



Energy
Transitions
Commission

***Protecting Paris* – avoiding a disorderly retreat from country and corporate decarbonisation targets**

ETC Asia Chapter Meeting
10 December 2025

Agenda

- **The problem: 1.5°C is now out of reach**

- Protecting Paris: the challenge and ETC role
- Proposed process, engagement and timetable



The Paris conference committed to “well below 2°C limit” with efforts to pursue the ideal of 1.5°C, but in subsequent years the focus on 1.5°C grew

Paris Agreement (2015) Article 2.1(a)



“This Agreement...aims to strengthen the global response to the threat of climate change... including by:

(a) Holding the increase in the global average temperature to **well below 2°C above pre-industrial levels** and to **pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels**, recognizing that this would significantly reduce the risks and impacts of climate change.”

IPCC 1.5°C Special Report (2018)



“Impacts on natural and human systems from global warming of **1.5°C are projected to be lower than at 2°C**. However, they will still be greater than at present.

Differences between 1.5°C and 2°C include increases in the frequency and intensity of extreme weather events, sea level rise, and impacts on ecosystems, human health, and livelihoods.”

COP26 (2021) and COP28 (2023)



“Recognizes that the impacts of climate change will be much lower at the temperature increase of 1.5°C compared with 2°C, and **resolves to pursue efforts to limit the temperature increase to 1.5°C.**”



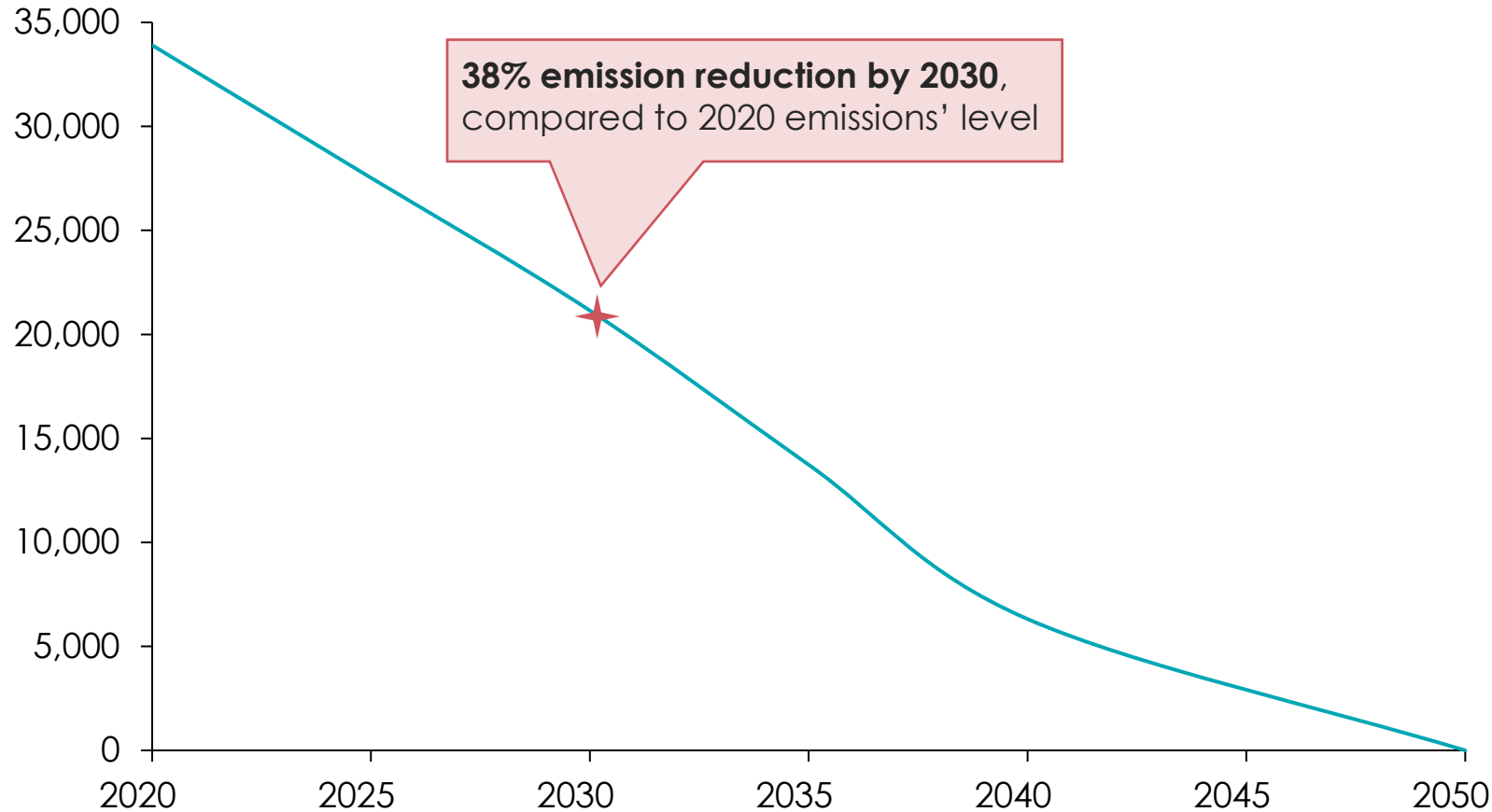
- “emphasizes the need for **urgent action and support to keep the 1.5°C goal within reach...**”
- “encourages Parties to come forward in their next **nationally determined contributions ... aligned with limiting global warming to 1.5°C**”



The IEA's first "Net zero scenario", compatible with a 1.5°C limit, was published in 2021

Total energy system CO₂ emissions
Mt CO₂

— IEA NZ 2021



“The Net Zero Emissions by 2050 Scenario describes a pathway for the global energy sector to achieve net-zero CO₂ emissions by 2050, **consistent with limiting the global temperature rise to 1.5°C with no or limited overshoot.**”

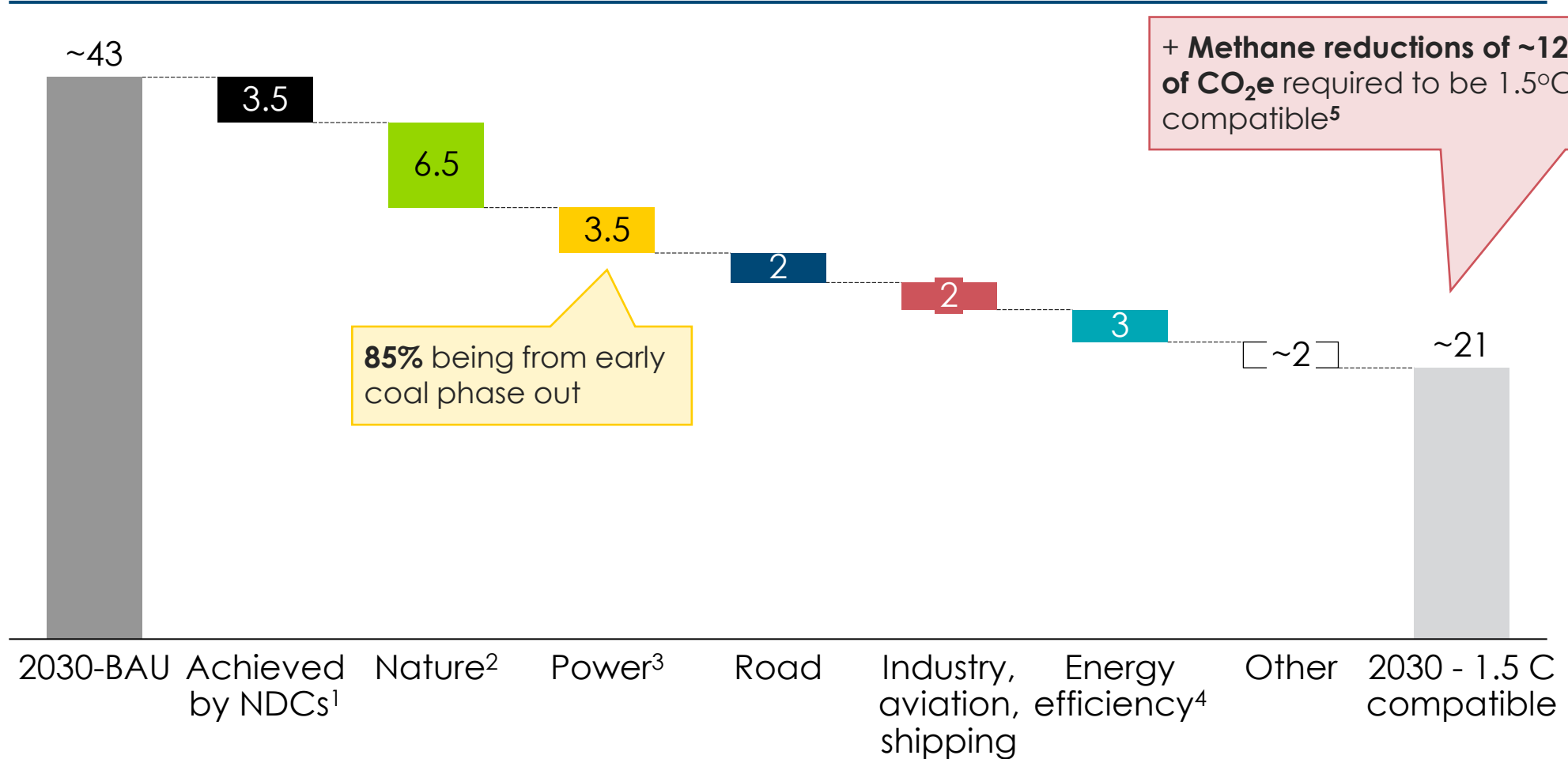


Source: IEA (2021) Net Zero by 2050; IEA (2024) A Net Zero Roadmap; IEA (2024) World Energy Outlook; IEA (2025) Global Energy Review
Note: Emissions are interpolated between 5 year averages

At both COP26 and COP28 the ETC worked with COP presidency to define the actions required to “bridge the gap” and “keep 1.5°C alive”

Global CO₂ emissions
Gt per annum

ETC assessment from 2021, last updated in 2023



Note: Potential of levers was scaled down not to overlap with NDCs; (1) 3.5 Gt CO₂ is the estimated carbon dioxide impact of the NDCs, taking the mid-point of the estimated impact range of unconditional (3.3 GtCO₂e) and conditional (4.7 GtCO₂e) commitments; (2) Ending deforestation and carbon dioxide removals; (3) Early coal phase out being the most important lever in power; (4) Includes resource efficiency; (5) Equivalent to 150 Mt CH₄

