**Department of Energy**
**Washington, DC 20585**

January 4, 2018

Mr. Frank Novachek, Chair
Hydrogen and Fuel Cell Technical Advisory Committee
1800 Larimer Street, Suite 1600
Denver, Colorado 80202

Dear Chairman Novachek:

Thank you for your June 2017 letter to Energy Secretary Rick Perry and the accompanying *2016 Annual Report of the Hydrogen and Fuel Cell Technical Advisory Committee (HTAC)* and the *Hydrogen Safety and Event Response Subcommittee Report*. The Department values the input of the Committee and appreciates these thorough and detailed reports. I am responding to your letter on behalf of Secretary Perry.

As you mention, it is exciting to see the progress that we have made on hydrogen and fuel cell technologies since the early days of President George W. Bush's Hydrogen Fuel Initiative. We are pleased that his vision of making fuel cell electric vehicles (FCEVs) available to consumers is now becoming a reality, with more than 2,200 FCEVs owned or leased by retail customers in the United States as of June 2017. Through DOE's research and development (R&D), we have seen the cost of fuel cells cut by 80% since 2002, while achieving a four-fold increase in durability to over 120,000 miles in the last decade. As of the end of fiscal year (FY) 2016, our Hydrogen and Fuel Cells Program funding has directly led to more than 650 hydrogen and fuel cell related patents from national labs, universities, and companies all over the Nation. However, as your report also points out, challenges remain in reducing the cost of FCEVs and in developing a sufficient and robust hydrogen refueling infrastructure. Your recommendations identify ways the program can work to resolve some concerns.

In addition to organizing workshops with technical experts to address challenges, we recently awarded the $1 million H2 Refuel H-Prize. Simple Fuel won the prize for their small-scale on-site hydrogen generation and fueling appliance, which complements the retail station strategy. Now that FCEVs are commercially available, we have also updated the Alternative Fuels Data Center to include information on hydrogen and FCEVs, including hydrogen station maps and infrastructure development information.

The Department of Energy (DOE) has maintained a consistent and substantial budget for hydrogen and fuel cell technologies. The FY 2017 enacted budget is approximately $105 million, which is a slight increase over FY 2016 levels. In line with the President's 2018 budget request, the Hydrogen and Fuel Cells Program is focusing resources on early-stage R&D that can achieve technology breakthroughs, particularly in hydrogen fuel. The private sector is expected to take the lead on later stage R&D, and commercialization activities.

The Department continues to focus on its lab-led consortia to address technical challenges, including three hydrogen and fuel cell related consortia that are part of DOE's Energy Materials Network (HydroGEN, ElectroCAT, and HyMARC). By using both computational and experimental techniques to identify promising technologies, we will accelerate materials discovery and development to address the most difficult challenges such as, identification of platinum-free catalysts, and hydrogen storage materials. In response to your request for an explicit plan for how the 2020 goals of Title VIII of the Energy Policy Act of 2005 (EPACT) will be achieved, the Department will work to develop a strategy to outline ongoing efforts towards these goals.

The Committee also recommends that the Federal tax credits for FCEVs and stationary fuel cell power generation be reinstated and that incentives for hydrogen refueling infrastructure be provided to continue to foster fuel cell commercialization and help achieve EPACT Title VIII 2020 goals. Please note that the Department does not set Federal tax incentives and our mission is R&D to enable technologies to be competitive in the long term without subsidies.

I would particularly like to thank the Committee for the Hydrogen Safety and Event Response report. The Department appreciates the importance of hydrogen safety and is taking steps to ensure continuity of critical hydrogen safety research by integrating key activities into the technology R&D programs. We plan to work with the private sector and other external stakeholder groups to determine how the work of the Hydrogen Safety Panel may best be continued.

The Department is also continuing to leverage public-private partnerships and work with other Federal and state agencies that can incorporate hydrogen into their programs. We also plan to release a call for Cooperative Research and Development Agreements for the private sector to work with national labs and enable a sustained and robust effort related to H2@Scale and hydrogen infrastructure. Our H2@Scale activities will focus on key challenges associated with wide-scale production and use of hydrogen to address critical national issues such as grid resiliency, energy security, domestic job creation, and leadership in manufacturing.

The Department values the advice and commitment of the Committee in its efforts to continue to improve our programs and activities related to hydrogen and fuel cells. Please extend my sincerest gratitude to the Committee members for their hard work and their valuable contributions to the Department and its mission.

Sincerely,

Daniel R Simmons
Principal Deputy Assistant Secretary
Energy Efficiency and Renewable Energy