

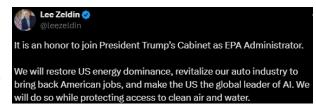
# 5-Min Monthly Read: November 2024

Sign-up and previous newsletters: <a href="https://mobilitynotes.com/home/newsletters/">https://mobilitynotes.com/home/newsletters/</a>

### **Trump Impact on Transport**

### Change of leadership at EPA & DoT

President-elect Trump has nominated Republican former congressman <u>Lee Zeldin</u> 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. <u>Sean Duffy</u> 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.

#### **CALIFORNIA WAIVERS**

- The administration could possibly amend the Clean Air Act to limit / eliminate waivers
- Waivers for the following rules are pending and could be denied: CARB HD Low NOx Omnibus Advanced Clean Fleets Advanced Clean Cars II
- Bill 1435 introduced to revoke waivers which enable limits on ICE sales (passed House, no action in Senate)
- Waiver for Advanced Clean Trucks challenged in court (Western States Trucking Association)

### **EMISSION (DE)REGULATIONS**

- EPA re-structuring: As in first term,
  EPA might face changes in priorities,
  structure, staffing, budgets, etc.
- Tailpipe Standards could be reopened and weakened:
   M/HD GHG Phase 3
   MY2027 Light-Duty multi-pollutant

#### **TRADE**

- Impose tariffs on imports of cars, trucks, agricultural equipment, etc. and parts (especially from China)
- Incentivize domestic production, use USMCA to discourage Chinese production in Mexico

### **FUELS / ELECTRIFICATION**

- Eliminate 30D EV tax credit (up to \$7,500), re-evaluate renewable fuel standards, and 45Z tax credit
- Withdraw remaining funds from the Inflation Reduction Act (IRA)
- Increase domestic production of oil & gas production, re-open LNG export permits, accelerate oil & gas infrastructure projects
- Increase domestic mining of critical materials, manufacturing of batteries and solar energy equipment to counter China

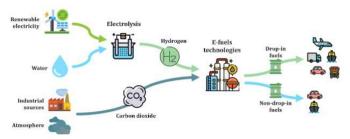
**Note**: MobilityNotes subscribers will have access to in-depth and ongoing coverage of the impact of the above changes on technologies. <u>Get in touch</u> to learn more.

MobilityNotes: 5-Min Monthly Read <a href="https://mobilitynotes.com/">https://mobilitynotes.com/</a>

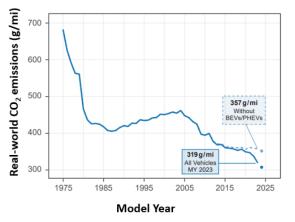
### **Regulations / Reports**

### **Report on E-Fuels**

The Transport Energy Institute has <u>published</u> 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  $H_2$  from renewable sources. By 2040, the report projects that



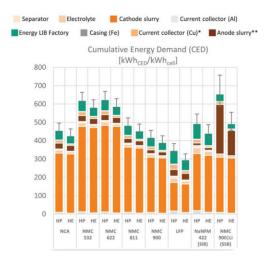
global production capacity of e-fuels could grow by as much as 15-16 times to almost 27.5 billion gallons/year. For put this in context, the US alone consumes about 136 billion gallons of gasoline in 2022, so while e-fuels are expected to be a small portion of the fuel mix (if profitable), they can play an important role in the hard-to-decarbonize sectors.



### **EPA Automotive Trends Report**

The 2024 version of EPA's annual report on overall emissions trajectory for light-duty vehicles is <u>published</u>. 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



### Lifecycle Assessment of various battery chemistries published

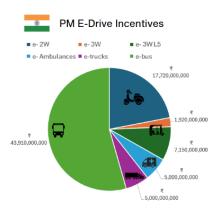
A new <u>study</u> from the Fraunhofer Research Institute has examined the lifecycle environmental impact of manufacturing EV batteries of various chemistries. It concludes that for the Li-ion batteries today,  $\sim 58-92~kgCO_2$ -eq are emitted per kWh<sub>cell</sub>. This can be reduced by up to 38% 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  $\sim 37~and~44~kgCO_2$ -eq/kWh<sub>cell</sub>, respectively. The footprint also depends on the battery configuration, with a high-energy battery, with thicker coatings, having a  $\sim 10-20\%$  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 <u>announced</u> 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.

### 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 <a href="here">here</a> 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 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 <u>voiced</u> 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" – the wooden boats on the scenic Dal Lake in Kashmir – using an Uber. Following the footsteps of the yacht service offered in Europe, Uber is now making waves, excuse the pun, in Kashmir.



MobilityNotes: 5-Min Monthly Read <a href="https://mobilitynotes.com/">https://mobilitynotes.com/</a>

#### **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)

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

TMC's Annual Meeting & Transportation Technology Exhibition, March 10 – 13, 2025, Nashville, Tennessee <a href="https://tmcannual.trucking.org/">https://tmcannual.trucking.org/</a>

SAE WCX 2025, April 8 – 10, Detroit, Michigan WCX 2025 - April 8-10 (sae.org)

35<sup>th</sup> Real World Emissions Workshop, April 13 – 16, 2025, Long Beach, California 35th CRC Real World Emissions Workshop - Coordinating Research Council (crcao.org)

Advanced Clean Transportation Expo, April 28 – May 1, Anaheim, California <a href="https://www.actexpo.com/">https://www.actexpo.com/</a>

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

Heavy-Duty Sustainable Transport Symposium, May 7 – 8, 2025, Gothenburg, Sweden Heavy-Duty Sustainable Transport Symposium (sae.org)

17<sup>th</sup> Intl. Conf. on Engines & Vehicles for Sustainable Transport, Sept 14 - 17, 2025, Capri, Naples, Italy <a href="https://www.sae-na.it/index.php">https://www.sae-na.it/index.php</a>

MobilityNotes: 5-Min Monthly Read <a href="https://mobilitynotes.com/">https://mobilitynotes.com/</a>

### Thank you to our sponsors who help make this content free!



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