5-Min Monthly Read October 2025

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U.S. Imposes New Tariffs on Heavy Trucks and Parts, Effective November 1

The White House has announced new tariffs effective November 1, imposing a 25% duty on imported medium- and heavy-duty trucks and their parts, and 10% on buses of all types.

Trucks built under USMCA rules will face tariffs only on non-U.S. content, while U.S.-assembled models can claim limited credits on imported parts. Parts subject to tariffs includes engines, transmissions, tires, and chassis.

According to one estimate, the tariffs risk increasing the price of Class 8 trucks by 15-24%. Fleets are hesitant to buy trucks now, for fear of tariffs being removed and leading to losses.

U.S. - China Trade Deal : Some respite for the transport sector ?

The U.S. and China reached a trade deal on Nov. 1, with implications for the transport sector:

- China will remove export controls on various key critical materials such as rare earths, gallium, germanium, antimony, and graphite, which should ease some of the constraints on battery production.

- China will suspend retaliatory tariffs including on soybeans. It commits to buying 25 MMT of U.S. soybeans in each of the next three years. The soybean industry has been recently hit significantly due to lack of access to Chinese market, and has been diverting much of the product for biofuel production.

Policies, Regulations, Reports

NHTSA Revised CAFE standards expected in a matter of weeks

Deputy Transportation Secretary Steven Bradbury indicated that the National Highway Traffic Safety Administration (NHTSA) will propose a complete reset of Biden-era fuel economy standards for vehicles in a matter of weeks. The proposal is under review since September.

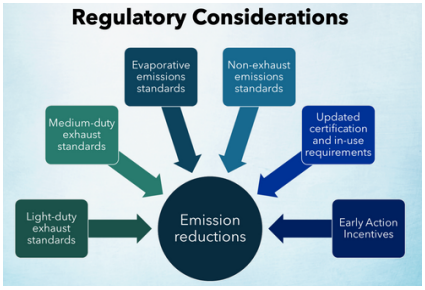
California Launches "Drive Forward" Rulemaking for Light-Duty Vehicles

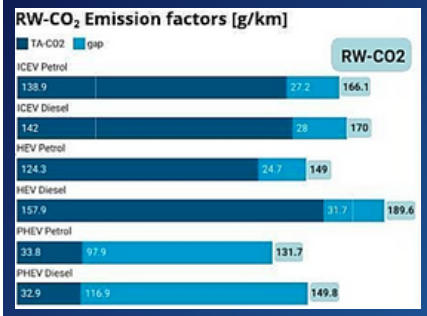
The California Air Resources Board (CARB) hosted a public workshop on October 21, 2025 to kick off its new "Drive Forward" program—an initiative aimed at updating California's light-duty vehicle standards and accelerating adoption of zero-emission vehicles (ZEVs).

The rulemaking covers tailpipe and CO_2 standards, evaporative emissions, and real-world testing. Some of the changes proposed:

- 15 mg/mi NMOG + NOx
- Real-world emissions measurement through EU-style RDE ?!
- Limits on non-exhaust PM
- Incentivize technologies for GHG reduction (e.g. ethanol fueled vehicles, H2-ICE, CO2 scrubbers)

Informal written comments can be submitted by **Nov. 21, 2025.**





Study Maps Real-World CO_2 Emissions of EU Passenger Cars (2021–2023)

A recent publication from the EU Commission summarizes the real-world CO2 emissions data collected using On-Board Fuel and Energy Consumption Monitoring (OBFCM). Data from 7.7 million passenger cars provides a most comprehensive looks at Europe's transport decarbonization progress.

Average fleet emissions ranged from 166–170 g/km for ICEVs to 131–150 g/km for PHEVs. Real-world emissions were consistently higher than type-approval values, with highest deviation noted for plug-in hybrids (see figure), indicating their strong sensitivity to usage patterns.

The study found vehicle mass, engine power and engine displacement are most influential drivers of real-world CO_2 variability in ICEVs & HEVs, while electric driving share is key for PHEVs.

IMO Delays Net-Zero Shipping Talks to 2026

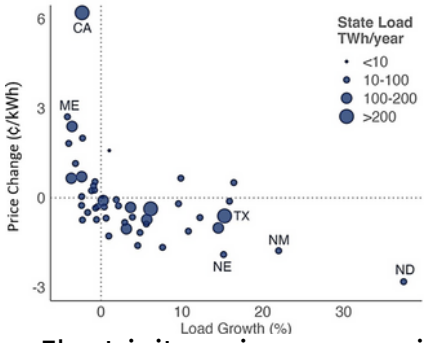
In a recent announcement, the International Maritime Organization(IMO) has postponed negotiations on its Net-Zero Framework—covering global fuel standards and emissions pricing—until 2026. During the interim, Member States will continue developing consensus around the Framework's two major pillars: a global fuel standard and a global GHG emissions pricing mechanism.

Phinia Global Emissions Regulations Summary

See here for Phinia's 2025-2026 comprehensive downloadable booklet that covers emission standards across the world for light-, heavy-duty, and L-category vehicles.

Electrification

What's Driving U.S. Electricity Price Increases?



