- INVESTOR INSIGHT:
- *What is the "tripling renewables pledge" and will it be achieved?*

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At COP28, 124 countries have signed up to the "Global Renewables and Energy Efficiency Pledge", with the headline commitment to "*Commit to work together to triple the world's installed renewable energy generation capacity to at least 11,000 GW by 2030, taking into consideration different starting points and national circumstances.*" Signatories also commit to doubling energy efficiency and recognize the need to end the construction of unabated new coal power capacity.

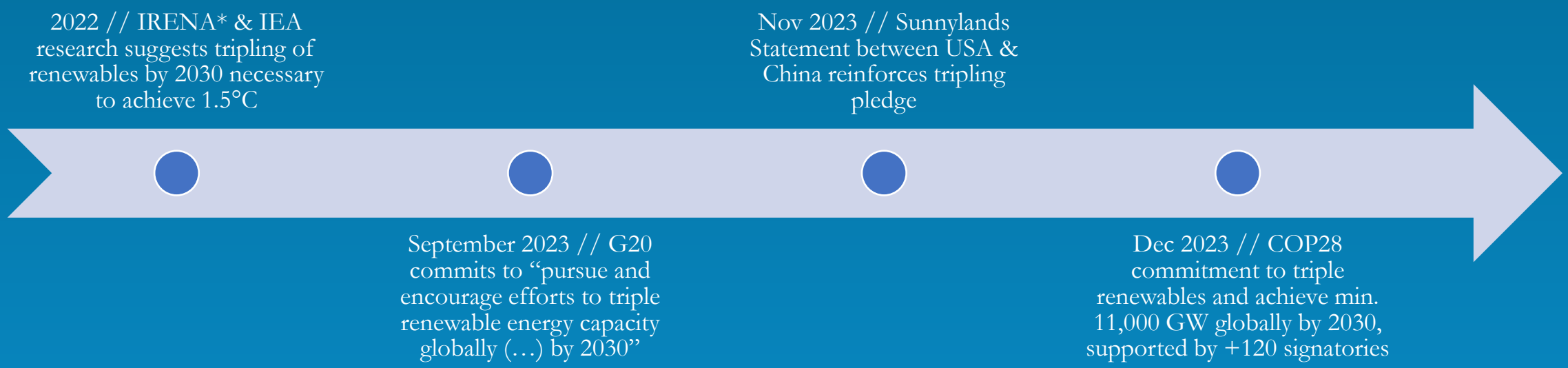
This pledge has materialized as one of the flagship outcomes from COP28 and garnered significant media attention, given the implied acceleration of deployment realizing this pledge would entail.

However, it has also been widely misunderstood and misquoted.

This note explains the pledge, benchmarks the pledge in relation to the expected renewable power deployment forecasted by the Inevitable Policy Response, and analyzes how renewable deployment would have to be accelerated across key markets in order to achieve the global objective

WHAT IS THE "TRIPLING RENEWABLES PLEDGE?

