



Electric Vehicle Market Status and Canada's Availability Standard

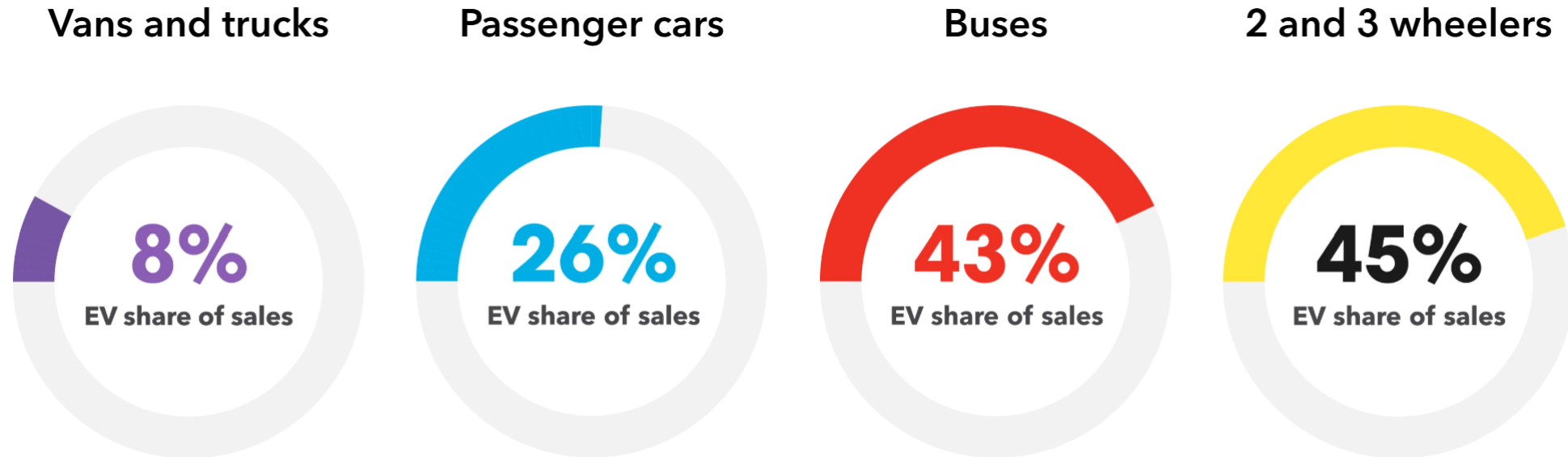
Raymond Leury

President EVCO – Electric Vehicle Council of Ottawa

Director CACOR – Canadian Association for the Club of Rome

Worldwide Market in 2025

- Passenger cars up 25% from 2024



- Source: BNEF Electric Vehicle Outlook 2025



The IVECO S-eWay Artic features a range of up to 600 km, providing an effective zero-emission solution for long-haul and regional missions. The cutting-edge LFP battery technology delivers a total energy capacity of 603 kWh, with 97% usable energy, among the highest in the industry. IVECO offers an industry-leading battery warranty covering up to 10 years and up to 1.2 million km.

Long Distance Trucking

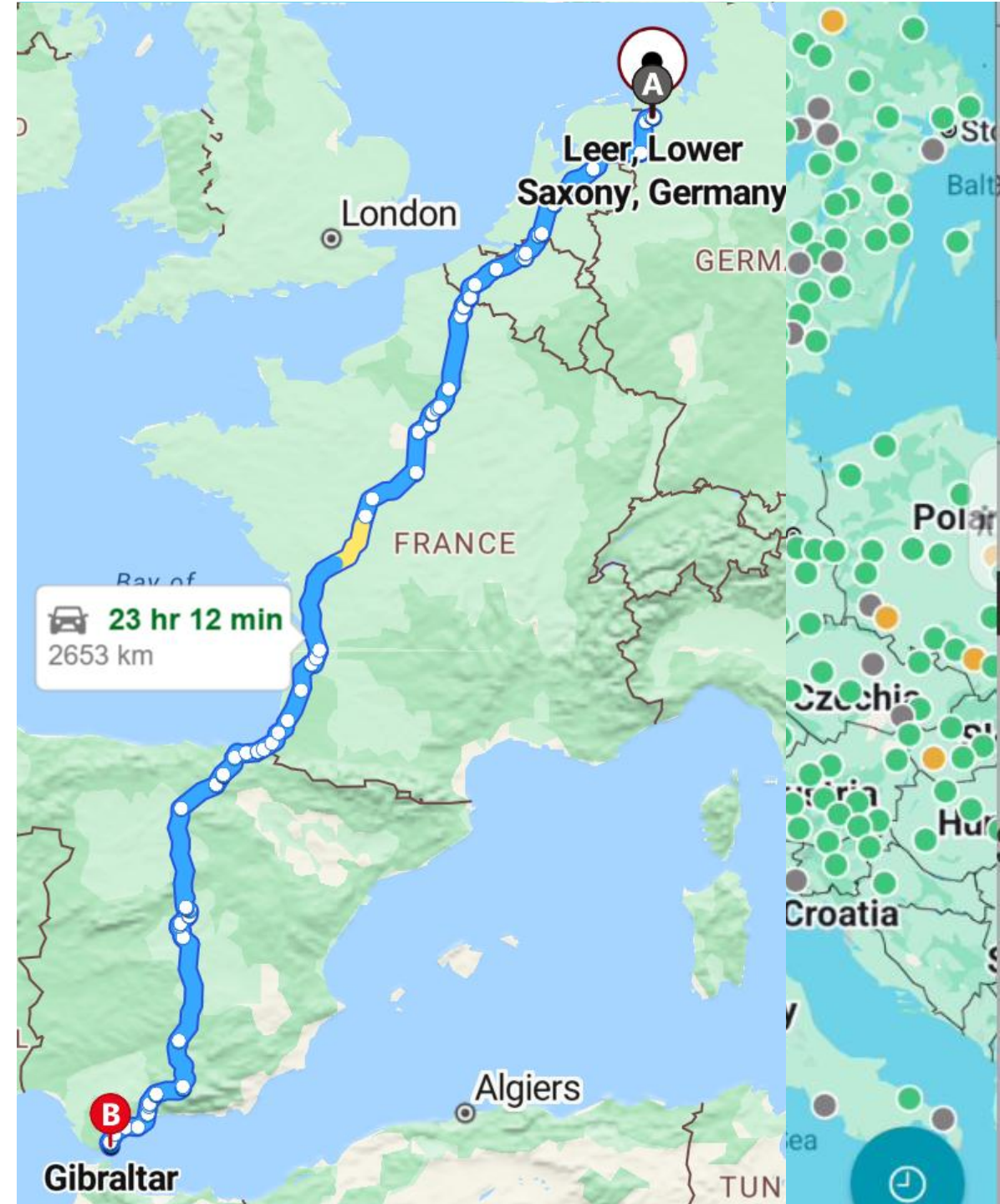
- Electric Trucker
- youtube.com/@elektrotrucker
- Leer to Gibraltar

