

Meeting road transport decarbonization goals through standards and targets

GCAP Workshop

3 October 2024

Foz do Iguaçu, Brasil

icct
THE INTERNATIONAL COUNCIL
ON CLEAN TRANSPORTATION

Session agenda

- Welcoming remarks and framing
- Session framing: The role of zero-emission vehicles in road transport decarbonization (ICCT)
- Government perspectives
- Breakout discussions
- Debrief and closing

Session objectives

- Share experiences and insights, successful climate initiatives, and best practices related to the decarbonization of the road transport sector.
- Encourage participant exchange and build competence on key areas related to road transport decarbonization and accelerated transitions to zero-emission vehicles.
- Guide participants in developing actionable plans to implement what they've learned.
- Identify opportunities to collaborate with other peers (bilateral, regional, global) during and after the workshop.

How do we decarbonize the transport sector to meet global climate targets?

Tim Dallmann & Marcel Martin

October 3, 2024

GCAP Workshop

About the ICCT and our mission

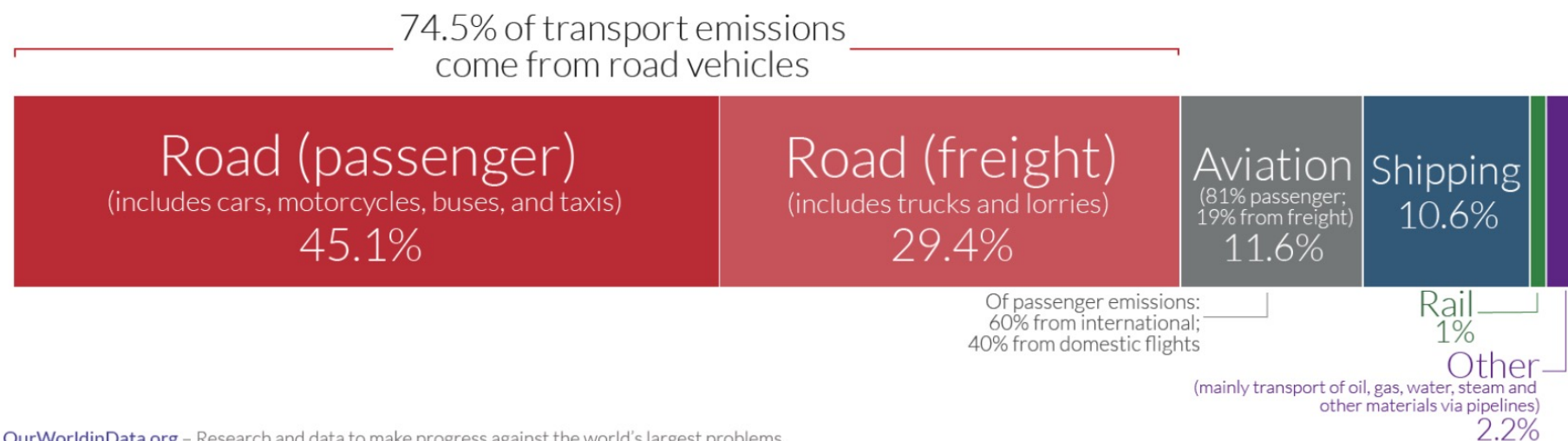
- An independent nonprofit research organization since 2005
- Providing exceptional, objective, timely analysis to environmental regulators
- Empowering them to improve the environmental performance of transportation to benefit public health and mitigate climate change

Overview

- The big picture for decarbonizing transport
- Importance of ZEVs for decarbonizing road transport
- Where we stand in the ZEV transition
- Policies to accelerate the ZEV transition
- Showcasing successful policy approaches – Brasil

What is the breakdown of transport sector emissions?