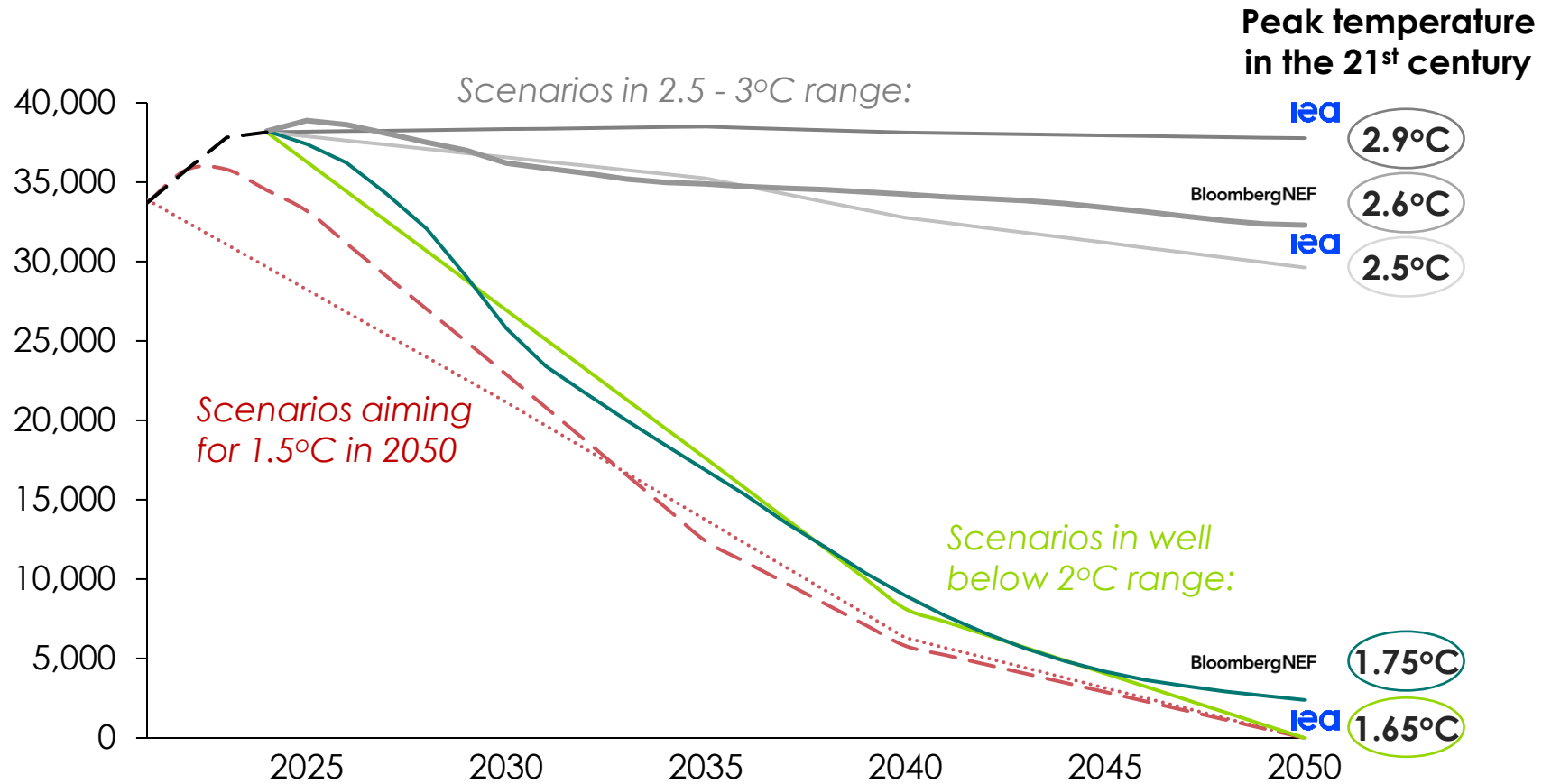


Latest projections no longer limit temperatures to 1.5°C in 2050, but well below 2°C still possible

Energy related CO₂ emissions

Mt CO₂

— Historical — BNEF NZ 2024 — IEA CPS 2025 - - IEA NZ 2024
 — BNEF ETS 2025 — IEA STEPS 2025 — IEA NZ 2025 ····· IEA NZ 2021



Scenario overview

Current Policy iea

Unambitious trajectory of emissions from enacted policy only

Economic Transition BloombergNEF

Technology cost driven transition

Stated Policy iea

Stated policy only, with no additional climate ambition

Net Zero BloombergNEF

Net zero by 2050 with no reliance on removals post-2050

Net Zero iea

Net zero by 2050 with overshoot managed by removals post-2050 to bring temp. back at 1.5°C

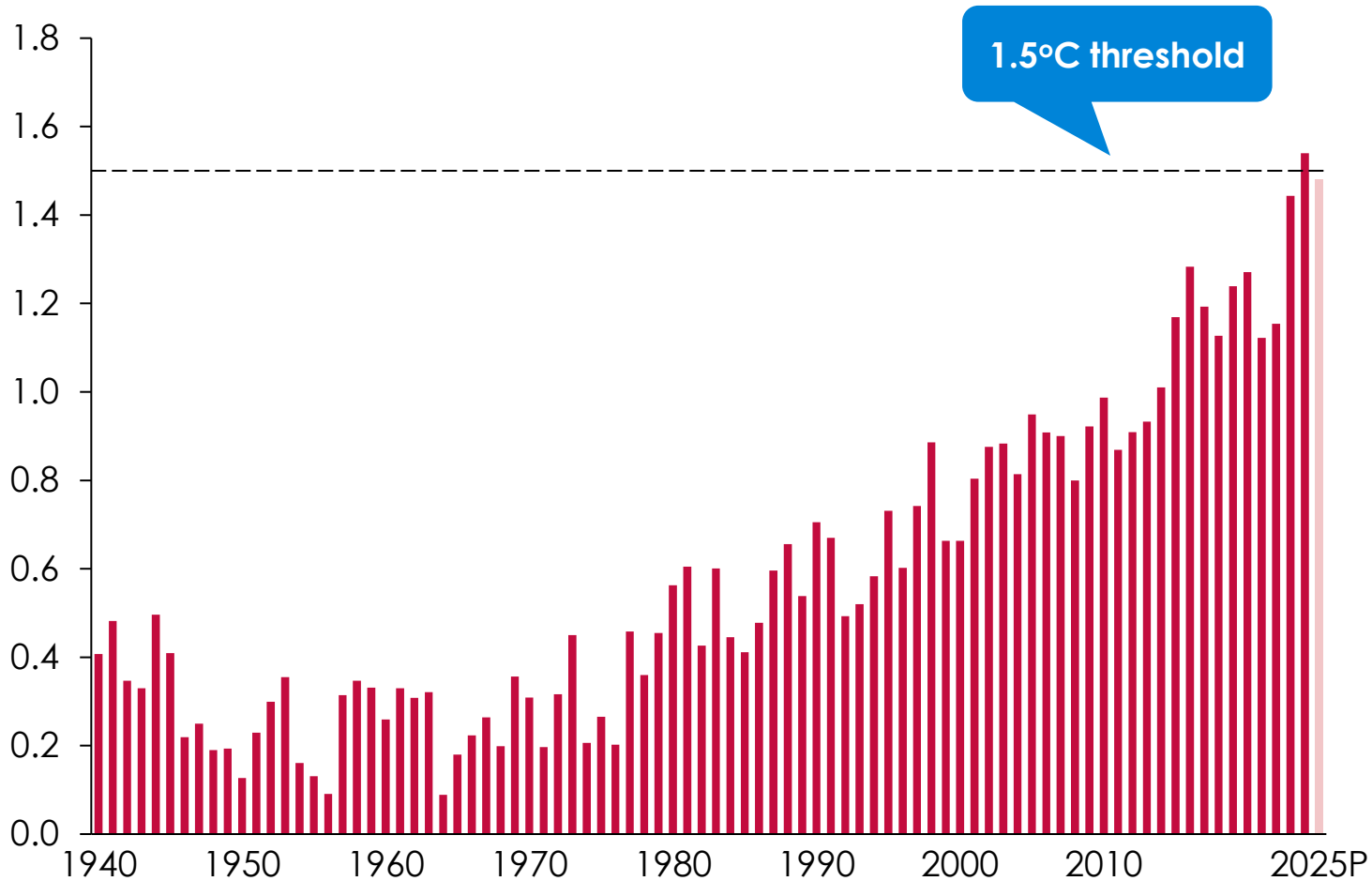
Source: IEA (2021) Net Zero by 2050; IEA (2024) A Net Zero Roadmap; IEA (2024) World Energy Outlook; IEA (2025) Global Energy Review; BNEF (2025) New Energy Outlook
 Note: IEA Scenarios have emissions interpolated between 5-10 years; BNEF scenarios only accounts for Energy Sector and Industrial process emissions, to compare against IEA's scenarios, remaining emissions from comparable scenarios from IEA were added to BNEF scenarios (i.e. BNEF ETS 2025 was adjusted according to IEA STEPS 2025, and BNEF NZ 2024 was adjusted according to IEA NZ 2025) * IEA NZ 2025 scenario assumes several decades of temperature overshoot, reaching peak at 1.65°C by 2050.



2024 saw an annual increase of 1.5°C in global temperatures above pre-industrial levels for the first time

Global surface temperature increase above pre-industrial

°C above pre-industrial levels; Reference period: pre-industrial (1850-1900)



- The Paris Agreement didn't provide a specific definition of '**global average temperature**', or what period in history should be considered '**pre-industrial**'
 - The IPCC Special Report on Global Warming of 1.5°C defined **1850–1900** as the **earliest period with near-global observations** to represent pre-industrial temperature
 - The Paris Agreement contemplates a "**long-term temperature increase**", typically defined by climate experts (i.e. IPCC, Copernicus, etc.) as **a period of 20-30 years**



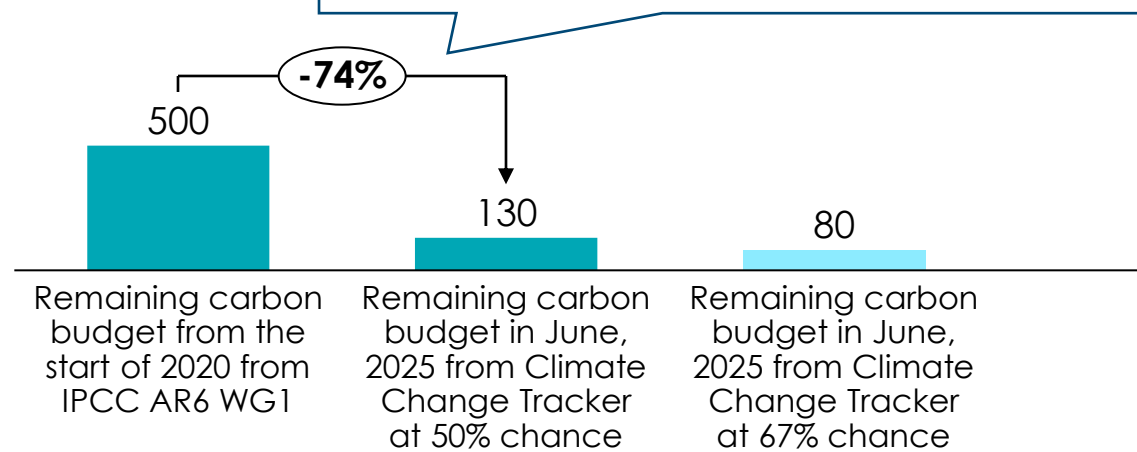
The remaining emission budget to contain temperature rises to 1.5°C is less than 3 years of current annual emissions

Carbon budgets for a given temperature rise

GtCO₂

Budget for staying within 1.5°C

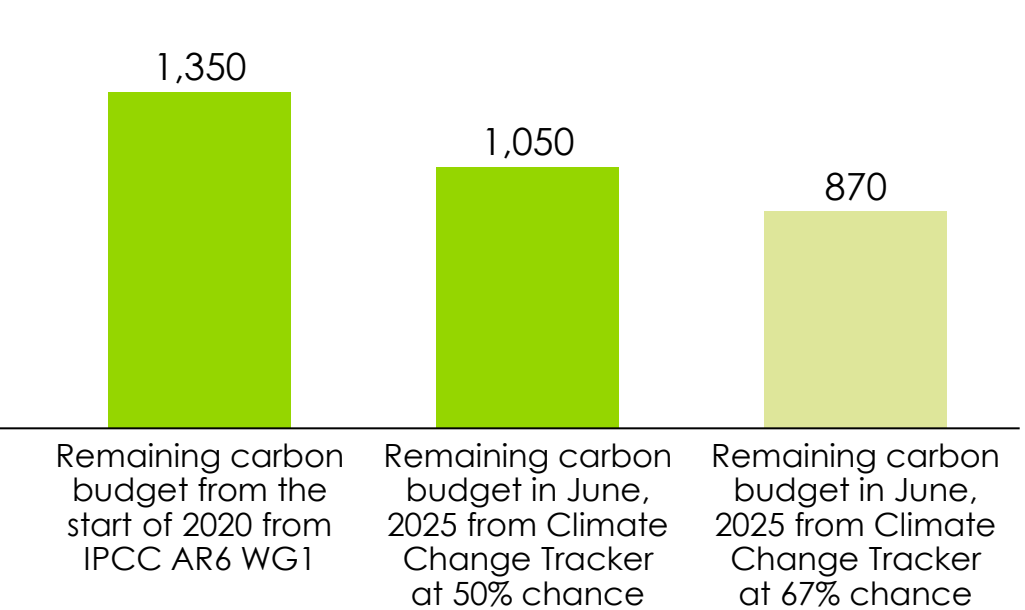
5.5 years of human induced emissions, and improved measuring, have reduced global carbon budget by ³/₄