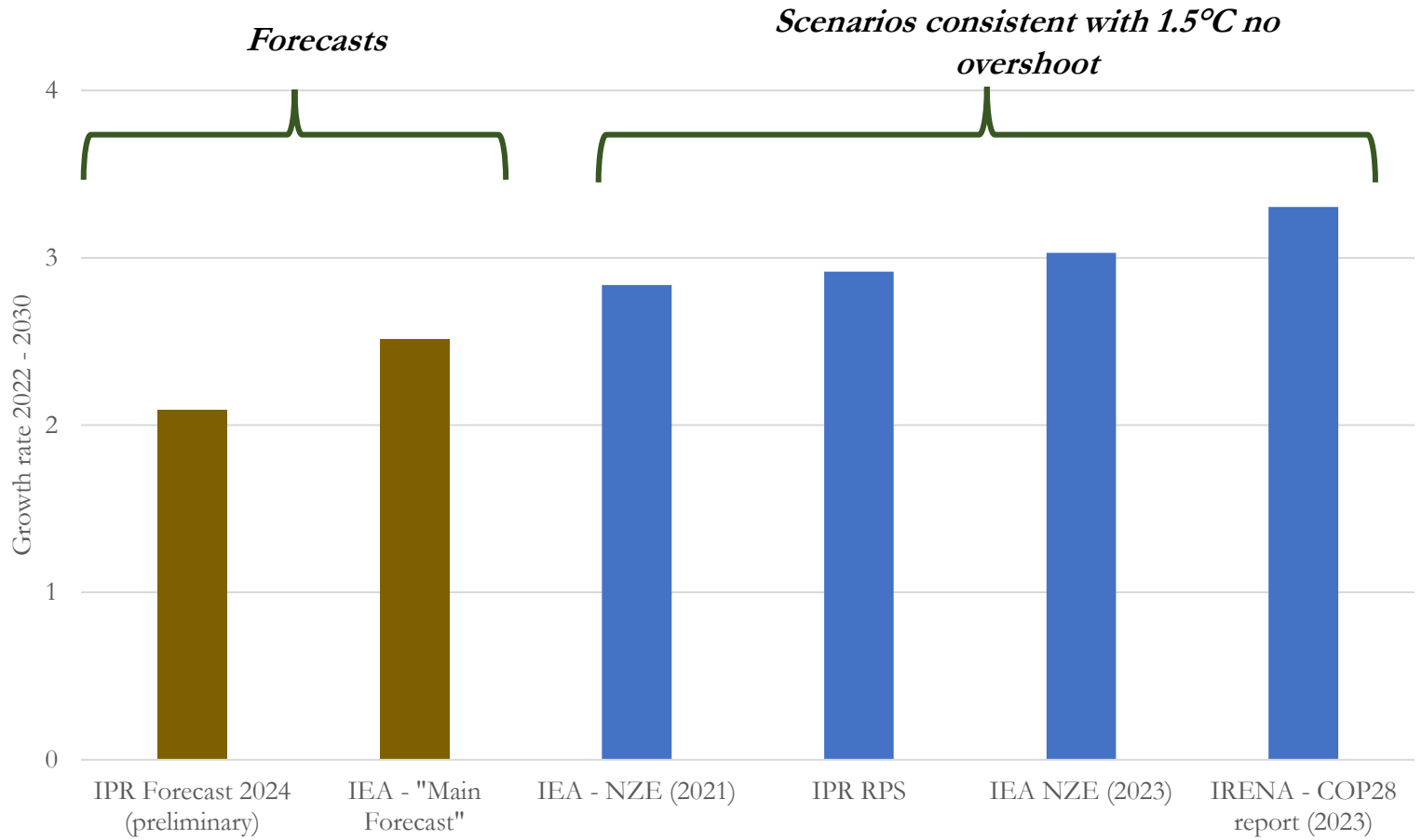
The goal to triple renewable deployment relative to 2022 levels by 2030 is reflected in three major policy documents in 2023: the India G20 Leaders Declaration, the US-China Sunnylands Statement and the COP28 pledge. While all three reference the 'tripling goal', only the COP28 pledge references a specific outcome – a minimum of 11,000 GW, important given some disagreements in the research as to the actual 'baseline' in 2022. For the purpose of this note, we will consider that the pledges require deployment of 11,000 GW by 2030, recognizing that IRENA analysis actually calls for a slightly higher figure (11,174 GW), some countries are using 2020 as the baseline in policy announcements (e.g. India), and the actual baseline in 2022 may imply a lower deployment requirement to achieve tripling by 2030.



* IRENA in its publication claims the tripling of renewables is "recommended" by the IPCC, but we were unable to find the source or document that supports this claim

Neither IPR nor IEA forecast that the 'tripling renewables' target will be met in 2030, although the gap has closed dramatically in the past 12-24 months

While the gap is significant, at least from a technical perspective the pledge is achievable, given the significant momentum under way.