With the anticipated increase in electricity demand due to electrification and data centers, there is a growing need to understand the factors that affect electricity prices. A new study considered the dependence of prices across the US on various factors. A couple of findings -

- Increasing loads were associated with a decrease in electricity price (non-intuitive : better utilization of investment in grid with increasing load).
- Electricity prices vary significantly across states. Those investing in renewables and grid upgrades saw the largest increases, reflecting the cost of transitioning to cleaner energy.

GM Scales Back EV Plans, Ford Lightning at risk?

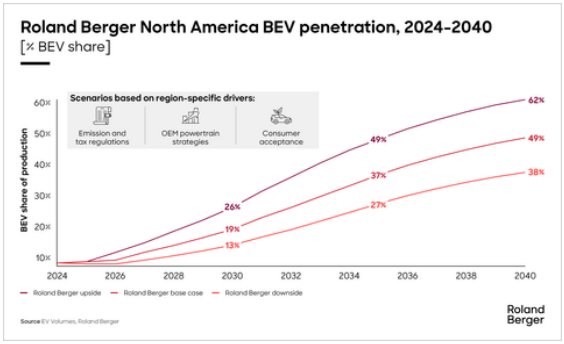
North American OEMs are taking a hard look at their electric vehicle lineup, faced with lower sales due to reduced incentives and regulatory push for electrification.

General Motors is taking a $1.6 billion hit, attributed to slower EV adoption after the rollback of key federal tax credits and weaker emissions rules. In a related move, GM will end production of its BrightDrop electric delivery vans in Ontario by late 2025, reflecting waning fleet demand and reduced subsidies.

A Wall Street Journal article reports that Ford is considering scrapping the electric F-150 Lightning due to low demand and $13 billion in total EV losses since 2023.

Rivian also announced layoffs last month, with anticipated headwinds for its electric vehicle sales, but has posted a profit this quarter.

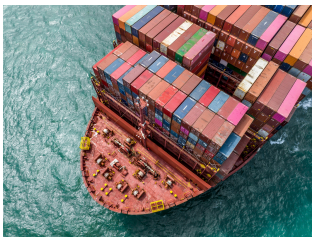
New BEV forecasts include impact of changes in policy and incentives



Roland Berger has issued its updated forecast on BEV penetration in North America, which predicts ~ 50% share by 2040 in the baseline case, despite the headwinds in the near term. In the meantime, OEMs are expected to focus on hybrids to boost profitability and affordability. Hybrids are predicted to reach ~ 35% share by 2030 (up from 18% this year) and then remain at that level till 2035.

Supplemental reading - A recent review paper examines the trends and factors affecting electrification in North America

China Launches World's First 10,000-Ton All-Electric Cargo Ship



China has launched the Gezhouba, the world's first pure-electric cargo vessel exceeding 10,000 tons—a major milestone in green shipping. The 13,740-ton ship, built in Hubei Province, is powered by 12 lithium battery units totaling 24,000 kWh, giving it a range of 500 km per charge.

The vessel is expected to cut over 2,000 tons of CO_2 annually and features smart navigation and automated berthing systems using 5G and BeiDou networks.

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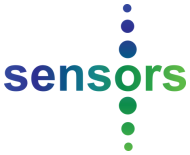
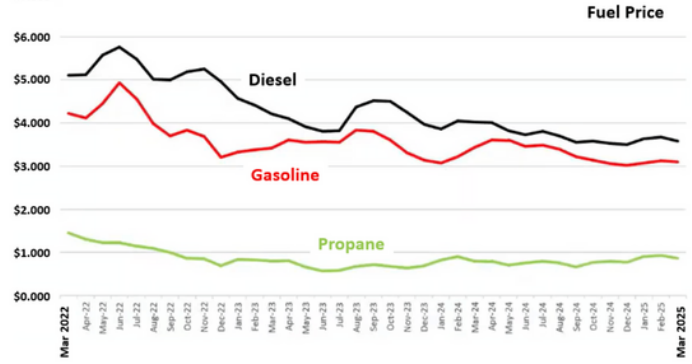


This newsletter reaches thousands of professionals across the world.
If you would like to highlight your organization and technology -

GET IN TOUCH

Propane engine technology highlighted



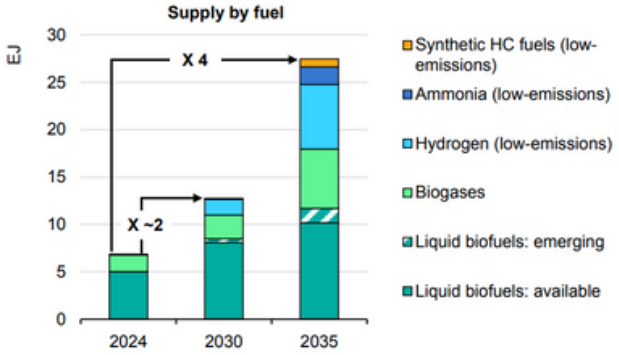
The Engine Technology Forum's webinar, "Advanced Propane Engine Technology," showcased propane's expanding role in clean transport—offering lower emissions, reduced fuel costs, and high reliability for fleets like school buses, delivery trucks, and medium-duty vehicles. Speakers noted advances in fuel systems, engine efficiency, and renewable propane blends that further cut carbon intensity.

