



Energy  
Transitions  
Commission

# Looking ahead towards 2026: Strategy and impact

ETC Representatives meeting  
18 September 2025

# Strategy, priorities and workplan for 2026



# The ETC in 2025 has over 50 global members



## Energy Transitions Commission

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Chair  
Adair Turner

### Knowledge partners

SYSTEMIQ

BloombergNEF



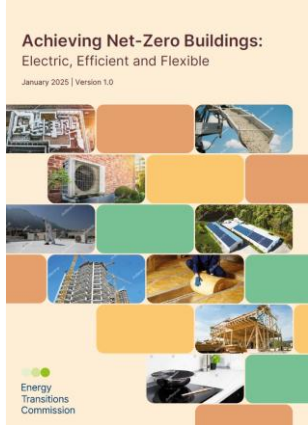
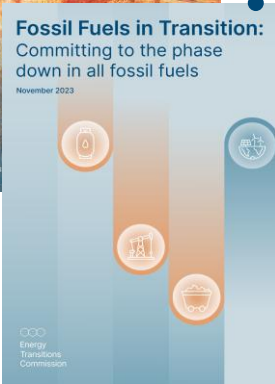
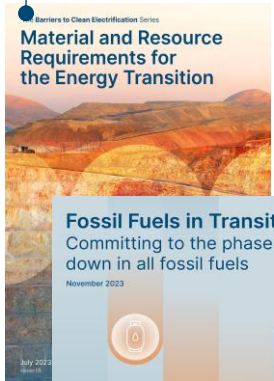
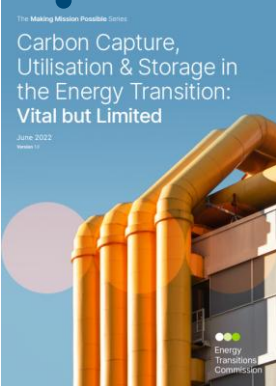
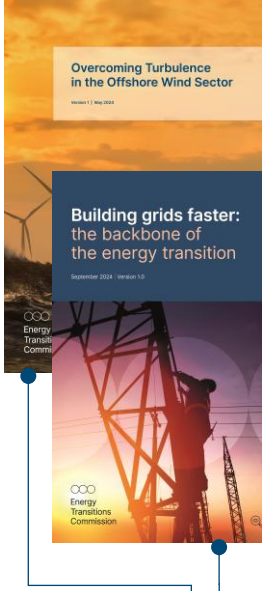
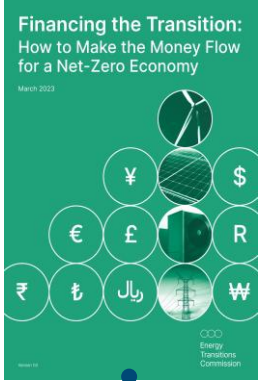
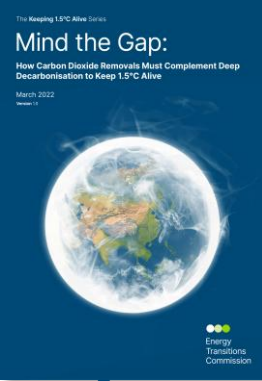
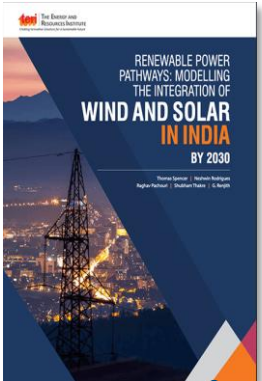
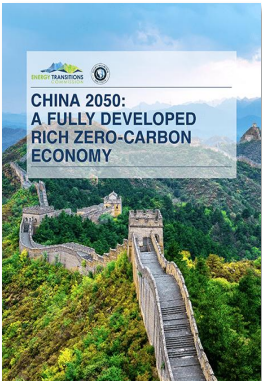
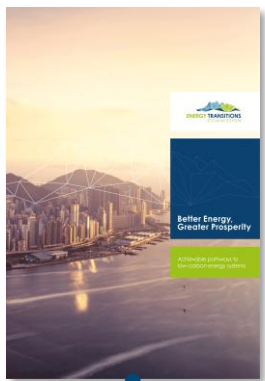
## Energy

