



DOE BIOECONOMY 2017

US Maritime Administration (MARAD)

Maritime Environmental and Technical Assistance (META)
Initiative

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- Focus of today's panel is biofuels for commercial maritime application.
- Excellent panel to tackle a single issue: Many thousand vessels are using hundreds of millions of gallons of fuels (2X @ 2030), but there's very little penetration of biofuels.
- There is, however, **some** renewed interest. Largely a result of tightening environmental standards. The International Maritime

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- Organization has set aggressive emission targets to reduce fuel sulfur content from 3.5% to 0.5% in 2020. Nox will follow.
- Because of environmental restrictions: Impossible now to compare a maritime vessel's emissions' profile with that of a floating asphalt plant! Rose George's book.
- Emissions, energy independence, and economics all play a role in the decision making matrix for fuel choices.

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- Result of these events is that ship operators are being forced to make decisions about future fuel use. Sox, Nox, PM decisions! And COST!
- Biofuels have several benefits. Low sulfur and ash contents, good lubricity, relative to many petroleum based fuels. MARAD has done preliminary tests. But their performance has not been thoroughly evaluated.

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- In any fuel decision, I always see three components to the calculus for decision-making. Environment, Economics, and Ease of Availability.
- As we move along this afternoon, I hope that each of our speakers, will address these issues from their own special vantage point.