



Economic Commission for Europe**Inland Transport Committee****Eighty-sixth session**

Geneva, 20-23 February 2024

Item 10 (g) of the provisional agenda

Strategic questions of a horizontal policy or regulatory nature:**Analytical work on transport****Draft terms of reference for an informal task force on electric mobility****Note by the Chair of the Working Party on Transport Trends and Economics and the secretariat*****I. Introduction**

1. This document contains a proposed 2024–2026 mandate and terms of reference for a new informal task force on electric mobility (hereafter referred to as e-mobility). The Working Party on Transport Trends and Economics (WP.5) at its 36th annual session (Geneva, 4–6 September 2023, ECE/TRANS/WP.5/74, para. 63) recognized that to facilitate progress in e-mobility, a dedicated informal task force focused on driving and coordinating efforts related to Electric Vehicle (EV) developments and their charging infrastructure both within ECE (and across its different sub-programmes) and in collaboration with other institutions should be established. In this regard it requested the WP.5 secretariat together with the Chair to develop draft terms of reference for such a task force in close consultation with other relevant Working Parties and relevant intergovernmental groups in the ECE Sustainable Energy Division and submit this to the Inland Transport Committee (ITC) at its 86th annual session in February 2024 for further guidance and positive consideration.

II. Mandate

2. The informal task force on e-mobility is tasked to raise awareness, build capacity and integrate inter-disciplinary knowledge from countries, the scientific community, private sector, and nongovernmental bodies on latest developments surrounding all types of EVs (covering all inland modes both for passengers and freight) and their charging infrastructure. The informal task force is tasked to further advance the state of knowledge on Zero Emission Vehicle (ZEV) charging infrastructure as well as smart charging solutions including bidirectional charging and their interaction with the electricity grid. It aims at offering a platform for the identification of suitable and cost-effective policies and measures, taking

* This document was scheduled for publication after the standard publication date owing to circumstances beyond the submitter's control.

location efficiency, systemic efficiency and energy system resilience into consideration¹, which can lead the way to a future Zero-Emission road, rail and inland waterway transport sector. In the conduct of its work, the informal task force will regularly liaise with relevant working parties and groups of experts under ECE ITC² and ECE Committee on Sustainable Energy (CSE)³ auspices.

3. The informal task force is established for an initial period of two years: 2024–2026 with a possibility for extension.

III. Terms of Reference

A. Tasks

4. In line with its mandate and building on the existing expertise and know-how in several of the Working Parties under ECE ITC auspices and in the framework of the ECE CSE, this informal task force should:

(a) Serve as a platform to collect, integrate, and disseminate, at inter-sectoral level, knowledge, and expertise on electrification of inland transport, as well as its interlinkages with EV charging infrastructure and the broader electricity grid, including aspects of location efficiency and mobility management.

(b) Explore possibilities for the establishment of a best practice sharing and coordination mechanism on (multi-modal) Zero Emission Vehicle (ZEV) infrastructure to support policy implementation, including through providing insights on long-term ZEV infrastructure needs and energy supply exploring the development of new tools and products to support ZEV infrastructure planning and modelling at different levels (i.e. local, regional, national, international and global).

(c) Offer a platform for countries to explore possibilities for international harmonization of EV charging procedures and types, considering partner initiatives such as the Breakthrough Agenda Road Transport Priority on Charging Infrastructure (RT4), the ZEV Transition Council (ZEVTC) Charging Infrastructure Taskforce and others.

(d) Take stock of the wide array of smart and innovative charging solutions deployed across the ECE region and beyond, for all types of EVs, two- and three- wheelers, cars, vans, trucks and buses, hybrid trains, and special EVs (i.e., tractors, building and construction vehicles) as well as inland waterway barges, with a particular emphasis on opportunities for bidirectional charging (e.g. Vehicle-To-Grid/ V2G and Vehicle-To-Home/ V2H).

(e) In relation to (d): offer a platform to:

(i) Identify any regulatory barriers to the deployment of smart and innovative charging solutions, including regarding charging accessibility and affordability as well as ways to overcome them.

(ii) Design a supportive regulatory framework in the form of effective taxes, levies, or surcharges that provides transparency for the client regarding the emission factor of the energy used.

