



Energy
Transitions
Commission

Looking ahead towards 2026: Strategy and impact

ETC Representatives meeting
18 September 2025

The ETC in 2025



Interactive Member Survey

Scan the **QR code** (or **visit [menti.com](https://www.menti.com)** and enter the **code 6169 5916**) to quickly rank the ETC activities you find most valuable. Your feedback will help us tailor our work to better support members.



The ETC in 2025 has over 50 global members



Energy Transitions Commission

Chair
Adair Turner

Knowledge partners



BloombergNEF



Energy



Industry



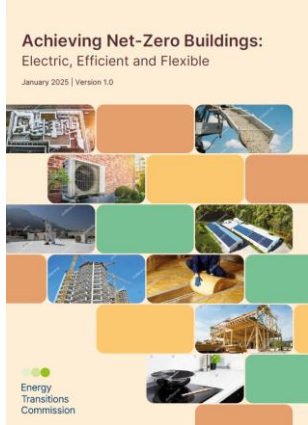
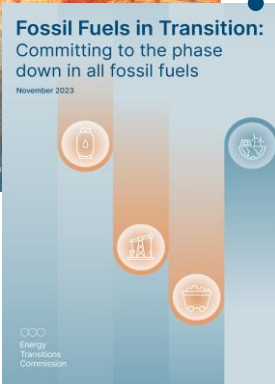
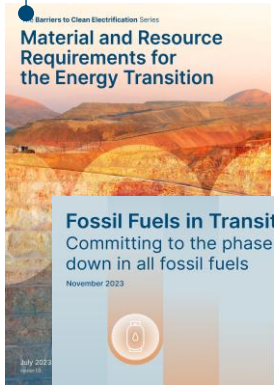
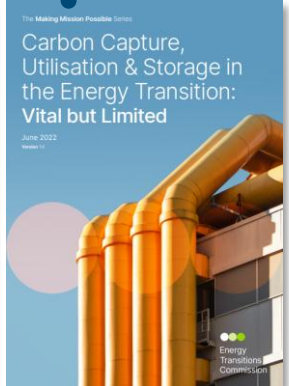
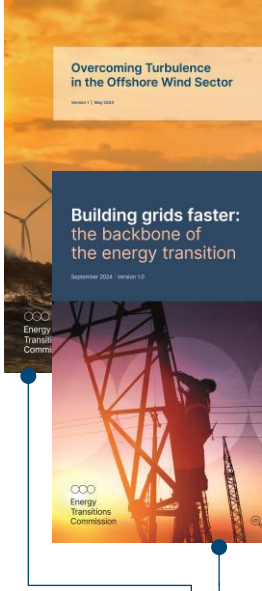
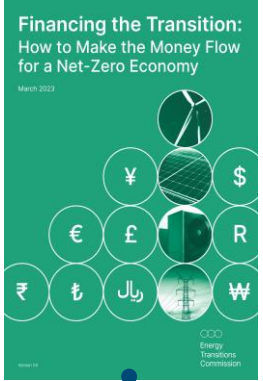
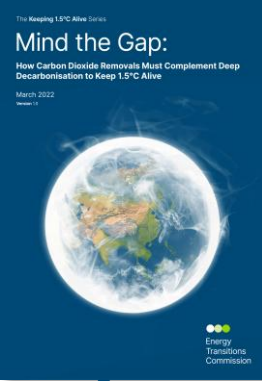
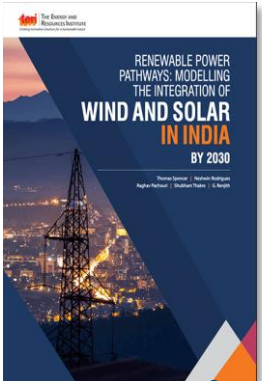
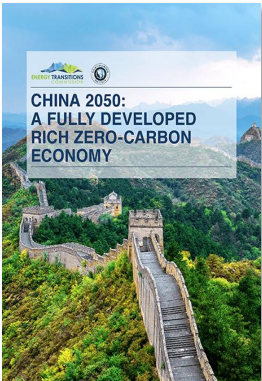
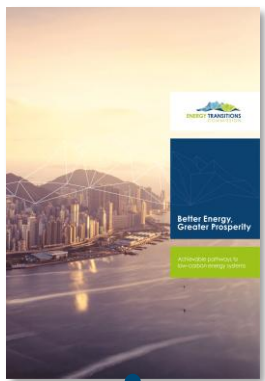
Finance



Civil society



Since 2017 we have built up a library of insights



8 Publications covering Power systems transformation, Energy Productivity, Economic impacts, Low carbon molecules...



The ETC's 2025 work programme continued to build these insights...