With over 50,000 propane-powered vehicles already in operation across the U.S., the technology is proving to be a ready, scalable alternative for fleets seeking immediate decarbonization. Read the full article here.

IEA: Sustainable Fuels Set to Quadruple by 2035

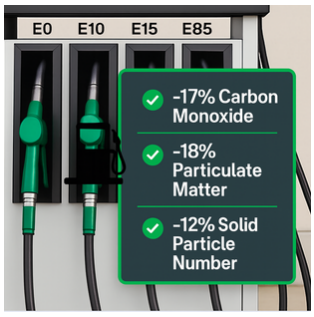
IA new International Energy Agency(IEA) report, projects that the use of biofuels, biogases, and low-emissions hydrogen-based fuels could quadruple by 2035 and cover 10% of all global road transport demand, 15% of aviation demand and 35% of shipping fuel demand.

Transport remains the main driver of demand to 2035, but demand from industry and power generation is also expected to accelerate beyond 2030.



Major markets continue to push for higher ethanol blends

As the U.S. works to cut emissions and enhance energy security, E15—a 15% ethanol blend—continues to expand. Now approved in over 30 states, including California, it offers a cleaner, lower-cost fuel for most vehicles built since 2001. The National Corn Growers Association says year-round E15 could boost ethanol demand by 50%, supporting farmers, rural economies, and U.S. energy independence.



California approves E15

With the passage of Assembly Bill 30 in 2025, E15 is now authorized statewide, marking a major step for cleaner fuels in the country's largest vehicle market. Retail adoption will expand as fueling infrastructure updates progress.

A 2023 study by CARB and UC Riverside found E15 cuts CO by 17%, particulates by 18%, and hydrocarbons by 9%, with only a 1% fuel-economy dip—equal to removing 4 million cars' worth of CO_2 annually.

India's ethanol makers are also calling for a 1–2% increase in the petrol blending mandate to counter 50% capacity underuse. While the country has already achieved the target of 20% ethanol blend (E20), a modest increase could stabilize production and aid rural economies—though automakers warn of fuel-efficiency and compatibility concerns.

Fuels & Engines

Stellantis Unveils New 2.0L "Hurricane 4 Turbo" Engine

Stellantis has introduced its 2.0L Hurricane 4 Turbo engine, delivering 324 hp, 332 lb-ft of torque, and 20% more power with 10% better fuel efficiency than its predecessor. The engine combines advanced technologies such as Turbulent Jet Ignition, variable-geometry turbocharger, Miller cycle (CR 12:1) and a combination of port and direct injection. It will debut in the 2026 Jeep Grand Cherokee—advancing Stellantis' push for high-efficiency performance.

World's first start-stop technology for heavy-duty trucks

Volvo Trucks has announced the world-first introduction of stop/start technology on heavy-duty trucks. This is based on their I-See and I-Roll technologies, where the stop/start engine feature is enabled by constantly monitoring road topology, and turning the engine off with the identification of an oncoming downward slope. This is enabled at speeds > 60 km/h. The technology will be offered on Volvo FH and FH Aero trucks with 13L diesel engine, and will deliver up to 1% reduction in fuel consumption and CO2.

China Launches 20% Capital Subsidy to Accelerate Green-Fuel Production

China's National Development and Reform Commission has launched a 20% capital subsidy to accelerate the production of green hydrogen, methanol, sustainable aviation fuels (SAF), and other low-carbon fuels. The move aims to cut project costs by up to 8% and strengthen China's renewable-based fuel industry amid slower progress in commercial hydrogen deployment.

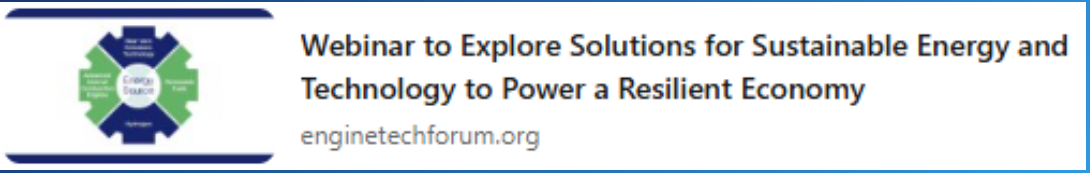
Rolls-Royce Tests First Pure-Methanol Marine Engine

Rolls-Royce has successfully tested the world's first high-speed marine engine running entirely on methanol, marking a major step toward low-carbon shipping. Developed under Germany's "meOHmare" project, the engine demonstrates that methanol—when produced from renewable sources—can enable CO_2-neutral propulsion with cleaner combustion and easier storage than conventional fuels.

The company plans further optimization before commercial rollout, targeting ferries and workboats as early adopters.

UPCOMING EVENTS

Register for an online discussion on U.S. energy and economic policies and their implications for engines and fuels: Nov. 20 at 11:00am U.S. Eastern.



Organized by Engine Technology Forum, MobilityNotes will be a participant