Highlights Range Comfort and design Safety Advice and services Technical information



ELECTRIFIED EFFICIENCY.

Long distance without charging worries: the eActros 600 can cover a range of 500 km without the need for recharging.¹⁰ And with the megawatt charging system, it will be able to charge from 20% to 80% in around 30 minutes.⁹ Its drive system creates extra power. What's more, the lithium iron phosphate (LFP) batteries don't require nickel



New Car Sales 2024

Share of new cars sold that are electric, 2024

Electric cars include fully battery-electric and plug-in hybrids.

Our World
in Data

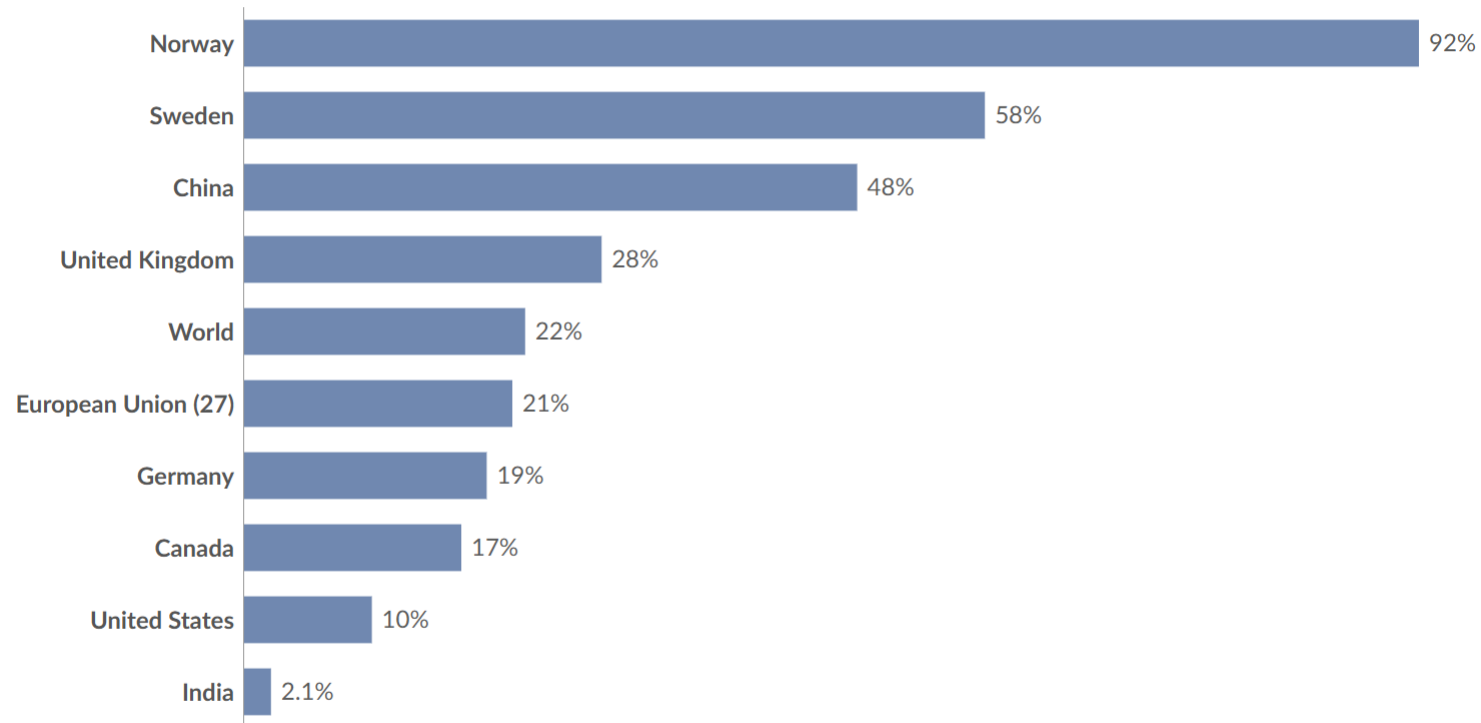
Table

Map

Line

Bar

Edit countries and regions



2010



2024

Data source: International Energy Agency. Global EV Outlook 2025. – [Learn more about this data](#)