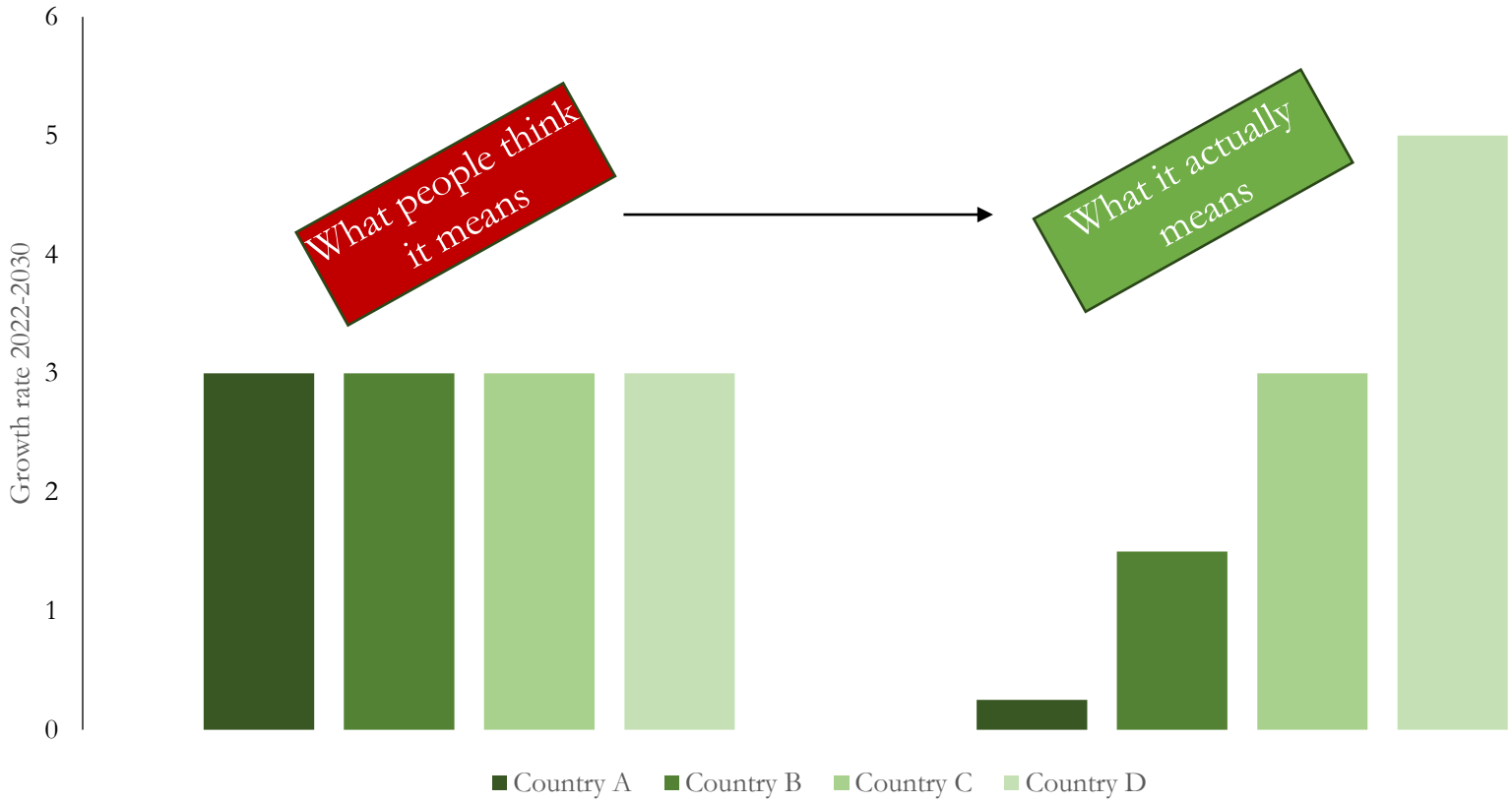


- The IPR 2024 preliminary renewables projection – updated based on the latest QFT policy developments - forecasts renewables to grow by 2.1x by 2030, a slight increase from the 2023 Forecast, but significantly lagging the 3x target. The IEA 'Main Forecast' is slightly more optimistic at 2.5x, given upward adjustments of +30% across each of the past two forecast iterations.
- The actual 'required' deployment under 1.5°C scenarios in 2030 involves growth rates between 2.8-3.3x, with some inconsistencies across the deployment levels in 2030 (10,300 GW in the IEA NZE 2021 to 11,174 GW in the IRENA COP28 report).

NB: The IRENA scenario has a different starting point than the IEA scenarios. The IPR Forecast 2024 has been updated based on the Stand model and the most recent data on 2022 installed renewable power capacity, consistent with the IEA. The IPR RPS had forecasted 3.3x b 2030 originally based on a more pessimistic assumption about deployment in 2020-2022. Using the adjusted starting point, the scenario is now slightly below 3x

