Written Testimony of Dan Nicholson, General Motors Vice President of Global Propulsion, Before the House Committee on Energy and Commerce Subcommittee on Environment

High Octane Fuels and High Efficiency Vehicles: Challenges and Opportunities

April 13, 2018

Chairman Walden, Chairman Shimkus, Ranking Member Pallone and Ranking Member Tonko and members of the committee, my name is Dan Nicholson, Vice President of Global Propulsion Systems for General Motors Company. I am here today representing General Motors, a member company of the United States Council for Automotive Research (USCAR).

I appreciate the Committee's invitation to appear before you to discuss the importance of increased octane in gasoline. As you know, the automotive industry is changing at an unprecedented pace. This requires all major mobility stakeholders to be better coordinated and to develop implementation strategies together. As the Committee explores options, such as changes to U.S. fuel standards that may include higher octane gasoline, it is necessary that the industries involved in this opportunity work more closely together in order to ensure that consumers benefit and our industries remain strong. We believe increasing the minimum octane level in U.S. gasoline for new vehicles will be a win for all industries and, most importantly, consumers.

Today you will hear from many stakeholders involved in changing the liquid fuel market. This change requires the commitment of all parties. I would now like to take a few minutes to discuss the role of the automotive industry.

Currently, many facets of the traditional automotive business are being disrupted. Innovative technologies are driving tremendous advancements in everything from safety and

vehicle connectivity, to fuel efficiency and electrification. Additionally, societal trends like urbanization and sustainability are changing the way customers think about and interact with mobility.

As GM's Chairman and CEO, Mary Barra, likes to say: "The auto industry will change more in the next five years than it has in the last 50 years." We believe this gives us opportunity to make cars cleaner, safer, smarter, more efficient, and more fun to drive than ever before.

As part of this significant shift, the automotive industry has taken unprecedented steps to improve engine efficiency through downsized turbocharged engines, improved multi-speed transmissions and a host of eco-friendly improvements; all with the goal of meeting customer requirements while delivering improved efficiency.

The global automotive market is growing and multiple technologies and solutions will be needed to match demand. Octane is one of those solutions. We have an opportunity to play a large role in offering consumers the most affordable option for fuel economy improvement and greenhouse gas reduction. We believe a higher efficiency gasoline solution with a higher Research Octane Number (RON) is very important to achieving this.

USCAR research shows that 95 RON makes sense from the viewpoints of both refiners and fuel retailers. As you may know--this is the same level of RON that Europe has used as their minimum level for many years. Without this new fuel, we will continue to endure the impacts of fuel variation and forego related available fuel economy improvement opportunities.

Ultimately, policy leadership is key to bringing about fundamental change in the market. Your leadership is critical here. We need to work together to improve the fuel in the U.S. market to take advantage of engine designs that are more efficient and provide significant large-scale fuel economy improvements and corresponding reductions in greenhouse gas emissions. And,

we must do so in a way that makes sense for consumers--which means developing a favorable consumer model for fuel and coordinated retail introduction.

Thank you again for the opportunity to be here today and to discuss high octane fuels used in high efficiency vehicles.

Main Points

- A higher octane standard in the U.S. will promote vehicle efficiency through a combination of improved fuel and corresponding engine technology.
- The U.S. should adopt octane standards that offer consumers true value at the point of sale.
- Higher octane in the retail market, in combination with changes to engines, can offer fuel economy and greenhouse gas savings that are more affordable than other technologies, if commercialized correctly in cooperation with other industries.
- Due to the long lead time for all industries affected, the time to work on this issue is now.