Building the clean energy system faster

Power systems transformation

Balancing VRE grids

Building & optimizing grids

Low-carbon baseload: nuclear & geothermal



Energy Productivity

Sector by sector opportunities

Road transport

Harder-to-abate sectors



Role of carbon molecules in a zero-emissions economy



Economics of the transition

Investment, costs & affordability

Trade in low-carbon technologies



Extending our influence in the global climate debate

Disseminating ETC insights & recommendations



Leveraging existing knowledge



Informing the influencers



Delivering action through future COPs

Triple up, double down, phase down



COP 30, 31



Building the ETC regional network

Expand to new



Enhance networks and local priorities



Share insights & best practice



Supporting the ETC members

Meetings



Analysis



Resources



Events



Supporting the MPP and the ITA



MISSION POSSIBLE PARTNERSHIP



INDUSTRIAL TRANSITION ACCELERATOR

...some of which will take us into 2026



Role of 'firm' low-carbon power: nuclear and geothermal

Complement to ETC's major 2025 power systems report, understanding the value of baseload type technologies to global power systems.

Analysis to cover:

- Latest costs and technology trends (incl. small modular, enhanced geothermal)
- Role in a renewable dominated system – including ability to run flexibly, key drivers of 'value'
- Embodied carbon, water usage and waste disposal



Economics of transition

Crucial evidence base in current net zero debate.

Analysis to cover:

- Cost of transition & who will pay – including mitigation and adaptation considerations
- Inflation, distributional impacts, & bills – including critical focus on role of power market design in passing through low costs of wind/solar
- Employment & local value add impacts

In development



AgriPV potential in India

Addressing the issue of land-availability for solar PV generation, leveraging site specific data



Indonesia Power Transition

Power decarbonisation as means to drive economic growth



Brasil Initiative

Reframing conversation about bio vs. electrification pathways under country's climate plans



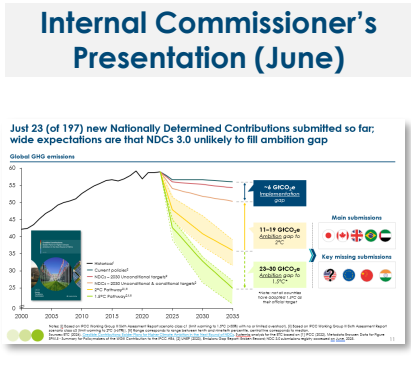
New debates on Net-Zero mean more, not less, ETC type efforts are required. The challenge will be to remain distinctive and focus towards implementation.

Focus shift towards implementation →



Current activities prioritise new analysis, alongside engaging in key global and regional debates

Global state of transition



ETC response to TBI Climate Paradox report

ETC response to Tony Blair Institute Climate Paradox report

The Tony Blair Institute for Global Change has recently published a report, *The Climate Paradox: Why We Need to Reset Action on Climate Change*. This was publicised in a way which suggested that the report was calling for a rejection of net-zero targets as "irrational" in the UK and across the world. Subsequent clarifications have been issued to state that the Institute "supports the government's 2050 net zero targets... and that their approach is the right one."

Unfortunately, and surprisingly, the report is a lost opportunity to make a useful contribution to the global debate on how to achieve the emissions reductions needed to limit global warming to manageable levels.

It is essential to face the reality that the world is not yet on a path of emissions reduction, that it is no longer feasible to limit global warming to 1.5°C, and that redoubled efforts and in some cases new policies will be needed to achieve even the Paris Treaty objective of a "well below 2°C" limit. Clearly, we need to keep reassessing the balance of different technologies which can be used to reduce emissions in a cost-effective way.

But this is a disappointingly poor contribution to the needed debate.

Fossil Fuel Demand Taskforce

WE MEAN BUSINESS COALITION

Energy Transitions Commission

E3G

EMBER

Fossil Fuels in Transition: Committing to the phase-down of all fossil fuels

November 2023

Cross-cutting communications efforts

Amplifying and explaining evidence, extending audience reach

TRT WORLD

Mike Hemsley
Energy Transitions Commission

& INVESTMENT

New/updated analytical areas

- Global trade in the energy transition: Principles for clean energy supply chains & carbon pricing
- The role of carbon credits in accelerated corporate action
- Power Systems Transformation: Delivering Competitive, Resilient Electricity in High-Renewable Systems
- Connecting the World: Long-Distance Transmission as a Key Enabler of a Zero-Carbon Economy
- Carbon in Transition: Innovations for sourcing and managing sustainable carbon
- Energy productivity: Increasing efficiency in an expanded, electrified energy system

Short-duration Flexibility Ladder

High-Priority

A Virtually free solutions

B Low-cost, easy-to-implement solutions

C Moderate-cost solutions

D Moderate-high-cost solutions

E Expensive, low-priority solutions

F Unfeasible

Low-Priority/Unfeasible

Elena Pravettoni - Head of Analysis at Energy Transitions Commission

As renewables rapidly scale up, how can we best optimise power systems and maximise the use of clean electricity?

Demand side flexibility - the ability to shift consumption of electricity at peak times - is essential, helping to lower energy bills and deliver benefits for the grid.

Excited to share a new infographic the Energy Transitions Commission team and I have been developing over the past weeks as part of our ongoing power systems transformation work.