Light-duty vehicles represent the greatest fraction, but freight, aviation, and shipping are growing most quickly

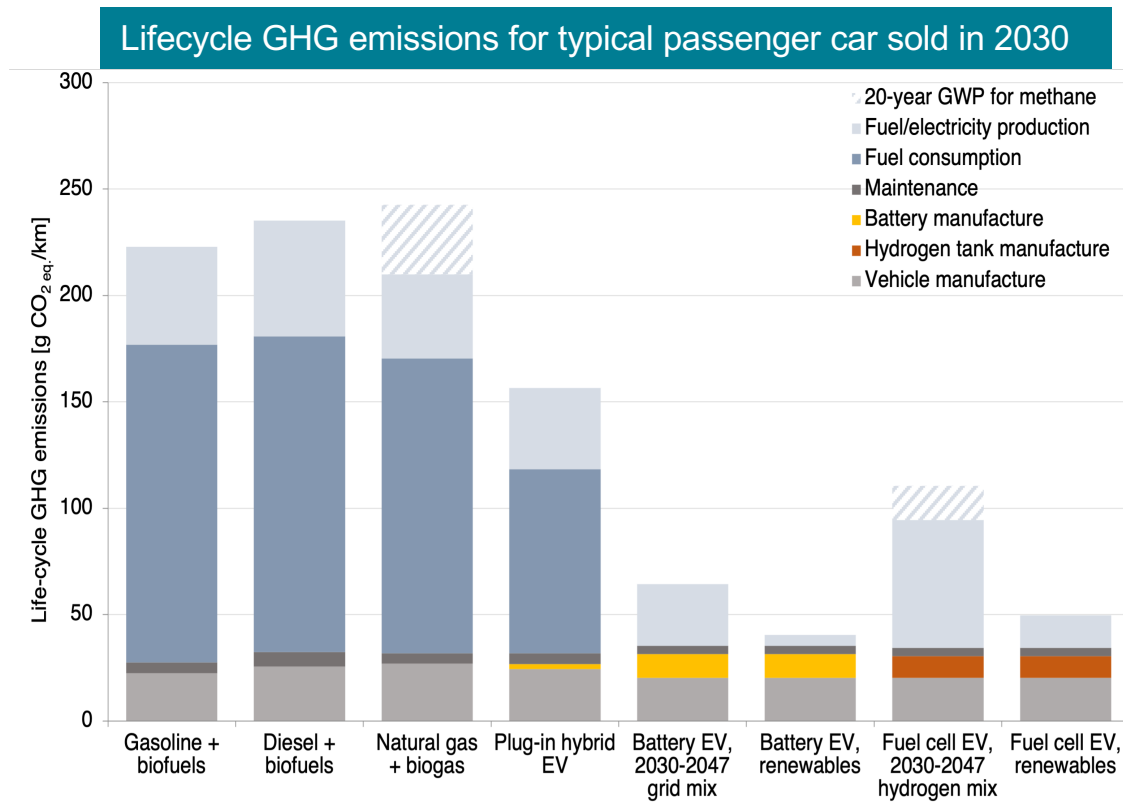


OurWorldinData.org – Research and data to make progress against the world's largest problems.

Data Source: Our World in Data based on International Energy Agency (IEA) and the International Council on Clean Transportation (ICCT).

Licensed under CC-BY by the author Hannah Ritchie.

Only battery-electric and hydrogen fuel cell vehicles have the potential to achieve near-zero GHG emissions



