Assessing corporate emissions reduction targets against national transition plans

Executive Summary

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Abstract

Lack of coordination between corporate and public actors is likely to prevent the achievement of climate mitigation targets. Yet, corporate emissions reduction targets are often assessed against global benchmarks, failing to account for regional differences. We provide an approach for assessing corporate emissions reduction targets against sectoral national transition plans. We apply this method to a sample of nine electric utility companies in Australia, India, and the United Kingdom. We find that companies' emissions targets are not ambitious enough to enable their countries to meet their national mitigation targets, in particular for Australia and India. Misaligned companies may fully consume their carbon budget in the next 10 years, highlighting the need for rapid changes in the short term. Furthermore, the use of national pathways to assess companies does not guarantee strict compliance with the Paris Agreement and risks lowering the overall level of ambition to at least 2.8 degrees of warming. However, national pathways appear to be more suitable benchmarks – in particular, for developed countries – when they are more ambitious than the global average.

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Executive summary

Companies are increasingly developing emissions reduction targets to reduce their climate impacts. Current approaches to assess the ambition of these targets predominantly use global benchmarks. However, these approaches do not comply with the Paris Agreement as they do not account for the "Common But Differentiated Responsibilities and Respective Capabilities" (CBDR-RC) principle.

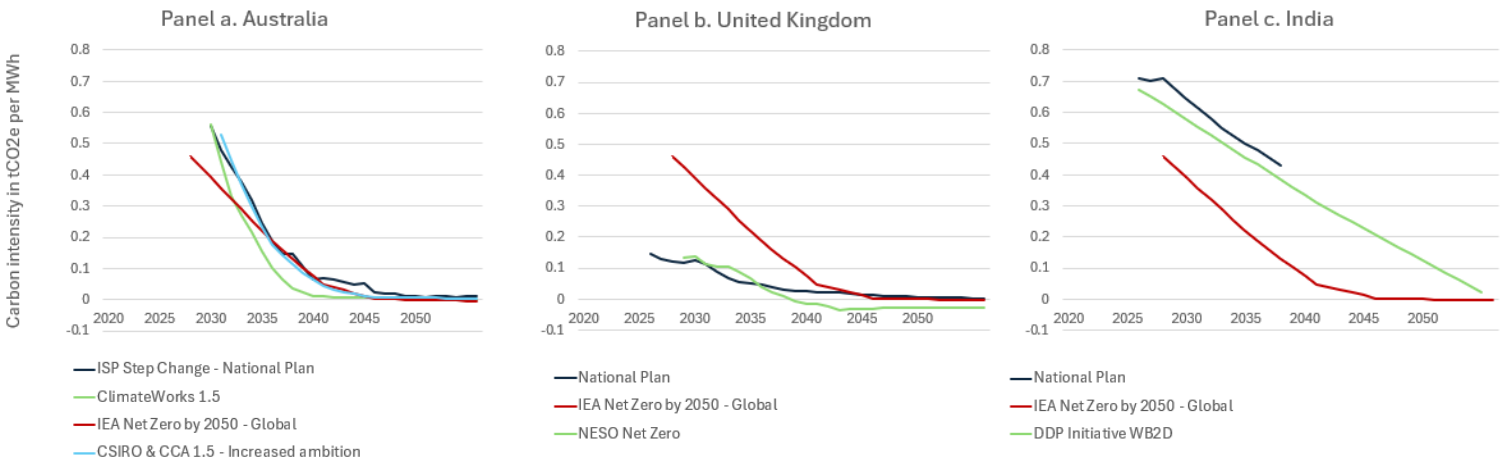
This could bias the decision-making of stakeholders interested in corporate climate targets – for instance, conditioning financial services to global metrics could disproportionately hurt companies in high-emitting but low-income countries. As a result, various stakeholders have shown interest in using sectoral national benchmarks to assess companies' transition plans. In particular, national transition plans designed by governments and regulators could serve as valuable benchmarks, as these plans are real-world roadmaps developed by actors capable of influencing corporate transition strategies and associated risks.

In this study, we assess corporate emissions reduction targets against national pathways. We assess nine companies representing a significant share of the emissions from electricity generation in their respective countries Australia, India, and the United Kingdom. Using the Sectoral Decarbonisation Approach (SDA), one of the most commonly used allocation methodologies, we assess the alignment of corporate emissions reduction targets with national and global decarbonisation pathways.

We use three types of sectoral benchmarks: a global pathway (the IEA Net Zero by 2050); a national transition plan, e.g. a national pathway published by a regulatory body from the country; and a national pathway published by a third party (Figure 1).

For each company, we estimate two variables; 1) its future cumulative emissions based on its stated targets and 2) carbon budgets for each relevant benchmark. We then determine the percentage of the carbon budget the company consumes by dividing its planned emissions by the budget. Our findings are as follows.