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Peak ICE in
2016

Number of new cars sold, by type, World

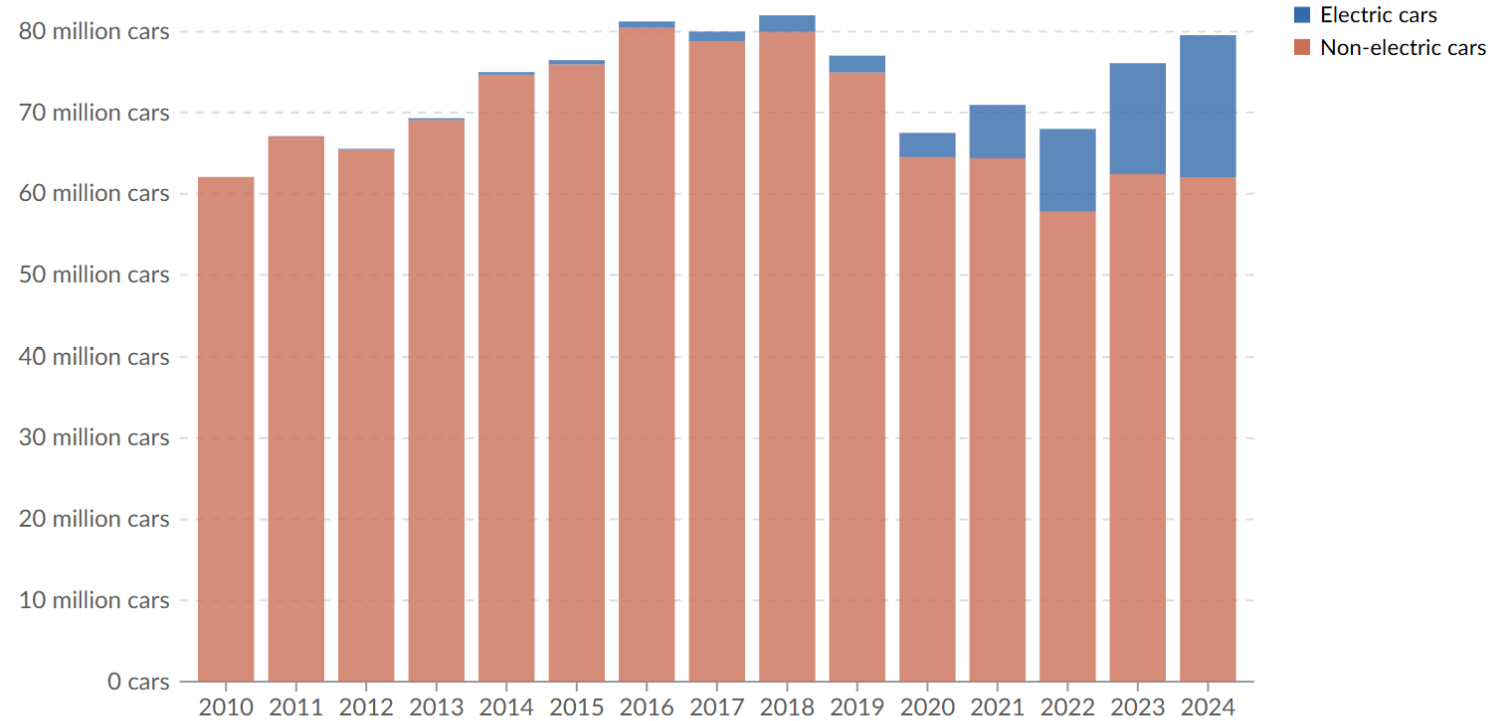
Electric cars include fully battery-electric and plug-in hybrids.

Our World
in Data

Table

Chart

Edit countries and regions



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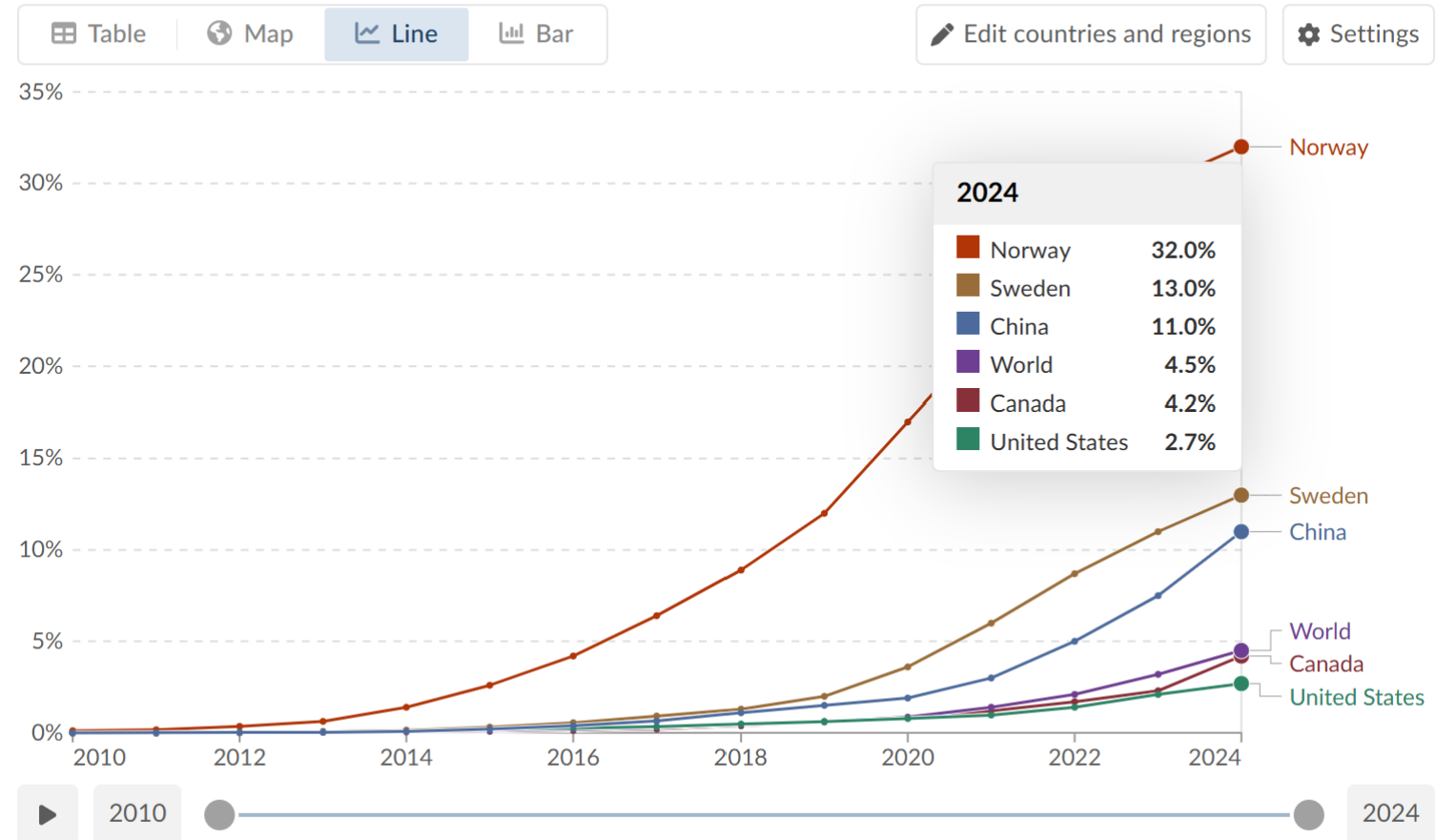


Share of Fleet

Share of cars currently in use that are electric, 2010 to 2024

Electric cars include fully battery-electric and plug-in hybrids.