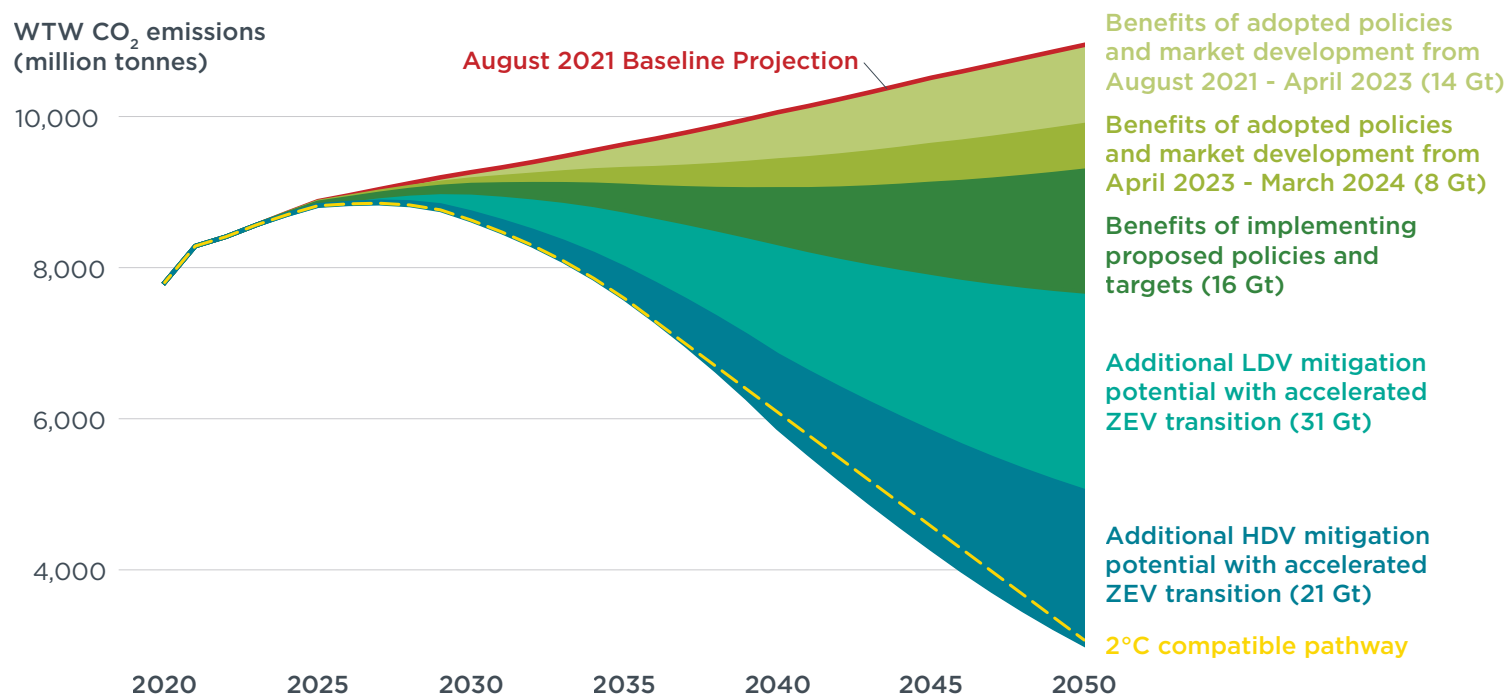
Even today, EVs have by far the lowest lifetime GHG emissions compared to all other technologies.

As electric power becomes lower carbon, GHG emissions from electric vehicles will decline further.

Source: <https://theicct.org/wp-content/uploads/2021/12/zevtc-decarbonizing-by-2050-Jul2021%E2%80%AF.pdf>

The pathway to keep global on-road transport well below a 2°C emissions trajectory is challenging but continues to strengthen.

Global WTW CO₂ emissions from road vehicles compared to a 2°C compatible emissions pathway



Source: ICCT, *Vision 2050: Update on the Global Zero-Emission Vehicle Transition in 2023*, September 2023, plus updates to analysis done in April 2024

5 key policy areas for the ZEV Transition



Phase-out targets: Setting a vision and market signal to phase out combustion vehicles