Our Demand Side Flexibility Ladder adapted from Michael Liebreich's Clean Hydrogen

Interventions in key regions

AgriPV

New Energy Power Systems

Institute for Essential Services Reform

Brazil ETI

KEELE WORLD AFFAIRS

Europe's Leading Series of Lecture Meetings on International Politics and Global Issues



ETC into 2026: continuing to evolve



Proposal for evolution: more agile analysis & increased engagement

ETC in 2025 – 15 analytical outputs:

3 major reports (100 page +):
Buildings, power, molecules

4 insights briefings (c. 50 pages):

Nuclear/geothermal, long distance transmission, energy productivity, road transport

5 briefing notes/blogs (5-20 pages):

Trade, carbon credits, power demand growth, demand-side flex, bio

2x regional insights:

India (AgriPV), Indonesia (energy system)



ETC in 2026 ~ 6-11 analytical outputs?

1 major report:
State of the global energy transition

~5 insights briefings (c. 50 pages):
e.g. economics of the transition x3, hydrogen, power

~5 briefing notes/blogs (5-20 pages):
to be agreed

Space for increased regional work and engagement?

CONTINUING TO EVOLVE AND REFINE OUR THREE PILLAR COMMUNICATIONS STRATEGY

Disseminating ETC insights & recommendations



Leveraging existing knowledge



Informing the influencers



Long list of ideas for future work – strong prioritisation needed

In progress for 2026
 Likely priority



State of the global energy transition: annual review of key trends

| | | |
|---|--|---|
| Economics of the transition | “Firm” low-carbon power (nuclear, geothermal) | Hydrogen review: what’s changed since 2021? |
| Employment impacts | Agri PV in India | Opportunities for carbon circularity |
| Geoengineering | Repowering / end of life cleantech | Scaling up clean molecules: the future of refining |
| Resilience of energy systems in a changing climate | Priority uses of renewable energy (by country) | Accelerating carbon capture in India |
| Credible reset of global, country, corporate and financial institutions targets + implications for financing fossil fuels | Power market design for low consumer costs | Scaling up CCU |
| | Renewables vs. LNG vs. coal in Asia | Bioenergy: bridging between theory and implementation |
| | Power demand growth | |

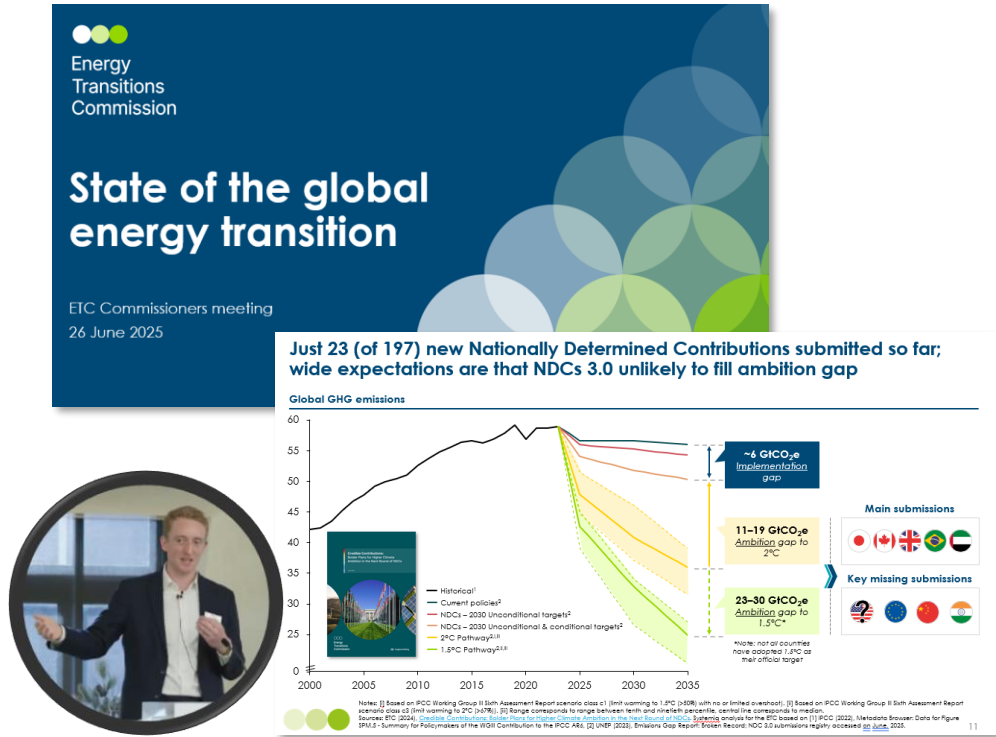
Global sunbelt opportunity – accelerating clean electrification and clean industrialisation



State of the transition – should ETC do more in this space?

