

# ExxonMobil Methanol to Jet (MTJ)

Lower GHG emissions at high altitude

July 11, 2023

This presentation includes forward looking statements. Actual future conditions and results (including energy demand, energy supply, and the relative mix of energy across sources) could differ materially from the projections provided herein. Numbers and metrics for future years are hypothetical based on certain cost and technical assumptions and are subject to change, including as a result of changes in development plans; the ability to scale new technologies on a cost effective basis; changes in law or government policy; unforeseen technical difficulties or developments; and other factors which may be discussed. Exxon Mobil Corporation has numerous affiliates, many with names that include ExxonMobil, Exxon, Mobil, Esso, and XTO. For convenience and simplicity, those terms and terms such as Corporation, company, our, we, and its are sometimes used as abbreviated references to specific affiliates or affiliate groups. Abbreviated references describing global or regional operational organizations, and global or regional business lines are also sometimes used for convenience and simplicity. Nothing contained herein is intended to override the corporate separateness of affiliated companies.

# ExxonMobil's net-zero ambition



Aim to achieve **net-zero** Scope 1 and 2 GHG emissions from operated assets **by 2050**<sup>1</sup>

Through 2027, we plan to invest approximately **\$17 billion** on **initiatives** to **lower GHG emissions**

We are working to supply approximately **40,000 barrels per day** of lower emission fuel by 2025 and have a further goal of **200,000 barrels per day** by 2030

We are already **distributing SAF** to customers in **France, Singapore and the UK**<sup>2</sup>

**ExxonMobil** has signed on to the World Economic Forum's **Clean Skies for Tomorrow** ambition statement, aiming for global aviation sector net-zero emissions by 2050

<sup>1</sup> [2023 ExxonMobil Advancing Climate Solutions Report](#)

<sup>2</sup> [Lowering aviation emissions | ExxonMobil](#)

# ExxonMobil methanol to jet technology to provide new route for SAF production

---



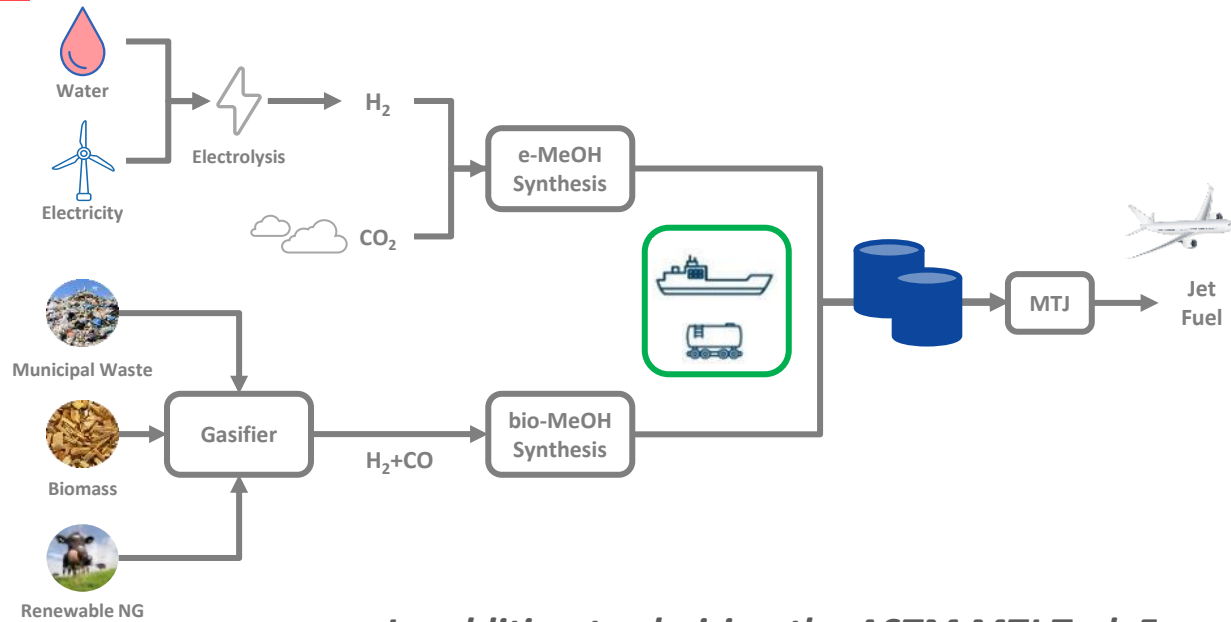
Engineering proprietary methanol to jet technology that will produce SAF when renewable methanol is used as feedstock

