Charging transport decarbonisation

A message from the International Transport Forum 2023 Summit to the 2023 Clean Energy Ministerial to Partner in Accelerating Transport Decarbonisation

From: Supporting Transport Initiatives, below

To: the Energy Domain

The transition to decarbonise transport has begun. Benefits are widespread and aligning transport's decarbonisation pathway with commitments made in the Paris agreement is vital. Transport Initiatives commend the CEM for already taking bold leadership in this space. As the transition accelerates, the timely realization of charging and refueling infrastructure is paramount. We recognise there is no route to a decarbonised transport sector without strong continued collaboration on the key areas as below. We hope to build on the results that proactive collaboration between transport and energy Ministries are already delivering and call on all administrations and initiatives the world over to further the combined transport and energy agenda by acting to accelerate the transition to decarbonised transportation. As a reflection of the discussions taking place at the ITF Summit in Leipzig, we thus send you this message for your consideration at CEM in India this July. Our key message is: we must, jointly, act now and at speed.

Zero Emission trucks are here

Emissions from road transport were once considered hard to abate. The reality is different now. Zero Emission (ZE) truck technology is ready, vehicles are on the road now, and will be cost-competitive before the end of this decade. The industry will gain great speed as TCO parity is met, with a corresponding pace in uptake of vehicles.

An accelerated uptake of ZE medium and heavy-duty vehicles is pivotal to bring the emissions of freight transport in step with the Paris Agreement, deliver cost and health benefits, and strengthen energy security. Policy ambitions for a swift transition are strongly voiced by manufacturers, fleet owners and national governments, reflected in the growing number of signatories of the Global Memorandum of Understanding on Zero-Emission Medium and Heavy-duty Vehicles: with 27 country signatories and over 80 endorsing sub-national governments and companies, jointly setting the ambition of 30% sales of new zero-emission trucks and buses in 2030 and 100% in 2040. Current commercial series production of zero-emission truck models are happening today. However, immediate actions are needed to accelerate the transition to mitigate greenhouse gases while delivering a host of air quality and economic benefits.

ZE trucks: supporting a resilient grid

Accelerating the roll-out of charging and refueling infrastructure is foundational for a swift global transition to zero-emission trucks. While not without challenges it provides significant opportunities for the economy, jobs and businesses. Aligning the charging times with available capacity/excess electricity on the grid, can help integrate variations in renewable energy generation and support grid stabilization. This integration can be accomplished through rate structures that encourage fleet owners to charge when electricity is plentiful and cheap, if technologies are installed allowing truck

batteries to be used as back-up power to supply the grid during times of high demand. Incorporation of smart charging and vehicle-to-grid solutions should be maximized.

Acting now, together, with speed

Both for light duty and heavy duty zero emission vehicles, the simple truth is that without an adequate charging infrastructure and the grid connection to serve that load, nothing moves. With long lead times related to the roll-out of such infrastructure, it is crucial to act now and with speed. Immediate planning, delivered through cooperation among all relevant stakeholders and Ministries, is essential.

While it is encouraging to see so many investments across the globe, these investments, and the conditions to support them, must be rapidly scaled and where possible developed in co-creation, including with focus in emerging economies. First and foremost, grid-connectivity must be ensured. One of the most urgent challenges in developing enhanced ZE infrastructure is getting the appropriate amount of grid capacity on site. Although ZE trucks can improve grid resilience, realization of adequate grid connections and additional sub-stations may still be needed and is routinely a long process - thus policy fixes are needed to accommodate the clean energy transition. Moreover, fast data sharing on grid capacity and digital solutions are essential to support growing demands, especially in areas lacking connectivity.

Looking at the expected uptake of electric trucks 5 years from now, realization of the capacity needed requires immediate attention and action.

Key areas of collaboration

Action is needed now to move the transition at the scale and speed needed. Deep partnership between transport and energy ministers and initiatives is critical to propel a future-proofed energy grid for a just, sustainable and grid-stable future. At a ministerial level, and as is already the best-practice of first-mover administrations, an integrated approach that brings together the perspectives of transport, electricity, and climate officials stands as the most promising model for integrated planning, widespread stakeholder support and rapid successes.

Key areas for cross-Government cooperation to facilitate road freight decarbonisation:

- Grid planning: For ZE trucks to move, the grid must support a swift transition to a decarbonised transport system alongside wider decarbonisation of the economy. This requires immediate attention to optimized usage of grid capacity and early engagement of utilities, who need to incorporate transportation electrification into grid planning and where necessary be allowed to build capacity ahead of demand. Fast data sharing between utilities, governments, fleet owners and other relevant organizations is crucial. A joint understanding of what is needed will speed up implementation and provide the necessary clarity for investments.
- Infrastructure buildout: Effective ZE vehicle rollout depends on enabling policies and coordinated infrastructure deployment, specifically concerning electricity grid design and charging infrastructure. Close collaboration between energy and transportation policy is needed to ensure that the infrastructure is deployed in a timely and effective manner while maintaining an efficient use of resources and continuing to ensure grid stability.
- Acceleration of policies: Clear policies are crucial to provide certainty and security for rapid
 market growth and shorten the long lead time in implementation. Standardizing, simplifying
 and where possible shortening procedures, establishing targets and providing incentives to

support comprehensive planning in the build out of infrastructure will reduce costs and increase predictability and replicability.

We are committed to deepening our collaboration on the above topics, within relevant constituencies and in relevant fora. We look forward to COP28 as an opportunity to nurturing continued cooperation that will accelerate this transition and ensure we capture its widespread benefit. We will work in close cooperation with relevant existing initiatives, including the Breakthrough Agenda, to achieve this ambition.

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