels, such as water heaters and electric vehicles.” Keith Dennis *Beneficial Electrification for All Incomes*, Public Utilities Fortnightly at (June 1, 2018). Similarly, “smart electrification means using electrical energy to replace other forms of energy . . . It also means using the advantages electricity to make better overall use of energy.” International Electrotechnical Commission. <http://www.iec.ch/smartenergy/importance/> (last visited 4/20/2108).

² See *gen. Electric Power Research Institute, U.S. National Electrification Assessment* (April 2108) (“EPRI Study”).

Beneficial electrification promotes economic development through job creation and retention, the development of community assets and improved productivity. It also offers environmental benefits in terms of emissions reductions and water usage.³

The electrification occurring throughout the United States has become a driving force in the growth of smart communities and will have a significant impact in both rural and urban areas. Among the benefits that African Americans may realize are access to new services, as well as increased employment and entrepreneurial opportunities. Electrification also offers particular benefits in the area of electric vehicle (“EV”) transportation. However, job training will be a critical component if the potential benefits of electrification are to be realized. Likewise, the deployment of public charging EV networks throughout an entire locality will also be critical. These opportunities are not to be missed. It is the role of NUL to help ensure African Americans benefit both in terms of availability of services and economic opportunity.

There are important issues which must be addressed if African Americans are to harness the economic benefits of electrification including: (1) how can we ensure the deployment of smart energy infrastructure is done in a manner such that low and moderate income (“LMI”) communities are served on a universal basis and at reasonable rates; (2) how wherever possible can we ensure that markets are open to all responsible suppliers, including incumbent electric companies and solar companies; and (3) how can we ensure, establish, or promote the training and other incentive programs necessary to spur employment and supplier diversity in this area?

1. Electrification

As previously noted, driven primarily by innovation in IoT technologies, electrification is occurring at an increasing rate. Customers are continuing to increase their reliance on electric end uses. According to a study by the Electric Power Research Institute (“EPRI”) in the United States electricity has grown from 3% of final energy use in 1950 to approximately 21% and may grow to 47% by 2050.⁴

Electric companies are investing over \$100 billion annually in deploying smart infrastructure and developing renewable sources of energy. Seventy-three percent of electric utilities are either implementing or developing grid modernization plans—this has increased from 52% in 2017.⁵ This investment will allow the effective integration of IEN networks—linked and/or monitored by telecommunications. This will in turn spur the growth in the reliance on clean renewable power, such as community solar, as well as the deployment of microgrids as was discussed in the NUL Energy Plan. Moreover, this investment will also enable electric companies to provide individualized customer solutions.

Electrification will spur the growth of the green economy through a reduction in energy consumption as more efficient electric load grows and greenhouse gas emissions are reduced. For example, due to technical advances including, but not limited to, cooler LED lighting systems, smart heat pumps, smart meters, smart appliances, smart to better sensors, dynamic

³ Kenneth W. Costello “*Electrification: the nexus between consumer behavior and public policy*” *The Electricity Journal* 31 at 2 (2018) (“Costello”)

⁴ *EPRI Study* at 7

⁵ Bridge Energy Group, *2018 Bridge Index Utility Industry Survey* at 8 (2018)

thermostats and other technologies, it is now possible to increase energy efficiency in urban buildings and elsewhere thereby reducing heat loss, better managing load, and reducing peak demand charges. This has the potential to significantly lower energy demand while at the same time improving the quality of life.

Much of the growth in electrification, and as a result many of its benefits, will accrue from growth in smart transportation.⁶ EVs, particularly mass transit EVs, are becoming more competitively priced and growing in number as battery prices decline, as opposed to the relatively stable cost of combustible engines. As the Staff of the Maryland Public Service Commission found, if managed properly, EV transportation offers real opportunities as the EV market share is expected to grow significantly in the next decade.⁷ Approximately 840,000 EVs were on the road in the United States through April 2018 and sales are continuing at this momentum.⁸ Such widespread adoption will reduce harmful health and environmental effects of automotive transportation which detrimentally affects urban communities.⁹ However, as the use of EVs grows so will the need for the wide deployment of charging infrastructure.

In particular, there are tremendous gains to be made as more mass transit EVs are deployed. In addition to transit buses, other suitable candidates for electrification include delivery trucks, and off-road equipment.¹⁰ Consequently, it would appear that a major shift toward electrification is underway in the medium and heavy-duty truck sector. Large and municipal corporate fleets are evaluating opportunities to electrify their operations.¹¹ According to a report by the Union of Concerned Scientists “[e]specially well-suited for EVs are fleet vehicles operating on defined routes with predictable stops and housed at central depot locations where vehicles can be recharged . . . The high on-road time of fleet vehicles compared with passenger vehicles also means that the fuel and maintenance savings of electrification accrue much faster.”¹² There are similar gains to be made as EV ride sharing takes hold.

It is important to prioritize EV access in underserved communities because such areas can benefit the most from the clean air and cost-saving benefits of EVs.¹³ These communities should not be relegated to being passive or potential users of EVs. Residents of LMI and communities of color are more likely to live near busy roads and freight hubs, where exposure to pollution

⁶ “There is a clear case for electrifying transportation, which can provide benefits to all consumers (including the socioeconomically disadvantaged), advance economic development, create jobs, provide grid services, integrate more renewable energy, and cut air pollution and greenhouse gases.” Transportation Electrification Accord at 1 (launched 11/9/2017 updated 8/20/18)

⁷ Maryland Public Service Commission Staff, Petition for Implementation of a Statewide Electric Vehicle Portfolio, Case No. 9478 at 2 (January 18, 2018) (“*Maryland EV Petition*”).

⁸ Edison Electric Institute, EV Trends & Key Issues at 1 (June 2018) (“*EV Trends & Key Issues*”).

⁹ Notice, *In The Matter of Transforming Maryland’s Electric Distribution Systems To Ensure That Electric Service Is Customer-Centered, Affordable, Reliable and Environmentally Sustainable in Maryland*, at 2 (Maryland Public Service Commission PC 44 January 31, 2017). (“*MDPSC Report*”).

¹⁰ Transportation Electric Accord at 1.

¹¹ *EV Trends & Key Issues* at 3.

¹² Union of Concerned Scientists, *Delivering Opportunity—How Electric Buses and Trucks Can Create Jobs and Improve Public Health in California* (“*Delivering Opportunity Report*”).

¹³ Greenlining Institute, *Electric Vehicles for All: An Equity Toolkit*, <http://greenlining.org/publications-resources/electric-vehicles-for-all/> (last visited 4/24/2018).

from heavy-duty vehicles and freight is greater.¹⁴ Furthermore, these residents are more likely to be renters and/or live in multi-unit dwellings and not have access to residential charging stations. According to the National Renewable Energy Laboratory “while the majority of present day PEV charging occurs at residential locations, high density parking and housing environments present challenges for urban PEV owners, particularly those living in multi-unit dwellings . . .¹⁵ These individuals would presumably be reliant on workplace charging and public networks to satisfy the majority of charging needs.”¹⁶ A significant expansion of the traditional EV charging infrastructure is required if these needs are to be met.

Similarly, EVs present a good option for drivers who earn money in ride-hailing through Transportation Network Companies (“TNC”) and for their customers—particularly those in underserved areas. TNC drivers could operate from community hubs where charging stations had been installed. This could provide their customers with ready access.

Likewise, community EV hubs could be used as the locus for car-share services, in which members are able to rent an EV for short periods of time in order to run errands or for other short trips.¹⁷ However, once again the availability of public charging infrastructure is critical if these potential opportunities are to be realized.

2. Smart Communities

Spurred by the possibilities enabled by beneficial electrification combined with innovation in telecommunications and IoT technologies, smart communities are growing throughout all parts of the United States with the goals of, among other things, creating new jobs, expanding mobility options, enabling economic opportunities, improving citizen well-being, reducing the environmental impacts of transportation, public safety, introducing more efficient technology and developing new ways to cut costs. As noted in the 2018 State of Black America Report smart communities represent a fertile ground for economic development. Many economic opportunities will arise across the new urban landscape.¹⁸

At its basic level, using data analytics, smart community cloud-based platforms connect devices and collect, combine, and manage data from different city domains and service providers to provide a unified view of a city.¹⁹ Smart communities include smart transportation, smart street lighting, smart buildings, monitoring, energy efficiency, distributed energy resources such as microgrids and battery storage, other customer energy monitoring and utilization apps.

Not only are all of these dependent upon electricity, but “if the power grid goes down, the water supply is reduced, or roads are cut off, the effect ripples through an entire urban area and can cripple the operations of schools and businesses as well as impact public safety and

¹⁴ *Delivering Opportunity Report* at 10.

¹⁵ PEV stands for Plug-in Electric Vehicle.

¹⁶ National Renewable Energy Laboratory, *Meeting 2025 ZEV Goals: An Assessment of Electric Vehicle Charging Infrastructure in Maryland* at 14-15 (Draft Report submitted in Case No. 9478) (March 2018).

¹⁷ *Maryland EV Petition* Appendix H at 156.

¹⁸ Don Cravins Jr., 2018 State of Black America, *Smart Cities, Inclusive Growth: Harnessing the Enormous Economic Promise of Next Generation Networks*.

¹⁹ *See gen. IDC Technology Spotlight, The Power of the Platform in Smart Cities* (June 2017). (“*IDT Spotlight*”)

health.”²⁰ However, if these separate systems are proactively coordinated and supported with integrated data, the benefits can improve the entire city.

