



801 North Quincy Street  
Suite 500  
Arlington, VA 22203

PHONE: 703.841.9300  
EMAIL: [cstewart@americanwaterways.com](mailto:cstewart@americanwaterways.com)

Caitlyn E. Stewart  
Vice President – Regulatory Affairs

February 28, 2024

Office of Energy Efficiency and Renewable Energy  
Department of Energy  
1000 Independence Ave, SW  
Washington, D.C. 20585

Re: Request for Information: Defining  
Sustainable Maritime Fuels in the  
United States

To Whom It May Concern:

The American Waterways Operators (AWO) is the tugboat, towboat, and barge industry's advocate, resource, and united voice for safe, sustainable, and efficient transportation on America's waterways, oceans, and coasts. Our industry is the largest segment of the nation's 40,000-vessel domestic maritime fleet and moves 665 million tons of cargo each year safely and efficiently. On behalf of our more than 300 member companies, we appreciate the opportunity to comment on the Request for Information (RFI) to define Sustainable Maritime Fuels (SMF) in the U.S.

AWO members are proud to be part of the most sustainable and efficient mode of freight transportation. Our sustainability is driven by our efficiency: a barge can travel 675 ton-miles per gallon of fuel, compared to 472 miles for a railcar and 151 miles for a truck. Many of our member companies are looking for ways to make their operations even more efficient and drive innovation by pursuing new propulsion technologies and fuel types. The Sustainable Maritime Fuels Grand Challenge is an exciting opportunity to create supply chains and markets for new sources of domestic energy. Establishing a definition of sustainable maritime fuels that is workable for our industry – the largest segment of the domestic maritime industry – is essential to building up those supply chains and providing the customer base at the volumes necessary to support new markets.

As our member companies consider which alternative fuels they will use to improve their efficiency, they must decide what makes the most sense for their operations. The fuel must be safe, it must provide sufficient power, it must be approved by regulators, and it must be available when and in the amounts they need. Creating an SMF definition that is too limited and inflexible will reduce the options that operators can confidently pursue, and it will ultimately hamper the innovation of the U.S. maritime industry. On the other hand, a sufficiently broad SMF definition will unlock options for the wide diversity of domestic maritime operations and increase operator confidence in the fuels and technologies they choose to invest in.

The SMF definition must be both broad and flexible enough to cover the variety of vessels, operations, and geographies that comprise the U.S. maritime industry. It must not pick technological winners and losers nor force operators to choose between business as usual and fuels that do not provide the efficiency gains needed to justify the investment. Operators must be able to pick an SMF that best fits their needs and allows them to continue providing the safe and efficient transportation that our country relies on. To this end, we are providing our answers to some of the questions listed in the RFI document.

- 1. How would you define a Sustainable Maritime Fuel?** An SMF should be defined as a widely available fuel that can safely be used for marine propulsion and that emits fewer greenhouse gases (GHGs) per unit of energy used onboard a vessel than traditional diesel fuel. The SMF definition must be durable, allowing for new technologies and techniques to be included over time. The definition should not be narrowly limited to specific fuels which may not be suitable for all maritime operations.
- 2. Are there any current definitions of SMF (locally, regionally, nationally, or globally) that should be considered when developing the national definition? If so, please provide.** When looking at other countries' SMF definitions, be mindful that maritime operations can differ widely between countries. For instance, barges in Europe are self-propelled, whereas barges in the U.S. are not. American river barges can be lashed together in a wide variety of configurations and the towboats pushing them vary greatly in horsepower and propulsion design depending on where they operate. These types of operational differences may mean that international fuel needs differ greatly from domestic ones.
- 3. What is the best way to incorporate multiple fuel and energy replacement types (e.g., gaseous, liquid, pressurized gas, electric power, efficiency improvements, etc.) into a singular definition of SMF?** The best way to ensure the SMF definition is sufficiently flexible is to include any fuel that emits fewer GHGs per unit of energy than diesel fuel without defining specific fuel types. This will allow currently available sustainable fuels to qualify as SMFs while also allowing future fuel types the chance to operate on a level playing field once they mature. The definition should also account for the differences between ocean-going, harbor, coastwise, and inland vessels. Different fuels will work differently depending on the vessel type, operating environment, geographic range, and onboard equipment. For instance, large ocean-going vessels have far fewer space constraints than smaller inland vessels. Assuming that what works for a harbor tug making short voyages within a single port or an inland towboat pushing dozens of barges among multiple ports on the Lower Mississippi River would also work for a panamax container ship traversing the open ocean could result in a definition that only fits the needs of a small segment of the diverse domestic maritime industry.
- 4. What aspects of sustainability should be incorporated into a SMF definition?** While the definition should be inclusive of many aspects of sustainability – including fuel made

from renewable feedstocks – we believe that the primary criteria should be that the fuel provides a reduction in GHG emissions per unit of energy over diesel fuel. Further, safety should be considered alongside sustainability. Waterborne transportation is the safest mode of freight transportation in the U.S., and SMFs should not undermine the safety of our ports and waterways.

- 5. Should potential non-GHG emissions such as criteria pollutants be included within the definition? If so, how?** Non-GHG pollutants should not be considered in the SMF definition. Reducing criteria pollutants is an important part of AWO member companies' sustainability efforts as well as federal and state regulatory programs. Low-GHG fuels that are available today often have the co-benefit of reducing criteria pollutants alongside GHGs. However, different low-GHG fuels do not reduce all pollutants equally. Requiring criteria pollutant reductions to a specific level in the SMF definition risks excluding otherwise beneficial fuels that could achieve overall GHG and criteria pollutant reductions.
- 6. Should there be a limit to GHG emissions in the SMF definition? If so, what should it be and why? How should these be measured?** The SMF definition should not set a specific GHG limit. Requiring hard and fast GHG limits within the SMF definition risks reducing the variety and availability of fuels, which will in turn make it harder to justify investments in the technologies needed to utilize those fuels. It also risks excluding fuels that do not currently meet the target, but may one day be able to be produced with lower carbon intensity. Specific GHG limits could strangle these fuels on the vine, depriving the industry of viable low-GHG options in the future. Additionally, since the average U.S. towboat has a 40-year lifespan, setting GHG limits on fuels now and in the future could force high-quality, low-GHG equipment into early retirement for lack of available fuel.
- 7. What criteria should be used to determine which resources/feedstocks are acceptable for SMF?** Domestically produced and available feedstocks will ensure that U.S. supply chains are reliable, regionally sufficient, and sustainable. A certification scheme will also help ensure that fuels are providing the actual emissions reductions that they claim. This will give companies confidence that their investments are achieving their intended emissions reductions benefits.

Thank you for the opportunity to comment. I would be pleased to provide additional comments or further information as you see fit.

Sincerely,



Caitlyn E. Stewart  
Vice President – Regulatory Affairs