Energy Transitions Commission

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Commissioners Meeting
Summary note
Thursday 20th March, 2025

Thursday 20th March, 11.00 am – 3.00 pm UKT

Time (UK)	Agenda
11.00 – 11.10	**Welcome**
11.10 – 12.20	**State of the climate debate in early 2025** • Emerging global challenges in early 2025 and the path forward to COP30 in Brazil • Growing disinformation in the climate space and a proposal for ETC's communications strategy to adapt and counter this
12.20 – 12.55	**Navigating Low-Carbon Technology Trade – Local vs. Global Supply Chains,** and **Key Priorities in the ETC's 2025 Regional Program**
12.55 – 13.15	**Break**
13.15 – 14.20	**ETC 2025 workplan: emerging key insights** • Key insights from the latest ETC report on Buildings decarbonisation • Potential for energy productivity improvement: integrated view of transport and industry • Transforming power systems: summary, key enablers and market design
14.40 – 15.00	**Low-carbon Molecules: emerging conclusions** • The role of electrification, H2 and its derivatives in reducing carbon in the energy sector • Future demand of carbon inputs in energy and materials sectors • Potential to recycle and reuse carbon molecules
14.55 – 15.00	**Conclusion and wrap-up**

Key discussion takeaways

The ETC would like to thank its Commissioners for their active participation at the meeting and the rich discussion. This note captures the main takeaways from our discussions. All materials from the meeting are available for download on ETC Member portal here. Please note that these are internal documents not to be shared beyond your organisation.

1. State of the climate debate in early 2025

2024 and early 2025 have seen pushback in political and corporate support for the transition; COP29 lacked significant progress, and early this year the US pulled out of the Paris Agreement for the second time. During this session, the ETC team summarised recent developments since COP29, and presented an overview of the impact of mis- and

disinformation in the climate debate as a driver of a perceived weakening of support for climate action. However, despite this, the evidence shows that public support in the need to fight climate change is still high.

This year, the ETC is looking to extend impact beyond our traditional audiences of policymakers and corporates, to influence broader audiences and increase conviction on of the need to accelerate the energy transition. The team proposed an approach to reach broader audiences in 2025 and asked for feedback on five areas that we could target: Denialism, Salience of the transition, Education, Economic impacts, and Progress.

Commissioners agreed that the ETC could and should do more to counter negative messaging, but cautioned against interventions which may affect the ETC's position as a trusted medium. Commissioners agreed that informing partnerships with positive data, case studies and recommendations is an impactful approach, and that we should continue to do more visual short-form content landing the key messages.

There was constructive debate about being realistic on timelines for energy price reductions, whilst maintaining broader political support for the transition. It was raised that in the "Economics of the Transition" piece, it is important to also cover the counterfactual of the costs of inaction.

The ETC welcomes further input from members to help with these efforts, please get in touch with Shane O'Connor if you would like to arrange a further discussion.

(Session material available here)

2. Navigating Low-Carbon Technology Trade – Local vs. Global Supply Chains, and Key Priorities in the ETC's 2025 Regional Program

This year's ETC regional programmes will continue to work across all 11 ETC regions, but have a heavy focus on net zero pathways in Brazil (running up to COP30), power system decarbonisation in Indonesia, the potential for agrivoltaics (APV) in India and incorporating large shares of renewables into Canada's power grid. The ETC will work with regional partners in each geography (Systemiq Brazil, IESR, TERI, and the Transition Accelerator) to ensure that the work is driven by local expertise and insights.

Taking a view across all the different regions, the ETC will also be producing a briefing note on the trade, supply chains, and nearshoring opportunities related to low-carbon technologies. The ETC secretariat presented principles for what to do about supply chain nearshoring. The ETC will aim to publish these in a briefing note at the end of Q2, but will not be seeking member endorsement for this piece.