More positively, smart electric infrastructure will promote public safety and improvement in the quality of urban life through the deployment of smart street lights and stop lights. This will improve the coordination of traffic and general emergency response time. Likewise, smart buildings, battery storage, and other heating and cooling technology (smart thermostats, water heaters, meters, washers and dryers etc.) will not only help reduce energy costs but also will have environmental benefits.

Similarly, EVs, particularly transit and ride-sharing ones, also offer real benefits in smart communities. Consequently, in terms of EVs, the electrification of public transportation and school buses should take the highest priority.²¹ On the other hand, EV cars represent a longer-term opportunity.

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.²² 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 in large part, these are new jobs that will require new skills.

Even agriculture will benefit through the use of new electric powered technology. For example, ultraviolet light can be used to cleanse water.²³ Electricity is now being used not only to provide light for indoor agriculture, but also to power applications for climate control and the monitoring of crops and animals both indoors and outdoors. It is also used for agricultural pumping.²⁴

Energy companies and communities are already beginning to work together in efforts to deploy smart community infrastructure in a number of urban areas. For example, in Atlanta, Georgia Power is upgrading 36,000 street lights leased to the city with LED fixtures and has installed EV charging stations a part of a statewide initiative. Further, working along with the city and other entities, Georgia Power has partnered to pilot a sensor platform which, in addition to 1,000 wirelessly controlled LED lights, will have networked sensors to provide information on traffic congestion, crime, and emissions.

In Baltimore, the Baltimore Gas and Electric Company (“BGE”) is partnering with the city and others to convert all streetlights to energy saving LEDs, to support efforts to install

²⁰ *Id.* at 3.

²¹ Jenifer Bosco, John Howat, and John W. Van Alst, *A Consumer Advocate’s Perspective on the Future of Transportation Electrification* at 93 (Berkeley Lab, *the Future of Transportation Electrification: Utility, Industry and Consumer Perspectives*, August 2018).

²² Greenlining Institute, *Electric Vehicles—who’s left stranded*, at 11 (2011).

²³ Public Utilities Fortnightly PUF 2.0, *Future is Now in North Carolina*, at 34 (Mid-February 2018)

²⁴ Costello at 1.

6,000 new pedestrian street lights throughout the city, and to install EV charging stations. BGE completed its smart meter deployment several years ago which has not only improved outage restoration but also facilitated energy savings programs. Additionally, BGE, PEPCO and First Energy have proposed building a statewide EV charging network.

Smart communities' deployment efforts are also moving forward in Chicago. ComEd is piloting the implementation of off-grid street lights powered by wind turbines, solar panels, and batteries. The Chicago Transit Authority is planning to add 30-40 electric buses to its fleet. ComEd is also engaged in the "Array of Things" project which will install 500 sensor nodes around the city and capture environmental, air quality, light and infrared information.

Denver has entered into a "Joint Energy Efficiency Program" with Xcel Energy to establish target goals for city energy reduction efforts. The city has installed twelve charging stations throughout the city. Xcel partnering with Denver and Panasonic is conducting a battery storage demonstration program testing the ability of high-capacity batteries to provide energy grid services.

These are a few of many examples. Others include Kansas City Power & Light which has installed approximately 900 EV charging stations, Florida where Florida Power & Light has partnered with a number of commercial and governmental customers to install distributed solar projects and Louisville where 15 electric buses are operating. Similar efforts are taking place in Columbus, New York, Pittsburg, Phoenix and San Diego.

3. Moving Forward

As we noted in the 2018 State of Black America Report, we are doomed to repeat history unless we are able to both participate more fully in and benefit more fully from all of the opportunities arising from the new digital technologies. African Americans must be able to share the benefits of the electrification. We must ensure African American communities are not redlined and that smart infrastructure and technologies (*e.g.* EVSEs, smart lights etc.) are deployed in all communities.

There are four main barriers which must be addressed if the particular benefits of electrification are to be realized. First, there are technical and infrastructure barriers caused by things such as insufficient charging infrastructure deployed throughout a city. Second, there are significant policy and regulatory barriers. Third, there are economic barriers generally involving high upfront costs of replacement technologies. Finally, there are social and economic barriers primarily relating to lack of customer awareness and inertia, the lack of job readiness, and/or the failure to establish aspirational or binding goals to achieve certain levels of deployment, employment and emissions reductions.²⁵

State and local utility regulators have an important role to play as both facilitators and decision makers.²⁶ With respect to EVs, there are six basic questions before them: (1) how much EV charging infrastructure and grid investment is needed to support smart community

²⁵ See *gen. Synapse, Northeastern Regional Assessment of Strategic Electrification* at 14 (2017).

²⁶ Phillip R. Jones, *A Utility Perspective on the Future of Transportation Electrification* at 3 (Berkeley Lab, *The Future of Transportation electrification: Utility, Industry and Consumer Perspectives*, August 2018).

applications including, but not limited to, street lights, EV charging infrastructure; (2) how can regulators ensure equal access to charging infrastructure and other smart community innovations; (3) should energy companies be permitted to fully participate in the EV market to ensure widespread penetration; (4) how should the costs and benefits of investment in grid upgrades and EV charging structures be assessed so as to avoid LMI communities subsidizing wealthier communities; (5) how can programs be designed to maximize consumer benefits; and (6) how should the costs of these investments be recovered?

At a minimum, utility regulators must make sure that EV and all energy service related prices are affordable and costs properly distributed; that the electric grid is operating efficiently, reliably and safely; that smart infrastructure is deployed; and that EV service is available in all neighborhoods. As a start, state utility regulators should consider whether rate designs need to be modified in order to encourage the universal deployment of smart energy infrastructure.

More generally, as was discussed in the NUL Energy Plan, in their effort to encourage the use of new sources of energy or the deployment of new services, regulators must "work to ensure 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 . . ." ²⁷ Regulators must consider the costs of investment or sources of supply and act to minimize the impact on low-income consumers and late adopters in order to avoid inequity. ²⁸ This is a problem with which regulators are currently dealing in connection with the deployment of distributed energy resources ("DER") and the possibility that as a result said deployment, certain costs may be "stranded" to the detriment of poorer ratepayers. ²⁹ "[W]hen customers reduce their usage or other billing/rate recovery determinants, costs that were previously collected from those customers (or investments previously made to serve them) may be stranded, at least in the short term to mid-term until rates are reset." ³⁰ In such a situation, DER consumers may not be paying their full share of the costs of investments in generation, transmission and distribution assets which serve all customers alike. ³¹ Consequently until such time as regulators take action, these costs are collected from other customers—a burden which might unduly fall on LMI communities. ³²

State and local officials also have critical role to play. ³³ These officials, along with state utility regulators, must take responsibility for establishing and/or promoting the supplier diversity and skills training programs necessary to ensure that LMI communities and people of color fully participate and receive the economic benefits of electrification. Likewise, they must

²⁷ NUL Energy Plan at 9.

²⁸ See Adrienne L. Thompson, *Protecting Low-Income Ratepayers as the Electricity System Evolves*, 265, 281 Energy Bar Journal (11/11/16).

²⁹ Stranded Costs are costs that the operator has properly incurred and that the operator does not have a reasonable opportunity to recover given the introduction of competition or some other (unanticipated) policy change . . . Thus, stranded costs represent lost revenues or reductions in asset values experienced by a regulated firm when new policies alter a well-defined regulatory contract. The utility will seek to recover those costs from remaining customers in the new policy environment. <http://regulationbodyofknowledge.org/glossary/s/stranded-costs/> (last visited 9/27/2018)

³⁰ NARUC Staff Subcommittee on Rate Design, *Distributed Energy Resources Rate Design and Compensation* at 84-85 (November 2016) ("NARUC Manual").

³¹ *Id.* at 89.

³² *Id.* at 84.

³³ See Transportation Electrification Accord at 1.

take responsibility for supporting and incentivizing the deployment of smart community infrastructure. With regard to EVs, these officials must consider how to ensure equitable access to electric vehicle infrastructure and charging incentives, especially to traditionally under-served communities. One means by which to do so is by promoting the adoption of EV fleets by large corporations, municipalities and organizations; promoting workplace charging; and partnering with state agencies and other stakeholders to speed adoption of tariffs and other measures. Another would be by promoting the deployment of widespread public fast charging EV charging networks.

Under appropriate rules, electric companies should be permitted to fully participate because at this moment in time only they have necessary scale and obligation to serve all.³⁴ Regulators should avoid constructing artificial barriers.³⁵ This will not, nor should preclude non-utility entrants.³⁶ According to the Maryland Public Service Commission allowing some level of utility involvement in the build-out of EV infrastructure could catalyze the private market, as well as electric vehicle ownership generally.³⁷

There are a number of advantages in allowing energy companies into the EV charging market, including the ability to ensure that the investment in the grid upgrades necessary to support EV charging infrastructure is made, the EV charging stations operate efficiently on the grid, and that the EV charging infrastructure does not disrupt the local grid. Additionally, energy companies: (1) can bring EVs to communities that may not otherwise have access; (2) can support public build out of EV charging infrastructure that can be used also for car-sharing and ride-hailing programs; (3) can help to accelerate the EV adoption through increasing customer awareness, lowering cost of installing charging infrastructure; (4) have the ability to charge fees based on the amount of electricity consumed as well the ability to give credit; and (5) have the ability to charge to a customer's account. Therefore, allowing some level of utility involvement in the build-out of EV charging infrastructure and services could catalyze the private market, as well as electric vehicle ownership.