## 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

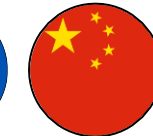


## Building the ETC regional network

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

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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

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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

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



## Indonesia Power Transition

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Power decarbonisation as means to drive economic growth



## Brasil Initiative

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



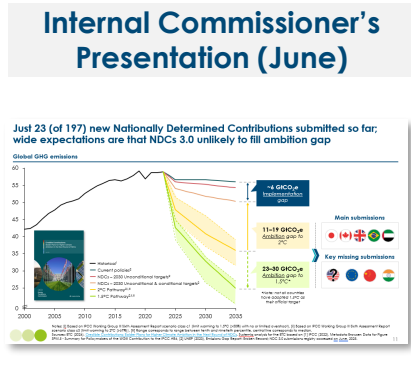
# New debates on Net-Zero mean more, not less, ETC type efforts are required. The challenge will be to remain distinctive and focus towards implementation.

*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

## 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

## Interventions in key regions

**India** AgriPV

**terri**

**Indonesia** New Energy Power Systems

**IESR**  
Institute for Essential Services Reform

**Brazil** ETI

**SYSTEMIQ**

### Cross-cutting communications efforts

*Amplifying and explaining evidence, extending audience reach*

**TRT WORLD**

London, UK  
**Mike Hemsley**  
Energy Transitions Commission

**Elena Pravettoni** - 1st Head of Analysis at Energy Transitions Commission

**Short-duration Flexibility Ladder**

Priority	Technology	Key characteristics
A	Virtually free solutions	Low cost, high capacity, long duration
B	Low-cost, easy-to-deploy solutions	Low cost, high capacity, short duration
C	Moderate-cost solutions	Moderate cost, high capacity, short duration
D	High-cost, low-capacity solutions	High cost, low capacity, short duration
E	Expensive, low-priority solutions	High cost, low capacity, long duration
F	Cost-prohibitive	Very high cost, low capacity, long duration

**KEELE WORLD AFFAIRS**  
Europe's Leading Series of Lecture Meetings on International Politics and Global Issues

**The Infrastructure Podcast**

**TRANSMISSION**  
a modernenergy podcast

**Shaken NOT Burned**



# 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



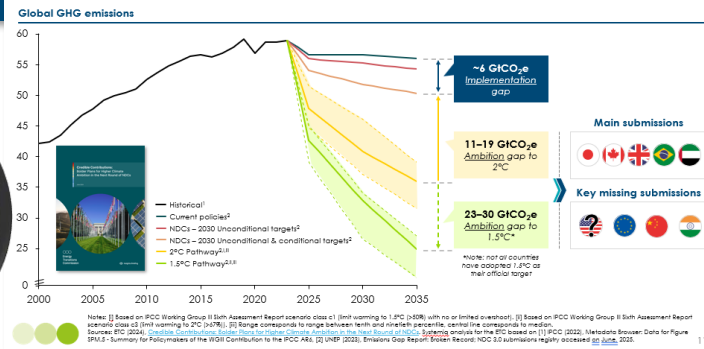
# State of the transition – should ETC do more in this space?

Annual slidepack & webinar

Comprehensive campaign



Just 23 (of 197) new Nationally Determined Contributions submitted so far; wide expectations are that NDCs 3.0 unlikely to fill ambition gap