The discussion started by focusing on the different types of security risk, with all in agreement that energy security risks associated with clean technology imports are far smaller than those of fossil fuels (while fossil fuels requires a continuous supply to maintain energy flow, once installed renewable assets generate power throughout their lifespan). It was recommended that economic risks should be considered, as diversified supply chains also protect against global market fluctuations.

ETC Commissioners also discussed the importance of the CBAM in levelling the playing field between green and grey production, but expressed concerns around the effectiveness and

design of the EU's current CBAM. Ultimately it was agreed that while it may be technically possible to achieve Net Zero with today's technologies, it could be the geopolitics that keep us from doing so and the ETC should find a way to navigate these.

(Session material available here)

3. ETC 2025 workplan: emerging key insights

The session opened with highlights from the recent ETC report *Achieving Zero-Carbon Buildings: Electric, Efficient and Flexible*, focusing on the shift away from fossil-based heating, improved access to clean cooking and cooling, and the role of efficient appliances and electrification. The discussion focused on the possibility of Buildings taking on more electricity with minimal grid strain, with appliance upgrades and system improvements prioritised over insulation.

This was followed by a presentation and discussion on economy-wide energy productivity potential which emphasised the need for clearer framing and metrics. Efficiency was presented not as an end goal, but a way to cut emissions and costs, especially through electrification which lowers final energy use despite higher electricity demand. ETC Commissioners agreed on shifting focus from primary to useful energy, and stressed the importance of energy services that deliver more with less. Recent slowdowns in global efficiency gains were also noted, with possible links to trends in emerging economies. While material efficiency and behavioural shifts offer opportunities, strong government intervention, as seen in India's LED rollout and the UK's gas conversion, was highlighted as key to accelerating progress.

In the final segment of the session, the ETC team provided an overview of the emerging insights from the upcoming ETC report on the Power Systems Transformation. This included key takeaways building on ETC previous workshops including that a) it is technically and economically feasible to manage system balancing challenges across the world; b)grids will need to massively expand in size to support electrification; c) clean power generation and system balancing costs in 2050 are competitive with today's costs, and d) there are six key enablers required to unlock power systems of the future.

The ETC team also provided some insights into future work that will explore the impact of transition costs on consumers. It was showcased how high electricity prices in the UK are currently increasing consumer bills, making it difficult for consumers to feel the near-term benefits of the green transition. The discussion focused on this aspect, with ETC Commissioners noting the importance of the difference between cost and price, and the importance of policy measures needed to ensure that low costs pass through into final consumer prices. The discussion also raised the issue of LDES costs, notably around the level of assumed cost declines over time, and that as the longest duration segments remain the most expensive, their abatement cost could be taken into account to understand the marginal benefit versus the option of equivalent carbon removal. The issue of electricity prices for consumers will be explored later in the year, with an added focus on locational marginal pricing (LMP) and the benefits, and/or costs this tool can bring to consumers. Please get in touch with Phoebe O'Hara for more information.

(Session material available here)

4. Low-carbon Molecules: emerging conclusions

This session covered key messages to date in the ETC's Carbon Molecules workstream, for the first two of the three phases of work. The first phase focused on the key technology disruptions that could increase the share of electrification, hydrogen and hydrogen derivatives in final energy demand, reducing the reliance on carbon-based fuels. Technologies that were found to have the most potential were high temperature industrial heat, electrowinning and molten-oxide electrolysis (for the electrification of steel/iron-making) and advancements in higher-density battery. The second phase of work focused on the potential to recycle and re-use carbon molecules, providing an overview of key recycling technologies such as chemical recycling, thermo-conversion and carbon utilisation for fuel production.

ETC Commissioners commented on some electrification of iron/steel technologies having issues being cost competitive with other decarbonisation technologies such as hydrogen-based DRI, as well as pointing the ETC secretariat to several useful external resources. Other reflections included the importance of the ETC tracking tipping points across industries and the tracking of efficiency gains, as they were not materialising in practice.

The next phase of work will begin in mid-April and will focus on sourcing of primary carbon, including its costs and sustainability.

(Session material available here)