Annual slidepack & webinar

Comprehensive campaign



- Using the ETC's existing global & regional connections and initiatives to target policymakers and business in all key regions
- Work with members to present insights in key forums and dialogues

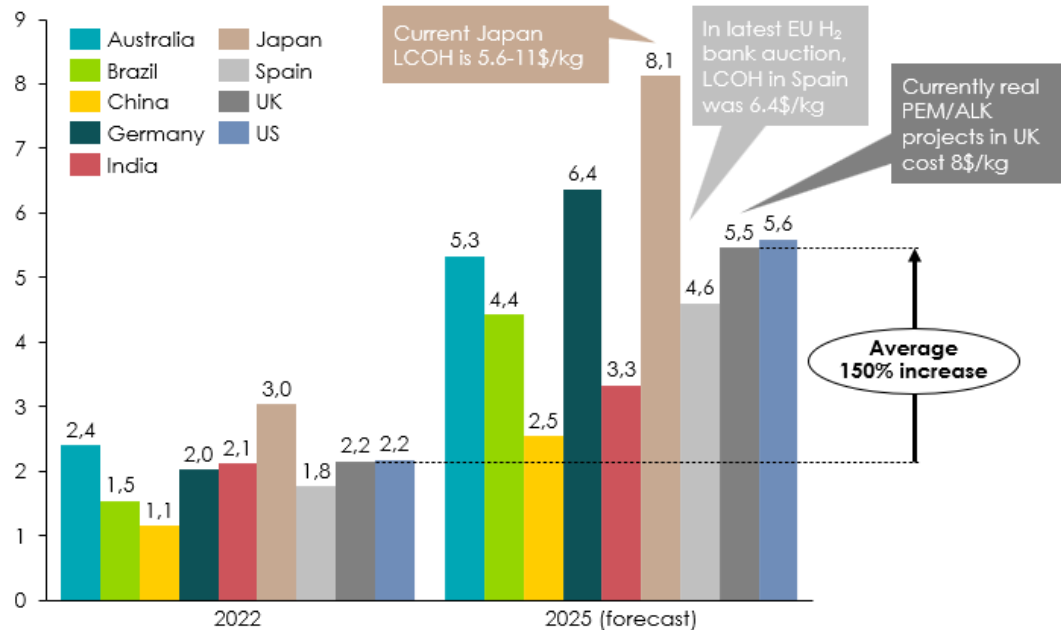
ETC voices + selected guests



Confirming analytical priorities: Hydrogen review

Hydrogen: re-assessing the fundamentals, 4 years since the 2021 report

Levelised cost of Hydrogen from renewable electricity BNEF revised projections for 2030
\$/kg H₂



- Cost of electrolysers not falling as anticipated
- Lack of firm demand lead to questions on long-term role of hydrogen
- High input energy costs

Need to understand reasons behind lack of progress, and reaffirm view on long-term role?

Confirming analytical priorities: Sunbelt opportunities

Accelerated electrification

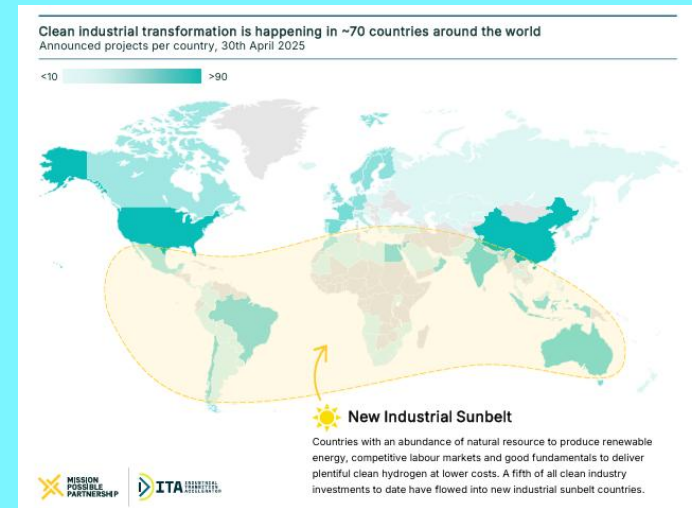
- Falling costs of solar + batteries unlocking opportunity in the 'sunbelt' – emphasised in ETC power systems report
- Rising solar panel imports to key regions (African nations, Pakistan) at higher pace than predicted



Combine insights with ISA, to opportunity to accelerate increased electrification?

Clean industrialisation

- MPP review of heavy industry projects highlights potential for 'New Industrial Sunbelt'
- ETC work shows low cost power potential



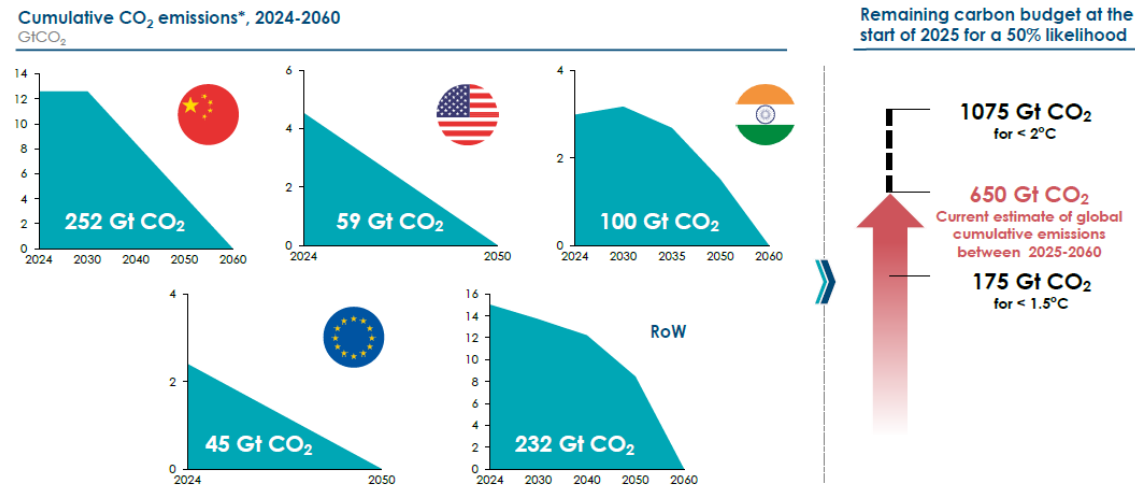
Combine insights with MPP, to understand blueprints for clean industrialisation?