Number of years until budget exhaustion at current annual emission



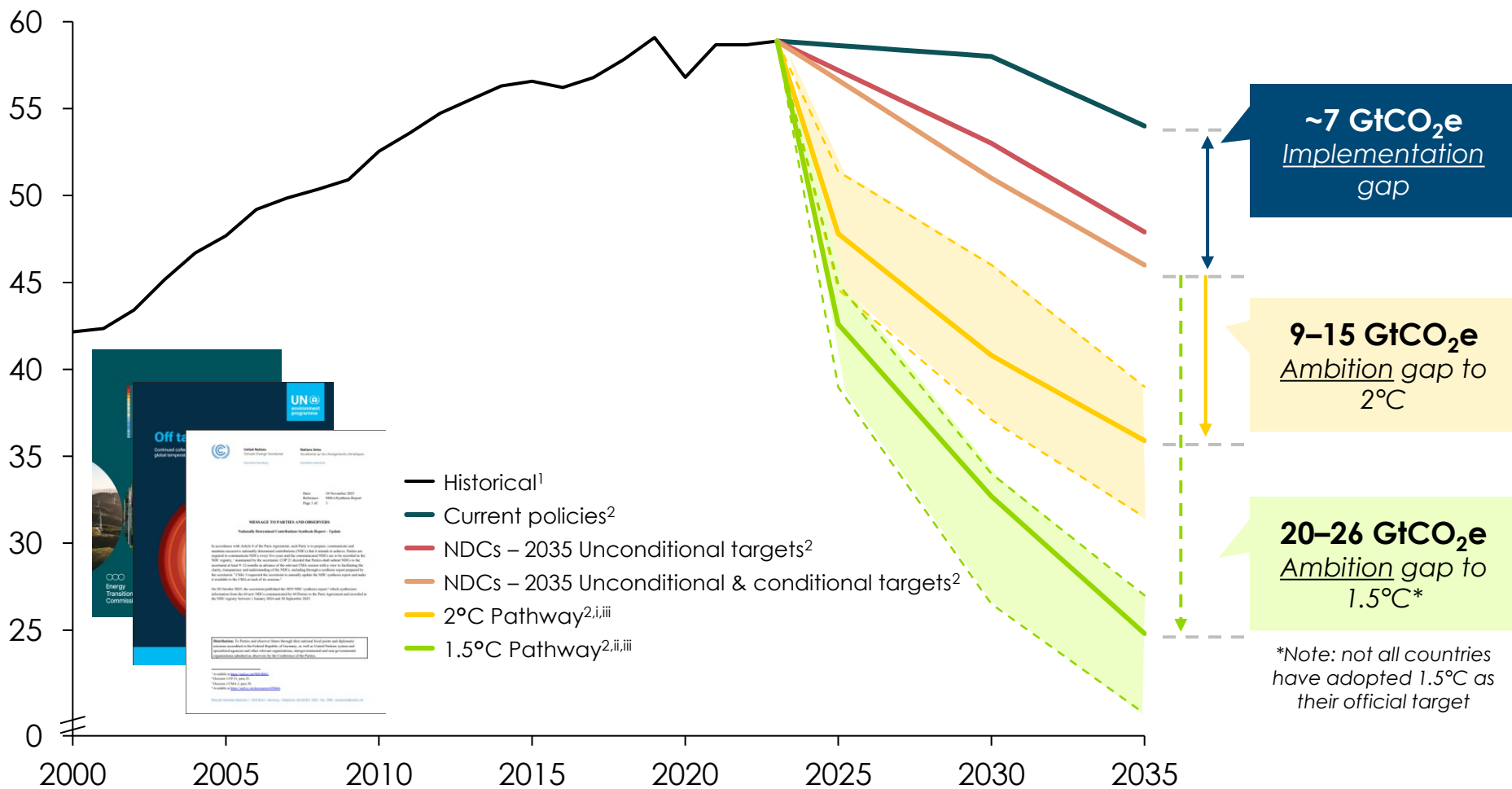
Budget for staying within 2.0°C



Source: Climate Change Tracker available at: <https://climatechangetracker.org/climate-change-progress/current-remaining-carbon-budget-and-trajectory-till-exhaustion> [Accessed October 2025]

The 113 (of 197) new Nationally Determined Contributions submitted so far are not filling the ambition gap

Global GHG emissions



As of 11/11/2025

Main submissions



Key missing submissions

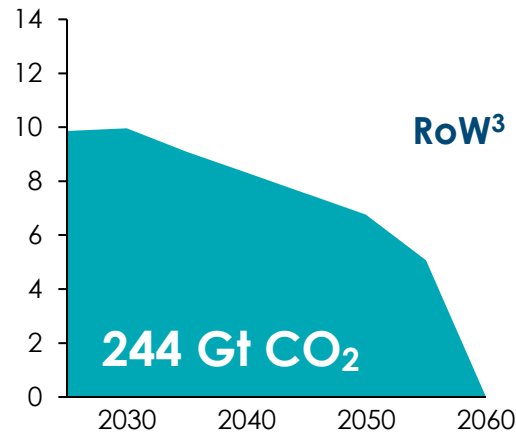
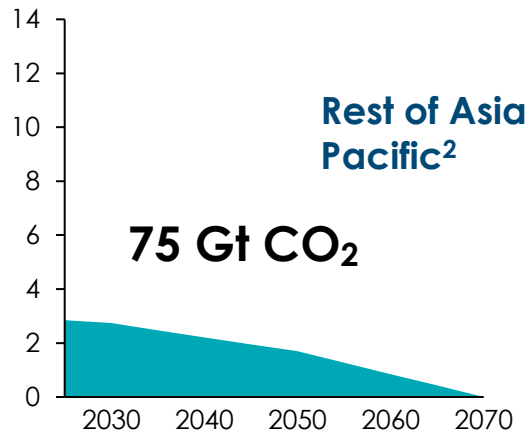
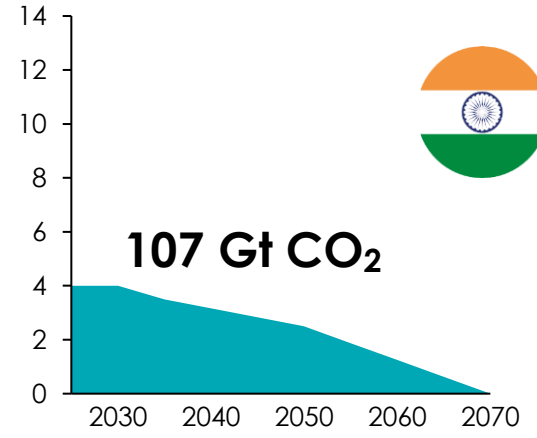
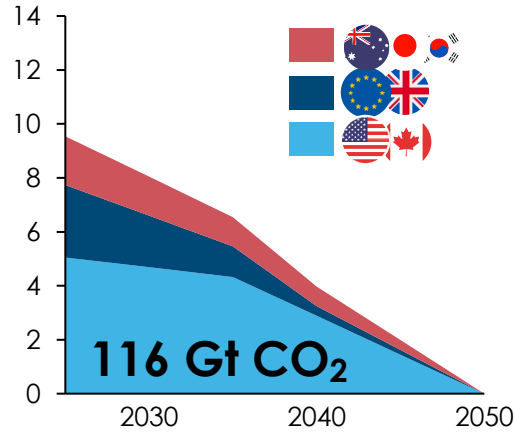
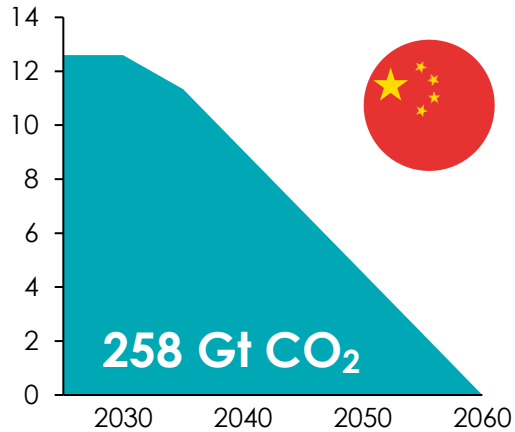


*Note: not all countries have adopted 1.5°C as their official target

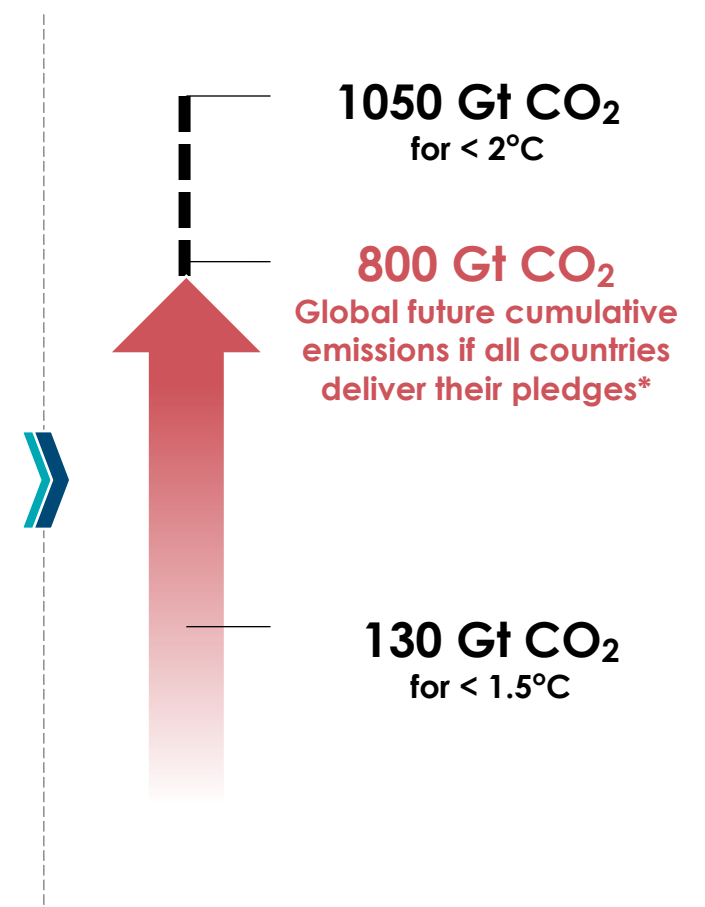
Notes: [i] Based on IPCC Working Group III Sixth Assessment Report scenario class c1 (limit warming to 1.5°C (>50%) with no or limited overshoot). [ii] Based on IPCC Working Group III Sixth Assessment Report scenario class c3 (limit warming to 2°C (>67%)). [iii] Range corresponds to range between tenth and ninetieth percentile, central line corresponds to median.
 Sources: ETC (2024), [Credible Contributions: Bolder Plans for Higher Climate Ambition in the Next Round of NDCs](#). Systemiq analysis for the ETC based on [1] IPCC (2022), Metadata Browser: Data for Figure SPM.5 - Summary for Policymakers of the WGIII Contribution to the IPCC AR6, [2] UNEP (2025), Emissions Gap Report 2025: Off target; Climate Watch NDC Tracker [accessed November 2025]; UN (2025) Nationally Determined Contributions Synthesis Report – Update

