 **5-Min Monthly Read: November 2024**

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**Trump Impact on Transport**

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Description automatically generatedChange of leadership at EPA & DoT**

President-elect Trump has nominated Republican former congressman [Lee Zeldin](https://www.dw.com/en/new-trump-administration-zeldin-in-charge-of-environmental-protection-all-you-need-to-know/a-70773017) to head the EPA. Lee represented New York’s First Congressional District from 2015-2023. A survey of his recent records shows Lee to be a moderate on environmental issues, acknowledging the need for cleaner air and water, while also pursuing fossil fuel growth for energy independence.

Former Wisconsin Rep. [Sean Duffy](https://apnews.com/article/trump-duffy-cabinet-transportation-secretary-c465bbc516b5f898233f86bee31a7a45) has been nominated to lead the Department of Transportation, which oversees NHTSA. Sean does not have much experience with transportation but will be expected to oversee the important infrastructure spending (or reduction thereof), amongst other topics.

**Implications for Emission Standards & Electrification**

President-elect Trump is expected to significantly deregulate the transport sector, slash government incentives for EVs, increase barriers for trade with China, emphasize domestic production of oil and gas, increase spending on domestic battery supply, reshape the EPA and revoke or deny waivers to California for setting its own emission standards. Here is a summary chart of possible changes to come. For more detailed implications on specific technologies, get in touch.

A close-up of a chart

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**Note**: MobilityNotes subscribers will have access to in-depth and ongoing coverage of the impact of the above changes on technologies. [Get in touch](mailto:ameyajoshi@mobilitynotes.com?subject=Interest%20in%20Trump%20impact%20on%20transport%20tech/policies) to learn more.

**Regulations / Reports**

A diagram of a chemical reaction

Description automatically generated**Report on E-Fuels**

The Transport Energy Institute has [published](https://www.transportationenergy.org/research/reports/e-fuels-evaluating-the-viability-of-commercially-deploying-e-fuels-in-road-transport/) a comprehensive report on the viability of e-fuels for commercial transport. E-fuels are synthetic fuels prepared using a variant of carbon capture and H2 from renewable sources. By 2040, the report projects that global production capacity of e-fuels could grow by as much as 15-16 times to almost 27.5 billion gallons/year. For put this in context, the US alone consumes about 136 billion gallons of gasoline in 2022, so while e-fuels are expected to be a small portion of the fuel mix (if profitable), they can play an important role in the hard-to-decarbonize sectors.

**A graph showing the growth of vehicles

Description automatically generatedEPA Automotive Trends Report**

The 2024 version of EPA’s annual report on overall emissions trajectory for light-duty vehicles is [published](https://www.epa.gov/system/files/documents/2024-11/420s24001.pdf). It shows that all automakers are in compliance of the latest requirements, through a combination of deployment of electrified powertrains and use of banked credits. The recent reductions in tailpipe emissions (~ 10% in the last 5 years) are mostly attributed to the increased share of electric vehicles (plug-ins included). Some OEMs have seen an increase in the CO2 emissions, mostly due to an increased share of heavier SUVs.

**Electrification**

**A graph of energy consumption

Description automatically generated with medium confidenceLifecycle Assessment of various battery chemistries published**

A new [study](https://onlinelibrary.wiley.com/doi/10.1111/jiec.13594) from the Fraunhofer Research Institute has examined the lifecycle environmental impact of manufacturing EV batteries of various chemistries. It concludes that for the Li-ion batteries today, ∼58–92 kgCO2-eq are emitted per kWhcell. This can be reduced by up to 38% by optimizing the cell designs and production. LFP and NMC900 are identified as the most sustainable batteries, with potential to reach the lowest carbon footprint of ∼37 and ∼44 kgCO2-eq/kWhcell, respectively. The footprint also depends on the battery configuration, with a high-energy battery, with thicker coatings, having a ~ 10 – 20% higher embedded CO2 compared to a high power one.

**New charging framework announced and expected to significantly improve experience**

SAE Industry Technologies Consortia (ITC) and the Joint Office of Energy and Transportation have [announced](https://driveelectric.gov/news/universal-plug-and-charge) a common framework with “Plug & Charge” capability to enable secure automatic authentication as soon as drivers plug in, and allow every driver to charge at any public station. Charging and payment processing will be seamless and obviate the need for multiple apps or payment methods. Testing of this protocol is expected to begin in 2025.