Binding regulations: Ensuring model availability and supply



Financial incentives: Making ZEVs cost-effective today



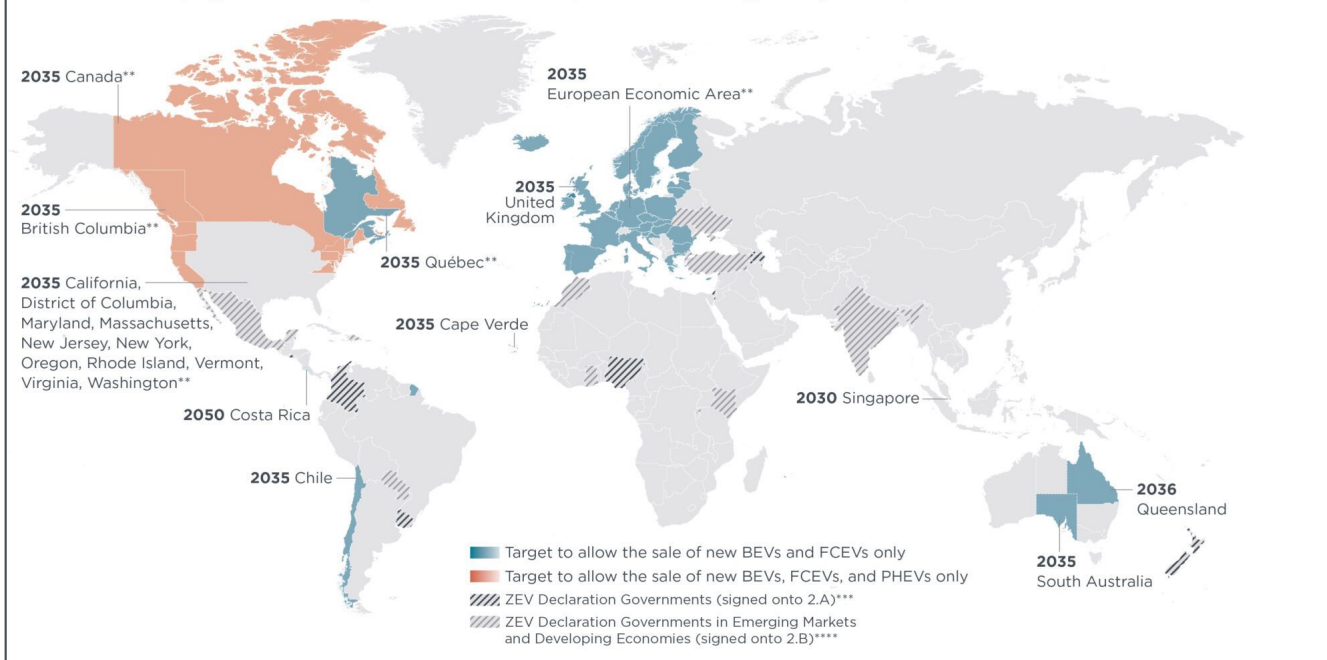
Charging infrastructure: Maximizing ZEVs' convenience



Consumer awareness/Fleet purchase requirements: Building understanding of ZEVs' benefits and creating demand

Momentum is building toward 100% ZEV sales commitments for light and heavy vehicles

Governments with official targets to 100% phase in sales of new zero CO₂ emission cars and vans/light trucks by a certain date* (Status: Through May 2024)

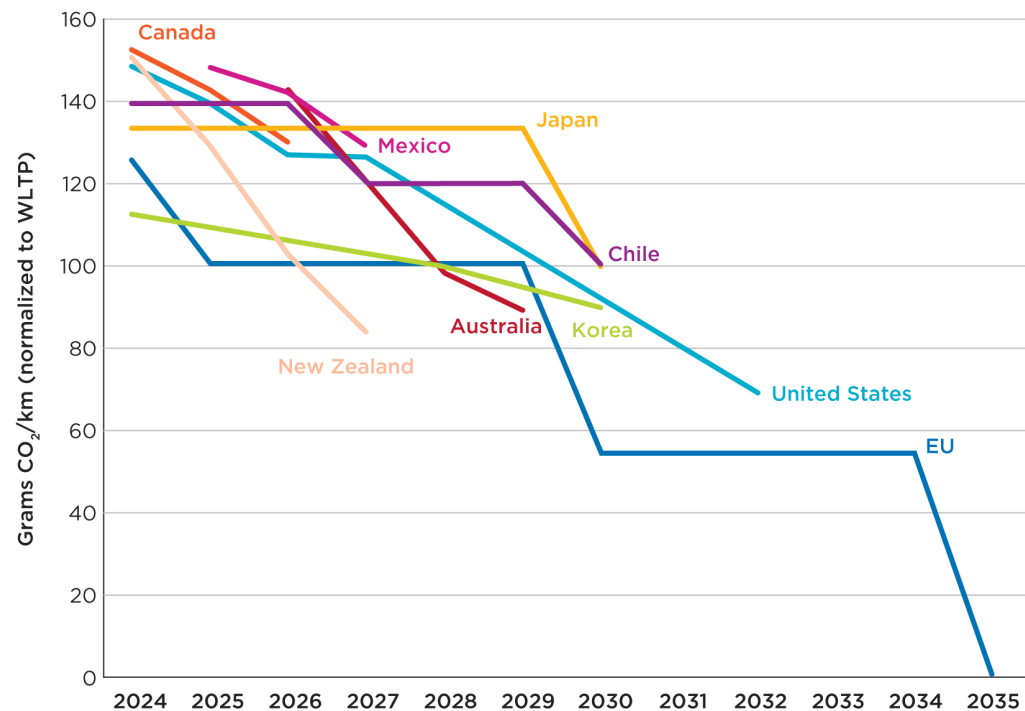


ZEV Declaration: Target 100% zero-emission car and van sales by 2035 in leading markets and 2040 globally