4. The Role of the National Urban League and its Affiliates

As stated in the 2016 NUL White Paper, the role of the National Urban League and its affiliates in ensuring that African Americans receive the full benefits of electrification and live in smart communities is straightforward. First and foremost, we must actively advocate at the federal, state and local levels to ensure that our communities become "Smart" and that these communities receive all of the benefits of electrification at fair and reasonable prices. We must

³⁴ As part of what is known as the "regulatory compact" electric utilities are required to provide universal service at reasonable rates and in the most efficient and effective way possible. *See e.g.* Sara Harari, Ben Bovarnick, *Electricity Evolution: Meet the Ringmasters*, Clean Energy Finance Forum (Yale Center for Business and the Environment 9/20/2017).

³⁵ *See* Costello at 4 ("An artificial barrier includes regulatory rules that unduly discourage electric utilities from promoting electrification.")

³⁶ Kathryn A. Zyla, *Discussion Paper: Charging Ahead—Options for Policymakers Regarding the Regulation of Electric Vehicle Charging Markets* at 7 (June 2014).

³⁷ Notice, *In The Matter of Transforming Maryland's Electric Distribution Systems To Ensure That Electric Service Is Customer-Centered, Affordable, Reliable and Environmentally Sustainable in Maryland*, at 8-9 (Maryland Public Service Commission PC 44 January 31, 2017).

educate and promote discussion around these opportunities throughout the United States. We must work with cities to establish smart communities.

NUL and the 90 Urban League Affiliates will continue to build and strengthen partnerships with energy companies, educational institutions, our affiliates, and others to promote training programs. Finally, we will continue to work with industry and government entities to promote not only jobs, but also meaningful diverse supplier business opportunities.

The activities of the Pinellas County Urban League (“PCUL”) serve as a powerful example of the impact the Urban League Movement has and could have in the energy space. Understanding the career opportunities and need for diversity in the energy sector, the PCUL partnered with Duke Energy of Pinellas County (Duke Energy) to conduct diversity recruitment for Duke Energy’s Electrical Line Worker Division. Both PCUL and Duke Energy sought to ensure Duke Energy’s Line Worker Division more closely represented the communities in which it services.

Together, the two organizations leverage their strengths PCUL—utilizing its deep community connections to advertise and host an informational session on the opportunities of an electrical line worker and Duke Energy providing speakers to meet with applicants, explain the scope of work, job requirements and benefits to attendees. To ensure this innovative program’s success, PCUL designed a boot camp to prepare attendees for work in this sector.

At the boot camp, PCUL conducts an initial screening to select qualified and able attendees to participate in the boot camp. The screening is based on criteria provided by Duke Energy and the boot camp is designed to help prepare the attendees for the application process. The preparation is an all-day event consisting of CAST (Construction and Skilled Trade Test) preparation, mock interviewing, and PAT (Physical Abilities Test) demonstrations. Duke Energy sponsors the event, provides breakfast and lunch for all participating attendees. Once the application process formally opens, the boot camp attendees are encouraged to apply to Duke Energy and provided with any necessary assistance to do so.

Since 2015, PCUL’s program has enabled 31 diverse men and women an opportunity to take part in this important and growing industry. For those 31 individuals and those to come after them, PCUL’s program provides more than just jobs, but a genuine opportunity to start and excel in a lifelong career opportunity. This program is an excellent example of how NUL and its affiliates are able to partner with industry and government, to build scalable programming with direct and lasting results.

5. Conclusion

In conclusion, our action plan for the future will be to continue implementing the NUL Energy Plan. The Plan is focused on the following key areas of interest:

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 that 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. **Ubiquitous 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 that encourage the use of African American owned businesses 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.

<https://energynews.us/2019/01/18/midwest/in-minneapolis-low-income-neighborhoods-see-influx-of-clean-energy-investment/>

Energy News Network **Minnesota**

In Minneapolis, low-income neighborhoods see influx of clean energy investment

Written By **Frank Jossi** January 18, 2019

The city's "green zones" program aims to encourage solar and energy efficiency projects while preventing gentrification.

Minneapolis is starting to see an influx of solar installations in economically disadvantaged neighborhoods, an early result of a new program to target investment in those areas without displacing existing residents and businesses.

The city's "**green zones**" program — years in the making and now finally taking shape — targets two areas of the city for special incentives intended to spur solar and energy efficiency projects, along with other priorities focused on healthy food and water.

"Our broad goals are promoting equity and preventing gentrification, improving the existing community — and not necessarily for any future residents," said Kelly Muellman, the city's sustainability program coordinator. "The focus is on existing businesses and residents."

While the program is still in its early stages, more than 6 megawatts of solar have already been installed, raising hopes for energy efficiency programs and other measures.

*City of Minneapolis
Environmental Program
Staff Photos*

The Prodeo Academy, a public charter school in Minneapolis' North Loop neighborhood, is among the organizations that have installed solar panels as part of the city's green zones program.



‘A multifaceted problem’

Green zones were first created in California before spreading to Kansas City, Buffalo and a handful of other cities. The Minneapolis version came out of the city’s Climate Action Plan and was driven by environmental justice advocates. A few years ago, a Minneapolis city task force studied GIS data on air quality, health outcomes, race, soil contamination, employment rates, income levels, renter concentrations, food access, and many factors, Muellman said.

Two neighborhoods — North Minneapolis between Interstate 94 and the Mississippi River and the Phillips and Cedar-Riverside neighborhoods of South Minneapolis — were selected based on an analysis of pollution, health outcomes, income, demographics, and other data. The city recruited task forces in both areas to develop action plans based on what residents want to see done in their communities.

Proponents recognize that barriers are high and wide, requiring a push to overcome decades of discrimination, neglect and disinvestment in poor communities in Minneapolis and other major cities.

Cecilia Martinez, executive director of the Center for Earth, Energy and Democracy, said her organization helped lead the charge to create green zones.

“The challenges are that in terms of the energy planning and energy programming there is a huge gap and disconnect in terms of equity, planning and implementation,” she said. “The problem is we haven’t been able to be as inclusive in energy planning, renewable energy and energy efficiency service delivery to low income and people of color not only in Minneapolis but the rest of the country.”

Reaching those communities is difficult, Martinez said. Beyond the fundamental challenge of affordability, many homes are too poorly maintained to have the “efficiency readiness” for renovations, she said, and most programs require residents share the cost of improvements to participate. Tax subsidies and rebates may not be helpful or accessible to low-income households.

“It’s a multifaceted problem,” she said.

*City of Minneapolis
Environmental
Program Staff Photos*

The Phillips neighborhood was one of two South Minneapolis neighborhoods targeted for solar development through the city’s green zones program.



Planning the future

Advocates in both green zones have been convening residents to get a sense of what they would like to see achieved and what concerns they may have as investments began to reshape their neighborhoods.

South Side activist Maryan Abdinur, the food, land and community program lead organizer at Hope Community Land Stewardship Project, said she and her staff reached out to more than 1,000 people over eight months while designing a strategy for the area's green zone.

"What we learned in our process and listening sessions was the biggest fear was displacement," Abdinur said. "The beauty of the green zones is that we can adjust them to community needs instead of the community adapting to it."

What the organization learned is that people want to stay in the neighborhood while housing, parks and access to healthy food improves, she said. New housing, for example, should be required to be affordable to current residents.

"We want to build residents' health and build their wealth," she said. "It's going to take a while."

'The beauty of the green zones is that we can adjust them to community needs instead of the community adapting to it.'

The fear of gentrification is legitimate. In Phillips, in the Southside Green Zone, more than 10,000 apartments changed ownership from 2010 to 2015, with unit prices increasing by 50 percent and rents by 11 percent, according to city documents. The North Side, despite issues with gang problems, has several pockets of growth that have led to its listing in on a few "hot neighborhood" lists in the Twin Cities. An industrial area known as the Upper Harbor Terminal is also being eyed for redevelopment.

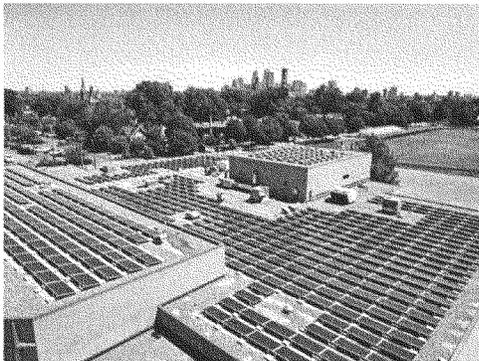
Roxanne O'Brien, a community activist in North Minneapolis, wants the city to consider "passing ordinances and laws which protect us from displacement and exploitation." At the same time, she and other neighbors would like the Upper Harbor Terminal and other parts of the neighborhood to be powered at least in part by clean energy, have buildings certified as energy efficient and have an advanced energy plan.

Solar entrepreneur Jamez Staples is working to create a center in North Minneapolis to train residents for jobs in the solar industry. [Profiled last year by the Energy News Network](#), Staples pointed out that the state's burgeoning solar industry needs workers and Minneapolis has plenty of unemployed or underemployed residents who could fill those opportunities if offered the appropriate training.

