Department of Energy
Washington, DC 20585

November 30, 2016

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 August 2016 letter to Energy Secretary Moniz and the accompanying *2015 Annual Report of the Hydrogen and Fuel Cell Technical Advisory Committee (HTAC)*. The Department values the input of the Committee and appreciates this thorough and detailed report on the status of hydrogen and fuel cells.

As you mention, we were able to continue significant progress in hydrogen and fuel cell technologies in 2015. Through our investment in research and development, we have seen the cost of fuel cells cut in half in the past nine years, while achieving a four-fold increase in durability. The Hydrogen and Fuel Cells program also helped to double the number of patents in fuel cell technologies since 2007, while also helping to double the number of fuel cell related technologies deployed in the commercial market between 2007 and 2015. However, as your report also points out, challenges remain in developing a sufficient and robust hydrogen refueling infrastructure for fuel cell electric vehicles (FCEVs), and your recommendations identify ways in which the program can work to resolve some concerns.

We agree that the deployment of hydrogen refueling infrastructure continues to be a challenge. The Hydrogen and Fuel Cells program held a meeting in June 2016 with stakeholders from both the National Laboratories and H2USA to identify the barriers and opportunities for hydrogen infrastructure deployment. We are also developing an internal hydrogen infrastructure roadmap and released a request for information to obtain feedback on deployment of hydrogen fueling stations, delivery infrastructure, and activities to pursue in both the near and longer term. Our investment in H2FIRST (Hydrogen Fueling Infrastructure Research and Station Technology) illustrates our commitment to addressing challenges with hydrogen infrastructure. Now that FCEVs are commercially available, the revision of the Department's Clean Cities strategic vision plan will include additional focus on hydrogen and fuel cell technologies, such as funding opportunity announcements and station locations on Department-provided fueling-infrastructure maps.

The Committee also recommends that the federal tax credit for fuel cell electric vehicles be extended beyond 2016 to continue to enable fuel cell commercialization and help achieve Title VIII goals for 2020. While the Department does not set the Federal tax credits, we are working with our colleagues in the legislative branch to provide information related to these policies.

Finally, the Department recognizes that additional funding would provide more flexibility in allowing us to achieve the 2020 Title VIII goals. We continue to support the President's "all of the above" energy strategy by maintaining a consistent and substantial budget for hydrogen and fuel cell technologies. The Fiscal Year (FY) 2017 budget request is approximately $105 million, which is slightly higher than FY2016 levels. Given budget constraints, I am pleased to inform you that we have launched three new consortia as part of DOE's Energy Materials Network in support of the President's Materials Genome Initiative and advanced manufacturing priorities: HydroGEN, ElectroCAT, and HyMARC. By using both computational and high-throughput combinatorial techniques to identify promising technologies, we will accelerate materials discovery and development to address the most challenges such as renewable hydrogen production, identification of platinum group metal-free catalysts, and hydrogen storage materials.

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. In response to your request for an explicit plan for how the 2020 EPACT Title VIII goals will be successfully achieved, the Department will work to develop a strategy to outline efforts currently underway to work toward these goals.

Please extend my sincerest gratitude to the Committee members for their hard work and their valuable contributions to the Department and its mission.

Sincerely,

David J. Friedman
Acting Assistant Secretary
Energy Efficiency and Renewable Energy

Frank and Committee,
Keep up the great work and keep pushing. I've never seen a path to 80% reductions that doesn't include H_2, so I know the next Secretary and Assistant Secretary will need your counsel. Please also keep helping Sunita and Reuben think creatively about how we can get H_2 to $2 or even $1/gge.
Thanks again for your advice,
DJF