Even if all countries implement their pledges, cumulative future emissions will far surpass the carbon budget for a 1.5°C trajectory

Cumulative energy-related CO₂ emissions¹, 2025-2070
GtCO₂



Remaining carbon budget in 2025 for a 50% likelihood



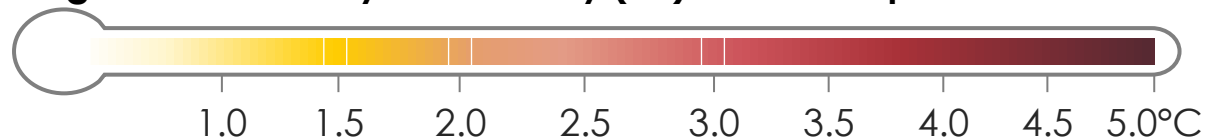
Note: 1. Accessed against the carbon budget in June of 2025, to which an equivalent of 19 GtCO₂ estimated emissions was subtracted from the total to account for emissions between January 2024 and June 2025.; 2. Estimated based on IEA's Stated Policy Scenarios from 2025; 3. Estimated based on IEA's Announced Pledges Scenario from 2024
Source: IEA (2025) World Energy Review; IEA (2025) World Energy Review; IEA (2024) World Energy Outlook; Climate Change Tracker available at: <https://climatechangetracker.org/climate-change-progress/current-remaining-carbon-budget-and-trajectory-fill-exhaustion> [Accessed November 2025]



UNEP's 2025 Emission Gap report places current NDC pledges at a 50% chance of increasing global temperatures between 2.1 to 2.3°C

Projections of global warming under the pledge-based scenarios assessed in this chapter

Peak warming over the twenty-first century (°C) relative to pre-industrial levels



Scenarios

● 50% chance ● 66% chance

Current policies continuing



Unconditional NDCs continuing



Conditional NDCs continuing



Conditional NDCs + all net-zero pledges














2025 update showed a 0.2°C improvement from 2024 assessment, but still not sufficient to reach 1.5°C – key NDC from India still missing

[Note: [i] The ranges reflect the scenario uncertainty taking into account the range of emissions estimates for 2030 and the variations in their extensions (UNEP [2023], section C.4.1). It illustrates the full minimum-maximum variation across assumptions for 2030 emissions and for extensions. The Emissions Gap Report typically presents the temperature projections and the avoidance of temperature limits at the 66 per cent chance level. Other levels (50 and 90 per cent) are included for completeness.]

Source: UNEP (2024) Emission Gap Report



Climate ambition is critical: “Every 0.1°C matters”

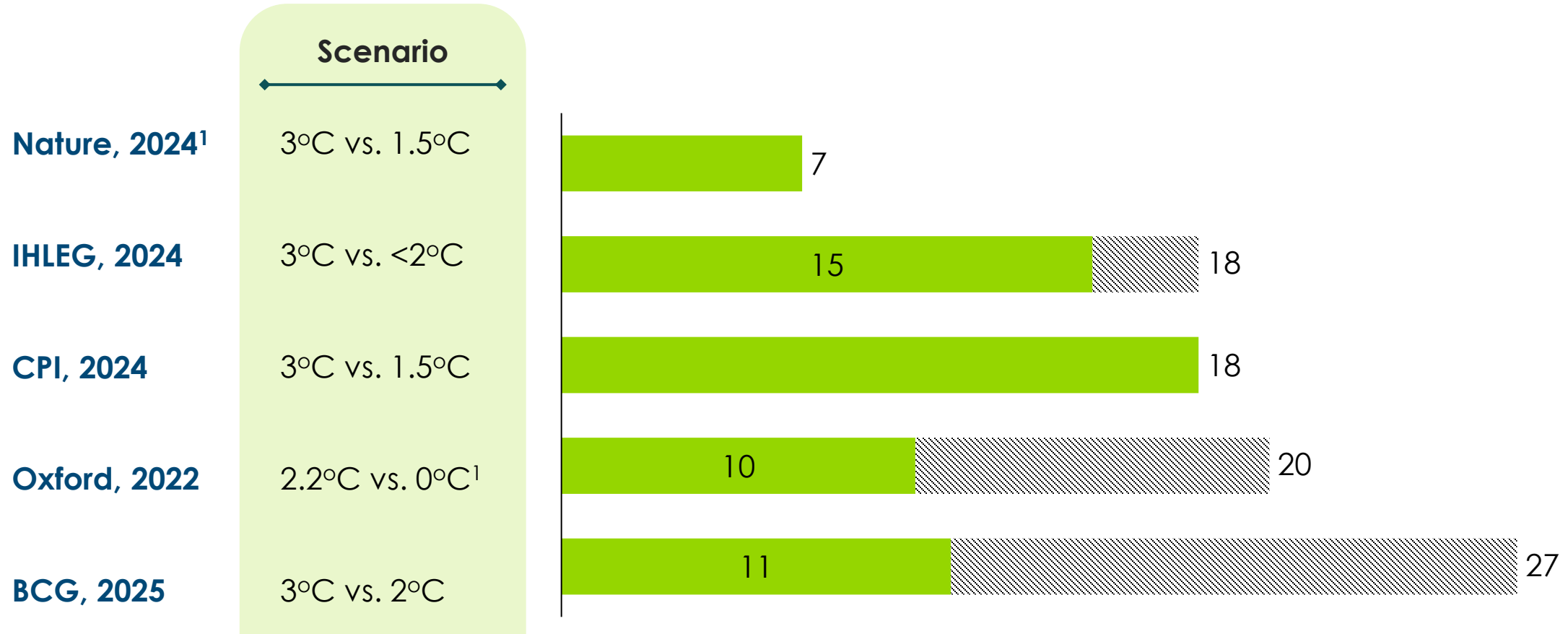
 Climate disturbances	1.5°C	2°C	Impact of 2°C compared to 1.5°C
 Loss of Plant Species	8% of plants will lose ½ their habitable area	16% of plants will lose ½ their habitable area	 2x worse
 Loss of Insect Species	6% of insects will lose ½ their habitable area	18% of insects will lose ½ their habitable area	 3x worse
 Further decline in Coral Reefs	70% to 90%	99%	 Up to 29% worse
 Extreme Heat	14% of the global population exposed to severe heat every 1 in 5 years	37% of the global population exposed to severe heat every 1 in 5 years	 2.6x worse
 Sea-Ice-Free summers in the Arctic	At least once every 100 years	At least once every 10 years	 10x worse

Climate inaction will compromise economic activities around the globe

Estimates of additional harm of additional temperature increase

% of global GDP

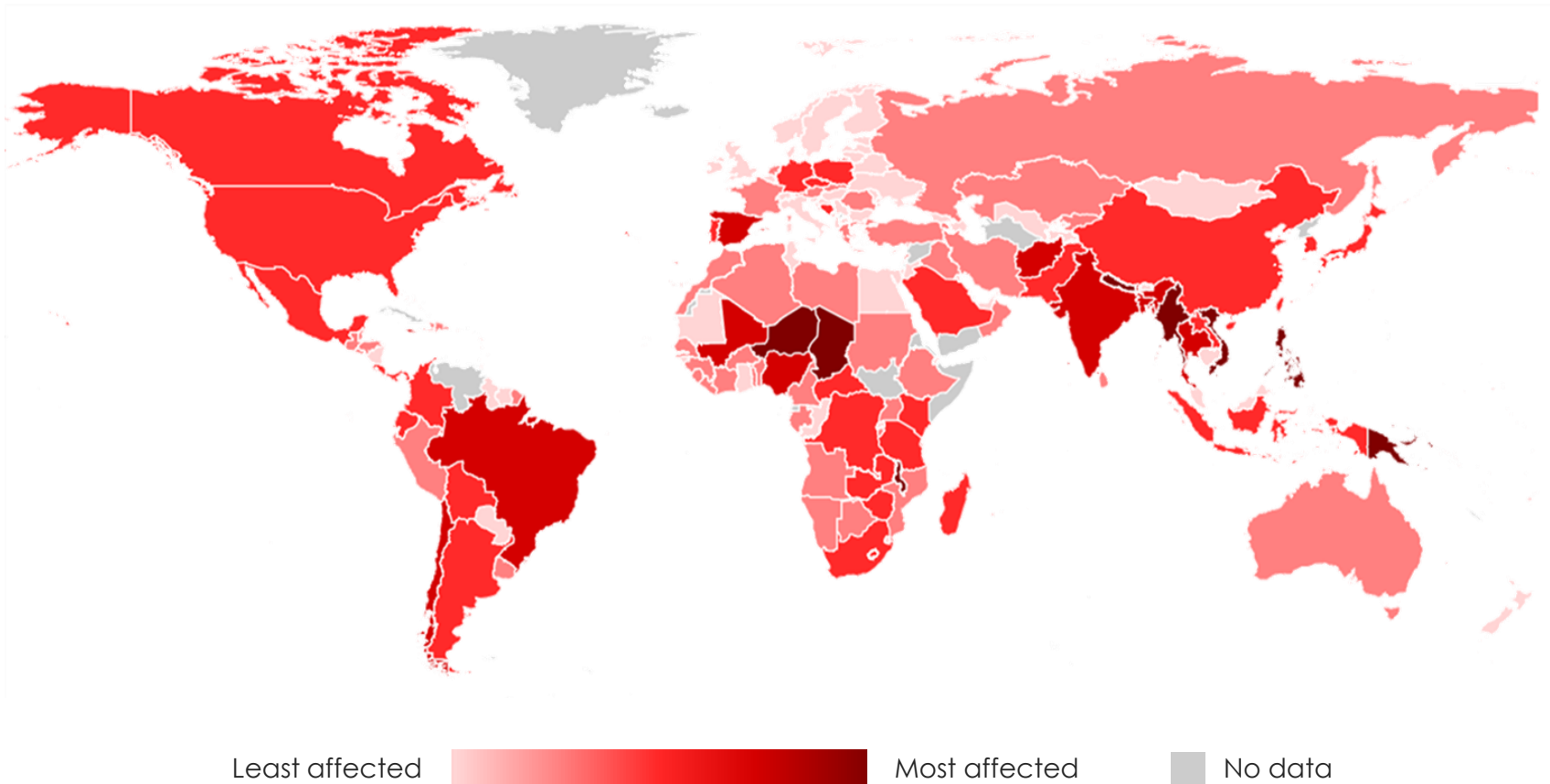
■ Lower estimation ▨ Upper estimation



1. 0°C indicates average temperatures at pre-industrial levels
Source: As cited in the exhibit

World Meteorological Organization has reported that Asia is already warming nearly twice as fast as the global average, fueling more extreme weather

Climate Risk Index: Most Affected Countries in 2024



2025 extreme weather events headlines

-  Typhoon Fung-wong leaves Philippines with 10 dead, 1.4 million displaced
-  Climate crisis made 'bonkers' central Asia heatwave up to 10C hotter
-  Natural disasters cost Australia's economy \$2.2bn in first half of 2025, new Treasury analysis shows
-  Floods in Indonesia, Sri Lanka, Thailand and Vietnam Have Killed Over 1,200
-  Losses Top \$20 billion in Asia Floods as Climate Risks Grow

Note: The CRI methodology involves analysing extreme weather events' impacts via three hazard categories: hydrological, meteorological, and climatological. The index draws on data from the EM-DAT international disaster database, World Bank, and International Monetary Fund (IMF); and considers absolute and relative impacts, using six key indicators: economic loss, fatalities, and affected people – each in absolute and relative terms.