"I think the green zones are a brilliant idea but I'd like to see more coordination around training and local hires," Staples said. Last December he received a \$1.6 million Metropolitan Council grant to help pay for a training center for jobs in clean energy, water and construction. The more residents with jobs, and income, the less likely they will be hurt by neighborhood improvements.

"Jobs help prevent displacement and empower people economically," Staples said. "That changes the narrative around how you're treated by the police and everyone else."

Minneapolis sustainability manager Kim Havey added that the city is focusing existing efficiency programs on the green zones and adding efficiency efforts to non-energy initiatives. A lead abatement



program now includes an energy evaluation by the city and an explanation of incentives to help landlords pay for efficiency improvements.

“It’s great to combine these programs together and bring in energy efficiency,” Havey said. “We can use a one-time visit to discuss a number of different things rather than having to schedule disparate meetings on different subjects.”

City of Minneapolis Environmental Program Staff Photos

Solar panels cover the roof of Shiloh Temple, located in Minneapolis’ Northside Green Zone.

Solar takes off

Solar developers and their clients are offering hints that the program may be beginning to work, with efficiency efforts to follow as more initiatives begin to take shape this year. Patrick Hanlon, director of environmental programs in the Minneapolis Health Department, said the two green zones hold only 14 percent of the city’s businesses yet consisted of 43 percent of Minneapolis’ solar installations last year.

“Those are areas where you’d expect to see less investment,” he said.

Businesses and nonprofits installed 6.2 megawatts of solar energy this year at 30 sites. Applications continue to roll in, he said, and solar on homes has become popular as the city has moved to allow developers to submit group purchases as one project. One lined up 19 installations. “I can’t wait to see the amount of solar affected by that policy, but I would guess it’s a fair bit,” he said.

Minneapolis provides solar producers an incentive both citywide and in the green zones. The idea is to use city money collected from utility franchise and pollution control fees to double and triple net metering fees for one year, Hanlon said. Green zone solar projects receive 35 cents per kilowatt-hour; the rest of those in the city get 25 cents per kWh. That’s on top of state and federal incentives.

‘Residents in those neighborhoods want a safe, healthy, livable community, just like anyone.’

Solar project owners receive money from the city immediately after the installation is certified — for a 10-kilowatt project, that brings in \$4,200 in a green zone compared to \$3,000 for the rest of the city. Solar developers can also pool together residential projects to take advantage of the program.

In both green zones, businesses signed on, along with a mosque, a training center for low-income residents, a shopping center, a landscape design firm and others. This year the city allows multifamily apartment buildings to receive solar subsidies and 18 projects have been lined up so far, with several of them serving low-income residents and veterans.

Wellington Management, Inc., which owns the Hi-Lake Shopping Center in the Southside Green Zone, installed an 80-kilowatt array last year. David Bergstrom, chief operating officer, said the solar will power parking lot lights. The subsidy program “made us say, ‘yeah, let’s go do it.’ It definitely made the project work. We had been playing with the idea of putting solar on the shopping center because we believe we need to do more renewable energy and we thought this was a perfect project.”

What Bergstrom likes is that the arrays are visible to light rail riders traveling on Metro Transit’s Blue Line. It serves as an advertisement for solar, as does another building Wellington owns next to the Blue Line that also has an 80-kilowatt array just a block away. While Wellington considered waiting a year to see if prices fell, Bergstrom worried that many grant programs “don’t always last, which also contributed to our making the commitment to adding solar.”

Multifamily housing owners this year also have an opportunity to receive a 90 percent match from the city for energy efficiency projects if they agree to maintain their affordability for a decade. They also receive similar solar incentives. “This drives down the cost for people living in these buildings by reducing utility costs,” Hanlon said.

The ambitious green zones plan does not now have a great deal of money behind it. Last year the Southside Green Zone Task Force received \$75,000 from the city council for outreach and workplan development. The Northside Green Zone has access to a \$600,000 settlement with North Metals, a metal shredding firm that has since moved out of the city. But consent decree money is targeted largely at helping residents with asthma and lead mitigation.

Muellman notes that plenty of existing programs are being tapped to help move forward energy efficiency projects. Green zone efforts are about linking current city, utility, state and nonprofit programs to residents within those neighborhoods. The city will know if it is successful if community surveys affirm the zones have broadened access to city services, added clean energy, made more efficient aging homes, offered access to the green economy and created a cleaner environment — all without gentrifying the neighborhoods.

A tall order, for sure. “Residents in those neighborhoods want a safe, healthy, livable community, just like anyone,” she said. “We think green zones can achieve that.”

About Frank Jossi



Frank is an independent journalist and consultant based in St. Paul and a longtime contributor to Midwest Energy News. His articles have appeared in more than 50 publications, including Minnesota Monthly, Wired, The Los Angeles Times, The Star Tribune, Minnesota Technology, Finance & Commerce and others. Frank has also been a Humphrey Policy Fellow at the University of Minnesota, a Fulbright journalism teacher in Pakistan and Albania, and was also program director of the World Press Institute at Macalester College.

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Subcommittee on Energy
Hearing on
“Clean Energy Infrastructure and the Workforce to Build It”
February 27, 2019

Mr. Gilbert G. Campbell III, Co-Founder, Volt Energy

The Honorable Joseph P. Kennedy III (D-MA)

1. The transition to a green economy presents the U.S. with incredible workforce opportunity but also, of course, workforce disruption.
 - a. How should Congress be proactively thinking about support for workers, families, and communities that have depended on the fossil fuel industry for jobs and economic development for generations?

RESPONSE: Congressman Kennedy, this is an excellent question that should be a critical component of the proposed legislation. One action that congress can explore is establishing a fund for workers, families, and communities that have been heavily dependent on the fossil fuel industry. The fund can provide dollars to cover training, education, health assistance, and other resources needed to assist with the transition from fossil fuels to clean energy.

China and several other countries have established similar funds to address this issue. For example, China has delayed or stopped work on 151 coal power plants, and also created a \$15 billion fund for retraining, reallocating and early retirement of the estimated 5-6 million people who would be laid off due to coal or steel sector overcapacity.

- b. How do we ensure a ‘just transition’ for those communities and workers as well?

RESPONSE: While it is true that renewable energy and energy efficiency jobs have been steadily growing in the US, these jobs are not necessarily located in the same place as disappearing fossil fuel jobs. In order ensure a “just transition” for communities and workers that will be impacted the most, Congress should establish a diverse working group of industry experts to come up with a comprehensive transition planning process to ensure that no communities are left behind. Regional workforce development training for clean energy jobs should be a key component of transition planning. Additionally, we need to think holistically about how the transition away from fossil fuels could be planned in a manner to remediate historic inequality in the energy sector for underserved communities that have suffered awful health consequences from carbon emissions.

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**Subcommittee on Energy
Hearing on
“Clean Energy Infrastructure and the Workforce to Build It”
February 27, 2019**

Ms. Katie Walthall Mehnert, Founder and Chief Executive Officer
Pink Petro and Experience Energy

The Honorable Joseph P. Kennedy III (D-MA)

1. The transition to a green economy presents the U.S. with incredible workforce opportunity but also, of course, workforce disruption.
 - a. How should Congress be proactively thinking about support for workers, families, and communities that have depended on the fossil fuel industry for jobs and economic development for generations?

RESPONSE:

Honorable Kennedy III, thank you for your questions.

I am the CEO of a women-owned energy startup, Pink Petro which addresses the role women are playing in the energy workforce. We represent an international community of women and men in the fossil fuel and alternative energy industry across technical and commercial disciplines. Our talent website, Experience Energy is geared at raising the profile of the energy and aims to market to the new energy workforce.

In preparation of a thoughtful response, I surveyed our community of members across several energy states in both urban and Rural America. I wish to thank my colleagues and fellow Americans, Carolyn Tucker, Flora Moon, Deanna Jones, Lois Epstein, Jeanne Perdue, and Elizabeth Haley for their thoughtful responses to your questions included in the narrative below.

My personal position on the workforce of the future for energy is that we’re not doing enough between the private and public sector. This is no small challenge and it’s going to require collaboration across all forms of energy, the private sector, government, and academia. If we truly wish to drive a low carbon economy, we need to begin working together now to address the skills needed in the talent pipeline to develop younger generations and to reskill existing generations in the workplace.

Our history explains the present. It is important for congressional leaders to understand the volatile “boom-bust” nature and history of the workforce as well the appetite for future energy jobs.

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- Crude oil prices dropped sharply six times from 1981 to 2009. Between 1986 and 2000, the American petroleum industry slashed its work force 60%, according to a report by the Interstate Oil & Gas Compact Commission.
- At the turn of the century, nearly 20 years later, oil and gas companies recognized that they were confronting a potential work-force crisis as petroleum-engineering programs deflated across the nation. In that time, we stopped hiring, *we lost a generation of talent*. The industry resumed hiring levels in 2000 and then accelerated that pace of hiring when the onshore shale revolution took off in 2009.
- In 2014, oil fell from an all-time high of \$110 barrel to \$26 in 2016. The downturn mirrored the sharp labor drop in the 1980s. Additionally, within this last downturn, the industry has retired many mature and experienced hires.¹
- Compounding the challenge, there is a poor perception of oil and gas as a career. E&Y reports that only 24% of women between 16 and 35 find industry jobs appealing while 54% of men in the same age range find them appealing. And given the state of the current energy transition, we are finding less appetite by workers to re-enter oil and gas or to enter at all into the industry at all.²
- In 2019, LinkedIn released Top Companies where the US wants to work now³. Not a single energy company (fossil or alternative energy company) made the list. The majority of the list showed an affinity to technology jobs.

