

IEF Thought Leaders' Roundtable

Transport Sector Sustainability: Outlooks on Energy Demand and Sustainable Fuels Thursday 20 February 2025, **IEF Headquarters Diplomatic Quarter, Riyadh**

Enhanced dialogue on transport sector sustainability is needed to ensure progress on sustainable development and climate goals, while meeting growing demand for transportation and mobility. Deepening understanding of transportation energy demand outlooks and broadening insight into decarbonization beyond electrification alone, is needed to enhance transport sector sustainability.

IEF analysis and data findings show that 100 percent vehicle electrification targets will require unprecedented copper production rates for battery manufacture and grid upgrades. However, increasing production of copper – and other critical mineral resources - will be insufficient to achieve transport sector electrification targets set by leading economies, where EV demand has slowed, and both grids and automotive industries are under growing pressure to develop economically viable business models.

Projections anticipate that EVs will account for 23 percent of global cars in use by 2035. This growth will be concentrated in a limited number of countries. Furthermore, this growth will not take place in countries experiencing the most significant economic and population growth – and as such – the greatest increases in demand for transportation and mobility. In these emerging markets EV penetration will range from below one percent in 2020 to less than 8 percent in 2035.

Powerful demographic trends supported by population growth, urbanization, trade and tourism will spur global transportation and mobility energy demand over the coming decades. Much will depend on how these trends play out as indicated by the variation in transportation energy demand forecasts between the IEA, EIA, and OPEC that vary by nearly 20 mboe/d by 2050. Regardless, sustainable fuels, including bio-based and synthetic fuels enabled by carbon management and market offset solutions, will need to scale at a faster pace to keep up with these global trends. Increasing production of these sustainable fuels can also reinforce social inclusion and competitiveness for resilient green growth.

This Thought Leaders' Roundtable is being organized to foster a productive discussion regarding how countries and industries can prepare for a future that features a range of fuel modalities.

Key Questions

- 1. How will the transport sector meet growing energy demand sustainably?
- 2. What should governments do to reduce resource and supply chain market uncertainty to sustainably meet rising transportation and mobility energy demand?
- 3. How does Sustainable Development Goal 7: to ensure access to affordable, reliable, sustainable and modern energy for all, cover access to clean transportation and mobility.
- 4. Can the adoption of a wider spectrum of clean and efficient technologies make transport and mobility demand more sustainable in developing economies?
- 5. How can IEF producer-consumers collaborate to make transportation and mobility demand trends and solutions more transparent and sustainable e.g. in support the G20 Global Biofuel Alliance, and Circular Carbon Economy?



09:00 to 09:05 Welcome and scene setting Jassim Alshirawi, Secretary General, International Energy Forum (IEF) 09:05 to 11:15 Session 1: Transportation and Mobility Energy Demand Trends and Sustainability Moderator: Sara Vakhshouri, Founder and President, SVB Energy International, SVB Green Access Overview session: Outlooks on demand, policy targets clean tech options and risks Francesco La Camera, Director General, IRENA George Thomas, Under Secretary, Ministry of Petroleum and Natural Gas, India NJ Ayuk, Executive Chairman, African Energy Chamber Zongyi Xin, VP, and President of Eurasia Regional Headquarters China Energy International Group Musaab Al-Mulla, VP, Energy & Economic Insights, Aramco David Cox, COO, Molecule Group Ayed Al Qahtani, Director, Research Division, OPEC Adam C. Simon, Arthur F. Thurnau Professor of Mineral Resources, Earth & Environmental Sciences, University of Michigan Roundtable discussion 11:15 to 11:30 Break 11:30 to 13:00 Session 2: Scaling Sustainable Fuels through Clean and Efficient Technologies Moderator: Jamie Webster, Partner and Associate Director, Center for Energy Impact Boston **Consulting Group** Policy to practice: Clean Fuel Transport Technologies and Business Models Koji Yamamoto, Senior Vice President, Energy Business Unit JOGMEC Lee Beck, Senior Vice President for Global Policy and Commercial Strategy, HIF Global

Mark Freier, Director SIA Energy Net-Zero Advisory Tetsuya Nomoto, Head of Research, Energy and Circular Society Center for Policy and the Economy, Mitsubishi Research Institute Yoshikazu Kobayashi, Senior Research Director, IEEJ

Mustafa Adel Amer, Senior Energy Technology Analyst, GECF

13:00 to 14:00 Networking Lunch

14:00 to 15:30 Session 3: Strengthening Policy Initiatives and Public-Private Collaboration

Moderator: Cornelia Meyer, CEO Meyer Resources

Opportunities and Next Steps

Kevin Jianjun Tu, Managing Director, Agora Energy Transition China Michiel Nivard, Engagement and Solution Leader, McKinsey & Company Abla Dasser, Development Director, JERA MEA Neil Atkinson, Former IEA Head Oil Market Division, Independent Energy Expert Kate Dourian, Contributing Editor MEES, Board Member Energy Institute, Middle East Branch

Roundtable discussion

15:30 to 15:45 Concluding Remarks

Jassim Alshirawi, Secretary General, International Energy Forum (IEF)