### 2024-2025 Action Plan

### Background

Road transport accounts for about 21% of global energy-related carbon dioxide (CO<sub>2</sub>) emissions, and total emissions from the sector are still growing.<sup>i</sup> A rapid global transition to ZEVs, alongside other measures, can play an important role in aligning the transport sector with the Paris Agreement objective of limiting warming to well below 2°C and keeping 1.5°C within reach.<sup>ii</sup> While ZEV uptake is growing, we must continue to increase the pace of the global transition to meet our Paris Agreement goals and advance the Road Transport Breakthrough 2030 goal: 'to make zero emission vehicles the new normal by making them affordable, accessible, and sustainable in all regions by 2030.'

An accelerated ZEV transition offers the potential for numerous benefits beyond greenhouse gas reductions. If managed well, the transition can create opportunities for jobs and growth,<sup>iii</sup> lower costs for drivers,<sup>iv</sup> improve air and reduce other environmental pollution with benefits for public health,<sup>v</sup> and can help balance electricity grids as we make the transition to clean power.<sup>vi</sup> However, realizing these benefits will require collaboration and planning among leading governments and the private sector.

The Zero Emission Vehicles Transition Council (ZEVTC) was formed in November 2020 as the world's first strategic forum through which ministers and government representatives from some of the world's largest and most progressive automotive markets — collectively accounting for more than half of all new car sales globally — meet to collaborate to accelerate the pace of the global transition to zero emission vehicles.

### Progress in 2023

Over the course of the past year, the global ZEV transition has continued to accelerate.

- The global fleet of ZEVs continues to grow. By September 2023, 38 million light-duty EVs (ZEVs and PHEVs) and 1 million medium- and heavy-duty ZEVs (including 900,000 buses and 100,000 trucks) had been sold worldwide.<sup>vii</sup>
- About 1.2 million public charging points have been installed worldwide through the first half of 2023, with 15% of them being high-power DC chargers.<sup>viii</sup>
- 13% of new light-duty vehicles sold in ZEVTC jurisdictions sold in the first half of 2023 were zero emission, with an additional 5% being plug-in hybrid.<sup>ix</sup>

Throughout 2023, the ZEVTC has supported this progress by working together to overcome shared challenges to accelerate the global ZEV transition as set out in our <u>2023 Action Plan</u> published at COP27.

Since COP27, we have:

- Launched a new **Charging Infrastructure Taskforce** and convened two virtual workshops on the subjects of Charging Infrastructure and the Electricity Grid and Public Charging Infrastructure User-Friendliness;
- Held the 7<sup>th</sup> ZEVTC Ministerial meeting in Leipzig, Germany, where ministers and senior government representatives discussed opportunities for faster ZEV transitions in fleets and opportunities for policy to accelerate this transition, supported by <u>new analysis</u> from the ZEVTC secretariat;
- Convened ZEVTC and non-ZEVTC governments to discuss the importance of standards and regulations in achieving the transition to clean transportation, highlighting options for policy design and opportunities to bring standards into alignment with global climate targets;
- Shared key information about how governments and non-governmental actors are helping to promote **fair consumer access to ZEVs and charging infrastructure** in a series of public webinars;
- Initiated a broad program of work as outlined in the COP27 <u>Global Commitment</u> that
  was signed by several members of the ZEVTC in collaboration with the International
  Assistance Taskforce (IAT) to support a global transition so that no country or community
  is left behind in the transition to ZEVs. This included:
  - Launching the ZEV Rapid Response Facility (ZEV-RRF) to pair emerging markets and developing economies (EMDEs) with expert organizations, including members of the IAT, to respond to urgent ZEV-related technical assistance needs;
  - Announcing a new ZEV Country Partnership model to provide more focused, aggregated, and coordinated support to leading EMDE countries. The first Partnership, launched with India, is helping to build capacity for policymakers in State-level governments to access finance, scaling e-freight deployment and accelerating charging infrastructure rollout;
  - Launching the ZEV Emerging Markets Initiative (<u>ZEV-EM-I</u>) to foster collaboration between public authorities, businesses and private investors, with new work taking place in India (under the India Country Partnership) and Mexico; and
  - Launching the first Global ZEV Transition Roadmap, an annual publication developed in collaboration with the IAT, that sets out clear actions the ZEVTC governments and wider partners intend to collectively take to strengthen international support for EMDEs this decade.

