COMMITTEE ON
ENERGY & COMMERCE
CHAIRMAN FRANK PALLONE, JR.

MEMORANDUM

April 8, 2019

To: Subcommittee on Energy Members and Staff

Fr: Committee on Energy and Commerce Staff

Re: Hearing on "Investing in America's Energy Infrastructure: Improving Energy Efficiency and Creating a Diverse Workforce"

On **Wednesday, April 10, 2019, at 10 a.m. in the John D. Dingell Room, 2123 of the Rayburn House Office Building**, the Subcommittee on Energy will hold a legislative hearing entitled "Investing in America's Energy Infrastructure: Improving Energy Efficiency and Creating a Diverse Workforce."

I. BACKGROUND

Without energy efficiency improvements dating back to 2000, the world would have used 12 percent more energy than it did in 2016 – equivalent to adding another European Union to the global energy market.[1] Energy efficiency measures are an inexpensive way to reduce greenhouse gas emissions. Reducing the amount of fossil fuels burned at power plants results in decreased emissions of carbon dioxide and other pollutants. Studies further show that cutting nationwide energy consumption by 15 percent for one year through efficiency measures could help save six American lives per day and avoid up to $20 billion in health-related problems.[2]

In 2017, the energy and energy efficiency sectors accounted for nearly seven percent of nationwide job creation, and the United States now ranks second globally for energy investment.[3] Nearly 3.2 million Americans work in solar, wind, energy efficiency, clean vehicles, energy storage, and related clean energy jobs.[4]

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[1] International Energy Agency, *Energy Efficiency 2017* (Oct. 2017).

[2] Natural Resources Defense Council, Energy Efficiency Saves Lives, Avoids Huge Health Costs (www.nrdc.org/experts/juanita-constible/energy-efficiency-saves-lives-avoids-huge-health-costs) (Feb. 22, 2018)

[3] National Association of State Energy Officials and Energy Futures Initiative, *2018 U.S. Energy and Employment Report* (May 2018). International Energy Administration (IEA), *World Energy Investment 2018* (Jul. 17, 2018).

[4] E2, Clean Jobs America 2018 (www.e2.org/reports/clean-jobs-america-2018) (May 16, 2018).

The energy efficiency field currently employs 2.25 million Americans – twice that of all fossil fuel sectors combined. Of the entire energy sector, energy efficiency jobs are the fastest growing, adding 133,000 new jobs in 2017. There are also 315,587 Americans who hold manufacturing jobs in energy efficiency, an increase of nearly ten percent in 2017 alone. Veterans hold 11 percent of energy efficiency jobs, which is nearly double the national average of veterans in the workforce (six percent).[5]

In general, the energy sector remains less diverse than the national workforce.[6] Jobs in clean energy can offer significant employment opportunities for minority workers. Minorities are also underrepresented in the science, technology, engineering and math (STEM) fields, which include some of the fastest growing industries. While African Americans and Hispanics represent 27 percent of the overall workforce, they make up only 16 percent of the science and engineering workforce in the United States.[7]

II. LEGISLATION

A. H.R. 2044, Smart Building Acceleration Act

Reps. Welch (D-VT) and Kinzinger (R-IL) introduced H.R. 2044, the Smart Building Acceleration Act, on April 3, 2019.

The bill requires the Secretary of Energy (the Secretary) to conduct a survey of smart buildings across the country and then select at least one building from an appropriate range of building sizes and types to be evaluated for further assessment. The assessment includes an evaluation of which advanced building technologies are the most cost-effective, as well as which show the most promise for decreasing building utility demands and increasing service performance to building occupants. The Secretary must also establish an initiative to implement smart building technology at one or more buildings under each of several Federal agencies and also evaluate the costs and benefits of these buildings.

The bill also directs the Secretary, in consultation with private sector property owners, to develop a smart building initiative to demonstrate policies and approaches that facilitate the transition to smart buildings under the umbrella of the Department of Energy's (DOE) Better Buildings Challenge. The bill further directs the Secretary to conduct research on eliminating barriers to the integration of advanced building technologies and facilitating the transition to smart buildings. The legislation also requires the Secretary to provide a report to Congress

[5] E4 The Future, *Energy Efficiency Jobs in America* (Sept. 2018).