An exciting opportunity for America exists in LNG as a transition fuel.

- Congress needs to take a hard look at natural gas as a viable supply. It is the cleanest burning fossil fuel and the increased use of natural gas can significantly improve local air quality and public health as well as reduce carbon dioxide (CO₂) emissions. In addition to providing direct environmental benefits as a fuel, natural gas and LNG can help promote the use of renewable fuels.
- Exports could contribute as much as \$10 to \$31 billion per state to the economies of natural gas producing states. Other states will also benefit, partly due to the boost in demand for steel, cement, equipment, and other goods. States with a large manufacturing base, such as Ohio, California, New York, and Illinois, will see economic gains as high as \$2.6 to \$5.0 billion per state.⁴

¹ [Economic and Employment Impact of the Decline in Oil Prices, November 2016](#)

² [How do we regenerate this generation's view of oil and gas?, Ernst & Young 2018](#)

³ [LinkedIn Where the US wants to work now, 2019](#)

⁴ [American Petroleum Institute](#)

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- Natural gas-producing states could see employment gains as high as 60,000 to 155,000 jobs; and large manufacturing states, such as California and Ohio, could see employment gains of up to 30,000 to 38,000 jobs in 2035. There could also be significant job growth in states where LNG export terminals could be built. For example, in a high export scenario, in which an Alaska-based terminal is built, Alaska could see up to a \$10 billion addition to state income and over 36,000 added jobs resulting from LNG exports.
- America is in a global race to build this infrastructure and secure a competitive position in the international market. More than 60 international LNG export projects are currently planned or under construction around the world, and those nations that act quickly to attract these investments will reap the economic rewards.

b. How do we ensure a 'just transition' for those communities and workers as well?

RESPONSE:

Ensuring that workers have future positions in a new energy economy is critical.

First, we need a mindset shift. We need to remove the bias that fossil fuel workers and the companies they work for don't believe in renewable energy fuels and or deny climate change. An Ernst & Young study⁵ found that 93 percent of oil and gas executives believe climate change is real, and 67 percent say oil and gas companies want to and can be part of the solution. We all have a place to play in the transition and we need to be inclusive. We need our leaders in Congress to bring Americans together with bi-partisan support to solve the energy challenge. We need to be realistic in what we can achieve and be open to an all-of-the-above energy mix of supplies.

Second, with any transition we need to have a thoughtful approach to reskilling. While epicenters of energy in states like Texas generally have more resources, Rural America deserves consideration, resources and support as the energy transition continues. These small communities have readily answered the call to develop and deliver energy to the masses for generations, and, now, they need help to reinvent themselves and remain viable communities for generations to come.

Training. Continue and increase federal training grants in support of displaced workers. Training to be a part of the new energy economy is complicated, and not a 1 for 1 exchange - wages in the renewable energy industry are substantially lower than traditional coal and oil/gas industry positions. The average pay in the oil and gas industry is 84% higher than the national average, according to Goldman Sachs. Additionally, renewable energy operations employ a fraction of the number of employees on a rig or producing field. In small, rural communities, job opportunities are limited – even with retraining. Economic development and employee retraining must go hand in hand in impacted communities.

⁵ E&Y: The Role for Oil & Gas in Climate Change, 2017

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Longer-term state and federal assistance for economic development support. Reinventing and diversifying communities with a long-term dominant industry takes time, resources, ingenuity, creativity and risk-taking. Recommend ED grants and financial support have a minimum term of 5 years, with opportunities for extension.

Assign specific individuals from state and federal economic development agencies to work for the impacted communities. Most of the affected communities do not have the resources to form an economic development authority, nor the ability to attract the skills and experience necessary to reinvent their community.

Deploy state and federal funding for quickly providing broadband service to all affected communities (and ultimately all rural communities). Rural communities have been waiting for this service and are falling behind in their ability to expand existing businesses, attract new business, and be competitive in the remote/location neutral work opportunity.

Fund a portion or all plant depreciation costs to alleviate passing on closing costs to ratepayers and communities.

Provide term-defined “bridge funding” for impacted communities to compensate for loss of tax revenue. Schools, hospitals and special districts, as well as social services rely on county tax revenues; in many counties, tax revenues could be substantially reduced when large taxpayers such as a coal mine, power plant or oil/gas company cease operations, reduces activity or leaves. Impacted entities need time and funding to adjust to this new reality.

Provide certificate programs through community colleges. The Department of Energy can work with community colleges in affected areas to develop certificate programs for greenhouse gas mitigation; Carbon Capture, Use and Sequestration (CCUS); electric car recharger maintenance and repair, and other new energy learning programs.

Work with existing professional fossil fuel societies, associations and labor organizations to co-host symposia or workshops to help members retool for a greener future, demonstrating the various new career options and pay scales and skills needed for each.

Work with the private sector to provide an informative website with jobs and outreach. Elevate the energy jobs narrative and opportunities for Americans across the energy sector.

Respectfully submitted,

Katie Walthall Mehnert,
Founder and Chief Executive Officer
Pink Petro and Experience Energy

Ms. Michelle Romero
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**Subcommittee on Energy
Hearing on
“Clean Energy Infrastructure and the Workforce to Build It”
February 27, 2019**

Ms. Michelle Romero, National Director of Green For All, Dream Corps

Additional Question from The Honorable Joseph P. Kennedy, III (D-MA)

1. **The transition to a green economy presents the U.S. with incredible workforce opportunity but also, of course, workforce disruption.**
 - a. **How should Congress be proactively thinking about support for workers, families, and communities that have depended on the fossil fuel industry for jobs and economic development for generations?**

RESPONSE:

In 2017, coal companies took advantage of loopholes in our laws to throw away benefit obligations to retirees, putting thousands of retired miners and their families at risk of losing their healthcare and pensions.

The same companies that have poisoned our water and devastated our environment were trying to walk away from their responsibilities to the people who worked for them -- and the Dream Corps could not let that happen.

We joined forces with the United Mine Workers of America to urge Congress to sign The Miners Protection Act, a piece of bipartisan legislation that permanently extends health benefits to an estimated 24,000 retirees.

The transition to a clean energy economy must address the needs of both impacted workers, and low-income communities and communities of color disproportionately impacted by pollution.

At the Dream Corps, we believe protecting our people and the planet go hand in hand. Congress must put individuals and communities first and demonstrate our people are at the center of our policies.

Specifically, Congress should consider the following to support workers, families, and communities in the transition to a clean economy:

- **Ensure clean energy and green economy jobs are accessible and available to those who need them most.**

A criticism of clean energy jobs, although they are growing in number, is that they may not be

Ms. Michelle Romero

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readily available to coal miners or workers impacted by a transition away from fossil fuel jobs.

Congress should support workers, families, and communities that have depended on fossil fuel jobs by investing in bringing clean economy jobs to communities most reliant on the fossil fuel economy -- and those most impacted by pollution -- to replace old jobs with new opportunities.

Congress must also prioritize building public confidence in the clean energy sector as a secure, well-paying, and growth-oriented career path. Incentives, subsidies and public investments should be tied to strong workforce and labor standards that ensure we do not replace quality union jobs with low paying jobs that leave workers unprotected. Green jobs should be good jobs.

- **Invest in workforce education**

Workers, families, and communities who have been a part of a fossil-fuel driven economy should not suffer an unfair burden for changes to a clean energy economy. Congress should ensure the availability of and access to well-paying, high-benefit clean energy jobs by investing not only in immediate employment but also in the development of long-term career pathways, including pre-employment education and growth opportunities within the workforce. Workforce education programs should extend to formerly incarcerated people and chronically underemployed communities to ensure fair access to good jobs for everyone.

- **Involve communities in decision making**

The voices of those directly impacted by the transition to a green economy must be included by developing communication pathways for impacted communities to voice concerns, ask questions, and have a real impact on policy. By including the voices of those dependent on the fossil fuel economy in decision-making processes, Congress can work to build trust from communities in the clean energy economy and invest in the success of job transition programs.

- b. How do we ensure a 'just transition' for those communities and workers as well?**

RESPONSE:

A just transition is the process of changing from an unsustainable to a sustainable economy, relying on strategies and solutions that prioritize economic opportunity, self-determination, and a safe and healthy environment for all people and communities.

A just transition must include the involvement of impacted workers, companies and legislative bodies, in addition to low-income communities and communities of color disproportionately impacted by pollution. **No decision should be agreed upon without the direct involvement, consultation, and meaningful participation of workers directly impacted by the transition, and those communities disproportionately impacted by pollution. Solutions must respond to the needs of both communities.**

Ms. Michelle Romero

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We can ensure a just transition for impacted workers by adhering to the following:

Energy sector companies:

- Give advanced notice of closures with available government assistance for transitioning employees.
- For companies that include a clean energy sector: provide preferential consideration for current employees to make the transition before considering outside hires.
- Extend unemployment compensation and continue healthcare and pension payments for dislocated workers.
- Provide additional income supplement or early pension options as part of a pathway to retirement for workers over 50.
- Support health and retirement fund security to ensure workers who have spent their careers in industries affected by coal's decline can receive the benefits that they have already earned.
- Provide career counseling services to interested workers.