- 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

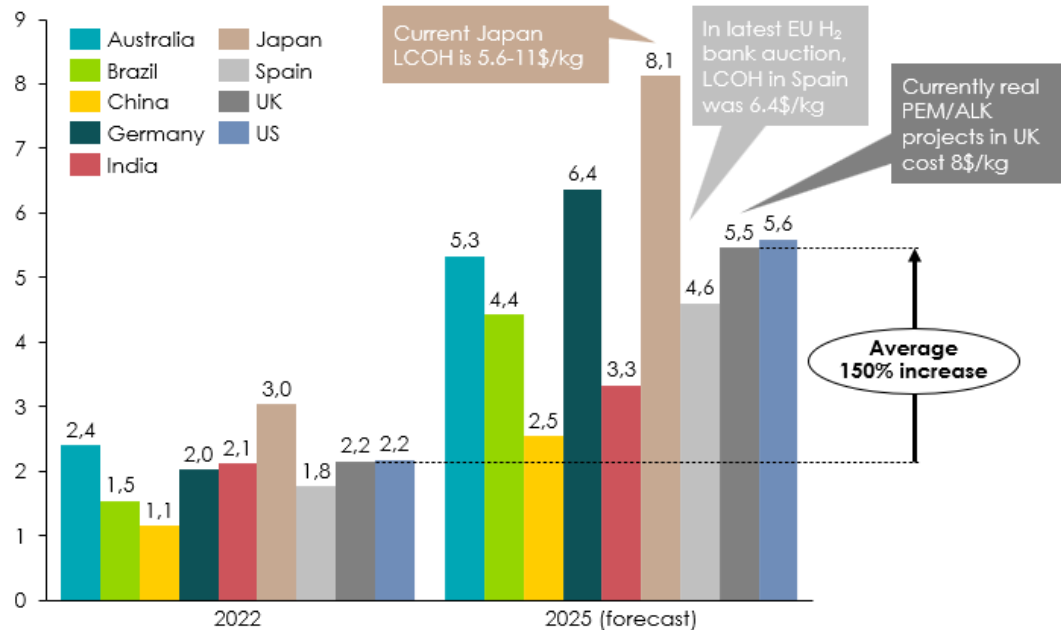
ETC voices + selected guests



# 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 H<sub>2</sub>



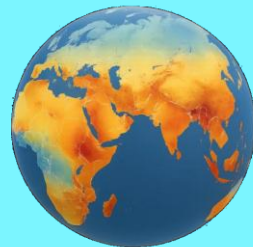
- Cost of electrolyzers not falling as anticipated
- Lack of firm demand lead to questions on long-term role of hydrogen
- High input energy costs

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

# Analytical priorities? Sunbelt opportunities

## Accelerated electrification

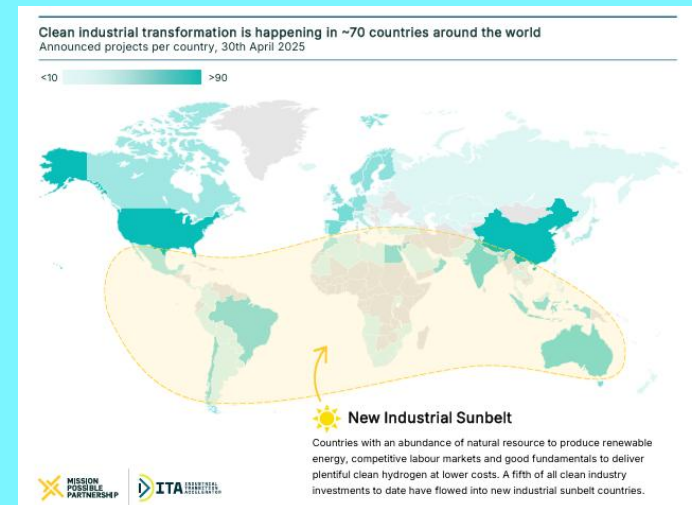
- Falling costs of solar + batteries unlocking opportunity in the 'sunbelt' – emphasised in ETC power systems report
- Rising solar panel imports to key regions (African nations, Pakistan) at higher pace than predicted