The ‘tripling pledge’ does not mean that every signatory has to triple renewables domestically, given the pledge phrasing as global tripling

Differences in starting points mean that to achieve 3x globally, some countries have to achieve significantly more than 3x growth, whereas other countries will grow renewables significantly less than 3x.



“The current tripling target is a global target. If China was to do that, and we suggest only considering non-hydropower renewables, we calculate a 2022 baseline of 800 gigawatts, which would mean tripling to 2,400 gigawatts by 2030. That would take work, but it’s achievable.”

- Wang Yi, Deputy Chair of the National Expert Committee on Climate Change

The target does not imply that the global tripling should be ‘downscaled’ such that each country triples individually. The analytical reference point (IRENA 2023) includes hydropower.

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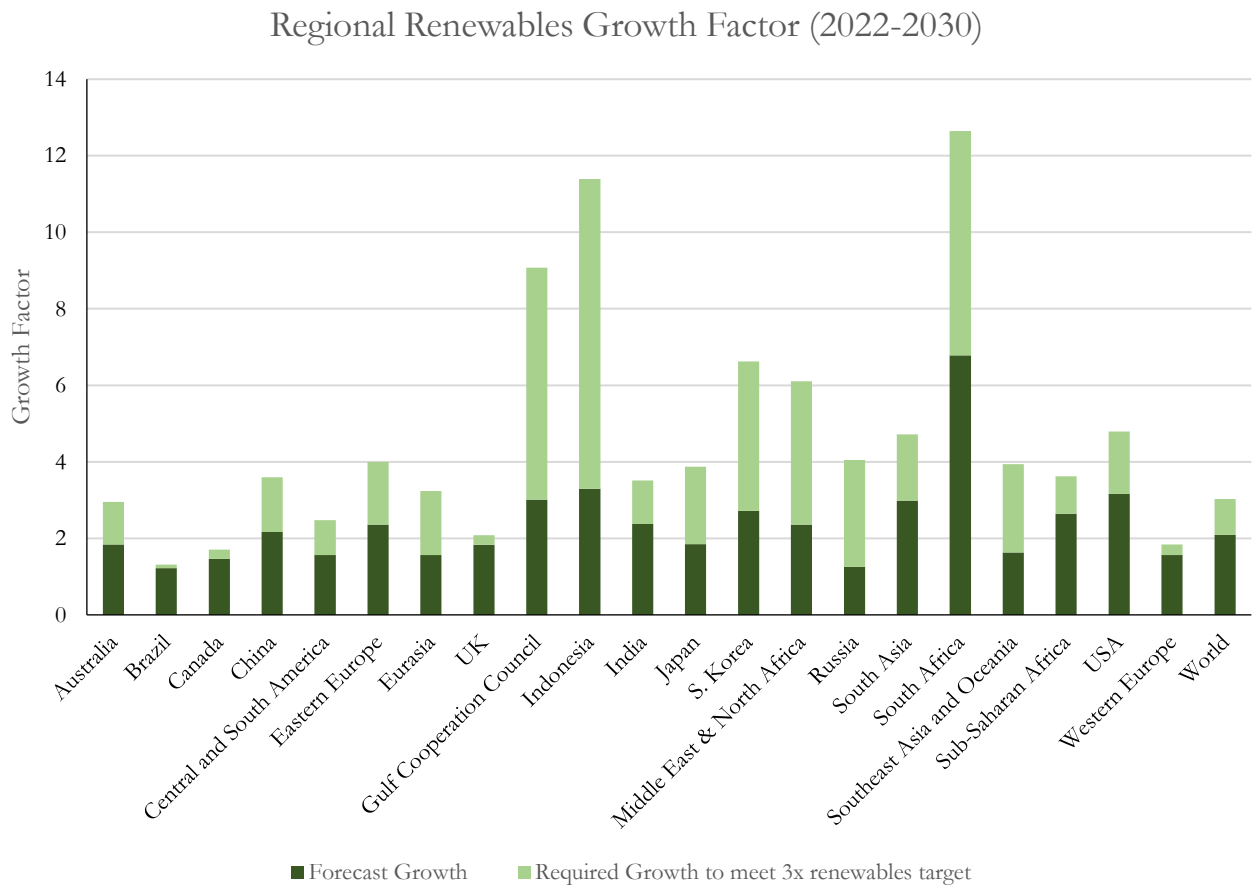
Using the IPR Forecast, we estimate the forecasted and required renewable growth rate to achieve the tripling pledge by region / country.