Legislative bodies:

- Invest in transition assistance programs that provide educational and job pathways into a clean energy economy.
- Fund job training, re-training, or education that leads to job placement and retention in family-supporting jobs.
- Offer job search and relocation stipends for dislocated workers and their families.
- Fund economic re-development and diversification.
- Monitor and evaluate program outcomes to ensure assistance reaches all eligible workers and affected areas.
- Include accountability mechanisms such as an oversight task force with decision-making authority that includes relevant state agencies and community representatives who work directly with low-income communities and communities of color overburdened by pollution.

Communities:

- Actively participate in the conversations around decision making with decision makers.
- Proactively make meetings with lawmakers to lay the framework for policy language.
- Prepare and support fellow community members to take full advantage of presented resources to succeed in this transition.

For more information, please refer to the [Just Transition Toolkit](#).

Mr. James Simpson
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**Subcommittee on Energy
Hearing on
“Clean Energy Infrastructure and the Workforce to Build It”
February 27, 2019**

Mr. James Simpson, Manager, Military Talent Acquisition’ Pike Enterprises, LLC

The Honorable Joseph P. Kennedy, III (D-MA)

1. The transition to a green economy presents the U.S. with incredible workforce opportunity but also, of course, workforce disruption.
 - a. How should Congress be proactively thinking about support for workers, families, and communities that have depended on the fossil fuel industry for jobs and economic development for generations?

RESPONSE:

As was so adamantly referenced by your colleague Congressman McKinley during my original testimony, this is a huge issue that requires immediate attention. The reality is that we are now forced to react to a problem that should have been addressed 3-4 decades ago when new technologies were emerging as viable options in the energy industry. Einstein received a Nobel Prize for his work on solar energy in 1905. NASA used solar panels on satellites as early as 1964. Early energy policy directing the use of solar was enacted by Congress in the mid 1970’s. Like a patient that has ignored his symptoms we are now faced with an emergency.

There isn’t a singular response that will answer the question. The educational systems of these communities will need to address new career opportunities with current high school and community college age students. Economic Developers and Chambers of Commerce will have to court new industries and encourage new business models to make up for the looming loss of fossil fuel jobs. State and Federal governments will need to provide funding for job training for younger members of the existing workforce who will be forced out of their jobs as fossil fuels continue to experience a loss of demand. We need a focused effort to make American jobs a priority. We can’t afford to continue shipping jobs overseas if we want to save our small towns funded by fossil fuel jobs today.

I should point out that careers in power transmission and distribution offer similar wages to those in the fossil fuel industry. Our jobs are not impacted by the rise of solar, wind, and natural gas or the decline of coal in the production of electricity. The production source is irrelevant when delivering electricity to customers. I encourage you to consider this as you decide which industry segments to fund in this bill. Lineworker careers are not always labeled “green”, but you can’t

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consume electricity without them, and they produce no real or perceived negative impact on the environment. Our jobs are available in the communities the fossil fuel workforce lives in now. They don't have to relocate to work in power distribution and transmission careers.

We use on the job training(OJT), community colleges, and private schools to prepare entry level employees for careers in our industry. OJT and community colleges offer the best value for employers and entry level employees. Funding continuing education programs through WIOA and similar funding sources is a great investment. As I mentioned in my testimony, making the GI Bill available for continuing education courses would greatly benefit veterans. Making PELL grant funding available for continuing education would give non-veteran members of our population access to job training as well.

- b. How do we ensure a 'just transition' for those communities and workers as well?

RESPONSE:

We must make these communities a priority for development. A just transition will occur when all parties: local, state, and federal government, coupled with private industry work together. If you have watched the way governments and communities have created benefits packages for Amazon to place a facility in their region you have seen an example of what needs to be done. Economically repressed communities are at a disadvantage when courting a large employer that can bring in jobs paying equal to those in fossil fuel. While there may be a large available workforce there is often a shortage of the job skills sought by the employer. Congressman Loeb sack shared his experience working with community colleges to develop a workforce during the sub-committee meeting on 27 Feb. His knowledge would be very useful in helping resolve the skills shortage to attract new business.

Fossil fuel communities like War, WV mentioned by Congressman McKinley aren't the only places where a concentrated approach needs to occur. Military communities and other rural communities suffer some of the same issues. Bases are often in rural areas with agricultural and service economies which cause military spouses and retirees to suffer underemployment and unemployment like we are seeing in coal towns. Military spouse unemployment/underemployment represents the highest percentage across the population. Consider Camp Lejeune, NC and Camp Pendleton, CA. Imagine being a military spouse working as a paralegal at \$31 per hour in San Diego, CA and being transferred with your spouse to Camp Lejeune, NC where a paralegal makes about \$12 per hour. That's a loss of \$36K annually. Transitioning service members suffer similar issues. My last year on active duty I made \$61K in annual salary and another \$24K in allowances, for an annual compensation of \$85K. My first job in the civilian sector paid just over \$50K, a \$35K annual decrease living in the same community where I transitioned. I was lucky I had the higher education required to get a job like that. The average annual wage in the Camp Lejeune area is \$34K.

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If we can find a solution to unemployment and underemployment in communities long dependent on fossil fuels as a primary source of jobs then hopefully we can use that blueprint to help manufacturing towns and military communities as well. West Virginia Forward is a collaborative effort that appears to be making headway in identifying areas where improvements can be made to keep West Virginians in West Virginia and employed in good paying jobs. WV Forward's research and discoveries are on the WV Commerce website. They echo some of what I have mentioned above in my own observations of a way forward. <https://commerce.wv.gov/assets/files/wv-forward/West-Virginia-Forward-Summary-of-Findings.pdf>

No transition is easy and most require change, but for those who adapt, opportunity is available. One of the Congressmen mentioned that his constituents who work in fossil fuels like their jobs. I liked being a Marine too, but when I was no longer able to serve I had little choice but to adapt to new opportunities or fail.

The Honorable Richard Hudson (R-NC)

1. Mr. Simpson, first off I want to thank you for your 25 years of service to this great country. It is because of men and women such as yourself we are able to be here today. You should be proud of the work that Pike is doing. It is a great service to our nation to take care of our veterans, who sacrificed so much for all of us. As you know, I have Fort Bragg in my district, the epicenter of the universe. With the largest military installation in the world in my backyard, I look for every opportunity to support our men and women in uniform both during and after their service. With that in mind, in your testimony you stated "we are seeing growth of about 14% in the industry resulting in a need of several thousand new employees annually for the foreseeable future to keep up with demand."
 - a. With the growth you are facing and Pike's hire veteran's initiatives, what are some of the barriers you are facing on the front lines to find potential veterans hires and train them for the workforce?

RESPONSE:

We face a number of barriers with regard to finding veteran hires.

- Each base has their own requirement for how to share information
- There is no central location to share information with all transitioning service members from all branches so we are forced to engage each location individually.
- DoD Skillbridge and Army Career Skills Programs often establish mileage restrictions on how far away a transitioning service member can train. This limits locations where we can conduct training and the number of personnel we can include in the training.
- Community College job training programs are generally housed in their continuing education departments. DoD Tuition Assistance Programs,

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PELL Grants and the GI Bill do not allow service members or civilians to use their funding for Continuing Education. (A pilot expansion of Tuition Assistance for Certification Training is taking place currently on Ft. Hood).

- At a state level, the community college system has rules that prevent colleges in neighboring areas from receiving equal consideration for programs targeting workforce development, especially with regard to the military. At Fort Bragg, Fayetteville Technical Community College, and neighboring Johnston Community College, both have CDL licensing programs. FTCC disputed the Johnston Community College program which is offered through the Career Skills/Skillbridge Program because of the competition. Students now have to travel or be transported to the main campus of Johnston Community College for the program that was previously offered on base where the soldiers work. Similarly, Cape Fear Community College in Wilmington, NC started a Pre-Apprenticeship Lineman Training Program last fall. In Spring 2019, Coastal Carolina Community College started a program, now Cape Fear no longer has access to military students from Camp Lejeune and the Coastal Carolina Community College program is registered as a Skillbridge program preventing service members from attending the larger Cape Fear Program.
- A lack of knowledge by transitioning service members and base staff about companies whose primary work is not federal contracting.
- **WIOA On the Job Training funding is administered at the local level. Because the program is local in nature and Pike is a nationwide employer, we must apply in every Workforce Development Board Region in the country where we have jobs. In NC alone there are 23 Workforce Development Boards. A streamlined application process allowing a single application for every location where a company has openings would be more beneficial and consume considerably less effort for employers and approving agencies.** Gaining access to the funding is difficult because many of the veterans we wish to hire live in communities where we don't have jobs. When trying to coordinate the program we run into the issue of whose funding is used. In NC, the job may be in Mecklenburg, Cumberland or Wake county, but the employee may reside in Onslow, Wayne, or Craven County when applying. Because funding is limited it is difficult for a company with nationwide job opportunities to maximize their access to the program. **The WIOA OJT program can provide up to 50% of an employee's wages for up to 6 months in qualifying programs, this means I could offer a trainee a higher salary and Pike wouldn't have to absorb the entire cost.** If a program qualifies for WIOA funding we should allow everyone equal access, not restrict

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access by where jobs are. If a veteran is willing to relocate or travel to work in one of Pike's job training programs they should be encouraged to do so.