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



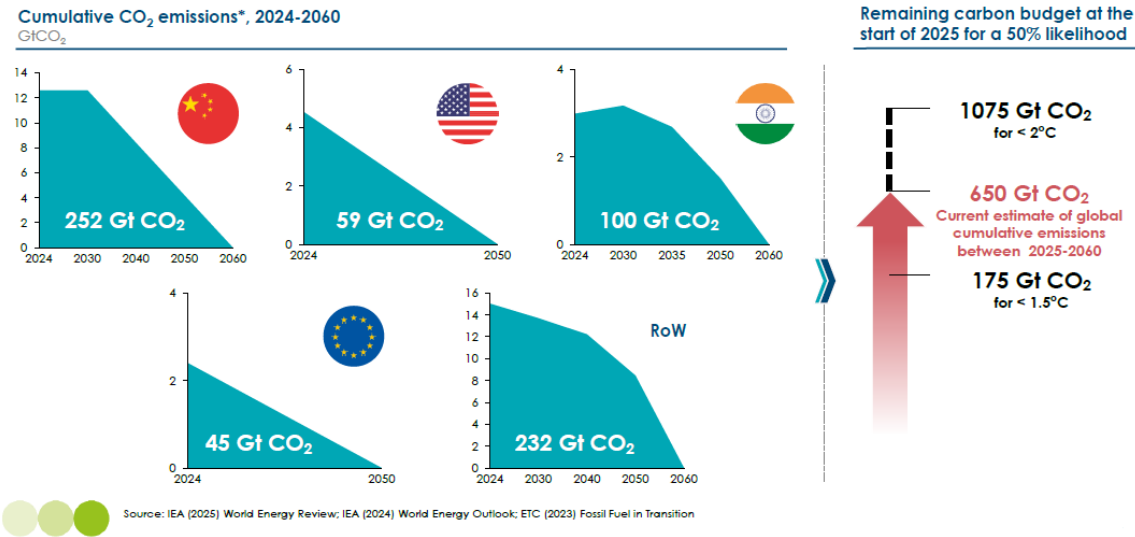
Combine insights with MPP, to understand blueprints for clean industrialisation?



# 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



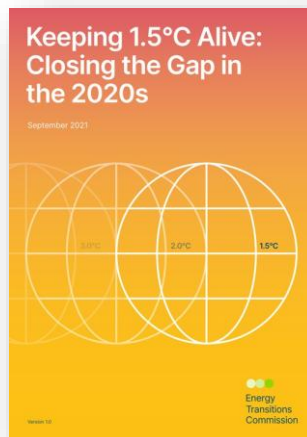
## ...indicating a need for a constructive dialogue on temperature targets

- **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 GtCO<sub>2</sub>/year
- **Visions of ~50% emissions reductions put forward** – including by ETC – at COPs 26 and 28 **now not realistic**

### Key questions

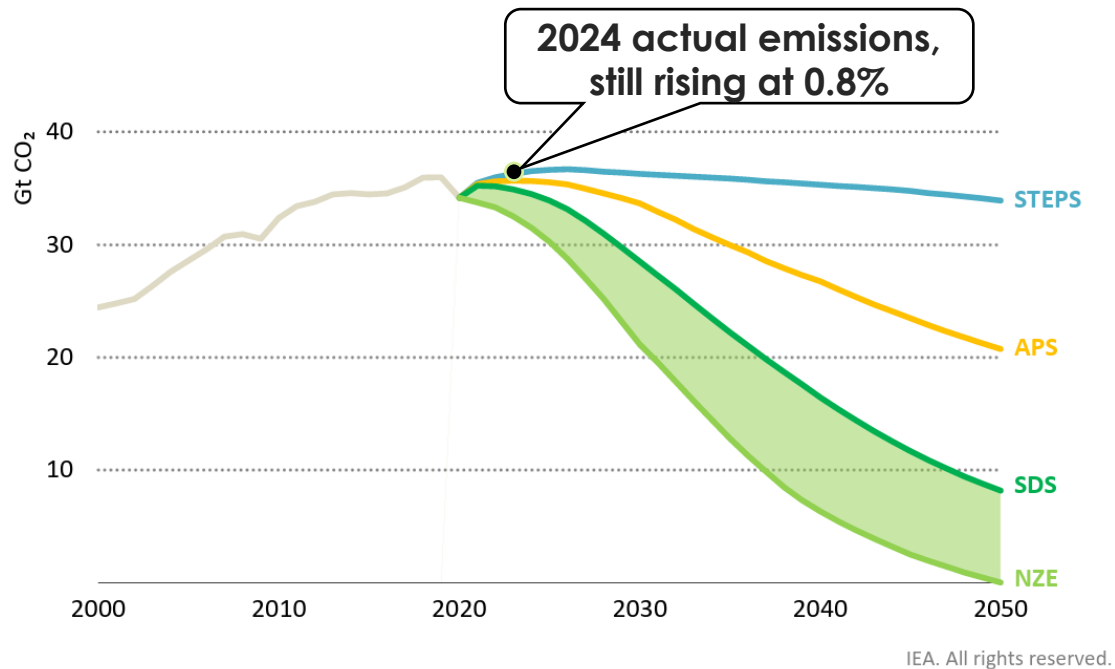
**Should global ambition move towards 1.75°C?  
Focus on cumulative country-level carbon budgets important?**