Global MOU on ZE MHDVs: Target 100% zero-emission truck and bus sales by 2040 and 30% by 2030

Turning goals into reality: CO₂/fuel efficiency standards

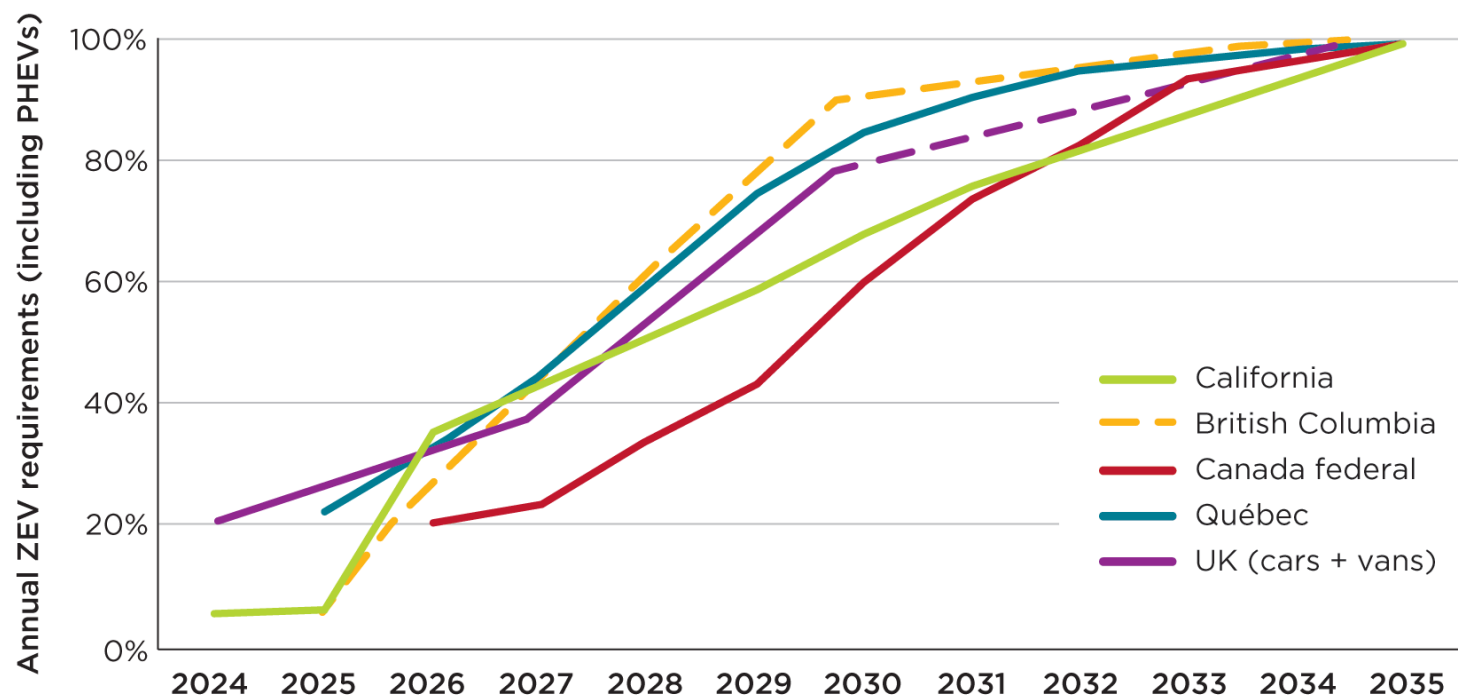
For light-duty vehicles, the EU, New Zealand, and Korea have the strongest standards



Only governments with standards out to 2025+ shown.

Source: Hall, D. (2024) Meeting the Mark: Aligning regulations and standards with ZEV targets. *Zero Emission Vehicles Transition Council*. www.zevtc.org/aligning-regulations-and-standards-with-zev-targets-sept24.

