COMMITTEE ON
ENERGY & COMMERCE
CHAIRMAN FRANK PALLONE, JR.

MEMORANDUM

May 3, 2021

To: Subcommittee on Energy Members and Staff

Fr: Committee on Energy and Commerce Staff

Re: Legislative Hearing on "The CLEAN Future Act: Driving Decarbonization of the Transportation Sector"

On **Wednesday, May 5, 2021, at 11:30 a.m. (EDT) via Cisco Webex online video conferencing**, the Subcommittee on Energy will hold a legislative hearing entitled, "The CLEAN Future Act: Driving Decarbonization of the Transportation Sector."

I. BACKGROUND

The domestic electric vehicles (EV) market, including hybrid and battery electric models, is projected to reach nearly seven million unit sales by 2025, up from 1.4 million in 2020.[1] To support this growing adoption, electric vehicle supply equipment (EVSE) is also seeing increased deployment. According to data from the Department of Energy's (DOE) Alternative Fueling Station Locator, new public EVSE[2] grew by 7.6 percent in the first quarter of 2020.[3] Of this growth, direct-current fast charging (DCFC)[4] grew the most, seeing a 10.6 percent increase in charging stations from 2019.[5] According to needs projections on EVSE deployment by 2030, as of last year the United States had only 12 percent of the necessary Level 2 chargers, and less

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[1] *US EV market sales to rise to 6.9 million units by 2025: Frost & Sullivan*. S&P Global. (Nov. 19, 2020).

[2] Public charging refers to EV charging located in publicly accessible areas or along highway corridors. Additional types of EVSE includes workplace charging, which is designed to provide charging to employees during the workday, and commercial/fleet charging. *See* note 3.

[3] National Renewable Energy Laboratory, Department of Energy. *Electric Vehicle Charging Infrastructure Trends from the Alternative Fueling Station Locator: First Quarter 2020* (Oct. 2020) (NREL/TP-5400-77508).

[4] Electric vehicle charging is broken down into three main categories. Level 1 chargers provide about 2-5 miles of range per hour of charging. Level 2 chargers provide about 10-20 miles of range per hour of charging. Direct-current fast charging provides about 60-80 miles of range in about 20 minutes of charging. *See* note 3.

[5] *See* note 3.

than half the necessary DCFC.[6] In March, the United States surpassed 100,000 public chargers installed nationwide.[7] While a significant amount of charging occurs at home and work, public EVSE will play a key role for longer trips or for those who cannot charge at home.[8] The necessary EVSE buildout to meet demand by 2030 is expected to cost $50 billion.[9]

The Biden Administration's American Jobs Plan includes $15 billion to help build and support a national charging network of 500,000 stations by 2030. The plan includes research funding opportunities and the development of a national EV charging technical blueprint. The Administration also announced a partnership between DOE, Idaho National Laboratory, and automakers to analyze market-level charging trends.[10]

II. H.R. 1512, THE "CLEAN FUTURE ACT" – ELECTRIC VEHICLE PROVISIONS

Chairmen Pallone (D-NJ), Rush (D-IL), and Tonko (D-NY) introduced H.R. 1512, the "Climate Leadership and Environmental Action for our Nation's Future Act" or the "CLEAN Future Act." The CLEAN Future Act includes several provisions relating to electric vehicles **in Title IV – Transportation**.

A. Subtitle D – Zero Emissions Vehicle Infrastructure Buildout

Subtitle D Part 1 supports the buildout of zero emissions vehicle infrastructure, specifically the deployment of infrastructure to support growing electric vehicle adoption. This subtitle directs DOE to establish a program that provides rebates for the installation of publicly accessible EVSE. In addition, Subtitle D ensures that buildings are ready for EVSE deployment, and requires the Secretary of Energy to establish or update model building codes for integrating EVSE into multi-family buildings. It also requires DOE to convene a group to assess the development of standards that support expanded deployment of a nationwide electric vehicle charging network.

Subtitle D Part 1 amends section 111(d) of the Public Utility Regulatory Policies Act (PURPA) and the Energy Policy and Conservation Act (EPCA) to further support EVSE deployment. The amendment to PURPA requires that states consider authorizing measures to encourage deployment of EVSE. The amendment to EPCA authorizes funding for State Energy Conservation Plans and for preparation of State Energy Transportation Plans by state energy offices. Part 1 also amends EPCA to allow the Secretary of Energy to provide funding to a state to develop an energy transportation plan as part of the state's energy conservation plan.