Systemiq analysis for the ETC.



# 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

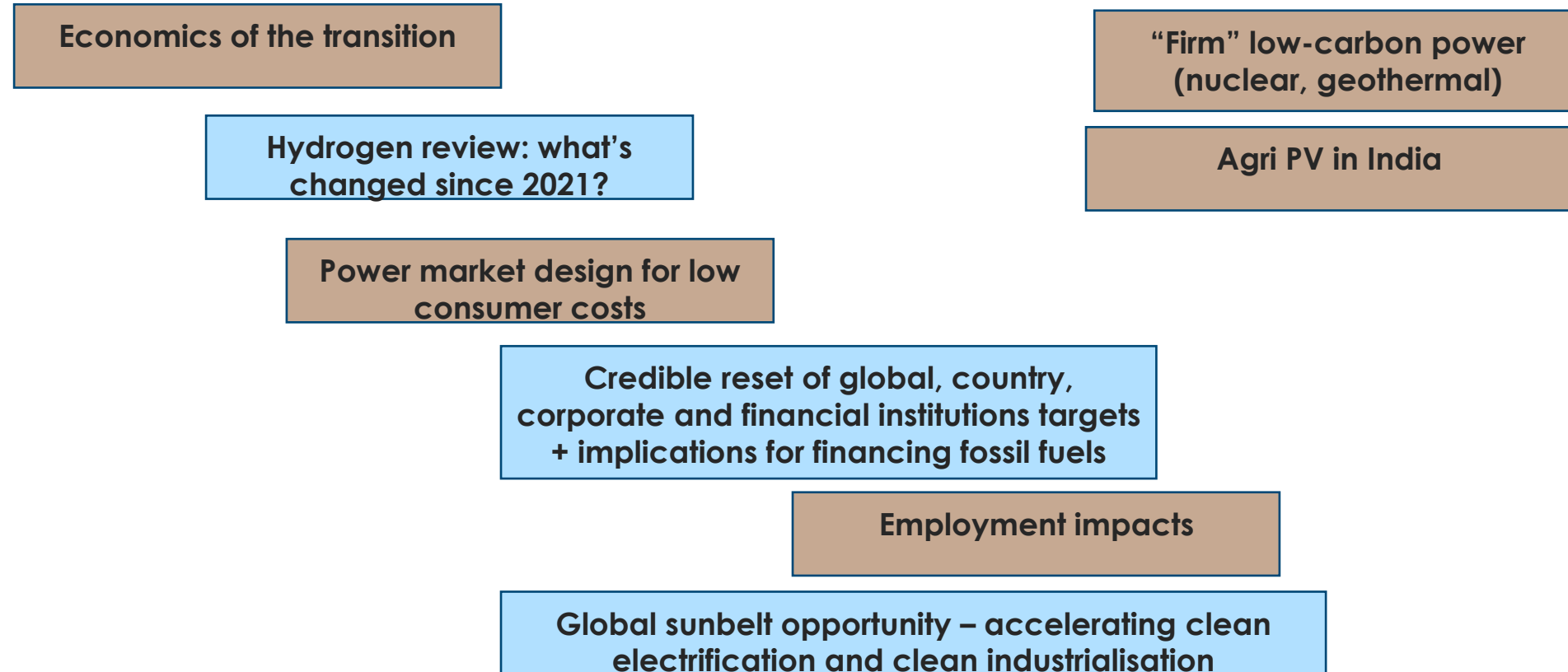
- **How to credibly ‘reset’ a climate target whilst still maintaining high ambition?**
- **Fossil fuel company ambitions and the role of finance in a fossil phasedown?**