- The ZEV Transition Council also welcomed new research from the IAT on <u>charging</u> <u>infrastructure deployment</u> in EMDEs (ICCT) and on <u>facilitating a transition to ZEVs</u> in the global south (UC Davis and FIA Foundation), with both heavily informing the Global ZEV Transition Roadmap.
- Actively supported the Road Transport Breakthrough process to identify the most urgent priorities for coordinated international action to speed up the ZEV transition, feeding into the <u>Breakthrough Report 2023's</u> recommendations (from the IEA, IRENA and UN High Level Action Champions) and supporting delivery of the priority actions with other initiatives; and
- **Tracked country progress** on the ZEV transition through market statistics and policy updates on the <u>ZEVTC website</u>, with quarterly updates by the ICCT.

### 2024-2025 Action Plan

The ZEV transition must continue to go further and faster if we are to achieve our Paris goals and realize the additional air quality, jobs and growth, and cost savings benefits offered by a swift transition to ZEVs. Building upon the 2023 ZEVTC Action Plan and in alignment with the Road Transport Breakthrough Action Plans, the ZEVTC will focus its work in 2024 and 2025 on the following subjects (with 2025 priorities subject to further review and refinement throughout 2024). In work for each of these areas, we will collaborate with other initiatives within the Road Transport Breakthrough.

#### **1. Battery Supply Chains**

The Council will identify best practices, share knowledge, and explore opportunities for further international collaboration on responsible, cost-effective development of critical materials to power the ZEV transition in ZEVTC governments without jeopardizing energy security. The scope will cover the availability of critical materials in ZEVTC jurisdictions and partner countries in the coming decades and how abundant elements available in these countries can contribute to building a responsible and affordable supply chain to deliver a Paris-aligned transition. This priority area would promote connections between the Council and other leading international initiatives working on responsible battery supply chains, including efforts to advance the adoption and implementation of international standards to protect labor and environmental protections and community stakeholder engagement across critical material supply chains.

#### 2. Infrastructure

Building on our progress in 2022 and 2023, the Council will continue to work together to share knowledge on critical topics related to ZEV charging infrastructure. The Council will convene ZEVTC governments, external experts, and industry leaders through the Charging Infrastructure

Taskforce to exchange on best practices and opportunities to ensure infrastructure deployment matches the pace of ZEV uptake. Topics for expert exchange will be selected to address critical charging deployment issues in member jurisdictions. For 2024, the Secretariat will also develop a Global ZEV infrastructure Policy and Planning Guide intended to guide governments, particularly in emerging markets and developing economies (EMDEs), through the steps of developing a tailored, comprehensive charging strategy and tracking the sufficiency of infrastructure relative to their ZEV market.

#### 3. Supporting a global transition

To align with a well-below-2°C emissions trajectory, the ZEV transition must be truly global. In the coming years, the Council will continue its work in collaboration with the International Assistance Taskforce to support the ZEV transition in EMDE countries and implement the actions of the Global ZEV Transition Roadmap launched at COP28. The scope of this work includes:

- Continuing implementation of the ZEV Rapid Response Facility to provide technical expertise to governments of EMDEs on specific challenges within their ZEV transition, including scaling up the facility through growing its network and financial resources;
- Continuing implementation of the ZEV Country Partnership in India, including its work to build capacity for policymakers in Indian states to access finance, scaling e-freight deployment, and accelerating infrastructure rollout;
- Scaling activities of the ZEV Emerging Markets Initiative;
- Implementing the COP28-launched Global ZEV Transition Roadmap's actions to strengthen support for EMDE countries this decade, alongside our partners; and
- Developing and launching updated iterations of the Global ZEV Transition Roadmap at COP29, and annually thereafter, to provide updates on progress as well as set out new actions. This includes the potential launch of further ZEV Country Partnerships.