Our World
in Data



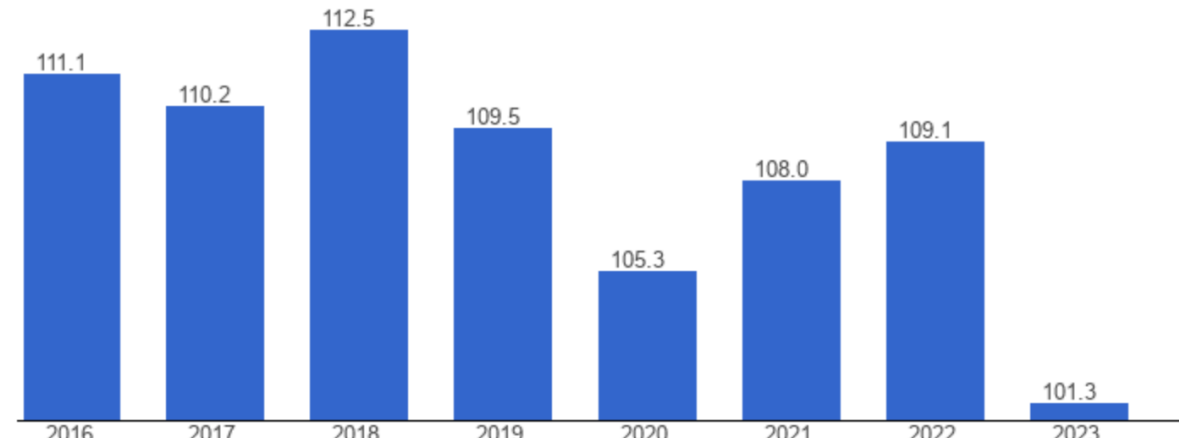
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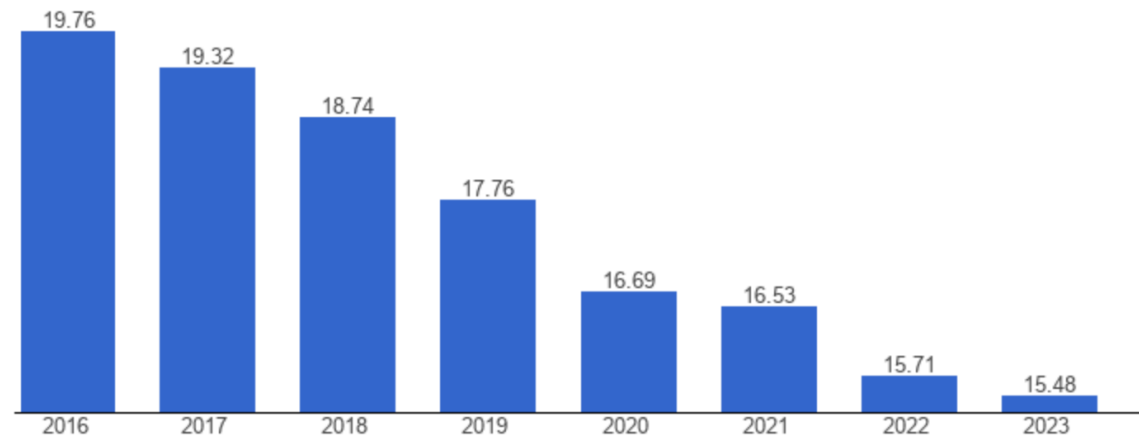


Norway Fuel Consumption

- Diesel and heating oil



- Gasoline
 - -22%

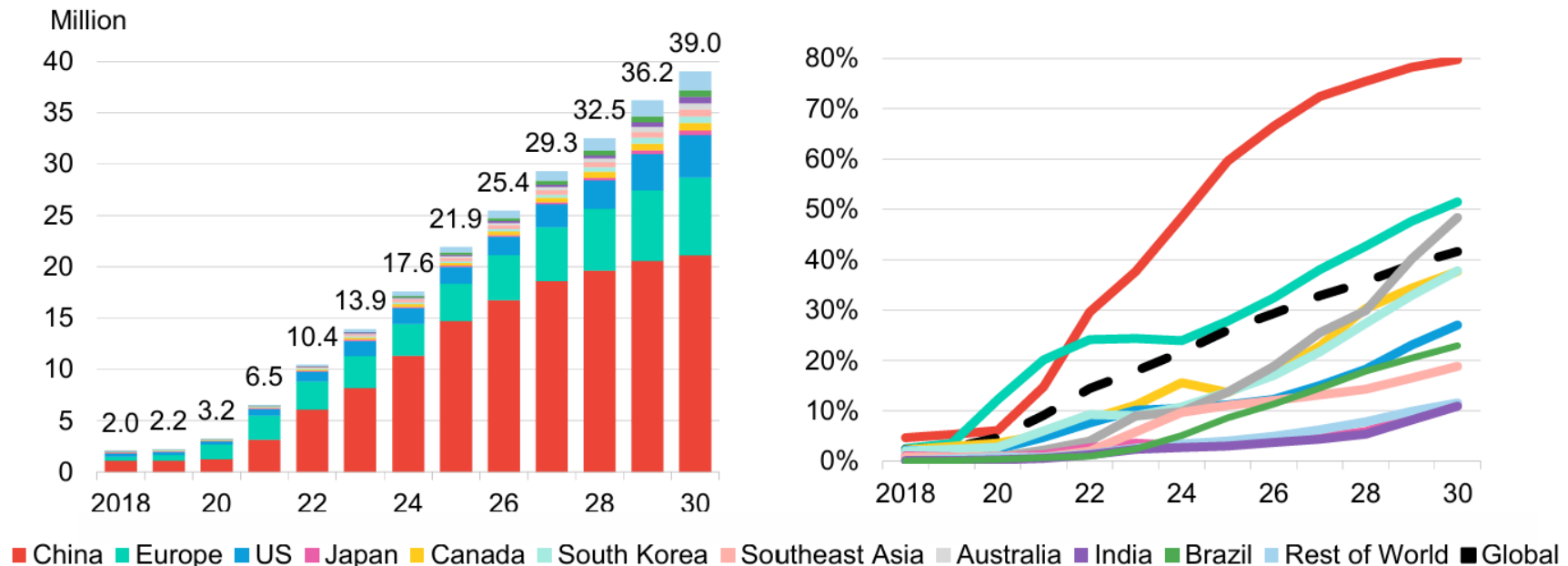


Source: www.theglobaleconomy.com/Norway – data from US Energy Information Administration

Passenger EV Sales and Share

- Thailand ahead of US, Brazil ahead of Japan
- Canada at <40% in 2030??
- Why would China stop at 80%?