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



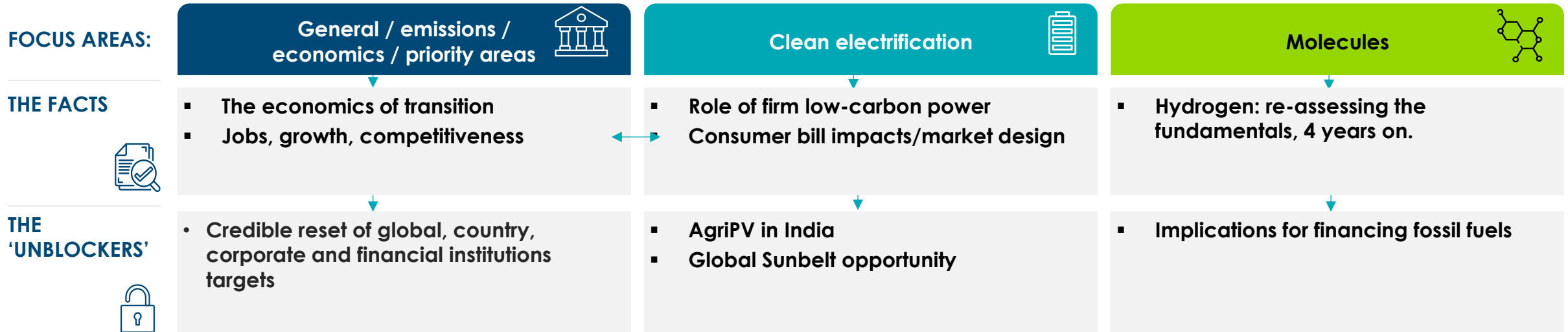
*Refinement, repackaging & beating the drum*

*New ideas*



# 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



# Emergence of Artificial Intelligence presents challenges and opportunities for ETC



Energy  
Transitions  
Commission



Copilot

The ETC is a global energy transition thinktank and member coalition that produces analysis on long term energy transition trends. How will Artificial Intelligence (AI) disrupt our organisation?

Artificial Intelligence (AI) is poised to significantly disrupt and enhance the work of the **Energy Transitions Commission (ETC)** in several strategic and operational dimensions.

- **Enhance ETC's research capabilities** by rapidly processing large datasets, generating predictive models, and synthesizing insights from global literature
- **Transform stakeholder engagement** through personalized insights, interactive tools, and multilingual accessibility that broaden the reach and impact of ETC's work.
- **Enhance secretariat efficiency** in key areas such as publications.
- However, **ETC must navigate key risks** such as algorithmic bias, over-reliance on automation, and data governance to ensure responsible and transparent AI use.

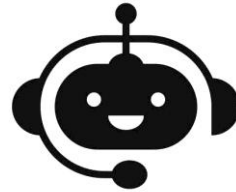
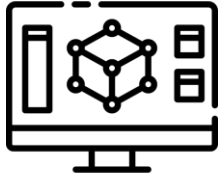
## Questions for ETC:

- How can ETC ensure our evidence-led, of business-backed analysis remains prominent against misinformation emerging from AI?
- What parts of our research pipeline are most data-intensive or repetitive?
- How can we use AI to democratise access to our insights?
- How to manage against possible reputational risk?



Note: this slide was generated using insights from M365 Copilot, but the outputs were further refined by the ETC team.