- Entry level pay rates in the industry are similar to the pay received by an E3 or E4 with 4 years of service assuming they are single. The pay rate is around \$15 per hour for a Groundman (our training position). Matching the pay of a married service member is much more difficult. Married service members at Fort Bragg and Camp Lejeune would require an entry level salary over \$25 per hour to match their military pay and allowances. To pay the employee portion of their health benefits we would have to increase our pay to over \$28 per hour or \$54K annually to provide the standard of living to which our veterans are accustomed. WIOA OJT funding could close the gap for entry level employees. Within 4 years of employment we expect that many of our employees will have attained the experience to earn \$30+ per hour.

Imagine the effectiveness of a transition training program hosted off-post or on the fringes of an installation where employers and local job training programs could connect with veterans without the restrictions of attaining post access. With the DOLVETS funded programs housed internally within our Career One Stop Centers a logical solution would be to take advantage of that partnership. Transitioning Service Members and local veterans would be better supported by gaining access to employers interested in hiring them and veteran resources provided through DOLVETS funding and State Workforce Staff. The warm handoff of TSM's to the Career One Stop Center staff would occur transparently for those staying in the area. There are locations including Ft. Bragg where the State Workforce/DOLVETS funded staff are physically located on post with the transition program, but employers (unless they have DoD ID Card holders on staff) do not have ready access to their future workforce.

2. Mr. Simpson, in regards to the legislation we are discussing today, I believe it is critical we examine the existing job training programs the federal government offers. As you know, this legislation authorizes hundreds of millions of dollars to create new job training programs, when we already have so many spread across the federal government.
 - a. What are your thoughts on this? Shouldn't we figure out what's working and then see if we can make improvements?

RESPONSE:

The Department of Labor Employment and Training Administration funds a number of programs for job training across a wide spectrum of the workforce. In addition, the Department of Veteran Affairs funds individual training programs through the Vocational Rehabilitation and Employment (VR&E) program.

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Department of Labor training programs:

- Adult Employment and Training Activities
- Youth Activities
- Dislocated Workers Employment and Training Activities
- Indian and Native American Programs
- Migrant and Seasonal Farmworkers
- Apprenticeship Grants;
- YouthBuild
- Workforce Innovation Fund
- Community Service Employment for Older Americans (CSEOA)
- Job Corps

While reviewing information on DOLETA program performance I was surprised to find this recent article from Investor's Business Daily.

<https://www.investors.com/politics/editorials/job-training-programs-waste-fraud/>.

To quote a segment of the article above which directly addresses your concerns:

"... Job Corps is just one of 47 federal job training programs scattered across 14 federal agencies that collectively cost taxpayers \$18 billion. The Labor Dept. alone runs 20 of them. There's also a job training program run by the Environmental Protection Agency, another in the Department of Agriculture, and in the Department of the Interior.

When auditors at the Government Accountability Office looked into it, they found rampant duplication and overlap. There are five programs targeting youths, for example, eight for Native Americans and six for veterans.

But "little is known about the effectiveness of the employment and training programs," the GAO found. That's because only five of the 47 federal programs had done impact studies."

There are non-profit organizations such as Goodwill Industries which also provide workforce training programs at no cost to taxpayers. The website Great Non-Profits lists the 55 top rated job training resources across the US for 2018 as evaluated by those who use the programs

<https://greatnonprofits.org/awards/browse/Campaign:57/Issue:10>.

Based on the article quoted above and reported declines in program usage by DOLETA it appears that more research is definitely in order before allocating funding for yet another federal job training program.

Subcommittee on Energy
Hearing on
“Clean Energy Infrastructure and the Workforce to Build It”
February 27, 2019

Ms. Leticia Colon de Mejias, Chief Executive Officer, Energy Efficiencies Solutions, LLC
Co-Chair, Policy Committee, Home Performance Coalition

The Honorable Joseph P. Kennedy III (D-MA)

1. The transition to a green economy presents the U.S. with incredible workforce opportunity but also, of course, workforce disruption.
 - a. How should Congress be proactively thinking about support for workers, families, and communities that have depended on the fossil fuel industry for jobs and economic development for generations?

RESPONSE:

Workforce training is key to supporting an employment transition to a green economy in the U.S. The Blue Collar to Green Collar Jobs Development Act of 2019 would create the opportunity to retrain fossil fuel workers across the country for careers in energy efficiency and clean energy and would encourage local economic development by supporting small businesses in these industries.

Energy efficiency is an important piece in our country's energy transition. Already, energy efficiency is the fastest growing jobs sector in energy, accounting for half of the entire energy industry's job growth (133,000 jobs) in 2017 according to a report by E4TheFuture.[1] Energy efficiency employs twice as many workers in the U.S. as all fossil fuel sectors combined. These are local jobs across the country that cannot be outsourced. Congress should proactively support the development of local workforces for these job opportunities, especially in communities that have been negatively impacted by the loss of coal jobs.

Efficiency has ability to lower energy expenses while strengthening the energy grid and lowering our dependency on fossil fuels. Efficiency is a proven job creator. I have had the opportunity to train displaced workers for efficiency jobs in my own state. At Energy Efficiencies Solutions we have trained over 100 people for efficiency jobs in Connecticut. These job seekers found us through the jobs funnel and participated in on the job training (OJT) funding. This allowed us to train them and invest in their required certifications. Four of these trained staff have started their own companies and the rest are working in the Connecticut building science and efficiency industry.

When training for efficiency jobs the core jobs skills are the same as any other industry. Building on existing skill sets and bringing employers to the table while developing the training was a critical part of our success. This allowed us to know the specific jobs skills needed and provide training that resulted in rapid job placement. There is a large need for additional trained efficiency workers in my state. We still have difficulty locating trained workers for the available efficiency and building science jobs. In Connecticut there are over 34,000 efficiency jobs. In Connecticut we have partnered with the Department of Labor and the Department of Energy and Environmental Protections to create apprenticeship programs as a first step to building training which could fill these open roles and expand Green career opportunities for at risk populations and career changers. While we have the programs,

we do not have the funding resources needed to support small and large business for the training and its associated costs.

Energy efficiency is an engine for economic development, and is experiencing rapid growth. Energy efficiency employed 2.35 million Americans, in whole or in part, in the design, installation, and manufacture of Energy Efficiency products and services, adding 76,000 net jobs in 2018 (3.4%), an increase over the 67,000 jobs added in 2017.

The Appalachian region has been one of the most impacted by our changing energy economy. According to Appalachian Regional Commission (ARC) research, from 2011 to 2015 the U.S. lost more than 25,000 coal jobs and nearly 90 percent of these losses were in Appalachia.[2] To support coal-impacted communities in Appalachia and other parts of the country Congress should be thinking about opportunities for sustained economic development and revitalization. For example, studies have shown that energy efficiency investments in Appalachia could create 77,000 net new jobs in the region by 2030 and cut projected energy use by 24 percent, resulting in energy savings of over \$21 billion for the region.[3]

There is immense opportunity in the energy efficiency sector to provide sustainable jobs and new economic opportunities, as well as generating energy savings for all income levels. A 2017 report by the Home Performance Coalition describes this potential and identifies opportunities to increase collaboration between private contractors and the national Weatherization Assistance Program, which supports energy efficiency measures for low-income homes and also provides many societal and other non energy benefits.[4] Importantly, a robust local energy efficiency workforce can deliver significant benefits to the community. Energy efficiency retrofits can help address the high household energy burdens in rural America by reducing utility bills.[5] while also "making homes healthier, safer and more comfortable and making businesses more profitable." [6]

Recommendations for how to proactively address this energy and workforce transition, and its impact on communities, have also been brought up in other recent committee hearings:

· **The House Subcommittee on Environment and Climate Change held a hearing entitled "Time for Action: Addressing the Environmental and Economic Effects of Climate Change" on February 6, 2019.** In his testimony, Michael Williams, Deputy Director of BlueGreen Alliance, said, "We must inject justice into our nation's economy by ensuring that the economic and environmental benefits of this transformation support first and foremost those workers and communities that have been hardest hit by the unjust status quo." He said that Congress's strategy must include "enhanc[ing] workforce training and development programs to expand the number of skilled workers in new and existing industries [and] increas[ing] pathways to economic opportunities for communities and local workers, especially for people of color and low-income communities." [7] This is addressed in the Blue Collar to Green Collar Jobs Development Act, which would give priority to eligible businesses that recruit employees from local communities, minorities, women, foster children, persons who are transitioning from fossil energy sector jobs, and veterans.

· At the same hearing, Richard Duke, Principal of Gigaton Strategies LLC, testified, "We also need to invest in coal mining communities and others on the frontlines of this transition to ensure all Americans benefit, including through programs like the Power Plus initiative." [8] One component of Power Plus (or POWER+) is the congressionally-funded POWER (Partnerships for Opportunity and Workforce and Economic Revitalization) Initiative which is implemented through the Appalachian Regional Commission, Economic Development Administration, and other federal agencies. The POWER Initiative targets resources to help communities affected by job losses in the coal industry.

· **The House Subcommittee on Energy and Mineral Resources held a hearing entitled “Climate Change: Preparing for the Energy Transition” on February 12, 2019.** In his testimony, Brandon Dennison, Founder and CEO of Coalfield Development Corporation, said, “POWER funding created opportunities that allowed people to stay—being Appalachian is our culture and our identity. We just have to make sure that jobs exist for the miners and affected community members that have been trained. That’s why Coalfield Development has worked closely with a solar company, Solar Holler, which has recently hired 8 of the workers we’ve trained. These programs work if the private sector (and other potential job creators) are engaged from the beginning.”[9]

b. How do we ensure a ‘just transition’ for those communities and workers as well?

