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## **The Role and Impact of Low-Carbon Fuels in Decarbonization**

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### **Abstract**

The U.S. government, along with several states, cities, and some private companies, has articulated a target of achieving net-zero economy-wide greenhouse gas emissions by 2050. The mid-century net-zero target is the long-run context for the near-term goal of reducing economy-wide emissions by 50% relative to 2005 by 2030, submitted by the U.S. to the international Paris Agreement. While formal policies are not yet in place to achieve the 2050 goals, the net-zero benchmark provides a clear strategic direction for characterizing the energy transition in the U.S. Energy system modeling plays a crucial role in evaluating alternative decarbonization options and identifying strategic interactions and technology development needs. While many of the options for near-term decarbonization rely on scaling up available technologies, achieving deep decarbonization targets in the longer term will require the development and demonstration of new and innovative technology solutions, including low-carbon fuels.

**Note:** This document will be opened to the participants on IERE website before the Workshop and opened to the public afterward.