A pie chart of vehicles and trucks

Description automatically generated**PM E-Drive: India’s latest incentive package for electrification**

The Indian government has announced another incentive package, the PM E-Drive, to increase the uptake of electric vehicles, the associated manufacturing ecosystem, and promote charging infrastructure. This latest package aims to spend Rs. 10,900 crores, about 1.3 billion USD, over October 2024 through March 2026. Of these, nearly a billion dollars will be spent on direct incentives for electric vehicles. The rest are allocated to supporting industries and testing agencies. Read [here](https://mobilitynotes.com/pm-e-drive-a-billion-dollar-package-for-electrification-in-india/) for more details.



**Northvolt files for bankruptcy in the U.S.**

Northvolt, the Swedish battery manufacturer backed by Volkswagen, Scania and Volvo, has filed for Chapter 11 [bankruptcy](https://northvolt.com/articles/chapter11/) in the U.S. and is expected to complete restructuring by the end of first quarter in 2025. Its operations continue in Sweden, and the restructuring allowed raising of some additional capital. Reduced demand for batteries due to the recent slowdown in EVs and competition from Chinese battery manufacturers are cited as the prime reasons for the dire situation, and is a setback to plans for these major European OEMs to have a strong homegrown battery supply.

**Trouble in Nikola-nd: First customer feedback on H2 fuel cell trucks**

A bay area drayage operator has [voiced](https://www.cleantrucking.com/hydrogen/article/15704801/nikola-tre-fcev-owner-reveals-troubling-issues-with-early-adoption) serious concerns about his experience operating a Class 8 Nikola TRE fuel cell truck. The truck costs 5 – 10 times that of a conventional diesel, and the cost of the fuel is 2 times that of diesel after the highest subsidies. The Nikola truck weighs 27,000 lbs. compared to 19,400 for the diesel counterpart. Refueling is a concern given the limited stations, some of which can be out of service. Same for maintenance, the lack of repair shops is a concern.

**Fun fact -**

You can now call for a “[Shikara](https://www.business-standard.com/india-news/what-is-uber-shikara-the-new-transport-service-in-srinagar-s-dal-lake-124120300336_1.html)” – the wooden boats on the scenic Dal Lake in Kashmir – using an Uber. Following the footsteps of the yacht service offered in [Europe](https://www.uber.com/newsroom/uber-yacht/), Uber is now making waves, excuse the pun, in Kashmir.

**Conferences**

Here are some upcoming conferences to consider attending –

**SAE Government Industry Meeting 2025, Jan 28 – 30, 2025, Washington, D.C.**

[2025 Government/Industry Meeting (sae.org)](https://www.sae.org/attend/government-industry/)

**Emissions Analytics Tire Emissions & Sustainability Europe 2025, February 11 – 12, Prague**

[Tyre Emissions and Sustainability Europe 2025](https://conferences.emissionsanalytics.com/tyres-eu25/)

**TMC's Annual Meeting & Transportation Technology Exhibition, March 10 – 13, 2025, Nashville, Tennessee**

<https://tmcannual.trucking.org/>

**SAE WCX 2025, April 8 – 10, Detroit, Michigan**

[WCX 2025 - April 8-10 (sae.org)](https://wcx.sae.org/)

**35th Real World Emissions Workshop, April 13 – 16, 2025, Long Beach, California**

[35th CRC Real World Emissions Workshop - Coordinating Research Council (crcao.org)](https://crcao.org/35th-crc-real-world-emissions-workshop/)

**Advanced Clean Transportation Expo, April 28 – May 1, Anaheim, California**

https://www.actexpo.com/

**Emissions Analytics Tire Emissions & Sustainability USA 2025, April 30 – May 1, 2025, Irvine CA**

[Tire Emissions and Sustainability USA 2025](https://conferences.emissionsanalytics.com/tyres-us25/index.html)

**Heavy-Duty Sustainable Transport Symposium, May 7 – 8, 2025, Gothenburg, Sweden**

[Heavy-Duty Sustainable Transport Symposium (sae.org)](https://www.sae.org/attend/heavy-duty-sustainable-transport-symposium)

**17th Intl. Conf. on Engines & Vehicles for Sustainable Transport, Sept 14 - 17, 2025, Capri, Naples, Italy**

<https://www.sae-na.it/index.php>

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