RESPONSE:

Detailed below are strategies currently underway that can help paint a roadmap for ensuring a just transition for these communities and workers. These strategies entail supporting local efforts for economic revitalization, helping workers effectively prepare for jobs in emerging sectors, and helping communities rebuild in a sustainable way.

(1) The Appalachian Regional Commission (ARC) has invested over \$148 million through the POWER Initiative in 185 projects to strengthen and diversify the economy in 312 Appalachian coal-impacted communities. These investments are projected to create or retain more than 17,500 jobs, create or improve more than 7,200 businesses, and leverage more than \$772 million in additional private investment into Appalachia’s economy.[10] [Attached](#) is the full list of ARC POWER Project awards to date, which includes the following notable energy efficiency workforce initiatives:

- **\$1,000,000 ARC grant to the Federation of Appalachian Housing Enterprises, Inc., in Berea, KY, for the Appalachian HEAT Squad project.** ARC’s investment will be utilized to improve the energy efficiency of low-income homes in coal-impacted communities across a nine-county region in eastern Kentucky—while also creating entrepreneurial and skills-based training opportunities in the area. The project will create or retain 119 jobs, increase the quality, affordability, and performance of over 270 homes, and leverage \$525,000 in private investment.
- **\$2,022,133 ARC grant to the Mountain Association for Community Economic Development (MACED) in Berea, KY, for the Economic Transition for Eastern Kentucky (E TEK) Initiative.** The ARC award will expand fast-track retraining and entrepreneurial technical assistance services targeted to dislocated coal workers; establish an intern program aimed at placing former coal workers in the energy efficiency sector; and increase access to capital through a \$1,000,000 venture capital loan fund. The project will create 200 new jobs and 100 new enterprises, serve 500 existing businesses, and bring \$12,000,000 in leveraged financing to a 54-county region in Eastern Kentucky.

(2) The Mountain Association for Community Economic Development (MACED) in Berea, KY, coordinates community-led just transition efforts and employs an economic transition model that “recognizes that investment in key sectors can not only generate economic activity but also results in additional benefits to the community and the people who live there,” according to testimony from MACED President Peter Hille at the February 12, 2019 House Energy and Mineral Resources Subcommittee Hearing.[11] [Attached](#) is MACED’s 2013-2018 Impact Report which details three key programs to support the growth of an energy efficiency workforce and a new economy in the region:

- **New Energy Internship program** targets former coal industry workers and provides on-the-job training in energy efficiency contracting.
- **HowSmartKY program** enables on-bill financing for residential energy efficiency. Innovative financing programs like HowSmartKY allow homeowners of all income levels to afford energy-efficiency retrofits in their homes. In addition to saving ratepayers money on their bills and making their homes more comfortable, these programs create jobs for energy auditors, contractors and the construction trade.
- **Energy Efficient Enterprises (E3)** promotes energy efficiency and renewable energy sources by helping commercial enterprises in distressed communities save money through reduced energy costs.

Please do not hesitate to contact me Leticia Colon, CEO, Energy Efficiencies Solutions at 860-580-9076 or the Home Performance Coalition, Vice President of Government Affairs, Kara Saul Rinaldi, at kara@annndyl.com; 202.276.1773 with any additional policy questions.

[1] <https://e4thefuture.org/wp-content/uploads/2018/09/EE-Jobs-in-America-2018.pdf>

[2] http://www.arc.gov/assets/research_reports/coalindustry/powergenerationandsupplychainreport.pdf

[3] https://www.arc.gov/assets/research_reports/EntrepreneurialAppalachiaCaseStudiesinEvolvingEconomicSectors.pdf

[4] <http://www.homeperformance.org/sites/default/files/Weatherization%20%26%20HP%20Recommendations%20Report2.pdf>

[5] <https://aceee.org/research-report/u1806>

[6] Testimony of Peter Hille, President of the Mountain Association for Community Economic Development, before the House Energy and Mineral Resources Subcommittee hearing entitled, "Climate Change: Preparing for the Energy Transition," February 12, 2019.

<https://naturalresources.house.gov/imo/media/doc/Testimony%20-%20Peter%20Hille%20-%202012.19.pdf>

[7] https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/02_06_19%20Testimony_Williams.pdf

[8] <https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Rick%20Duke%20Testimony%20E%26C%20Subcommittee%20on%20Environment%20and%20Climate%20Change%20%286%20February%202019%29.pdf>

[9] <https://docs.house.gov/meetings/II/II06/20190212/108873/HHRG-116-II06-Wstate-DennisonB-20190212.pdf>

[10] <https://www.arc.gov/funding/power.asp>

[11] <https://naturalresources.house.gov/imo/media/doc/Testimony%20-%20Peter%20Hille%20-%202012.19.pdf>

[12] <https://www.naseo.org/issues/energy-jobs/employment-report>

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**Subcommittee on Energy
Hearing on
“Clean Energy Infrastructure and the Workforce to Build It”
February 27, 2019**

Ms. Anne Pramaggiore, Senior Executive Vice President and Chief Executive Officer
Exelon Utilities

The Honorable Joseph P. Kennedy III (D-MA)

1. The transition to a green economy presents the U.S. with incredible workforce opportunity but also, of course, workforce disruption.
 - a. How should Congress be proactively thinking about support for workers, families, and communities that have depended on the fossil fuel industry for jobs and economic development for generations?

RESPONSE:

Over the next 20 years, the electric power industry will evolve to meet a future that requires decarbonization, demands enhanced consumer choice, and increases use of the power grid by more and more sectors of the economy. The power grid is essential to the future we envision, but will require transformation – the greatest transformation of this industry since its advent over 100 years ago. Accomplishing this transformation will require preparing our current workforce to meet these changing demands and cultivating a workforce of the future with skills and talents very different from our legacy workforce. This workforce challenge is especially urgent given the pace of technological change and the climate goals already adopted by many U.S. states and cities.

Two fortuitous features of this industry uniquely position its transformation to support workers and families dislocated by this transformation. First, the jobs that will be needed to redesign and reconstruct the power grid are well-paying, long-term and often can be filled by skilled and semi-skilled craft workers whose skills we have substantial experience in developing. Second, because the grid physically exists in every U.S. community, resultant

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grid work will materialize in virtually all areas of the country. This sector of the economy does not exist as a geographic cluster like Silicon Valley or even a regionally-oriented sector like the auto industry. It sits in every U.S. town and village. The grid redesign should be thought of as akin to the highways system buildout in the 1950's – for its impact on the spatial orientation of society, for its function as foundational infrastructure, and for its impact on job creation. The transformation of the electric industry can be a pivot point for the core American workforce into the digital age.

The energy industry has a business imperative to help lead workforce development efforts in these fast-growing, good-paying fields, and to support programs that produce the next generation of workers.

b. How do we ensure a 'just transition' for those communities and workers as well?

RESPONSE:

The Blue Collar to Green Collar Jobs Act is a major step forward in improving education and training for energy-related jobs in communities that have depended on the fossil fuel industry and will be a tremendous asset in increasing the pool of skilled and diverse workers that our utilities need. The availability of workforce development programs for the new energy economy is key to ensuring a just transition for those communities.

The Honorable Jeff Duncan (R-SC)

1. Ms. Pramaggiore - Nuclear energy like the Oconee nuclear plant in my district will help keep the energy transition for more renewables that we're seeing today affordable & reliable. Maintaining the reliability that exists today on 100% renewables will be very costly.
 - a. How is a 100% renewable approach to energy going to serve communities in scenarios where they can't afford it? Can an economically diverse workforce be achieved if the energy powering it is unaffordable? If so, how?

RESPONSE:

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As the largest nuclear operator in the United States and the largest generator of low- and no-emissions power, Exelon believes that nuclear power plays an essential role in meeting our nation's goals of having a clean, affordable, and reliable energy system. Nuclear plants in the United States provide 100,000 high-paying jobs and account for 20% of our power generation and over 50% of the low- and no-emissions power in the country. In addition to its important role in clean energy and job creation, the commercial nuclear industry plays an enormous role globally, both by setting the most rigorous operating standards for nuclear plants across the world and by balancing U.S. interests against ceding leadership in the development of international nuclear programs to foreign countries.

H.R. 1315, the Blue Collar to Green Collar Jobs Act, will help to ensure we have a diverse workforce with the right skill sets to build this new energy future. The Act also prioritizes retraining of the workers dislocated by energy transformation. The legislation is a major step forward in improving education and training for energy-related jobs and will be a tremendous asset in increasing the pool of skilled and diverse workers that our utilities need. Exelon utilizes hundreds of contractors each year, many of which are small businesses, unable to support sophisticated training programs of their own, who will be the primary beneficiary of the programs established under the bill. The investments proposed in this bill will serve as a force multiplier, incenting others in the private and public sector to make these essential investments in creating the energy workforce of the future.

We are also aware of the policy drive in many states and great consumer interest in renewable energy. It is undeniable that significant grid modernization efforts over a number of years will be required to redesign a grid that will adapt fully to a dominantly-renewable system. The process of grid modernization will require a robust workforce and, in part, a

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differently-skilled workforce. The buildout of this redesigned energy system is akin to the highway buildout of the 1950's in impact – changing the economic and spatial orientation of the U.S. – and scale – it will touch every corner of our country. The process of moving to clean energies must be well-considered and measured.

