China's Climate Transition Outlook 2025

# Expert Survey

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CREA
Centre for Research on Energy and Clean Air

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# China's Climate Transition Outlook 2025: Expert Survey

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## About CREA

The Centre for Research on Energy and Clean Air (CREA) is an independent research organisation focused on revealing the trends, causes, and health impacts, as well as the solutions, to air pollution. CREA uses scientific data, research and evidence to support the efforts of governments, companies and campaigning organisations worldwide in their efforts to move towards clean energy and clean air. We believe that effective research and communication are the key to successful policies, investment decisions and advocacy efforts. CREA was founded in 2019 in Helsinki, Finland and has staff in several European and Asian countries.

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## About ISETS

The International Society for Energy Transition Studies (ISETS) is an independent, non-profit, global organisation headquartered in Sydney, Australia. ISETS aims to contribute to advance the global energy transition, drive knowledge sharing, foster dialogue among stakeholders, support sustainable development in various sectors, and promote collaborative actions towards a clean and sustainable energy future.

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## Disclaimer

## Key takeaways

- More than two-thirds (69%) of experts believe China will significantly or partly overachieve its new climate targets for 2035, which aim to reduce emissions by 7-10% compared to peak levels, showing China can indeed achieve much higher reductions.

- Yet, uncertainty about China's short-term energy transition and industrial decarbonisation has increased following the announcement of the conservative 2035 NDC targets, amid economic uncertainties and geopolitical volatility.

- Although emissions have fallen since March 2024, experts are less certain that China will peak in 2025, expecting a peak later in 2028. This also reflects the reluctance of the government to adopt a peaking year for its 2035 targets and could leave more room for emissions to grow.

- Still, the majority of experts (99%) are confident that China will achieve its 2030 targets, implying no emissions growth over the coming five years. That's even as the country is currently far off track for its interim 2025 targets on carbon intensity and controlling coal consumption growth.

- The majority (80%) of experts believe that emissions in the steel and cement sectors have already peaked or will do so before 2030, despite a lag in China's steel decarbonisation.

- Despite economic uncertainties, experts are more confident that the current and future domestic economic and geopolitical environment will accelerate the short-term energy transition and strengthen the importance of the dual carbon goals, highlighting the importance of clean energy sectors for the economy.

# 1 Introduction

As China's "carbon peaking and carbon neutrality" agenda enters its fifth year, the Centre for Research on Energy and Clean Air (CREA) and the International Society for Energy Transition Studies (ISETS) conducted their annual expert survey to systematically summarise current progress and assess future trends. For the fourth annual edition of CREA's China's Climate Transition Outlook, CREA surveyed a pool of 68 experts representing diverse specialisations in the fields of climate and energy. The survey targets experts, scholars, and practitioners to compare data since 2022, capture changes across key sectors and critical issues, and provide evidence-based insights and decision-making support for China's "dual carbon" strategy.

# 2 Total emissions of carbon dioxide

Among experts surveyed in 2025, 89% expressed confidence that China will achieve its carbon peaking target by 2030. Specifically, 18% believe that China's carbon emissions have already reached their peak (see Figure 1). Notably, 70% of respondents selected "between 2026 and 2030" as their estimated timeframe for peaking, indicating that most experts expect China to reach its carbon peak within this five-year window. Further analysis reveals that among those who chose "between 2026 and 2030," the majority anticipate the peak will likely occur in 2028 (see Table 1 for details).

Compared to survey results from the past three years, expert perspectives on China's $CO_2$ emissions show more uncertainty. The proportion of experts who believe that China's $CO_2$ emissions will peak by 2030 has risen from 69% in 2022 to 73% in 2023, 75% in 2024, and 88% in 2025. However, in the 2025 survey, 18% of experts indicated that emissions may have already peaked, a decrease from 23% in 2024 (see Figure 1). This suggests that while overall confidence in China achieving peak $CO_2$ emissions before 2030 remains strong, expectations for the exact timing of peak emissions have shifted to slightly later.