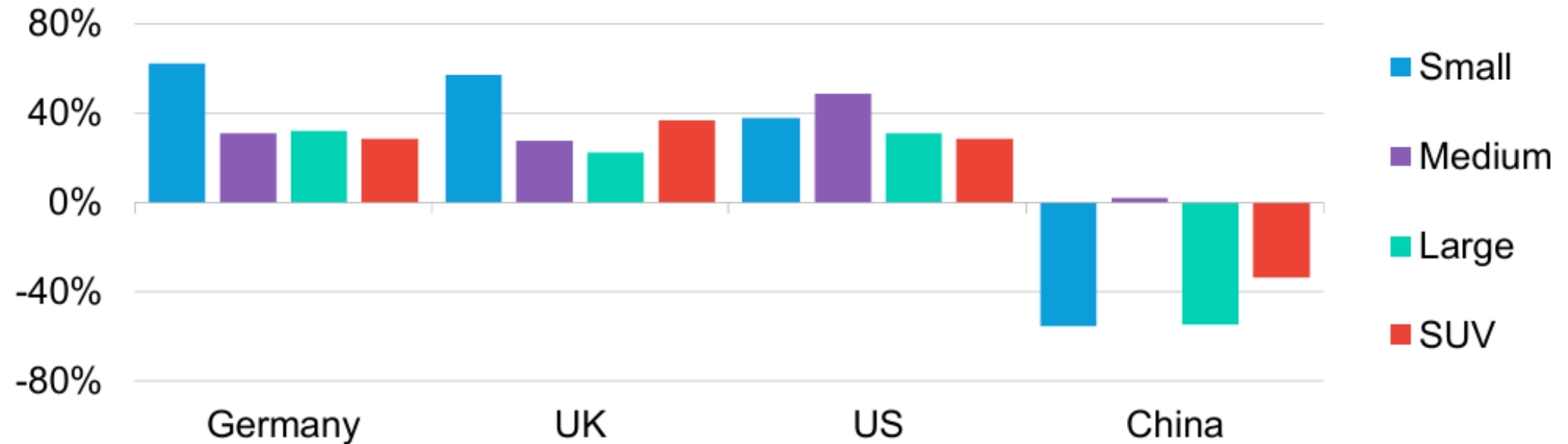
Figure 1: Global near-term passenger EV sales and EV share of new passenger-vehicle sales by market



Source: BloombergNEF. Note: Europe includes the EU, the UK and European Free Trade Association (EFTA) countries. Electric vehicles include battery-electric and plug-in hybrid vehicles.

EV Price Premium over ICE

Figure 2: Battery-electric vehicle price premium over combustion cars, 2024



Source: BloombergNEF, MarkLines, China Automotive Technology and Research Center.