Methanol derived from the gasification of biomass and waste, as well as from lower-carbon hydrogen and captured CO<sub>2</sub>, can be converted into SAF

Advancing integrated solutions to extend our CCS and hydrogen capabilities to support the carbon reduction objectives of our biofuels customers and partners

# Methanol to Jet provides potential advantages and enables feedstock flexibility

- Jet yield and selectivity ✓
- Intermittent operation ✓
- Feed flexibility ✓
- Scale advantage ✓
- Product flexibility ✓
- ASTM pathway evaluation

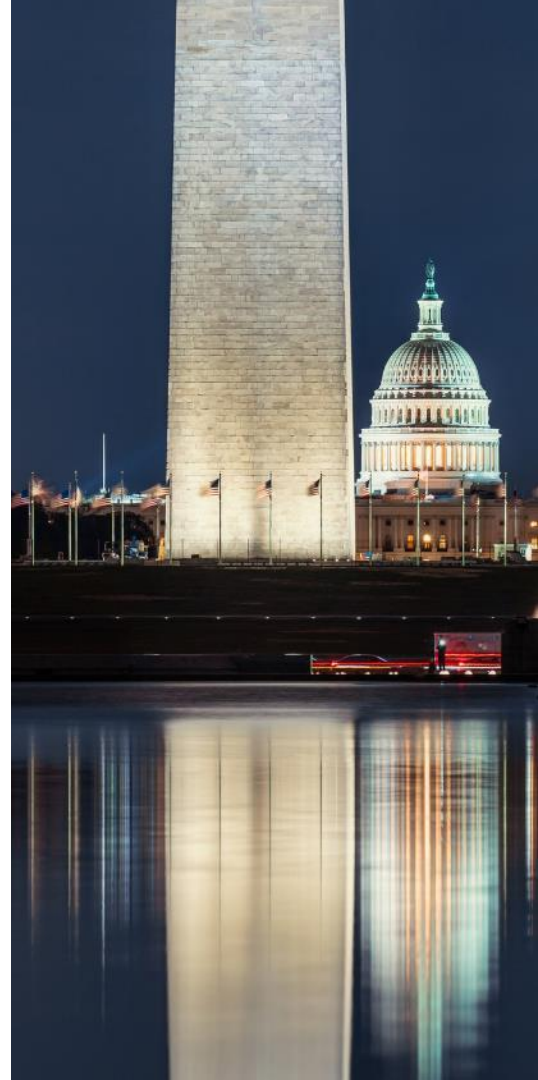


*In addition to chairing the ASTM MTJ Task Force, ExxonMobil has produced and submitted test batches of MTJ for evaluation by the ASTM D4054 Clearinghouse.*

# Regulatory policy needed to enable MTJ and other SAF pathways

---

- Support for all SAF options, existing and emerging, is necessary to meet aviation GHG goals
- SAF demand remains challenged due to barriers like higher cost vs conventional fuel
- Policy is essential to creating the environment for greater SAF investment and utilization
- Essential attributes of effective transportation policy:
  1. **Supports societal goals** - such as GHG reduction, SAF volume production/use, cost mitigation
  2. **Lifecycle-based** - recognizing pathway value based on lifecycle GHG performance
  3. **Technology-neutral** - allowing all solutions to contribute to the goal
  4. **Market-based** - enabling competition and credit trading to drive lowest cost
  5. **Encourages investment** - creating carbon price signal of sufficient magnitude and duration
- Policies that incorporate these elements create strongest support for swift SAF growth



Thank you

---

**ExxonMobil**