Confirming analytical priorities: Credible reset of global and country targets

Cumulative emissions to 2050 likely to surpass 1.5°C budget...

Even if all countries implement their pledges (from NDCs 2.0), the world is halfway between 1.5-2.0°C



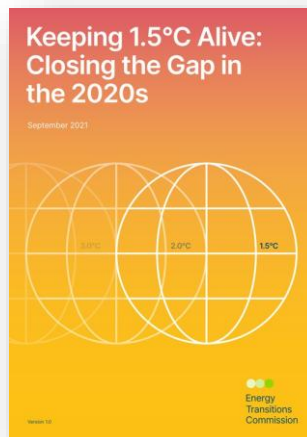
Source: IEA (2025) World Energy Review; IEA (2024) World Energy Outlook; ETC (2023) Fossil Fuel in Transition

...indicating a need for a constructive dialogue on temperature targets

- **1.5°C threshold already reached.** Remaining carbon budget for 1.5°C now < 200 Gt; ~1000 Gt for 2°C
- **Emissions growth slowing** (0.8% in 2024) **but not yet falling** – annual rate still ~40 GtCO₂/year
- **Visions of ~50% emissions reductions put forward** – including by ETC – at COPs 26 and 28 **now not realistic**

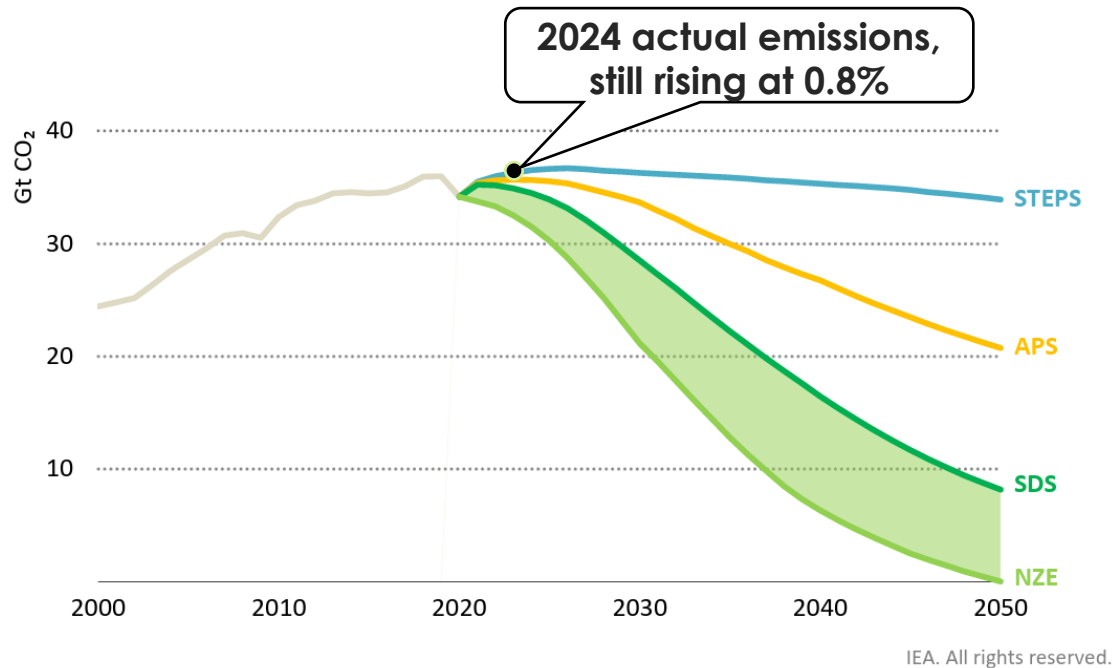
Key questions

**Should global ambition move towards 1.75°C?
Focus on cumulative country-level carbon budgets important?**



Confirming analytical priorities: Credible reset of corporate and financial institutions targets + implications for financing fossil fuels

Emissions pathways from the IEA (2021)...