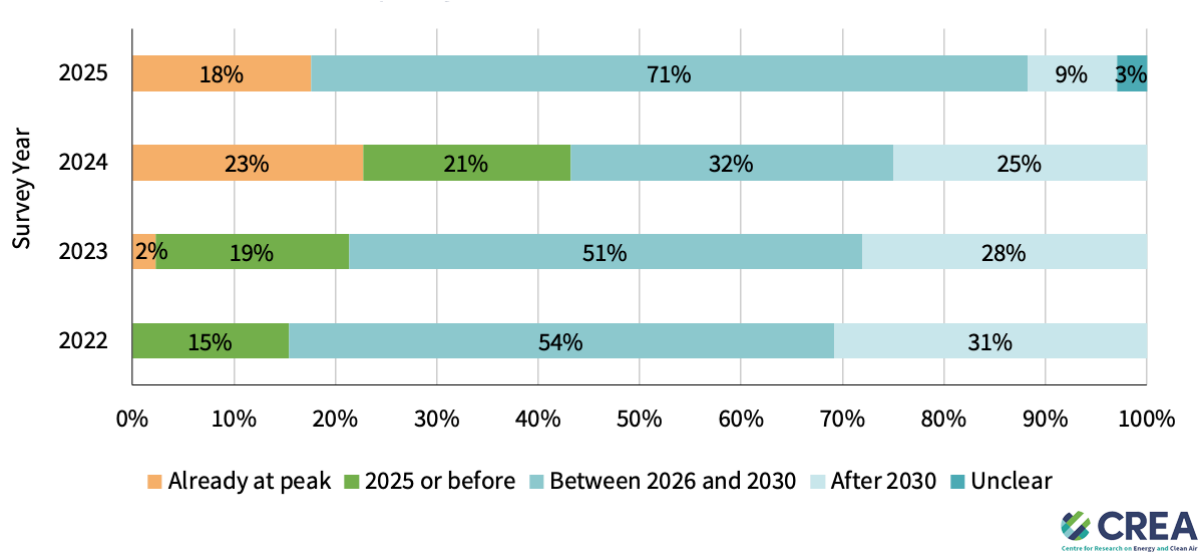


**Figure 1 — The peak year of China's carbon emissions**

**Table 1 — China's $CO_2$ emissions peaking year - Survey results**

| When do you predict China's total $CO_2$ emissions will peak? | | | | | If the peak is expected to occur between 2026 and 2030, which specific year within this range do you consider most likely? | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Options | Number of experts | | | | Peak year | Number of experts | | | |
| | 2022 | 2023 | 2024 | 2025 | | 2022 | 2023 | 2024 | 2025 |
| A. Already at the peak | 0 | 2 | 10 | 12 | 2026 | 0 | 2 | 0 | 3 |
| B. Before 2025 | 4 | 17 | 9 | - | 2027 | 2 | 3 | 2 | 8 |
| C. Between 2026 and 2030 | 14 | 45 | 14 | 48 | 2028 | 5 | 14 | 5 | 17 |
| D. After 2030 | 8 | 25 | 11 | 6 | 2029 | 3 | 10 | 3 | 9 |
| E. Unclear | - | - | - | 2 | 2030 | 4 | 13 | 4 | 11 |
| | | | | | Unclear | - | 3 | 0 | - |

Regarding the peak emission level, more than half of the experts predict that China's $CO_2$ peak will be less than 15% above 2020 levels. Although this share declined slightly compared to 2024, it remains noticeably higher than in 2023 and 2022 (see Figure 2). Against the backdrop of intensified geopolitical competition, rising trade protectionism, and a critical phase of domestic economic transition, the practical challenges of climate action have increased—potentially explaining the modest decline relative to 2024. Notably, the proportion of experts expecting the peak to remain within +10% rose in 2025 compared to the previous three years, while the share anticipating a peak exceeding +20% fell to its lowest level across all surveys.