[6] U.S. Department of Energy, *U.S. Energy and Employment Report: January 2017* (Jan. 2017).

[7] Pew Research Center, Diversity in the STEM workforce varies widely across jobs (www.pewsocialtrends.org/2018/01/09/diversity-in-the-stem-workforce-varies-widely-across-jobs) (Jan. 9, 2018).

summarizing findings and providing recommendations to facilitate the transition to smart buildings.

B. H.R. 2043, Home Owner Managing Energy Savings Act of 2019

Reps. Welch (D-VT) and McKinley (R-WV) introduced H.R. 2043, the Home Owner Managing Energy Savings (HOMES) Act of 2019, on April 3, 2019.

H.R. 2043 requires the Secretary to establish a Home Energy Savings Retrofit Rebate Program to provide rebates to homeowners for retrofits that achieve home energy savings. For a retrofit to qualify for the program, it must be implemented and installed by a qualified contractor, achieve a reduction in home energy use of 20 percent or more, and include measures with an estimated life of five years or more. Homeowners performing retrofits are projected to save at least 20 percent of energy usage would be eligible for a $2,500 rebate; those performing retrofits projected to save at least 40 percent of energy usage would be eligible for a $5,000 rebate. The bill authorizes $250 million annually for the program for fiscal years (FY) 2021 through 2025.

Additionally, H.R. 2043 directs the Secretary to establish a Residential Energy Pay for Performance pilot program to encourage the use of measured energy savings in the operation of residential energy programs. The legislation also requires the pilot program to provide competitive grants to five or more state energy offices. The bill authorizes $100 million to carry out this pilot program in FY2021.

C. H.R. 2041, Weatherization Enhancement and Local Energy Efficiency Investment and Accountability Act

Rep. Tonko (D-NY) introduced H.R. 2041, the Weatherization Enhancement and Local Energy Efficiency Investment and Accountability Act, on April 2, 2019.

H.R. 2041 updates the 1976 DOE Weatherization Assistance Program (WAP). WAP is the nation's largest residential whole-house energy efficiency program, providing formula grant funding to all 50 states, the District of Columbia, Native American Tribes, and five U.S. territories.

The bill reauthorizes WAP at $350 million per year from FY2020 through FY2024. The bill allows the Secretary to take into consideration improvements in health and safety of occupant dwelling units, as well as other non-energy benefits from weatherization assistance, when reissuing regulations on program cost effectiveness. It also allows the Secretary to require periodic review of the use of private contractors in provisioning weatherization assistance and encouraging expanded use of contractors, as appropriate.

H.R. 2041 establishes a competitive grant program to support innovation in weatherization assistance, and it increases the funding amount that may be used for administrative purposes from ten percent to 15 percent. The bill amends the re-weatherization date so that dwelling units weatherized using Federal funds, are eligible to receive additional assistance 15 years after the completion of the previous weatherization assistance.

D. H.R 2019, Smart Energy and Water Efficiency Act of 2019

Reps. McNerney (D-CA) and Kinzinger (R-IL) introduced H.R. 2019, the Smart Energy and Water Efficiency Act of 2019, on April 1, 2019.

H.R. 2019 establishes a smart energy and water efficiency management pilot program. The bill directs the Secretary to award eligible entities grants to demonstrate advanced and innovative technology-based solutions that will do one of three things:

- increase and improve the energy efficiency of water, wastewater, and water reuse systems;
- support the implementation of innovative processes to include the installation of advanced automated systems; or
- improve energy and water conservation quality and predictive maintenance through use of internet-connected technologies.

The bill also establishes a competitive and merit-based grant award process with selection criteria, and it directs the Secretary to carry out an evaluation of each grant project every year for five years. The legislation requires the Secretary to make the projects' best practices available to the public and produce a report to Congress no later than five years after the program's establishment.

E. H.R. 2088, to amend the Energy Independence and Security Act of 2007 to reauthorize the Energy Efficiency and Conservation Block Grant Program

Reps. Stanton (D-AZ) and Veasey (D-TX) introduced H.R. 2088, to amend the Energy Independence and Security Act of 2007 to reauthorize the Energy Efficiency and Conservation Block Grant Program, on April 4, 2019.