The analysis highlights that while some jurisdictions see almost no growth, GCC, Indonesia, and South Africa have to grow +9x if the global tripling goal is to be achieved.



- A number of signatories already have <10% fossil fuel share in their power generation and thus are not expected to deploy significant additional renewables (e.g. Brazil, Iceland, Canada). Brazil is only forecasted to grow its renewable power by ~25% under the IPR FPS, increasing to 27% under the IPR 1.5°C scenario. Renewable capacity in Western Europe is 'only' set to grow by 64%, a number that would increase to ~77% in order to meet the 3x goal.
- Other countries that have signed the pledge (e.g. USA) in turn are forecast to triple renewables by 2030. However, IPR analysis suggests that meeting the global pledge would actually require a 4.5x increase.
- While China, India, and Indonesia are three notable 'non-signatories', they have signed up to the G20 tripling renewables pledge and are set to grow domestic renewables ~3x according to the latest IPR forecast

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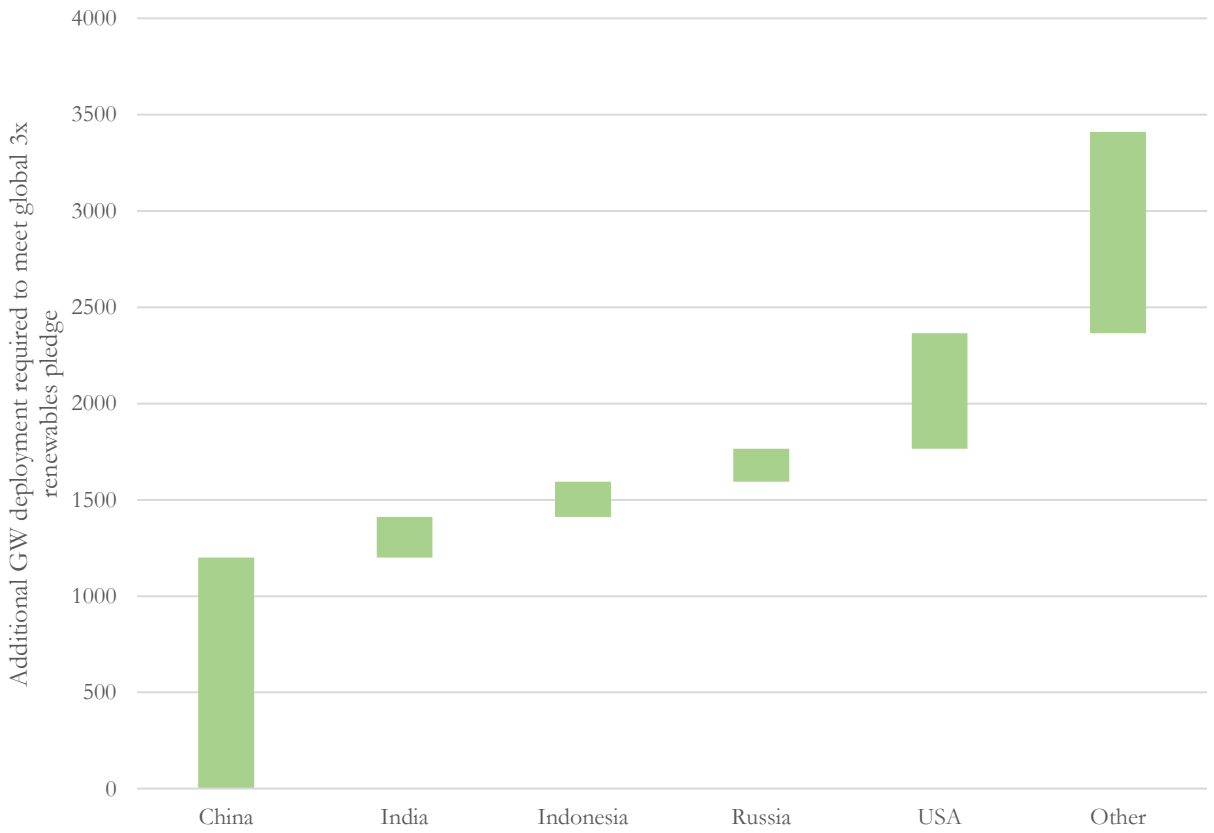
More than two-thirds of the gap to achieving 3x renewables is concentrated in 5 jurisdictions, all G20 members.

China alone accounts for about 1/3 of the gap. The second largest gap is the United States despite the expectation that renewables will triple in the US by 2030.



- In principle, two-thirds of the required additional deployment beyond the IPR forecast is concentrated in 5 countries, all of which either through the COP28 pledge and / or the G20 Declaration have signed up to tripling global renewables. This is the good news.
- While the gap is significant and IPR does not forecast it will be met based on current trends, as highlighted above we do consider that meeting it is technically still achievable, even if not the central IPR or IEA forecast.