#### 4. Tracking progress

The Council will continue to track progress towards ZEV market development, charging infrastructure deployment, and policy implementation for each of its members and share updates on a regular basis with the public via the ZEVTC website.

#### Across all workstreams:

The Council will continue to monitor and contribute to cross-sectoral, international actions identified in the <u>Breakthrough Agenda Report 2023</u> and support the development of the 2024 edition of this report, ensuring that the lessons learned on international collaboration to

decarbonize road transport can be applied to other sectors at an earlier stage of the transition. The Council will also actively participate in delivering priority actions under the Road Transport Breakthrough in coordination with other initiatives to enhance synergies.

https://www.eea.europa.eu/publications/electric-vehicles-from-life-cycle;

vi Blumberg, Gerald, Roland Broll, and Christoph Weber. "The Impact of Electric Vehicles on the Future European Electricity System – A Scenario Analysis." Energy Policy 161 (February 1, 2022): 112751.

viii Eco-Movement, (2023), https://www.eco-movement.com/; CATARC, (2023), https://www.catarc.ac.cn/; Indian Ministry of Heavy Industries, (2023), https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1910392; IEA, (2023), https://www.iea.org/reports/global-ev-outlook-2023/trends-in-charging-infrastructure

ix EV-Volumes, (2023), https://www.ev-volumes.com/

<sup>&</sup>lt;sup>1</sup> Includes well-to-wheel emissions from cars, vans, trucks, and buses. Arijit Sen and Josh Miller, "Emissions reduction benefits of a faster, global transition to zero-emission vehicles," (Washington, DC: International Council on Clean Transportation, March 8, 2022), https://theicct.org/publication/zevs-global-transition-benefits-mar22/ <sup>ii</sup> Arijit Sen, Josh Miller, Gabriel Hillman Alvarez, and Patricia Ferrini Rodrigues, "Vision 2050: Strategies to align global road transport well below 2°C," (Washington, DC: International Council on Clean Transportation, forthcoming)

<sup>&</sup>lt;sup>III</sup> Beth Burmahl, "Estimating the economic impact of electric vehicle charging stations," (Lemont, IL, United States: Argonne National Laboratory, March 16, 2022), https://www.anl.gov/article/estimating-the-economic-impact-ofelectric-vehicle-charging-stations ; Javier Colato and Lindsey Ice, "Charging into the future: the transition to electric vehicles," (Washington, DC: U.S. Bureau of Labor Statistics, February 2023), bls.gov/opub/btn/volume-12/charginginto-the-future-the-transition-to-electric-vehicles.htm;

<sup>&</sup>lt;sup>iv</sup> Peter Slowik, Aaron Isenstadt, Logan Pierce, and Stephanie Searle, "Assessment of light-duty electric vehicle costs and consumer benefits in the 2022–2035 time frame," (Washington, DC: International Council on Clean Transportation, October 18, 2022), <a href="https://theicct.org/publication/ev-cost-benefits-2035-oct22/">https://theicct.org/publication/ev-cost-benefits-2035-oct22/</a>; Wetterhahn, Joel. "2022 Car Cost Index." LeasePlan, December 12, 2022. https://www.leaseplan.com/en-ix/blog/tco/2022-carcost-index/.

<sup>&</sup>lt;sup>v</sup>Garcia, Erika, Jill Johnston, Rob McConnell, Lawrence Palinkas, and Sandrah P. Eckel. "California's Early Transition to Electric Vehicles: Observed Health and Air Quality Co-Benefits." Science of The Total Environment 867 (April 1, 2023): 161761. https://doi.org/10.1016/j.scitotenv.2023.161761; European Environment Agency, "Electric vehicles from life cycle and circular economy perspectives," (Copenhagen, Denmark),

https://doi.org/10.1016/j.enpol.2021.112751; Needell, Zachary, Wei Wei, and Jessika E. Trancik. "Strategies for Beneficial Electric Vehicle Charging to Reduce Peak Electricity Demand and Store Solar Energy." Cell Reports Physical Science 4, no. 3 (March 15, 2023): 101287. https://doi.org/10.1016/j.xcrp.2023.101287. vii EV-Volumes, (2023), https://www.ev-volumes.com/