



# Renewable Diesel in Maritime Industry

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Ferry Boats, Water Taxis,  
Other Marine Vessels & Fleets

SF Environment / Mayor's Office / Port



# The 5 Ferry Operators





# Initial Outreach - 2016

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- Introduce the Fuel to Ferry Operators
- Not Biodiesel
- Mayor eager to see ferry's convert
- Barriers



# Workshop- August 2017

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- Welcome by Mayor Ed Lee
  - Eager to see ferries convert
- Share Knowledge, Experience, Questions
- Barriers & Solutions
- 5 – Hour Vertically Integrated Conversation



# Workshop Participants

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- 5 Ferry Operators
- 3 Water Taxis
- 7 Fuel Providers - (producers & distributors)
- 3 Engine Manufacturers and Distributors
- 7 City Departments
- 12 Regulatory Agencies / Technical Experts



# Key Findings

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- Low Carbon Intensity
- ASTM D975
- Can meet EPA Ultra-Low Sulfur Diesel
- Successful use cases on land
- R-Diesel is available
- R-Diesel is affordable



# Outstanding Questions in Maritime Application

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- Performance & Reliability
- Safety
- Effects on Engines
- Emissions Technologies



# Next Steps

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- Volvo has approved use of R-Diesel for marine engines in Europe and North America
- MTU – 3,000 hour test (simulates annual wear and tear)
- CARB / EPA are interested in emissions testing
- Seek commitments from Ferry Operators
- Conversion of Hyde Street - Public Fuel Dock