Congress authorized the Energy Efficiency and Conservation Block Grant Program in the Energy Independence and Security Act of 2007 to provide up to $2 billion per year from FY 2008-2012. In 2009, the American Recovery and Reinvestment Act allocated $3.2 billion to the program. The program provides grants to states, local governments, and Indian tribes to assist their efforts to reduce fossil fuel emissions and conserve energy. The grants can be used to improve energy efficiency in all sectors of the local economy and for a wide variety of activities, allowing for flexibility to fund projects that best address local conditions and needs.

The bill reauthorizes the program to provide $3.5 billion annually from FY 2021-2025. In addition, the bill includes several amendments to the program to add the goal of diversifying energy supplies by promoting use of alternative fuels. Sections 544 and 546 of the law are amended to explicitly authorize the funding to deploy infrastructure for delivering alternative fuels (including electricity).

F. H.R. 2119, to amend the Energy Policy Act of 2005 to reauthorize grants for improving the energy efficiency of public buildings

Rep. Kelly (D-IL) introduced H.R. 2119, to amend the Energy Policy Act of 2005 (EPAct05) to reauthorize grants for improving the energy efficiency of public buildings, on April 8, 2019.

The bill amends Section 125(c) of EPAct05 to authorize $100 million annually from FY 2021-2025. Section 125 established a grant program to provide grants for states to improve the energy efficiency of public buildings and facilities. EPAct05 originally authorized the program at $30 million per year.

G. H.R. 1315, Blue Collar to Green Collar Jobs Development Act of 2019

Rep. Rush (D-IL) introduced H.R. 1315, the Blue Collar to Green Collar Jobs Development Act of 2019, on February 22, 2019.

H.R. 1315 amends section 211 of the Department of Energy Organization Act to rename the Office of Minority Economic Impact as the Office of Economic Impact, Diversity, and Employment. The bill directs the Secretary to establish and implement energy workforce development by establishing and carrying out "a comprehensive nationwide program to improve education and training for jobs in energy-related industries." Among other things, it encourages underrepresented groups including religious and ethnic minorities, women, veterans, individuals with disabilities, socioeconomically disadvantaged individuals, and returning citizens to enter the STEM fields.

The bill directs the Secretary to provide direct assistance (including financial assistance awards and technical expertise) to educational institutions, local workforce development boards, State workforce development boards, non-profit organizations, labor organizations, and apprenticeship programs. The bill also directs the Secretary to collaborate with the Secretaries of Labor and Education to develop educational guidelines and conduct outreach to minority-serving educational institutions and displaced and unemployed energy and manufacturing workers. The bill establishes a grant program to provide grants to eligible businesses to pay new and existing employees receiving training to work in renewable energy, energy efficiency, grid modernization, carbon capture and storage, and fuel cell generation sectors.

The Subcommittee held a previous hearing on H.R. 1315 on February 27, 2019. That briefing memo can be found here.

H. H.R. 2114, The Enhancing State Energy Security Planning and Emergency Preparedness Act of 2019

On April 8, 2019, Reps. Rush (D-IL) and Upton (R-MI) introduced H.R. 2114, which would amend sections of the Energy Policy and Conservation Act pertaining to the State Energy Conservation Plans. It adds a new section that authorizes a state to use Federal financial assistance received through the State Energy Program (SEP) to implement, revise, and review a State Energy Security Plan. The bill sets out requirements for the contents of the

State Energy Security Plan. To be eligible to receive assistance under the SEP, the bill requires the Governor of a state to submit a plan, a revision to the plan, or a certification that no revisions to the plan are necessary to the Secretary every year. The provision sunsets in 2024. The bill also reauthorizes the SEP from 2021 through 2025 at $90 million for each of the five fiscal years of the bill. In recent years, appropriations for the SEP have been $50 million.

The bill is supported by the National Association of State Energy Officials (NASEO) and the National Association of Regulatory Utility Commissioners (NARUC). Similar legislation passed the House by voice vote in the 115th Congress.

III. WITNESSES

The following witnesses have been invited to testify:

The Honorable Daniel R. Simmons
Assistant Secretary, Office of Energy Efficiency and Renewable Energy
Department of Energy

The Honorable James E. Campos
Director, Office of Economic Impact and Diversity
Department of Energy