...underpinned targets and commitments that are challenging to implement

- **GFANZ** (Glasgow Financial Alliance for Net Zero), **NZBA** (Net Zero Banking Alliance) and **NZAMI** (Net Zero Asset Managers Initiative) all losing members
- **Oil and gas companies revising transition targets**
- **Challenges** with implementing strict 1.5°C pathways **now recognised by SBTi, with implications for corporates**
- **IEA now producing new, higher emission, pathway: “Current Policies Scenario”**

Key questions

- **How to credibly ‘reset’ a climate target whilst still maintaining high ambition?**
- **Fossil fuel company ambitions and the role of finance in a fossil phasedown?**

Where should the balance of focus lie across repetition vs new analyses?



Refinement, repackaging & beating the drum

New ideas



State of the global energy transition: annual review of key trends

Economics of the transition

Hydrogen review: what's changed since 2021?

Power market design for low consumer costs



Credible reset of global, country, corporate and financial institutions targets + implications for financing fossil fuels

Employment impacts

Global sunbelt opportunity – accelerating clean electrification and clean industrialisation

“Firm” low-carbon power (nuclear, geothermal)

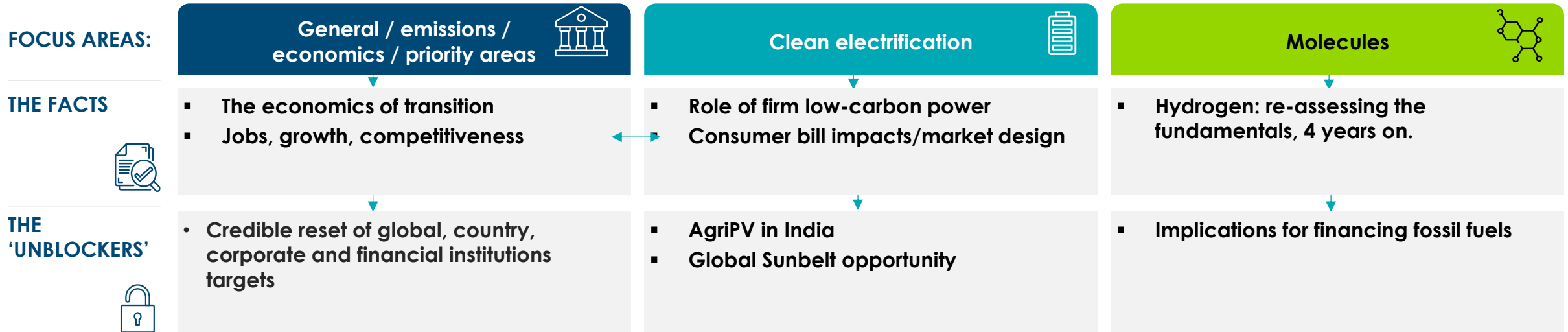
Agri PV in India

 In progress for 2026
 Likely priority



Hypothesis for discussion – more agile analysis & increased engagement

Robust analysis across ETC strengths in 3 core focus areas



THE NARRATIVE



A comprehensive state of the transition campaign
 Using the ETC's existing global & regional connections and initiatives to target policymakers and business in all key regions

Disseminating ETC insights & recommendations



Leveraging existing knowledge



Informing the influencers



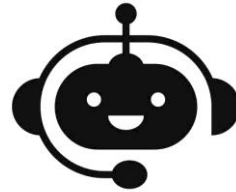
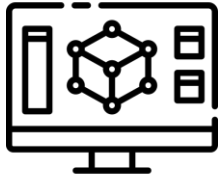
Feeding into our overall communications strategy



The role of AI



Considerations on AI integration into ETC work



Advanced Models:

Extending modelling to produce more advanced analysis using larger datasets

- Develop advanced data tools / analysis with less resource than pre-AI (e.g., wider system modelling, geospatial tools)

Production and publication:

Making the process quicker/smoothen

- ETC style alignment
- Permission checks
- 1st draft generation for comms outputs
 - Output format conversions (e.g. report production)

ETC GPT:

Internal/external chatbot trained on the entire ETC backlog

- Could encourage ETC knowledge sharing
- Key risks are data accuracy and security

Updating previous ETC reports

With new data / insights to improve relevance today

- Updated analyses can be carried out quickly in line with relevant topics (e.g. for a hydrogen update)