Example – Ford F150



F-150® XLT

Starting at \$52,203¹



XLT

Starting At: **\$54,964¹**



F-150® Lightning® XLT

Starting at \$61,333¹

TCO Comparison - CAA

2024 Toyota Camry

Gas

\$5,300.26 / year

[Cost Breakdown](#) >

Total cost per Kilometer

\$0.42

Maintenance Cost i

\$186.00 - \$488.00

Annual Mileage

10,000km to 15,000km

▼

2024 Hyundai IONIQ 5 EV

Electric

\$3,727.14 / year

[Cost Breakdown](#) >

\$0.30

\$161.00 - \$587.00

2024 Toyota Camry

Gas

\$6,981.77 / year

[Cost Breakdown](#) >

Total cost per Kilometer

\$0.25

Maintenance Cost i

\$186.00 - \$488.00

Annual Mileage

25,000km to 30,000km

▼

2024 Hyundai IONIQ 5 EV

Electric

\$4,302.71 / year

[Cost Breakdown](#) >

\$0.16

\$161.00 - \$587.00

Other Costs

Electricity cost / Year \$479.64

Average Fuel Economy ⓘ

0 L/100km

Average Electricity Economy ⓘ

18.7 kWh/100km

Current Average Fuel Cost (Gas) ⓘ

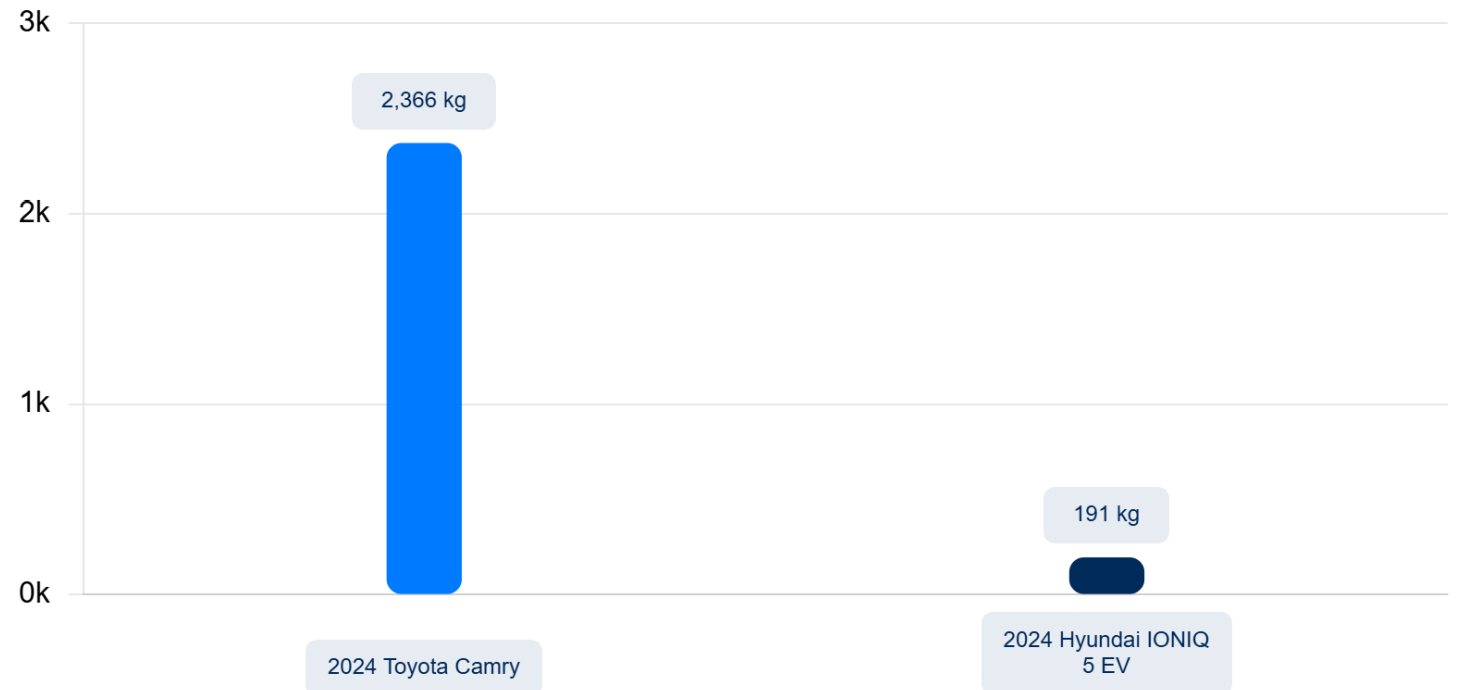
\$1.36 / L

Current Average Fuel Cost (Electricity) ⓘ

\$0.21 / kWh

Environmental Costs

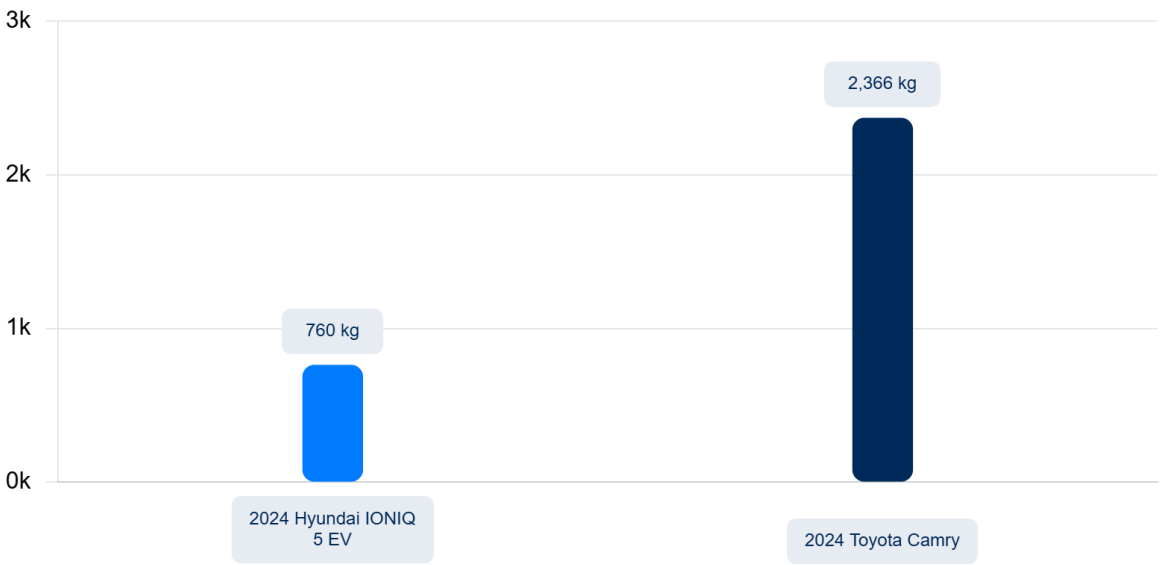
The greenhouse gas emissions for a vehicle are based on the fuel or electricity used by this vehicle in a year. The CO₂ emissions for electric vehicles will vary between provinces depending on how electricity is generated within the province.



Alberta and Saskatchewan

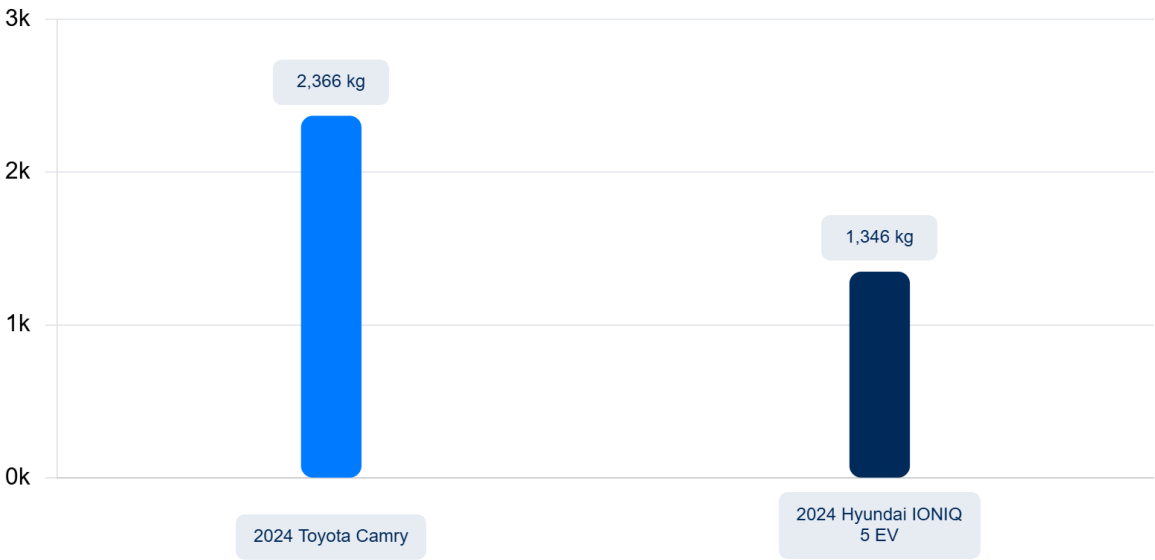
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An aerial, high-angle photograph of a vast parking lot or car dealership. The lot is filled with hundreds of cars, mostly white and silver, arranged in neat, diagonal rows. The perspective is from directly above, looking down at the vehicles. The ground is dark asphalt with white parking lines. In the bottom left corner, there is a semi-transparent purple and pink gradient overlay. The text "Canada's Auto Industry and Mandate" is written in white, sans-serif font over this gradient.