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[6] *See* note 3.

[7] Whitehouse. *FACT SHEET: Biden Administration Advances Electric Vehicle Charging Infrastructure*. (April 22, 2021).

[8] *See* note 7.

[9] *Biden wants to build a national EV charging system under $2 trillion infrastructure plan, but it won't be easy*, CNBC (Mar 31, 2021).

[10] *See* note 7.

Additionally, this part includes provisions amending section 131 of the Energy Independence and Security Act (EISA) to include projects that facilitate electrification of the transportation sector. It also amends the Energy Policy Act of 1992 to increase the percentage of alternative fueled vehicles acquired in federal agencies' fleets.

Subtitle D Part 2 requires the Secretary of Energy to pursue measures ensuring that electric vehicles and their supporting infrastructure are deployed in ways that ensure access and equity. Part 2 includes language from H.R. 1221, which is described in greater detail below.

Subtitle D Part 3 directs the Secretary of Energy to support the mapping of EVSE needs. Specifically, these provisions direct the Secretary of Energy to provide grants to help determine where EVSE will be needed to meet current and future demand, and to make such data publicly available.

B. Subtitle E – Promoting Domestic Advanced Vehicle Manufacturing

The CLEAN Future Act includes provisions to ensure that the ongoing transportation transition is supported by domestic manufacturing and leads to the development of domestic supply chains.

Subtitle E amends the Energy Policy Act of 2005, Title VII, Subtitle B, to include plug-in electric vehicles, and directs the Secretary of Energy to accelerate domestic manufacturing of batteries, power electronics, and other technologies for use in electric vehicles. Subtitle E also amends EISA to update and broaden the definition of an "Advanced Technology Vehicle." Subtitle E contains language from H.R. 2308, which is described below in greater detail.

III. ADDITIONAL LEGISLATION

A. H.R. 2852, the "NO EXHAUST Act"

Energy Subcommittee Chairman Bobby Rush (D-IL) introduced H.R. 2852, the "NO EXHAUST Act." Chairman Rush initially introduced the "NO EXHAUST Act" as H.R. 5545 in the 116th Congress; that version of the bill serves as the basis for most of the electric vehicle provisions in the CLEAN Future Act. As currently introduced, H.R. 2852 includes all the provisions from Title IV, Subtitles D and E of the CLEAN Future Act, which are summarized above in Section II.

B. H.R. 1221, the "Electric Vehicles for Underserved Communities Act of 2021"

Representative Yvette Clarke (D-NY) introduced H.R. 1221, the "Electric Vehicles for Underserved Communities Act of 2021." This bill encourages the deployment of EVs and EVSE in underserved communities. H.R. 1221 requires the Secretary of Energy to conduct an assessment on the availability, opportunities, and best practices to encourage deployment of EVSE in underserved communities. It also establishes a program to increase the deployment of

EVSE in underserved communities by providing technical assistance and awarding grants for projects that increase electric vehicle charging infrastructure deployment and accessibility.

C. H.R. 2308, the "ATVM Future Act"

Representative Debbie Dingell (D-MI) introduced H.R. 2308, the "Advanced Technology Vehicles Manufacturing Future Act of 2021" or the "ATVM Future Act." The bill amends EISA to update and broaden the definition of an Advanced Technology Vehicle. The new definition would include ultra-efficient vehicles, and some light-duty, medium-duty, and heavy-duty vehicles that meet certain standards. The ATVM Future Act also expands and prioritizes eligibility for ultra-efficient components, and modernizes the evaluation of a loan applicant's prospects of repaying a loan under the program.

IV. WITNESSES

The following witnesses have been invited to testify:

Amol Phadke, M.S., Ph.D.
Staff Scientist and Deputy Department Head, International Energy Analysis Department
Lawrence Berkeley National Laboratory

Joe Britton
Executive Director
Zero Emissions Transportation Association

Josh Nassar
Legislative Director
International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW)

David Jankowsky
Founder and President
Francis Energy

Michelle Michot Foss, Ph.D.
Fellow in Energy & Minerals
Baker Institute for Public Policy, Center for Energy Studies, Rice University

AJ Siccardi
President
Metroplex Energy