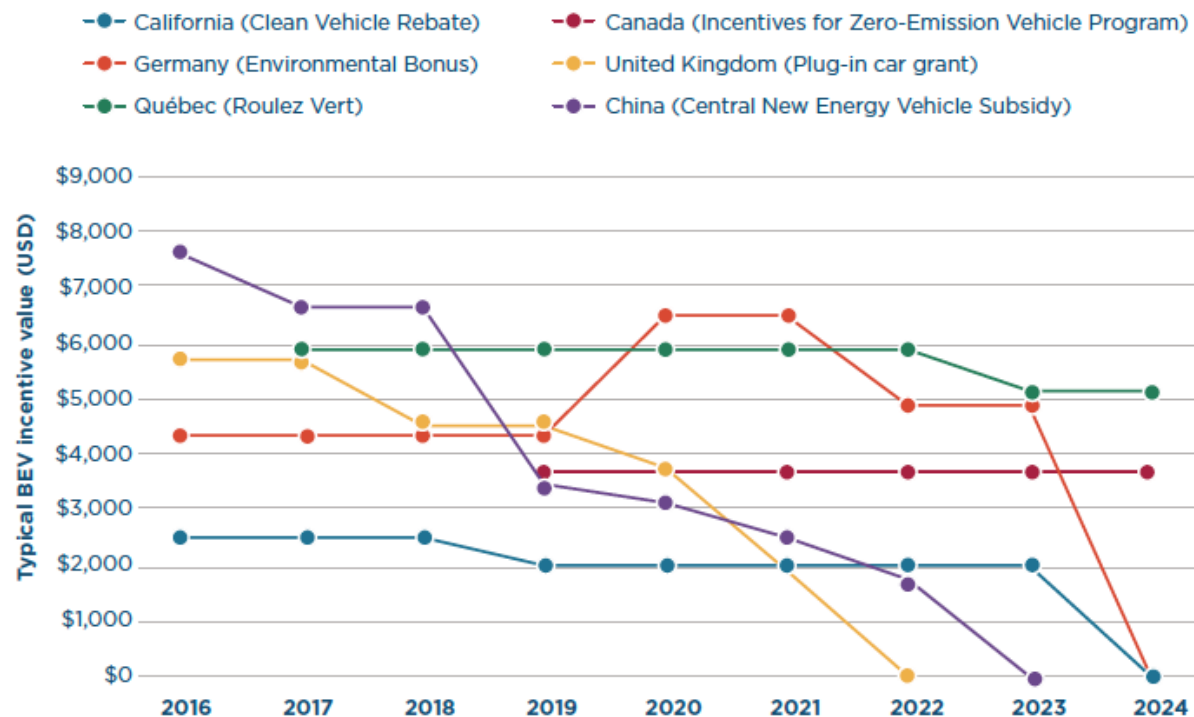
Turning goals into reality: ZEV sales requirements



Dashed lines indicate proposals, solid lines are adopted.