New content production

Developing new types of comms assets with less resource

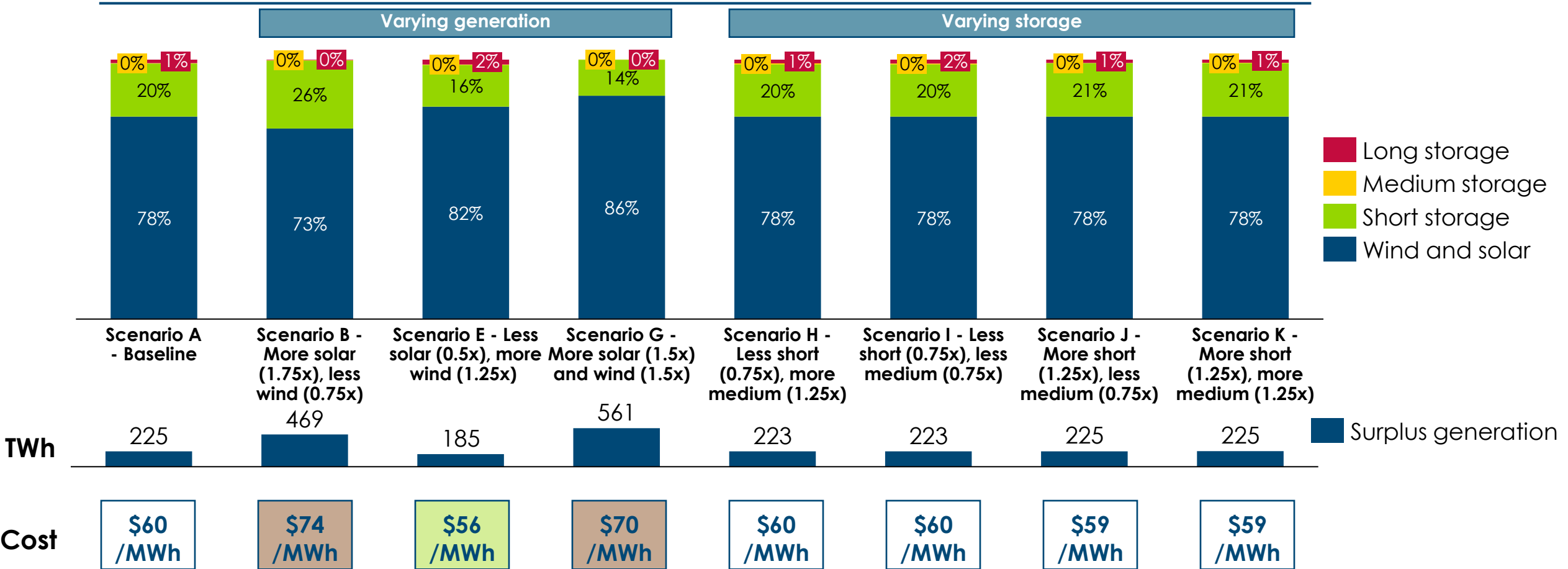
- Podcasts using (e.g. NotebookLM)
- Videos (E.g. OpenAI Sora)
- Website pages / interactive data tools



Analysis Pre-AI method: running ~10 iterations with a range of generation and storage capacities

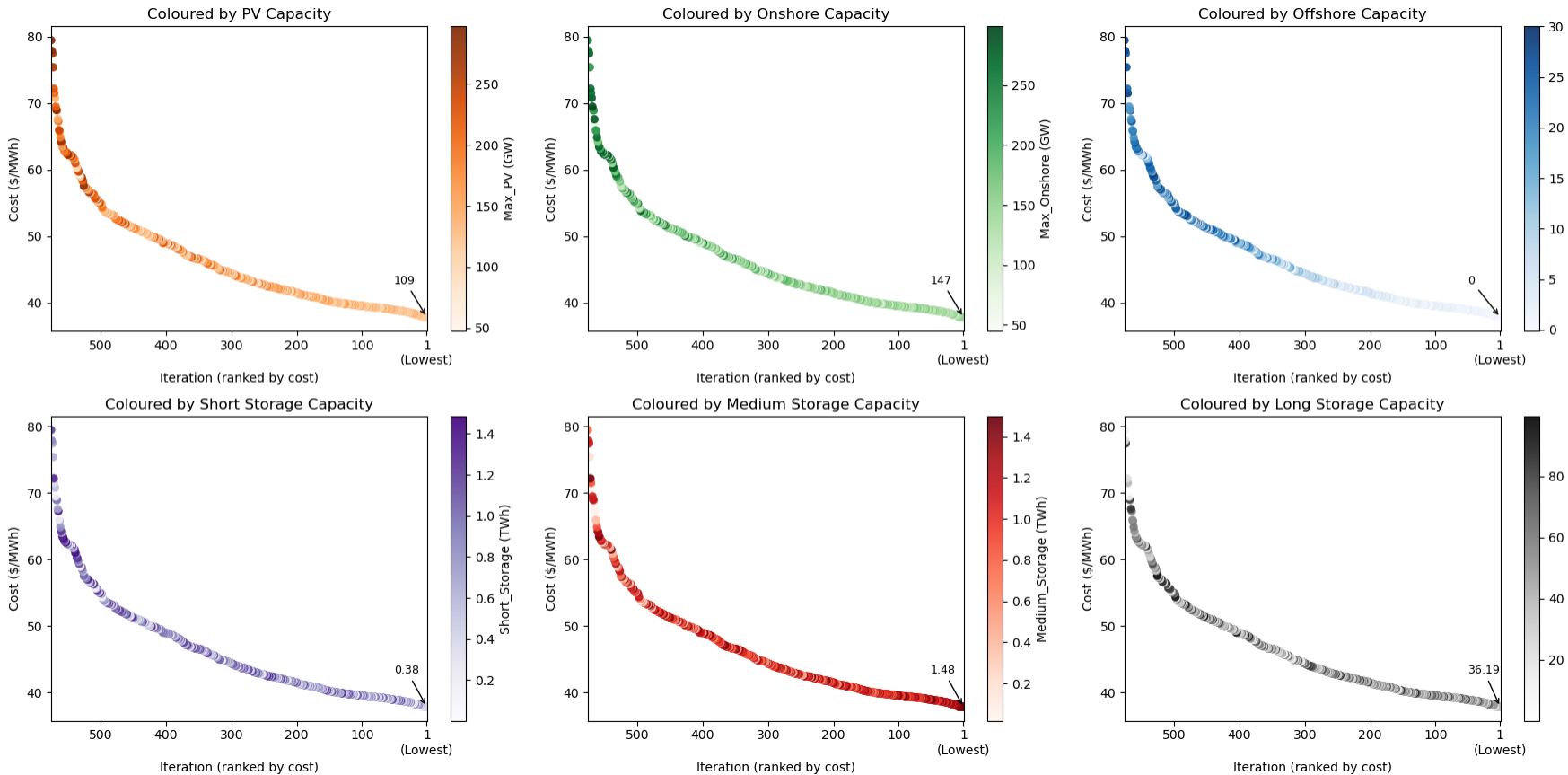
Archetype: Mediterranean (ESP)