Source: Germanwatch; google news search; WMO (<https://wmo.int/news/media-centre/rising-temperatures-and-extreme-weather-hit-asia-hard>)



Some financial institutions move away from net-zero and corporates move away from near term targets, despite record year for SBTi validations

Finance

Alliances updates



- Over 700 members in 2024
 - Restructure: dropped requirement to be Paris aligned & publish targets and progress;



- 325 signatories as of Jan 2024
 - Major companies have left e.g., Blackrock in 2025, Vanguard in 2022
 - Suspended activities to track signatory implementation and reporting in January 25



- Over 140 members in 2025
 - 11 banks have left (mostly U.S.)
 - **HSBC also left, but** remained engaged with GFANZ. Reviewing interim targets, and delayed NZ to 2050.

Corporates

Commitment updates



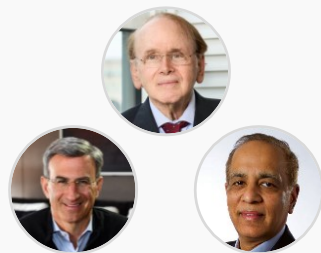
- ~11,000 companies, 25% of global revenue
 - 200 high-profile companies delisted (e.g. Microsoft, Unilever)
 - **Doubling of Chinese companies in 18 months**
 - New guidance, due next year, to stick to Net Zero by 2050 but no temperature pathway
- Major O&G dialling back on climate targets due to a slow phase out of FF
 - **Shell's 2024 Energy Transition Update** removed 2035 target to reduce products emissions by 45% (though maintaining commitment of minus 15-20% by 2030)
 - **BP** removed targets to 2030 and ramp-up fossil fuel investments



Multiple experts in the west, including supporters of energy transition, are now calling the 1.5°C target unattainable

Dan Yergin, Atul Arya and Peter Orszag

The Troubled Energy Transition – how to find a pragmatic way forward



Key points

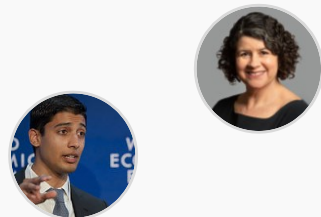
Growing energy demand, energy security concerns and very large transition costs make rapid transition impossible; fossil fuels still essential to prosperity and will take long time to replace

Temperature assumption

~2.4°C

Lindy Fursman/Tony Blair Institute

The Climate Paradox: Why We Need to Reset Action on Climate Change



Varun Sivaram

It's time for climate realism

"The profile of current emissions, ..., shows that without a fundamental change in our approach, we don't have a chance of limiting temperature rise to 1.5 degrees."

"well below" 2°C (3.6°F) will almost certainly be breached, ... net-zero emissions by 2050 is utterly implausible" ..

>2°C , with likely 3°C

Michael Liebreich

The pragmatic climate reset



1.5°C was always impossibly costly objective – adopted without analysis

"It's time to switch back to the hard 2°C target which was at the heart of the Paris Agreement "

1.8°C-3.5°C
But ideally <2°C

Bill Gates

Three tough truths about climate



"we should measure success by our impact on human welfare more than our impact on the global temperature, and that our success relies on putting energy, health, and agriculture at the center of our strategies."

No chance of <2°C, can deal with consequences of 3°C

Antonio Guterres

Secretary-General's remarks at the Belém Climate Summit



"From those [NDCs] received until now, there is an expectation of a reduction of emissions of 10%. We would need 60% [to stay within 1.5C]. So overshooting is now inevitable."

No chance of <1.5°C,



China's official position has always committed to "well below 2°C" not to a 1.5°C limit



China is committed to the Paris climate objective of "well below 2°C " and will aim to reduce emissions in a way compatible with that - but not specifically in line with 1.5°C . Though I personally believe that if we all aim for well below 2°C we might unleash technological progress that makes it possible to get back to 1.5°C later.*

*Xie Zhenhua
China Climate Envoy
2015-2025*

China's current NDC commitment – "cut emissions 7-10% by 2035" – is in fact insufficient to be compatible with well below 2°C... but feasible further tightening could make it compatible

Other countries with Net Zero targets after 2050, indicating that urgency of Net Zero action is less

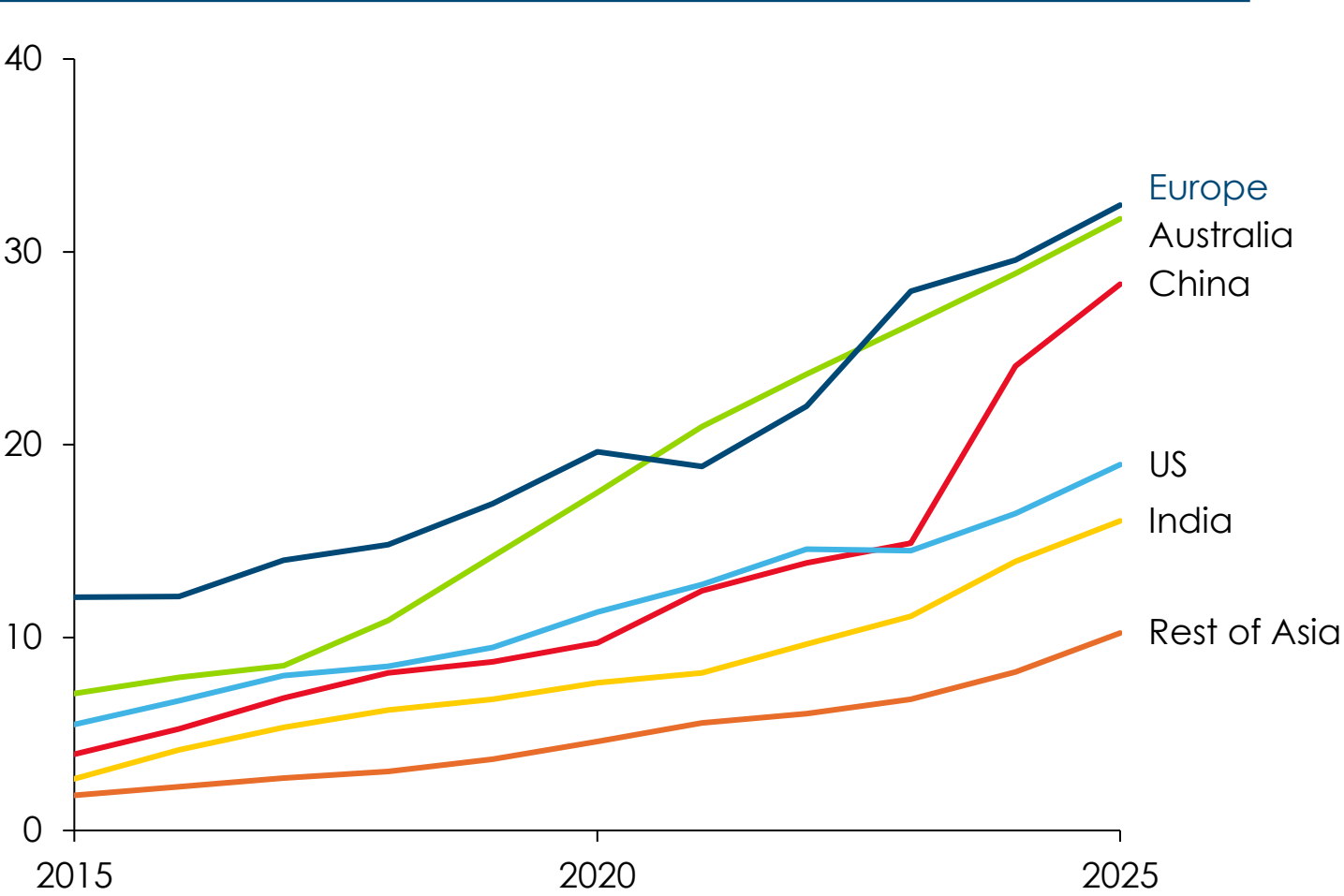
- India
- Indonesia
- Thailand

And in much of Asia, pace of transition falls behind leading actors

Despite narrative and ambition differences, the required actions remain broadly aligned: massive electrification, increased efficiency gains, and decarbonization of the power sector

Solar and wind share of total generation

%



Note: Rest of Asia is Asia excluding China, India, and Australia
Source: BNEF NEO 2024

Agenda

- The problem: 1.5°C is now out of reach
- **Protecting Paris: the challenge and ETC role**
- Proposed process, engagement and timetable



Voices today are proposing we let Paris slide... ETC aims to shore up commitment to action, reinforcing Paris's well below 2°C objective

Calling for a decrease in ambition

Net Zero..ish at 2-3°C

- Focus on **economically viable solutions** – with a strong focus on **electrification** which enables 80% of emissions reduction.
- People should **not accept a cost impact** of:
 - I. Accelerating clean electricity;
 - II. Reducing emissions from the HTA sectors (i.e. green premiums).
- **Negative climate change effects** are likely to be manageable



Risk of 'disorderly backsliding' on climate commitments

Calling for re-anchoring in ambition

Net Zero well below 2°C

- Focus on **identifying the credible set of actions, and the target implications**, which responsible companies and countries should pursue.
- Provide concise evidence on transition costs and distributional impacts, clarify the collective effect of targets, and ground the work in the latest science on climate risks.
- ETC favorable positioning on this debate:
 - ✓ Trusted technical and economic analysis
 - ✓ Forum for objective debate
 - ✓ Extensive global reach



Progress on cost reduction and deployment relative varies by sector – but progress expectations suggest well below 2°C still possible

Low/zero carbon power



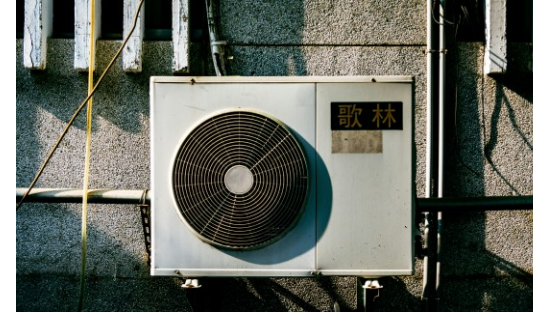
- **Renewables and nuclear** accounted for **80% of electricity growth in 2024** – with renewables growth outpacing global electricity demand in 1st half of 2025
- **Renewables overtake coal** as the world's largest source of electricity
- ETC " Power system transformation" report confirms the potential for low-cost decarbonisation, particularly in the global sunbelt

Road transport electrification



- **EVs** set to account for **25% of all car sales in 2025**
- EVs are already cheaper than ICE comparable models in China
- Rising sales in emerging markets: sales more than doubling in Brazil and almost tripling in Indonesia.

