



SUSTAINABLE FUELS FOR LAND TRANSPORT

Technical Conclusions from the IEA Bioenergy Task 39 Industry Hearing

São Paulo, Brazil | 8–10 September 2026 - Hosted by SAE Brasil and Society of Bioenergy - SBE

Land transport decarbonization is a fleet, fuel, infrastructure and energy-system challenge. Between 2000 and 2023, transport energy demand grew by 37 EJ outside the OECD, compared with 3.7 EJ within it, highlighting regional asymmetries and the need for context-specific pathways combining near-term emissions reductions with longer-term technological change.

These conclusions from the industry hearing identify conditions under which sustainable fuels may contribute to land transport decarbonization within broader, context-specific technology portfolios:

- A portfolio of solutions is needed. Transport pathways should reflect differences in fleets, infrastructure, energy systems and regional conditions.
- Sustainable fuels can address existing fleets. Where sustainable and technically compatible, they can deliver near-term lifecycle GHG reductions alongside electrification and efficiency.
- Predictable, technology-open frameworks reduce uncertainty. Instruments may include blending mandates, carbon-intensity approaches and other mechanisms adapted to regional circumstances.
- Lifecycle GHG performance should guide comparison. Assessment requires transparent methods, credible data, traceability and periodic updates.
- Fleet and infrastructure compatibility is essential. Compatibility is already mature and proven at scale in many regions, while others may require vehicle validation, OEM engagement and targeted infrastructure upgrades.
- Interoperability can reduce market fragmentation. Greater alignment of certification, fuel specifications and lifecycle accounting can reduce duplication while accommodating regional differences.
- International cooperation can support implementation. Knowledge exchange, capacity building and mutual recognition can facilitate deployment across different markets.

Task 39 convened experts and participants from international organizations, research institutions, industry associations, fuel producers, technology providers and vehicle manufacturers to examine practical pathways for near-term reductions in GHG emissions from land transport, with a focus on bioethanol, biodiesel, biomethane and renewable diesel. The conclusions synthesize this multidisciplinary input and do not represent the position of any individual participating organization.



Follow up at: <https://www.linkedin.com/showcase/task-39-biofuels-to-decarbonize-transport/>

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