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Even if the tripling goal is met, IPR does not project that this would be enough to achieve the 1.5°C goal, given the broader climate dynamic

- Downward estimation of the remaining carbon budget to achieve 1.5°C no overshoot will increase the required speed to replace high-carbon assets
- Upward estimation of overall electricity demand by 2030 and beyond due to artificial intelligence (3-4% according to some estimates) will increase the required deployment of renewables by potentially +150 GW (*Thunder Said Energy 2024*)
- Downward estimation on the possibility for afforestation to contribute to both emissions reductions and temperature mitigation given the albedo effect and forest fires, may increase the decarbonization burden on other sectors.
- Overall, IPR forecasts that policies in other sector significantly lag the 1.5°C goal, with only 3% of tracked policies currently pointing towards 1.5°C.

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About Theia Finance Labs

About Theia Finance Labs

Theia Finance Labs (formerly 2° Investing Initiative Germany) is an independent, non-profit think tank incubating research solutions for the financial sector that help solve the climate crisis. The Theia Finance Labs name is inspired by the Greek goddess of sight, the light of the blue sky, and the value of gold, Theia, and by the Greek word Aletheia, which means "disclosure" or "truth", literally "the state of not being hidden". The new brand thus mirrors our goal to develop evidence-based research and tools that shed light on the intersection of finance, climate change, and long-term risks. Theia operates as a 100% non-profit organization.

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