# How AI is being integrated in 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
- 1<sup>st</sup> 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*

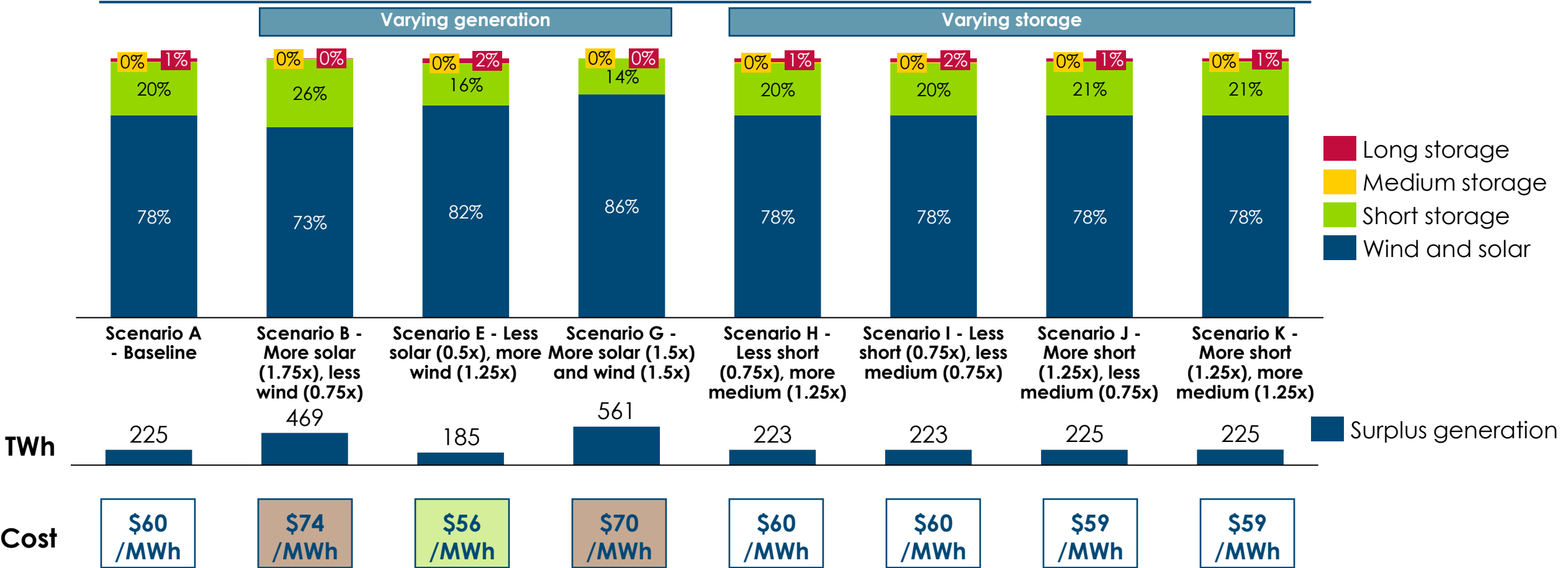
- Podcasts using (e.g. NotebookLM)
- Videos (E.g. OpenAI Sora)
- Website pages / interactive data tools