Residential heat electrification



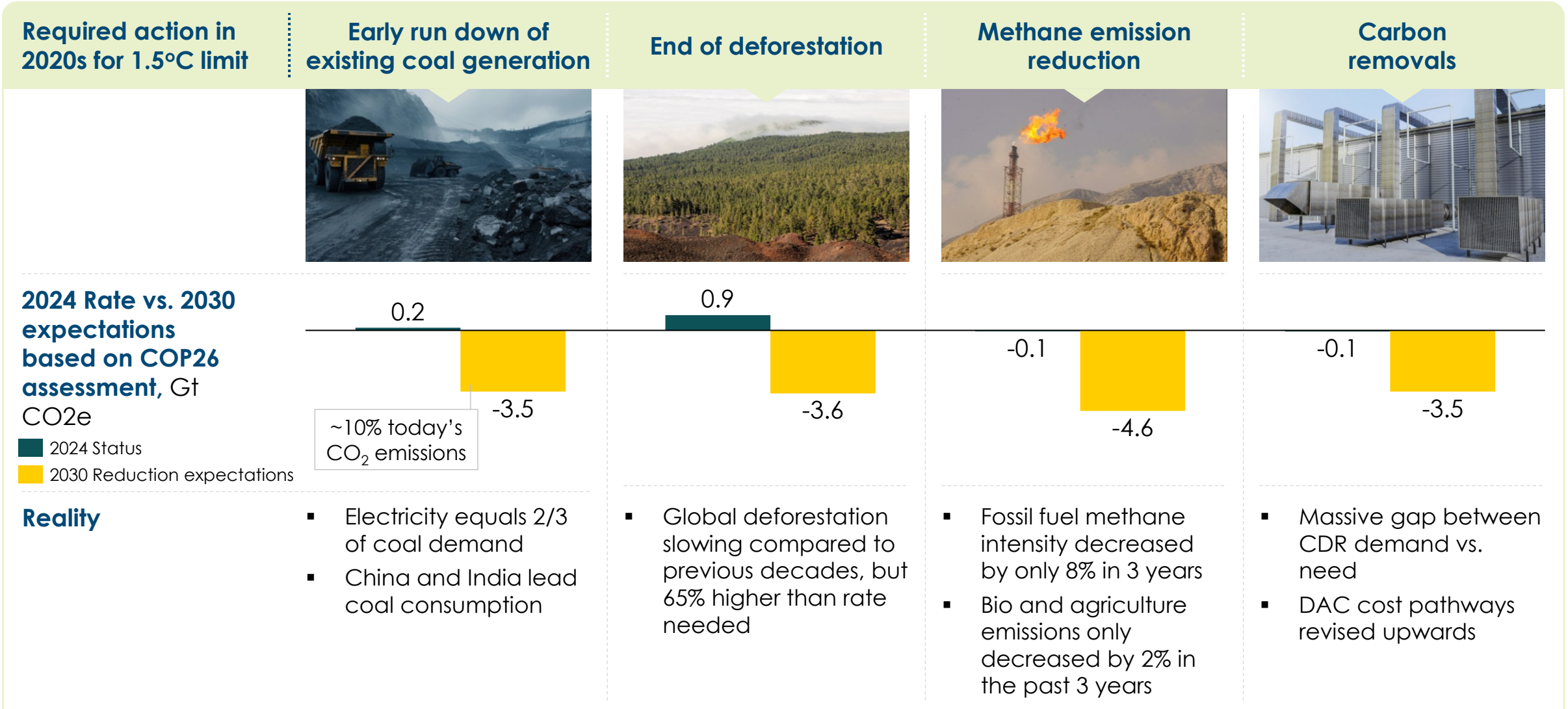
- **Heat pump** sales **fell by 1% in 2024** mostly due to slow down in Chinese market; but outsold gas boilers in the US by 30%
- The next decade will be vital for electrical heating to reach widespread deployment in key markets

Hard to abate sectors



- **Significant announcements for ammonia and aviation** but too slow in aluminium, cement and steel.
- Over half of new projects now in Sunbelt (including EMDEs), driven by cheap renewables, national incentives.
- To achieve 2030 and 2040 goals, projects must be financed and begin construction within the next two years.

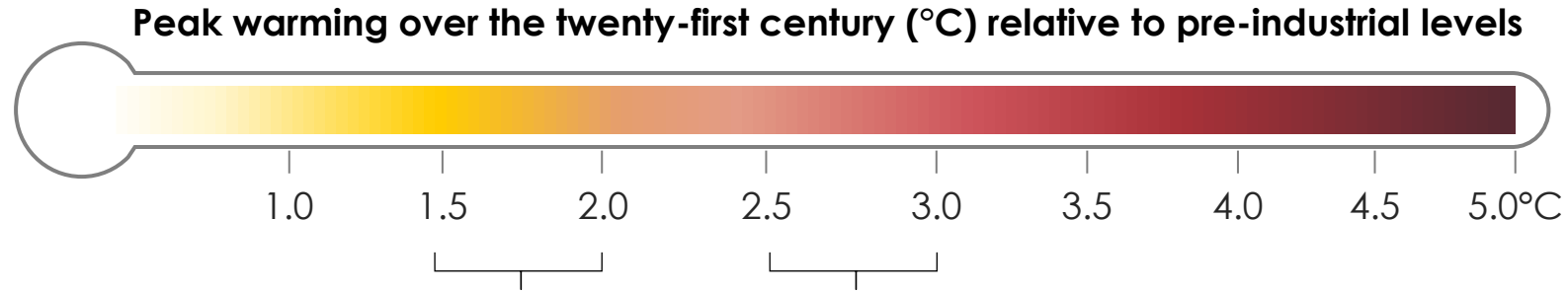
4 “misses” in the 2020s; progress has not been fast enough for 1.5°C



Notes: Methane emissions expectations only account for NDCs and Global Methane Pledges commitments; MSCI CDR credit volume calculated by multiplying projected market size (\$) by ETC average cost of carbon removal in each year (\$/tCO₂). Source: ETC (2021) Assessing the commitments from COP26; ETC(2021) Keeping 1.5oC Alive; WRI (2025) Deforestation and Restoration Targets Tracker (Beta); IEA (2025) world Energy Outlook; MSCI Carbon Markets (2025), [Frozen Carbon Credit Market May Thaw as 2030 Gets Closer](#); Crippa M., Guizzardi D., Pagani F., Banja M., Muntean M. et al., GHG emissions of all world countries - 2025 Report, Publications Office of the European Union, Luxembourg, 2025, doi:10.2760/9816914, JRC143227; Global Forest Watch [Accessed Nov 2025].



ETC will dissect the difference between a transition led by decreasing costs of technologies and a faster transition to remain well below 2°C



Well below 2°C range due to a faster transition

Likely range of warming of a transition led by economics alone

Core areas of opportunity

5 key areas of mitigation potential to be explored

- (AI) Turbocharging electrification
- (AII) Accelerating renewables
- (AII) Early coal phase out
- (B) Accelerating action across the harder-to-abate (HTA) sectors
- (C) Reducing methane and N₂O emissions
- (D) Reducing emissions in LULUCF*
- (+) Removals



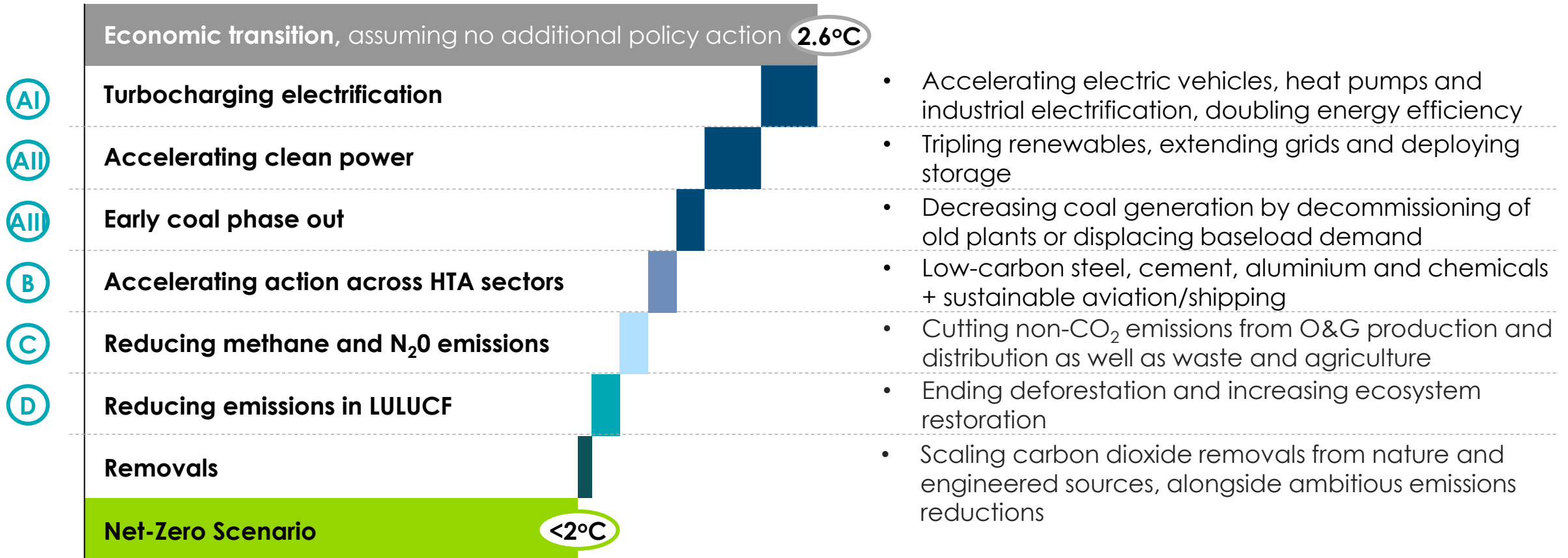
Note: LULUCF = Land Use, Land Use Change and Forestry

Key output: An overarching comparison of emissions pathways that pushes the ambition level closer to Paris objectives

Illustrative

Peak warming in the 21st century and key mitigation areas
°C

Key levers of change



Note: <2°C implies Well Below 2°C.

In the analysis we will also explore where mitigation is costless but will need accelerated investment or will have a cost premium to be absorbed