Canada's Auto Industry and Mandate

Auto Industry and Canada

- “We **cannot surrender the future of EV** production to overseas automakers, we need a full industrial strategy that ensures we both make and sell EVs in this country.”
 - Unifor’s national president, Lana Payne
- Models like BYD’s Seagull sell for as little as \$14,000 CAD in China, less than half the price of any new EV in Canada or even many gas-powered cars. In Europe, their arrival forced legacy automakers like **Renault and Stellantis to introduce more affordable options. Canadians, by contrast, have limited choices because automakers here have faced little pressure to make an affordable vehicle.**
- The federal government must make a choice to **ensure affordability**: they either have to compel domestic producers to scale up, or—less ideally—open the door to foreign competition.
- Pausing and potentially **weakening** the EV sales standard would **put that progress and Canadian jobs at risk**, and also deprive Canadians of access to cleaner and better cars. By sharpening conditions and expanding affordability, Canada can secure an EV future that works for both people and the planet.
- *Sam Hersh, Environmental Defence Canada.*

Don't Ask a Barber if you Need a Haircut

- Conflict of interest
- Industry is often the worst positioned to understand their predicament
- Kodak
 - Invented digital photography
 - Could not navigate the transition
 - Went bankrupt (as well as AgfaPhoto)
- Auto Incumbents are in the same boat
- Transitions are hard on people
- Ford claims loses on EVs



Transportation is going electric

- **Worldwide phenomena**

- US is a laggard and anomaly
- Everywhere else progress is accelerating
- Canada should not follow US example
- Canada has an opportunity to seize the moment and avoid being left behind
- Canada has made substantial progress with battery projects
 - Huge potential for Canada to supply and refine materials and replace China as the supplier for the rest of the world

- **Heavy-duty trucks will electrify - cost**

- Hydrogen for transportation (and energy) is dead – cost
 - All independent experts have concluded that



Subsidies and Sales Slowdown

- Expiration of Federal and QC subsidies had **major impact on sales**
 - Anticipation caused large bump in sales in Q4 2024 and Jan 25
 - QC – drop from \$7,000 to \$4,000 helped Q4
 - Suspension caused large drop in sales afterwards
 - People bought in advance
 - Others are **waiting for subsidy return**
 - Sudden stop in subsidy left EV dealers holding the bag
 - Sales in QC have somewhat rebounded since QC rebate re-instated on Apr 1st

Subsidies

- **Uncertainty** is causing massive problems particularly for those promoting EVs
 - Re-enforcing the negativity
- **Cancelling the subsidies would be less damaging than the uncertainty**
- **Need to announce when the subsidy comes back and bring it back ASAP**
- Should be limited to lower priced vehicles only
 - We saw that causing manufacturer to lower prices during introduction
- We don't need subsidy long term, so should drop it by a certain amount every year



Sales Mandate

- **Intent is to force manufacturers to provide product**
- **We have a significant supply problem**
 - Few models
 - Dealers without inventory –
 - Kanata Ford has ZERO EVs in inventory
 - Campbell Ford – largest Ford dealer in Eastern Ontario – no Lightnings
 - Barrhaven Ford – 57 (Lightning and Mach-e)
 - Jim Keay – 4 out of 121
 - Sterling – 7 out of 142 (including 2024 models)
 - Dealers sell what's in inventory
 - Toyota only sells BZ4X in BC and QC
 - Holding back EV adoption
- Any softening rewards laggards and punishes leaders
- Any business will push back on regulations
 - Don't expect the auto industry to be any different

Sales Mandate – Need a National Program

- Manufacturers price their vehicles by country
 - Price across Canada is the same
 - Must do this as a vehicle bought anywhere in Canada can be plated anywhere in Canada
 - Shipping cost might be slightly different
- BC and Québec have had EV mandates for years
 - **Creates distortions**
 - Need to sell EVs in BC and QC
 - No need to sell EVs anywhere else – discourages lowering prices
 - Toyota's solution: They don't sell the BZ4X to anyone outside BC or QC
 - Lots of loyal Toyota owners have no option to buy any EV from Toyota
 - Manufacturers need to find ways to incent sales in BC and QC
 - Dealer incentives and other mechanism are likely used
- We need a national policy to eliminate these problems
 - Should result in lower prices for everyone

Manufacturers not serious about selling EVs

- Ford – no new EVs in last 4 years
- Stellantis – Fiat 500e, Charger Daytona, Jeep Wagoneer
 - All niche market vehicles
- VW has few models – ID.4 and ID.Buzz
- Toyota – only one EV and selling only in BC and QC
- Honda – only one EV that is manufactured by...GM!
 - “Slowing sales” when they don’t have anything to sell??
- Mazda – nothing – their MX30 was a complete failure
- Nissan – lost the lead they had 12 years ago with the Leaf
- GM seems to be the only serious incumbent



European EVs - Background

- Nissan eNV200 – small van
- VW ID.3 - similar to the Golf
- **“Canada is too small a market** for these vehicles and US won’t buy them, so we won’t go through the Transport Canada homologation process”
 - Lengthy and expensive undertaking
- **Vehicles safe enough for European roads are safe enough for Canadian roads.**
- **Europe has lots of EVs that are not for sale in Canada**
- **Should allow European EVs in Canada**
 - Without Transport Canada homologation



Example Impact: Ford

- Current EVs in North America:
 - E-transit – for business use
 - F150 Lightning – pickup truck – introduced in May 2021, sale in May 2022
 - Mustang Mach e – introduced in November 2019, sale in Dec 2020
 - No new EVs in 4 years
 - Is Ford really serious about meeting any mandate including California's, BC and QC?
 - Next EV will be in 2027
- Meanwhile in Europe [Ford Expands European Electric Vehicle Lineup](#):
 - Puma Gen-E (small car)
 - E-Transit Courier (small utility van)
 - Capri
 - Explorer
- Bronco EV...to be sold in China!