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

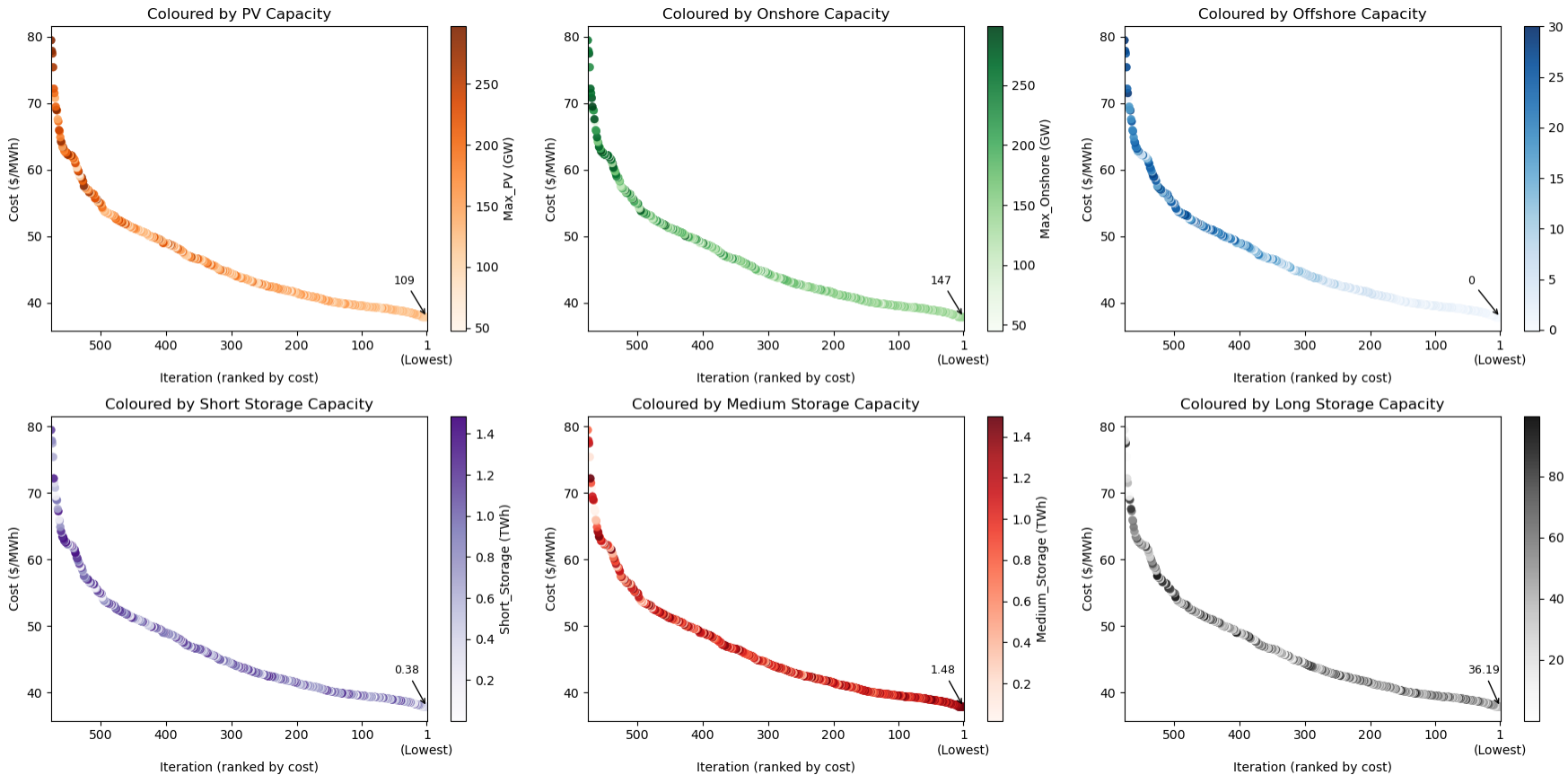
Archetype:  
Mediterranean (ESP)

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



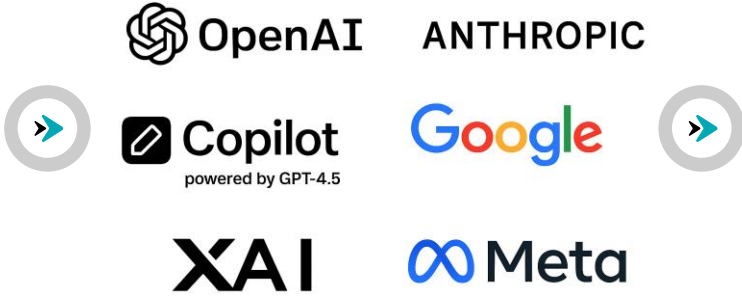
Advanced data analysis can be done with fewer analyst hours

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 <sup>1</sup>
- 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 <sup>1</sup>.
- 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
<b>Tool</b>	Google NotebookLM	OpenAI Sora
<b>Production time</b>	5-8 min	8-12 min
<b>Output length</b>	~15 min	15-30 s
<b>What you get</b>	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?**