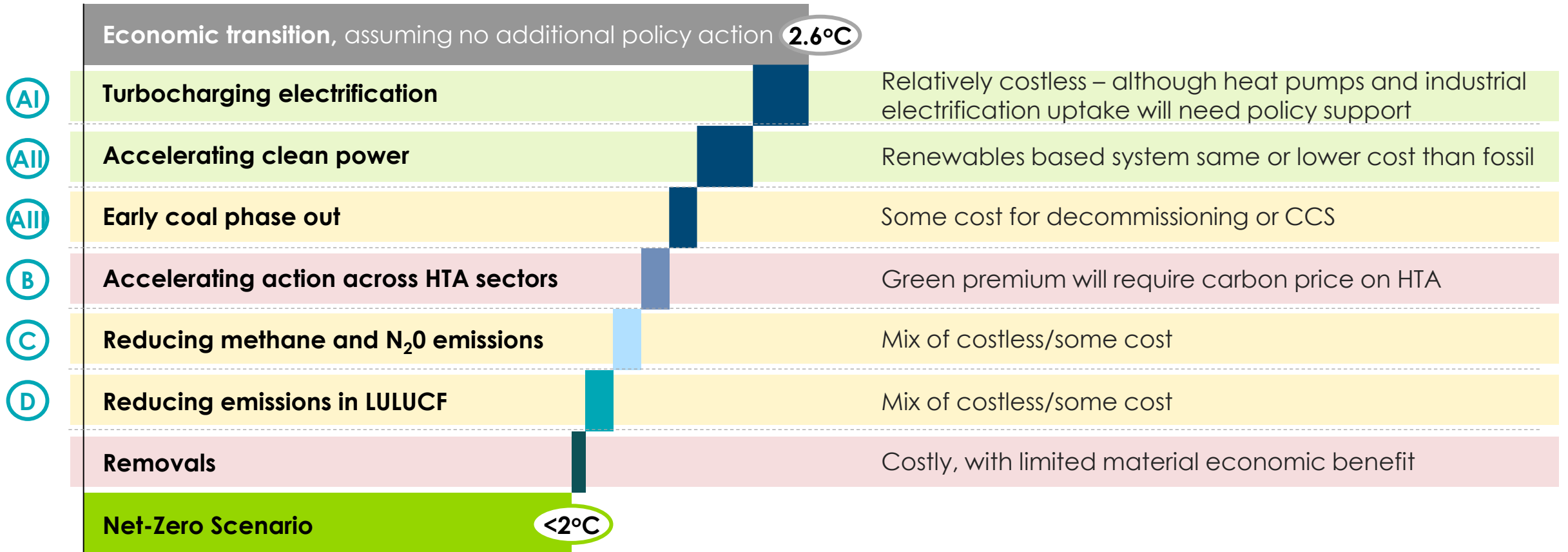
Illustrative

Peak warming in the 21st century and key mitigation areas
°C

Relative cost of action

Key

No cost or cheaper than alternative
Some cost
Clear cost



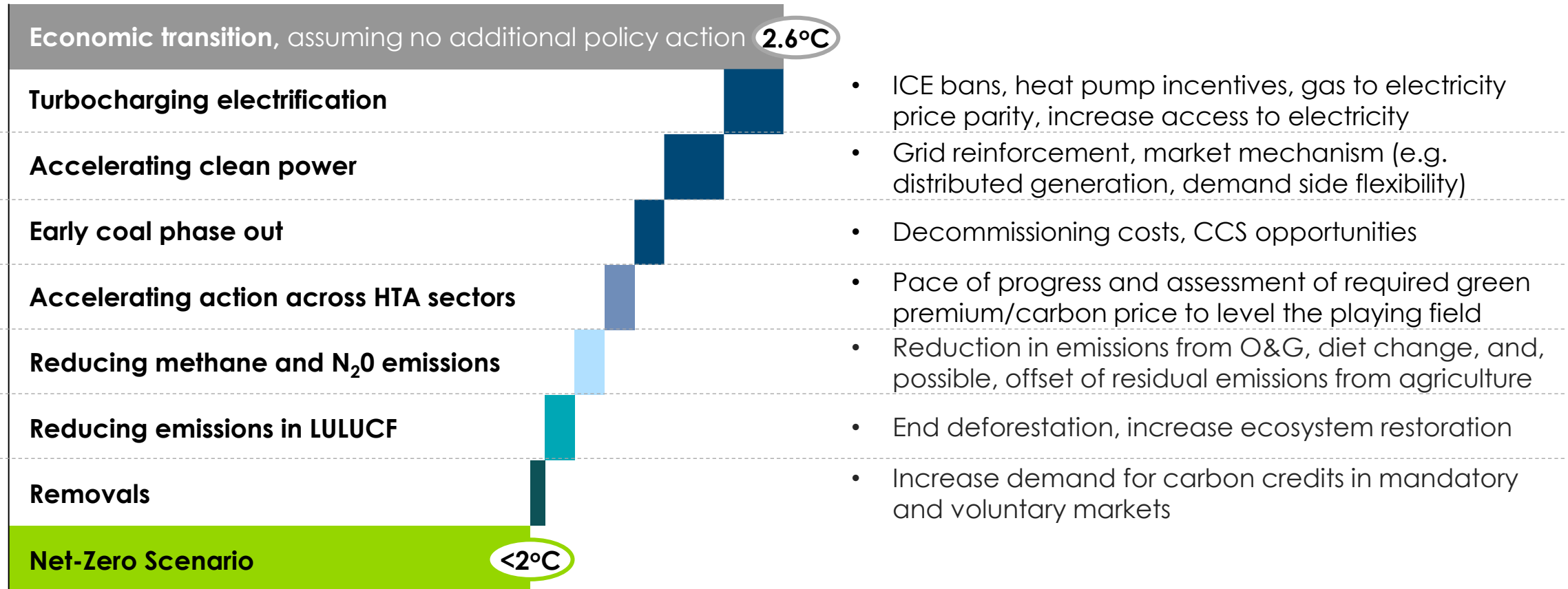
Note: <2°C implies Well Below 2°C.

...and what are the necessary actions that will require new climate policy

Illustrative

Peak warming in the 21st century and key mitigation areas °C

Key actions to analyse



- ICE bans, heat pump incentives, gas to electricity price parity, increase access to electricity
- Grid reinforcement, market mechanism (e.g. distributed generation, demand side flexibility)
- Decommissioning costs, CCS opportunities
- Pace of progress and assessment of required green premium/carbon price to level the playing field
- Reduction in emissions from O&G, diet change, and, possible, offset of residual emissions from agriculture
- End deforestation, increase ecosystem restoration
- Increase demand for carbon credits in mandatory and voluntary markets



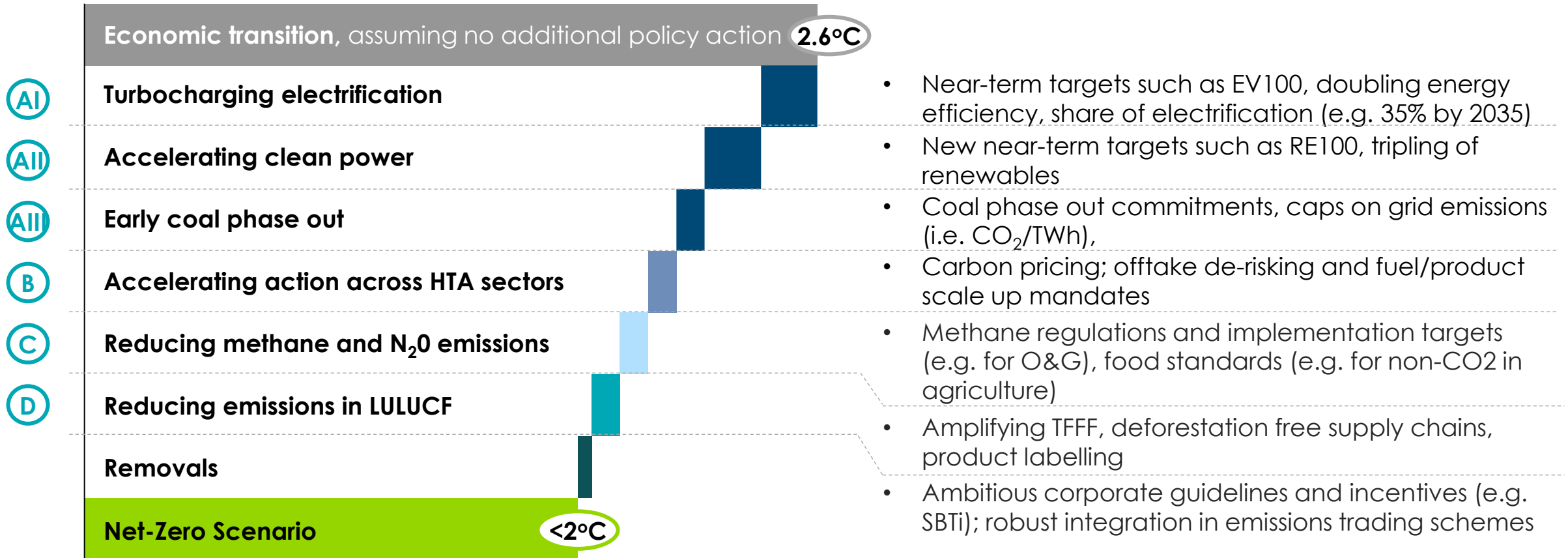
Note: <2°C implies Well Below 2°C.

... Finally, we will set the required near-term targets that will effectively put the world back on track for well below 2°C

Illustrative

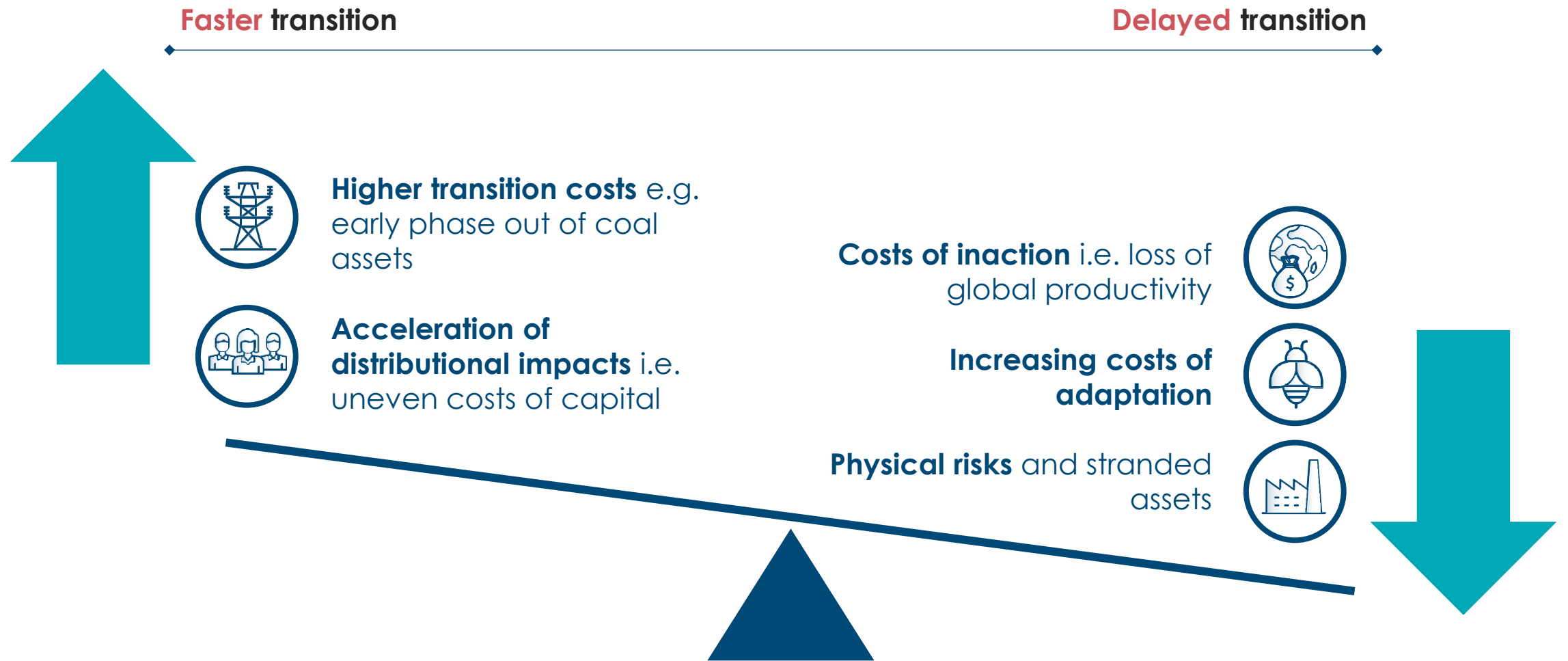
Peak warming in the 21st century and key mitigation areas

Required targets (to be developed further)



Note: <2°C implies Well Below 2°C.
TFFF = Tropical Forests Forever Facility

There will be trade-offs to continue in a 'well below 2°C' trajectory, but the alternative cost of non-transitional scenarios could be far worse