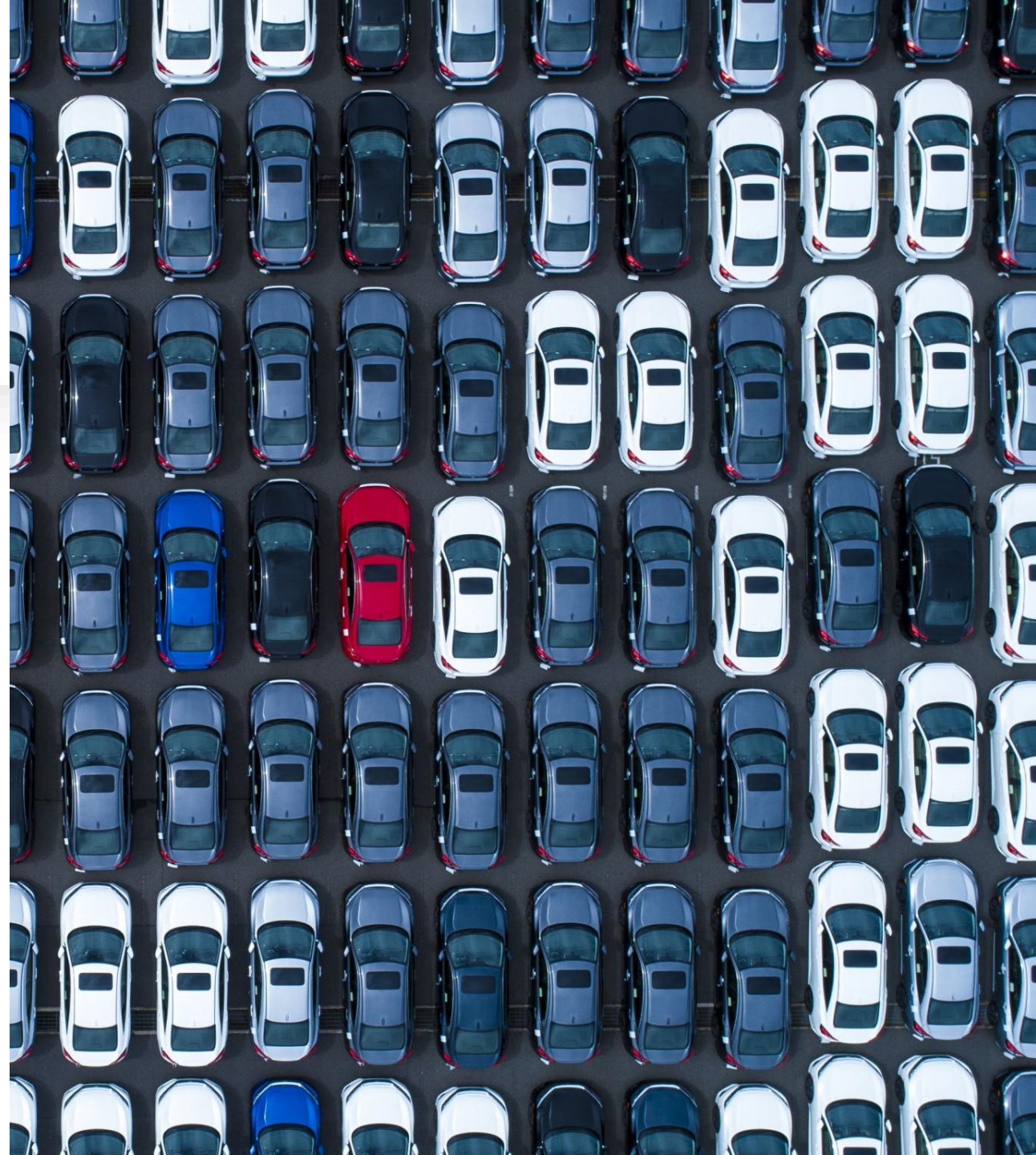
Example Impact: Ford

- Capri and Explorer similar in size to Mach E
- Ford could import these vehicles from Europe under existing low tariffs
- Adapting to Canada would be minor unless Transport Canada homologation is required



Tariffs

- 100% tariff on Chinese cars
 - Retaliatory tariffs are harming the economy
 - Farmers are paying the price
- Low tariffs on European cars
- US tariffs – depends on the day you ask
 - Currently no tariffs on cars from US



Accelerating Adoption

- We don't yet have price parity in all segments
- We have a supply problem
- How does the government drive lower prices?
 - Mandate – requires manufacturers to compete on price to sell minimum amounts
 - Subsidies – helps reduce the purchase price
 - We will not need subsidies when we have price parity
 - More choice
 - European EVs
 - Chinese EVs

Nation Building Projects

- Nationwide high speed charging network
 - Light duty
 - Heavy duty, coaches
 - Lower transportation costs



Recommendations

- Re-instate subsidies ASAP
 - At minimum announce when they will return
- Continue with mandate as currently structured
 - Maybe reduce 2035 target to 90%
 - Exclude pure electric manufacturers (Tesla, Lucid, Rivian)
- Increase funding for charging infrastructure - MURBs
- Temporary homologation exemption to European EVs
 - 5-10 years moratorium
 - Must have J3400 plug
- Exclude EVs from any tariffs on US cars
- Lower tariffs on Chinese EVs (not ICE) in line with Europe
 - Eliminate over time
- Stop Transport Canada's restrictions on EV ferry transport
 - Any damaged vehicle which has not caught fire several hours after an accident will NOT catch fire