(iii) Develop harmonized norms and standards for bidirectional charging and other smart charging solutions, and assess associated infrastructure needs as well as best

¹ ECE/ENERGY/GE.6/2023/2, paras. 20 and 28.

² Working Party on Road Transport (SC.1); Working Party on Inland Water Transport (WP.3/SC.3); Working Party on Transport Trends and Economics (WP.5); Working Party on Transport Statistics (WP.6); Working Party on Intermodal Transport and Logistics (WP.24); World Forum for Harmonization of Vehicle Regulations (WP.29) and its relevant subsidiary bodies.

³ Committee on Sustainable Energy (CSE) and its relevant subsidiary bodies, notably the Group of Experts on Energy Efficiency (GEEE) and the Group of Experts on Cleaner Electricity Systems (GECES).

practices for managing charging loads to minimize sudden appearance of large undiversified loads on the system.

- (iv) Formulate new, common rules and provide guidance on enforcing existing rules for data sharing while assuring adequate data protection, and cyber security levels.
- (v) Offer guidance for harmonizing grid access rules and develop instruments and technical solutions to help tackle grid congestion and potential overload.
- (vi) Offer guidance on user friendly and seamless payment methods for public charging and on harmonization of payment systems, including by exploring the introduction of dynamic charging rates. Provide a benchmarking analysis against methods for purchasing other energy sources (e.g. gas stations) and consider good practices regarding data and digital frugality.
- (vii) Explore accompanying services to smart and innovative charging solutions and design supportive frameworks for these services to access markets.
- (viii) Explore alternative models of electricity pricing at public charging infrastructure to provide adequate financial incentives for development of said infrastructure while also preserving the economic benefits to the vehicle owner.
- (f) Serve as a platform to map most widely used open charging protocols and standards enabling interoperability of charging systems and seamless, integrated EV charging solutions across borders.
- (g) Establish a database of good practices covering examples from within and outside the ECE region.
- (h) With regard to item (g) above: analyse the innovative practices established in relation to smart charging solutions and EV infrastructure planning and operational processes and elaborate a quick guide for use by countries wishing to make progress in this field.
- (i) With regard to item (h) above: further explore the concept of location efficiency and accessibility as these play a central role in optimising infrastructure planning and reducing the mobility needs, thus also linking buildings, industry, transport, and infrastructure through land use.⁴
- (j) Prepare an annual report on its achievements and progress, including a list of recommendations to Working Parties/ Groups of Experts under ECE ITC and ECE CSE auspices.

B. Methods of work

5. The informal task force will be established and function in accordance with the ECE Guidelines for teams of specialists approved by the Executive Committee of ECE on 31 March 2010 (ECE/EX/2/Rev.1). At its first meeting, the informal task force will select a Chair and Vice-Chair and adopt a work plan defining its specific activities, including a time schedule for each activity.
6. The informal task force is expected to meet at least once every six months. The meetings should be held in online or hybrid format. They can be held in a hybrid format outside of Geneva when hosted by countries or partner organizations and subject to availability of funding for travel.
7. The Chair of the informal task force should report on the ongoing work at the annual session of the Working Party on Transport Trends and Economics (WP.5), while the final report should be submitted to the session scheduled for September 2026.
8. The meetings will be held, and all documents will be produced in English only.

⁴ ECE/ENERGY/GE.6/2023/2, para. 28 (e).

9. Participation in the informal task force is open to all concerned United Nations member countries, regional economic integration organizations (REIOs) and experts. Participation by Chairs/ Vice-Chairs and national delegates participating in existing working parties and groups of experts under purview of ECE ITC and ECE CSE is strongly encouraged. Interested intergovernmental and non-governmental organizations, as well as relevant scientific and private sector associations are invited to participate and provide expert advice in compliance with United Nations rules and practices.

C. Secretariat

10. ECE, with a lead from the Sustainable Transport Division, will provide secretariat services to the informal task force and shall ensure close cooperation with all stakeholders, including the secretariats to the United Nations Framework Convention on Climate Change (UNFCCC), the regional commissions of the United Nations, and other relevant intergovernmental and non-governmental organizations and private sector associations.

D. Guidance by the Committee

11. The Committee is invited to positively consider the proposed draft Terms of Reference and provide guidance on any additional tasks that it may wish to see included enabling the WP.5 Chair to start, in the first half of 2024, the work of this informal task force.