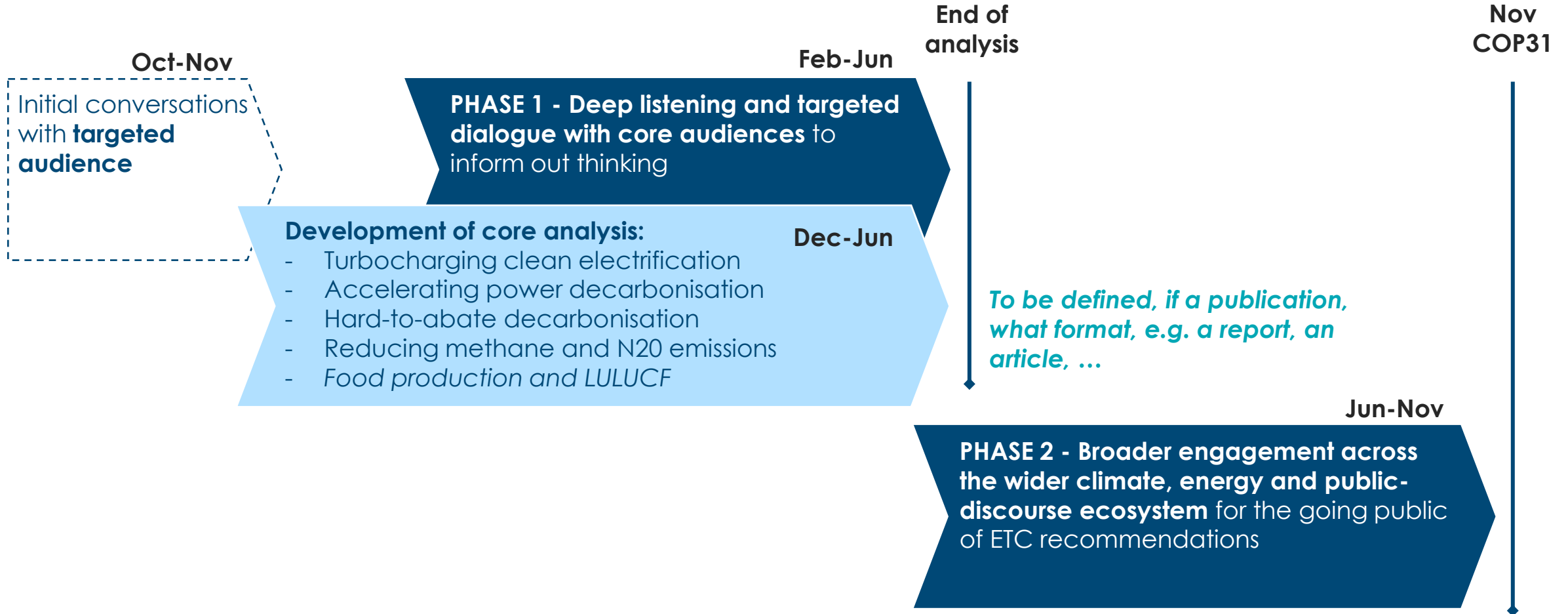
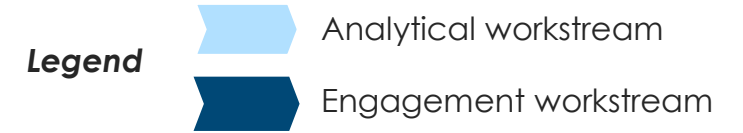


Agenda

- The problem: 1.5°C is now out of reach
- Protecting Paris: the challenge and ETC role
- **Proposed process, engagement and timetable**



Workplan overview



Engagement strategy will be considered, not provocative.

Core objective: *Protecting Paris:* defending against disorderly backsliding in world moving beyond 1.5°C without overshoot.

What we will promote:

Ambition well <2°C

*Understanding of scenarios and recommendations grounded in technical and economic realities
Actions to accelerate – electrification as key lever
Focus on implementation, accountability, systems linkages and political feasibility to ensure new targets drive real progress.*

What we won't promote:

*Need for explicit new temp objective > 1.5°C
Discussion of transition pathways that fail to recognise detrimental climate impacts of increased temperatures*

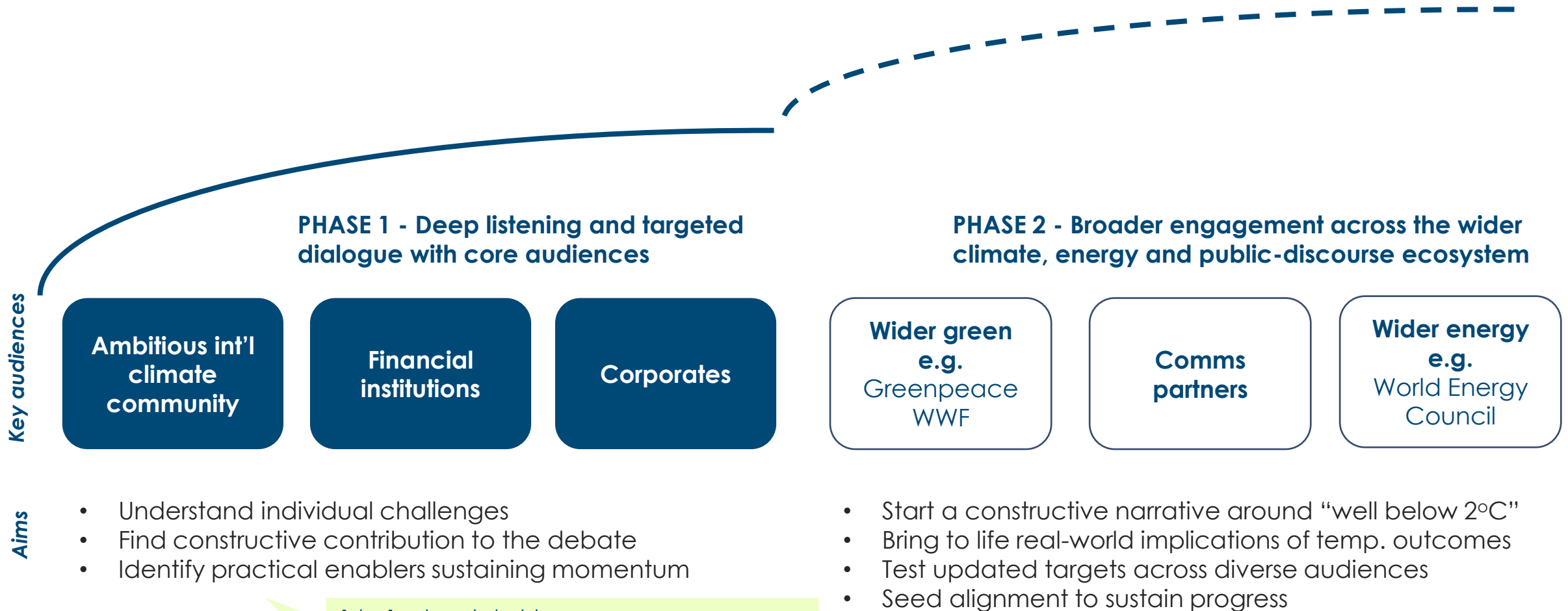
Considered engagement plan to *Protect Paris*, led by business voices acting in support of the transition, recognising limits of progress to date

Action-oriented recalibration of global, national, corporate and financial institution targets, focusing on effort required to maintain <2°C

Build wider alignment among stakeholders who can reinforce and accelerate <2°C action

THE MECHANICS OF THIS STRATEGY WILL BE REFLECTED IN A 2 STEP ENGAGEMENT PLAN...

Two phase engagement plan, with insights from 1st phase informing and defining the 2nd phase



1-to-1s already held:

- Jim Skea,
- Simon Stiell,
- Christiana Figueres,
- Avinash Persaud,
- Laurence Tubiana,
- Nick Stern,
- Nigel Topping.
- Fatih Birol



Phase 1 conversations tailored to understand current challenges and best route forward to protect and enhance ambitious climate action

Ambitious int'l climate community, and core ETC interlocuters

Financial institutions, incl. current and former GFANZ/NZBA community

Corporates
Including ETC membership but also beyond

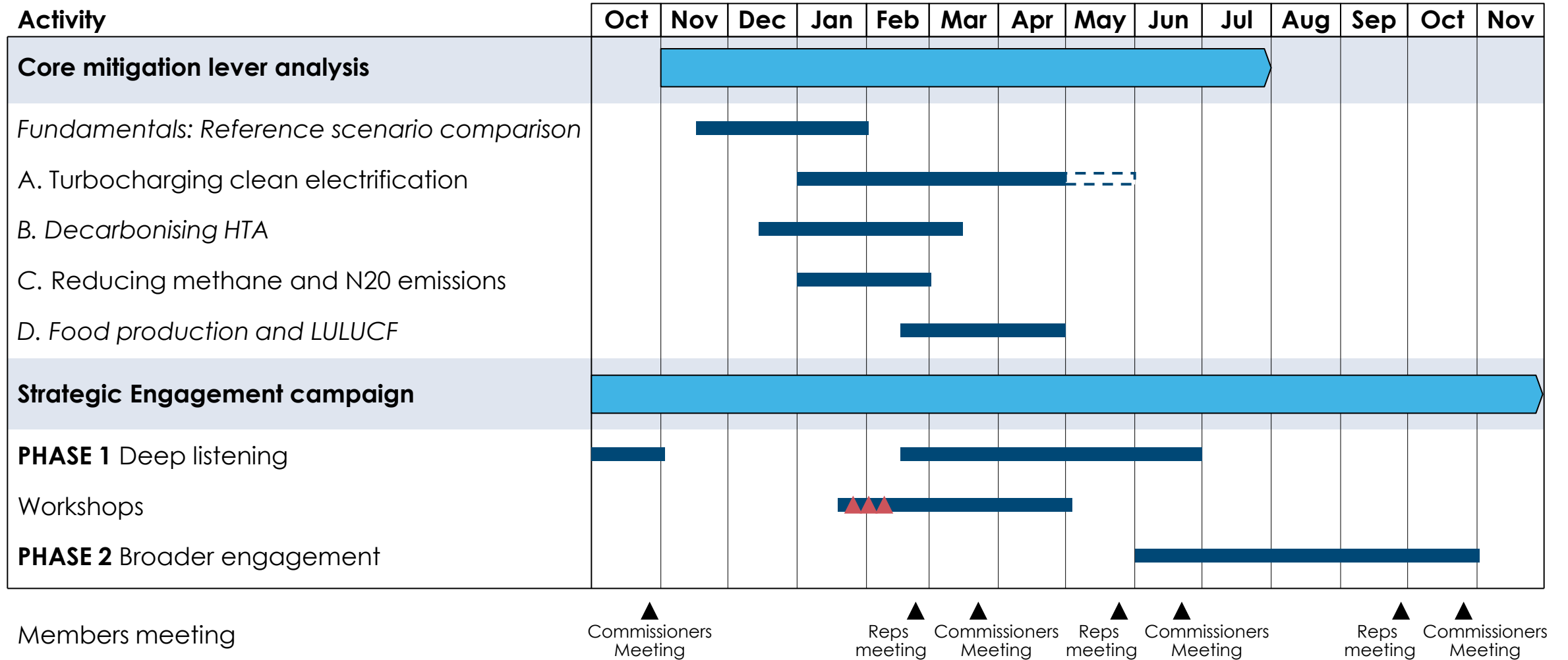
Engagement to understand how different groups perceive the current challenges with the 1.5°C framing, and specifically:

- how **policymakers** best think a restatement of climate goals can contribute to renewed momentum
- understanding from **financiers and corporates** the challenges they have faced in implementing these targets
- and which **practical enablers** (finance, policy, technology, sector pathways) all groups consider **essential to sustaining momentum**.



Detailed Workplan

Lectures at LSE 



Member workshops and review

Precise pattern of timing / topic to be decided but will cover:

- Detailed review of costs of mitigation by sector (and distributional issues by type of country/consumer group) building on the Economics of Transition workstream
- Review of adverse/adaptation costs of increased temperature limit
- Feasible scenarios and link to temperatures
- Implications of current country commitments
- Actions, targets and commitments to achieve overall objective

And be discussed through:

- 2-3 dedicated workshops, at least one of which one overlaps with Economics of Transition workstream
- Spring Representatives and Commissioners meetings



Q&A