Figure 1. Comparison of the carbon intensity in tCO2e per MWh of the pathways we used as benchmarks.



Planned emissions reductions by most firms are not aligned with any benchmark (Table 1). This includes all four Australian and three Indian companies, which are expected to use more than 100% of their carbon budget – estimated from the baseline year to 2050, whereas the British companies demonstrate mixed performance. The pathway choice significantly impacts the assessment, however, with the national benchmarks used in our analysis leading to a more stringent corporate assessment than the IEA Net Zero in Australia and the UK and less stringent in India. For example, Stanwell in Australia will use 604% and 515% of its budget estimated from the baseline year to 2050 under the National Transition Plan and IEA Net Zero, respectively.

Using national benchmarks is more in line with the CBDR-RC principle when it results in a more stringent assessment than the global benchmarks. This is likely to be true for countries with high income and high capacity to transition quickly, provided that the national benchmark is more ambitious than the global benchmark, as is the case for Australia and Britain.

Table 1. Alignment of corporate emissions reduction targets with different benchmarks.

Companies - Only electricity generation is analysed	Country	% of national power emissions (2021)	Carbon budget overshoot			
			National Transition Plan (NTP)	NTP - increased ambition	IEA Net Zero (global)	Third-party national pathway
AGL	AUS	32%	138%	149%	110%	205%
EnergyAustralia	AUS	15%	147%	170%	103%	218%
Origin	AUS	11%	206%	283%	230%	346%
Stanwell	AUS	13%	604%	852%	525%	1028%
AGL+EA+O+S	**AUS**	**71%**	**254%**	**351%**	**212%**	**413%**
Tata Power	IND	4%	98%	/	226%	81%
NTPC	IND	29%	130%	/	516%	237%
Adani Power	IND	6%	124%	/	544%	169%
NTPC+Tata+Adani	**IND**	**39%**	**126%**	**/**	**498%**	**209%**
SSE - UK	GBR	16%	64%	/	93%	153%
RWE - UK	GBR	35%	123%	/	78%	265%
SSE UK + RWE UK	**GBR**	**51%**	**90%**	**/**	**88%**	**222%**

Unambitious corporate targets jeopardise national transition plans particularly in Australia and, to a lesser extent, in India. In fact, these corporate targets are not aligned with global benchmarks either (Table 2). These companies consume their entire carbon budget (estimated from the baseline year to 2050) derived from national plans within the next 5-10 years in most cases. For example, Stanwell in Australia is expected to fully spend its carbon budget by 2030.

While alignment with national transition plans does not guarantee Paris compliance, misalignment with these national plans appears to be compelling evidence of non-Paris compliance. The misalignment is the greatest in the short term, while corporate net zero targets contribute to reducing the misalignment in the long term. However, there is limited evidence that companies have credible plans to achieve these targets.

Table 2. Estimated year in which companies will have fully consumed their carbon budget.

Companies - Only electricity generation is analysed	**Estimated year in which the company carbon budget will be fully spent**			
	National Transition Plan	**NTP - increased ambition**	**IEA Net Zero (global)**	**Third party national pathway**
AGL	2031	2031	2034	2029
EnergyAustralia	2034	2033	2045	2029
Origin	2032	2031	2030	2029
Stanwell	2030	2030	2030	2028
AGL+EA+O+S	**2031**	**2031**	**2032**	**2028**
Tata Power	No overshoot	/	2029	No overshoot
NTPC	2030	/	2029	2036
Adani Power	2031	/	2030	2041
NTPC+Tata+Adani	**2030**	**/**	**2029**	2037
SSE - UK	No overshoot	/	No overshoot	2029
RWE - UK	2031	/	No overshoot	2026
SSE UK + RWE UK	**No overshoot**	**/**	**No overshoot**	**2027**

While we have used national pathways in our analysis, we identify two major risks in using national pathways as benchmarks:

1. **National pathways do not necessarily add up to a global trajectory in line with the Paris Agreement.** This is particularly true for national transition plans, with current conditional NDCs leading to a warming of 2.8°C, which poses a risk of lowering the overall level of ambition.
2. **Focusing solely on emissions targets risks missing the implementation challenges to reach these targets.** This is particularly true when these targets are not accompanied with credible implementation plans.

National pathways may be more suitable as benchmarks when they result in more stringent assessments compared to global benchmarks. This approach is relevant for countries with high income, capacity, and responsibility to transition faster as it aligns more closely with the CBDR-RC principle. For low-income countries, the CBDR-RC principle may justify national pathways that are less stringent than the global average; however, if they are not ambitious enough, there is a risk of misalignment with the climate mitigation goals of the Paris Agreement.

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