Varying generation and storage mix in the minimum weather scenario
% of TWh provided by specified generation/storage



Analysis Post-AI method: running ~600 iterations with a wider range of generation + storage capacity permutations, optimised for lowest system cost

Varying generation and storage mix in the minimum weather scenario, coloured by input variable range
 % of TWh provided by specified generation/storage, lowest-cost case labelled



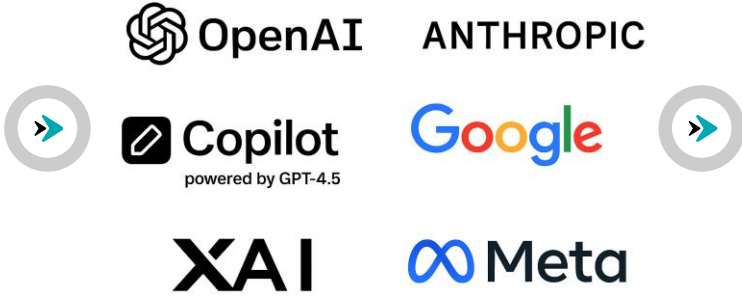
Advanced data analysis can be done with fewer analyst hours

E.g., deterministic modelling can be converted into probabilistic modelling

Use cases could include:

- Supporting the nuclear vs offshore wind debate in the UK/EU
- Mapping out 2025-2050 power system transition pathways
- ...

ETC GPT: opportunity or risk?



What is the ETC's view on bioenergy?

Copilot

The Energy Transitions Commission (ETC) takes a nuanced and cautious view on the role of bioenergy in the energy transition. Here are the key points from their analysis:

Sustainability First

- Not all biomass is "good" biomass: ETC emphasizes that bioresources, while renewable in principle, must meet strict sustainability criteria to be considered viable. These include:
 - Low lifecycle greenhouse gas (GHG) emissions
 - No competition with food production
 - No land-use changes that release carbon (e.g., deforestation)
 - No negative impact on biodiversity ¹

Limited Sustainable Supply

- ETC estimates that only 40–60 EJ/year of biomass could be sustainably available by mid-century.
- Even with optimistic assumptions (e.g., dietary shifts, improved agriculture, seaweed energy, better waste management), supply may not exceed 60 EJ/year.
- Demand is likely to exceed this, risking unsustainable practices like deforestation and soil depletion ¹.

Avoiding Inefficient Uses

- ETC warns against using biomass in sectors where cheaper or more efficient alternatives exist, such as:
 - Road transport
 - Bulk power generation (without carbon capture)
 - Residential heating

Key considerations:

Pros: Quick access to ETC knowledge and reports; Faster drafting of briefs and outputs; Encourages reuse of past analysis

Cons: Investment required; Lack of control over output; Requires regular updates and maintenance; Data security and confidentiality concerns; Overall reach may be limited



High-quality digital media assets, including 15-min podcasts and 30-sec videos, can now be generated using various AI tools

Demonstration of AI-generated content using NotebookLM (podcast) + Sora (video)



| Output | Podcast | Video |
|------------------------|-----------------------------|----------------------|
| Tool | Google NotebookLM | OpenAI Sora |
| Production time | 5-8 min | 8-12 min |
| Output length | ~15 min | 15-30 s |
| What you get | Script + AI voiceover + MP3 | MP4 draft for review |

Possible challenges:

- Inaccuracies / hallucinations
- Rights and licensing issues with AI-generated content
- Some tool availability is limited
- Generic look and tone
- ETC style needs to be maintained



1. **Risk of low-impact outputs compared to typical ETC standards**
2. **Thorough reviewing and iterating process needed**



Source: OpenAI, Sora; Google, NotebookLM

Questions for discussion

- **Does proposed shift in analysis towards increased engagement make sense?**
- **Shall we do a state of transition campaign as an ETC 'flagship'?**
- **Are priorities right?**
- **Can ETC help lead an ambitious climate target reset conversation?**
- **How to ensure ETC engagement is additional and targeting the right audiences?**
- **How should ETC best work with Artificial Intelligence tools?**