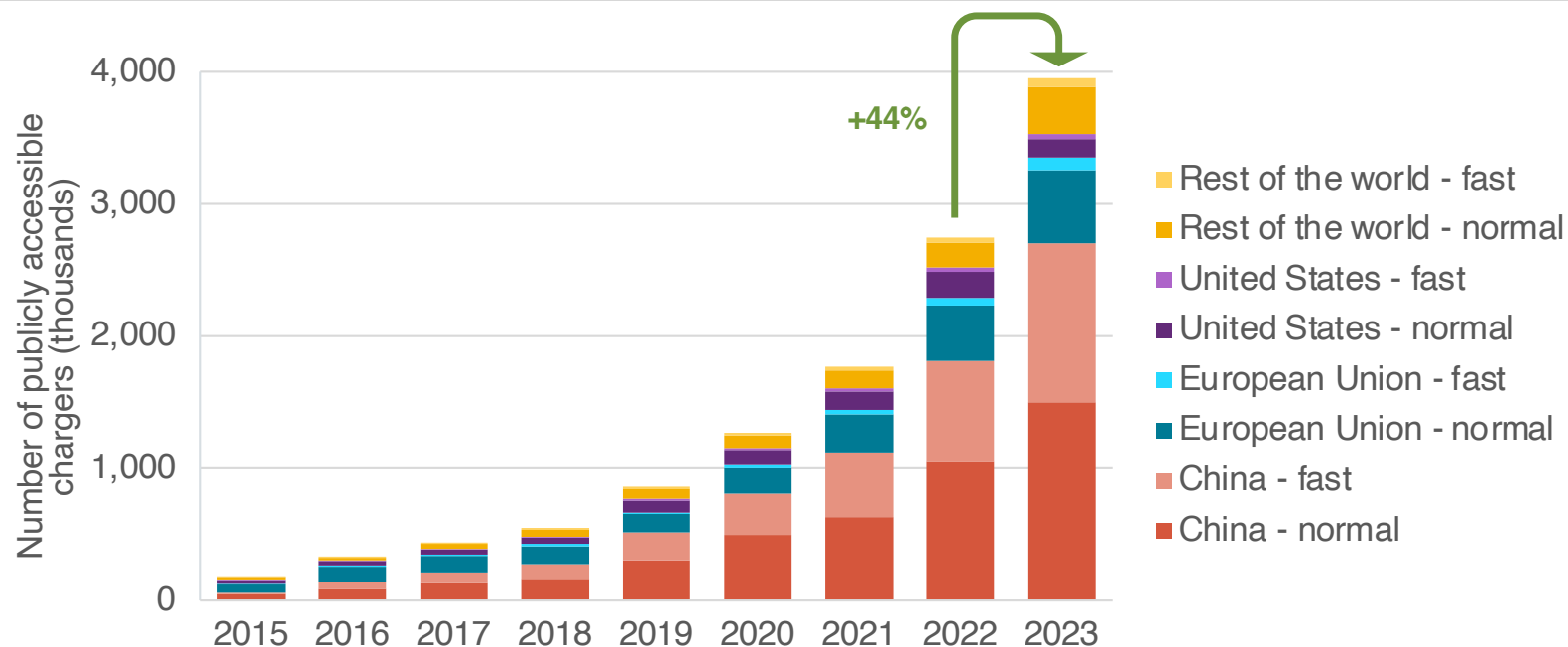
Source: Hall, D. (2024) Meeting the Mark: Aligning regulations and standards with ZEV targets. *Zero Emission Vehicles Transition Council*. www.zevtc.org/aligning-regulations-and-standards-with-zev-targets-sept24.

Mainstream light-duty incentive programs trending down as cost parity approaches



Source: Tankou, A., Hall, D., and Slowik, P. (2024). *Adapting zero-emission vehicle incentives for a mainstream market*. ICCT. www.theicct.org/publication/izeva-adapting-zev-incentives-for-a-mainstream-market-april24/

Charging infrastructure: Growing, but much more needed



Approximately 30% sustained annual growth needed to meet ZEV targets

Source: International Energy Agency (IEA), <https://www.iea.org/data-and-statistics/data-tools/global-ev-data-explorer>

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Showcasing successful policy approaches: Brasil

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Thank you!
Please send questions to: t.dallmann@theicct.org



Government perspectives: Canada



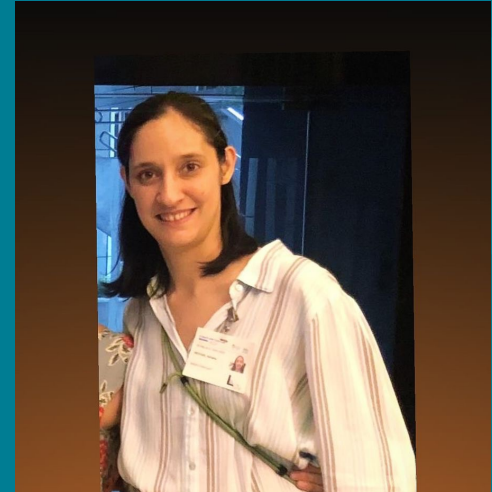
Paula Vieira, Director General, Environmental Policy,
Transport Canada

Government perspectives: Brasil



Leandro de Oliveira Albuquerque, Special Advisor to
the National Secretary for Energy Transition and
Planning, Ministry of Mines and Energy

Government perspectives: Paraguay



Adriana Decoud, Technical Consultant, Ministry of
Environment and Sustainable Development

Breakout discussions

- **Table 1:** How can national governments use regulations and standards for new vehicles to accelerate electric vehicle deployment?
- **Table 2:** What policy approaches have been effective in spurring faster uptake of electric vehicles in cities, especially in public transit fleets?
- **Table 3:** What approaches can support rollout of charging infrastructure at a scale and pace that matches accelerated electric vehicle uptake?
- **Table 4:** What can governments do to support greater demand for electric vehicles and increase affordable supply across segments?

For all tables: What are priorities for further peer learning, technical assistance, and collaboration?