



ExxonMobil Low Carbon Liquid Fuel Solutions

April, 2021

Energy lives here™

ExxonMobil Biofuel Solutions

ADVANCED BIOFUELS

TODAY'S APPROACH

Small scale, competes with food and water

OUR RESEARCH

Large scale, global solutions, non-competitive with food, water



- Algae biofuel, working with Synthetic Genomics Inc.
 - Improved strains, and novel genetic tools to enhance bio-oil production, that conventional refineries can process
- Cellulosic biofuel, through several collaborations
 - Significant progress to double yield of biodiesel from variety of cellulosic sugars
- Agreement with Global Clean Energy to supply renewable diesel in California
 - 2.5 million barrels of renewable diesel per year for five years, starting in 2022.

ExxonMobil Marine Biofuel

- Completed successful sea trial of ExxonMobil's first bio-based marine fuel, with Stena Bulk in Rotterdam
- The marine bio fuel oil is a 0.50% sulphur residual-based fuel (VLSFO) processed with a second generation waste-based FAME component (ISCC certified)
- Can provide up to ~40% CO₂ emissions reduction compared to conventional marine fuels
- Requires no equipment modification (“drop-in”)
- Fuel will be available in select European ports

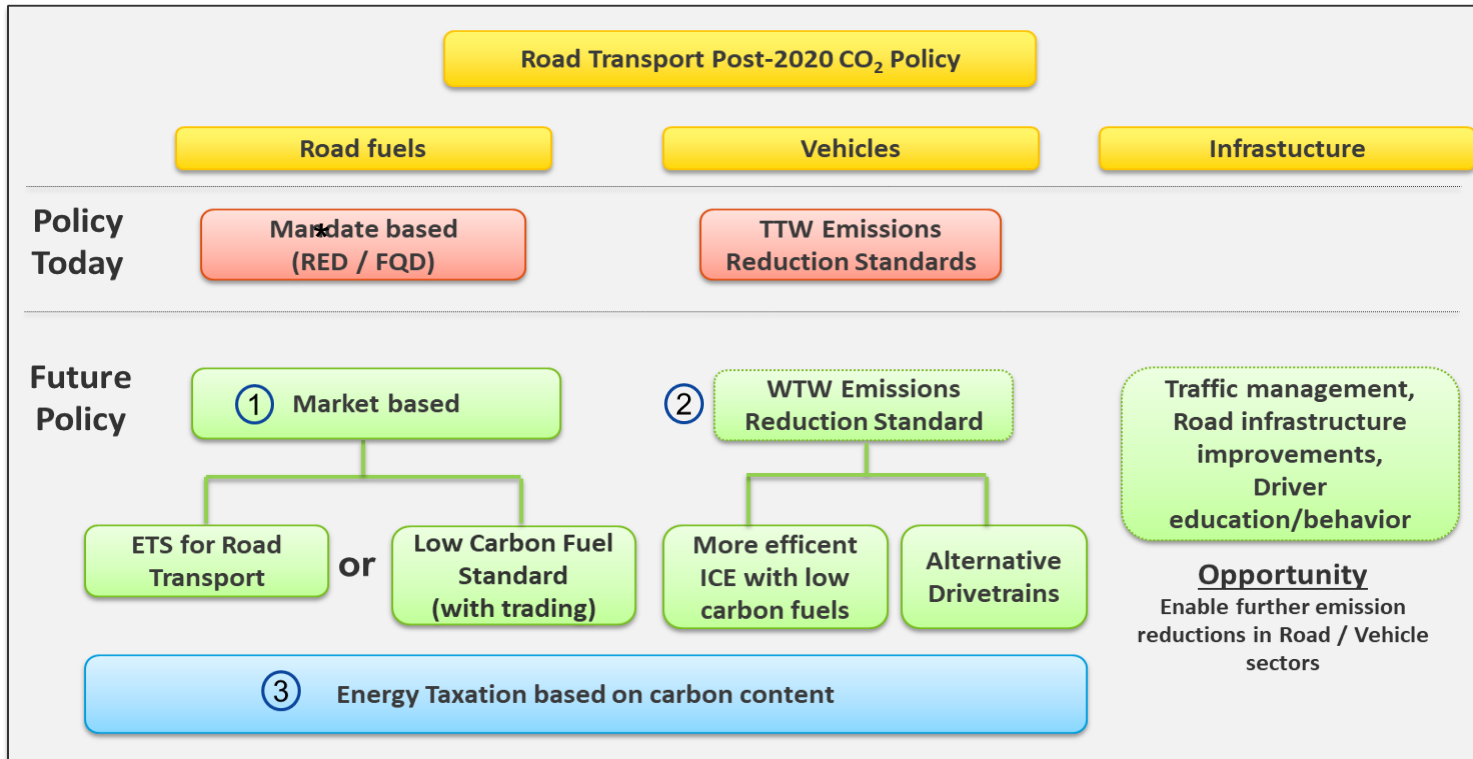


Esso Renewable Racing Fuel

- ExxonMobil and Porsche are testing advanced biofuels and eFuels to find pathways toward potential future consumer adoption
- The first iteration of the fuel is a blend of advanced biofuels, to be tested in Porsche's high-performance motorsports engines in the Porsche Mobil 1 Supercup 2021
- In 2022, plan to test the second iteration of the fuel, which will contain eFuel components, anticipated to achieve GHG emissions reduction of up to 85%
- eFuels to be produced in a pilot plant in Chile, using renewable hydrogen and captured CO₂ to produce methanol, which is then converted to gasoline



Low Emission Mobility Policy Framework



Goals

- Enable GHG reduction in transport sector (vehicle-fuel-infrastructure)
- Incentivize & scale up low carbon combustion fuels, alongside electrification
- Promote long-term investor confidence

Policy Proposals

1. Creation of a market for low-carbon transport fuels, with high price signal to stimulate investments
 - Either a dedicated cap & trade mechanism
 - Or a low carbon fuel standard
2. Amendment of vehicle standards, to recognize WTW CO₂ footprint of fuels
3. Reform of fuel taxation based on carbon intensity
 - Zero or very low tax for low-carbon fuels to facilitate fuel pricing that is socially acceptable, and supportive of business case for investments

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