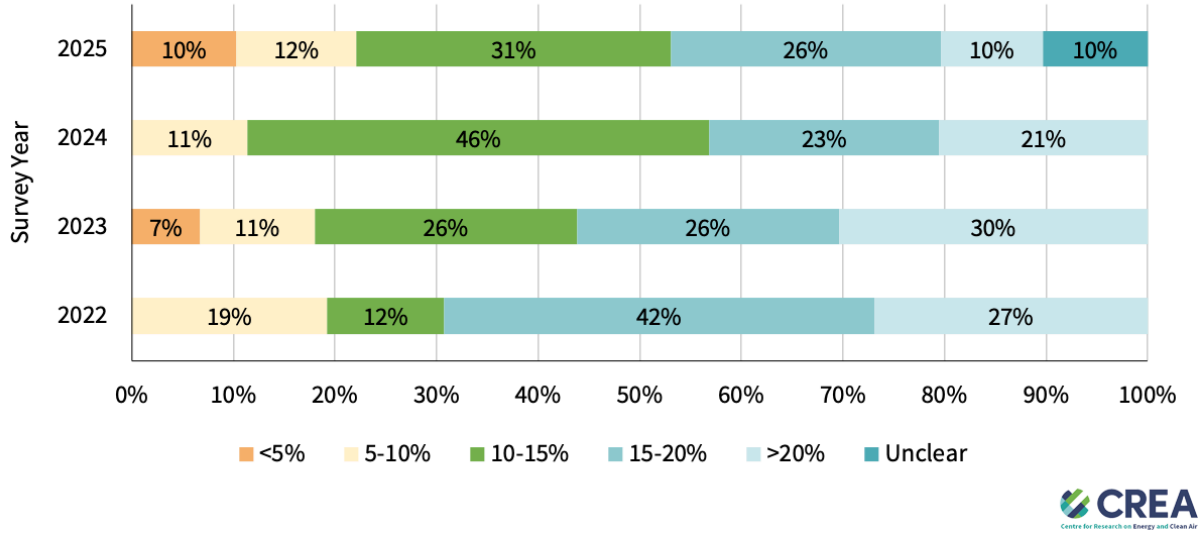


**Figure 2 — $CO_2$ emissions levels at peak**

Meanwhile, analysis indicates that China's $CO_2$ emissions have continued to decline since March 2024, and 2025 is expected to mark the first annual reduction on record, suggesting that the actual emission trajectory is improving faster than experts had anticipated. Since this survey was conducted before the end of 2025, experts approached the question of whether China would peak in 2025 with caution, concentrating most responses on the more verifiable window of 2026–2030.

# 3 Primary energy and coal consumption

Among the 68 experts surveyed, nearly half believe that China's primary energy consumption will peak before 2030 (see Figure 3). While this is the lowest share in the past four years, the number of experts thinking that primary energy consumption has already peaked was the highest. This view reflects not only the experts' optimistic outlook on China's progress in controlling energy consumption growth, but also their confidence in the government's efforts to advance energy transition and energy-saving policies. Meanwhile, nine experts (13%) adopt a more cautious stance, predicting that primary energy consumption will peak around 2035. This forecast may be based on an analysis of China's continued economic growth and long-term energy demand trends, as well as the potential lag effects of energy structure adjustments and technological advancements.

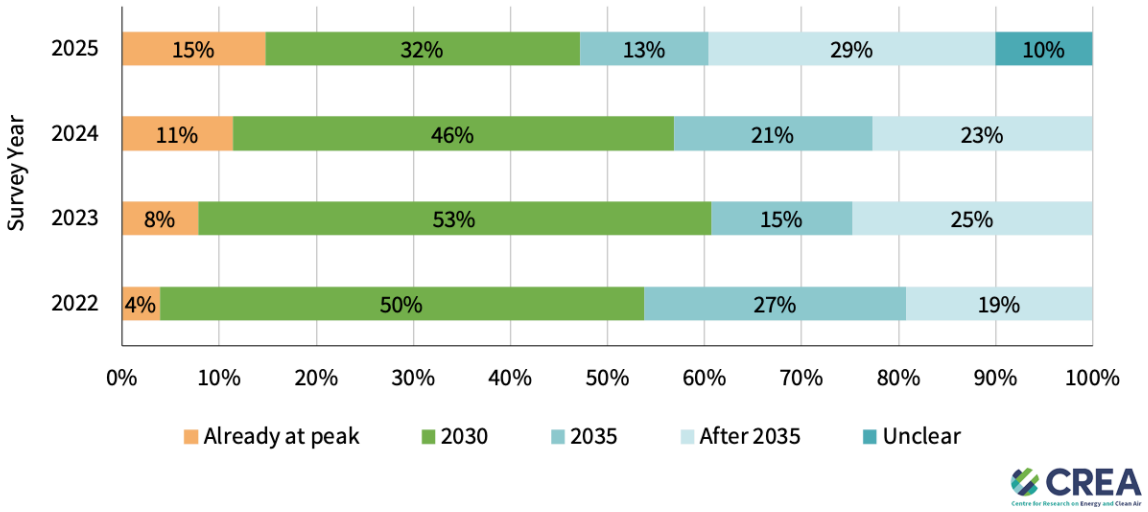


**Figure 3 — Year of peak primary energy consumption in China**

Another 20 respondents (29%) believe that primary energy consumption will continue to grow beyond 2035. These assessments may stem from concerns that energy demand—driven by industrialisation and urbanisation—may not decline rapidly. Under pressure to maintain stable economic growth, even with ongoing energy transition efforts, high levels of energy consumption could persist. This cautious outlook also reflects the practical challenges in achieving the 2025 energy intensity target (energy consumption per unit of GDP). Following the economic rebound after 2022, energy demand grew faster than expected, increasing the difficulty of meeting the target and prompting relevant authorities to revise metric definitions and reporting standards.

The 2025 survey results regarding the timing of China's peak in total primary energy consumption clearly reveal a divergence in expert opinions (see Figure 3). At one end of the spectrum, the perception of an "earlier peak" has strengthened: the share of experts believing that China has already reached peak emissions rose from 4% in 2022 to 15% in 2025. It should be noted that judgments of "already peaked" are influenced by the timing of the survey and the composition of the sample, as respondents in different years may interpret the latest data and emissions cycle differently. Therefore, when comparing results across years, shifts in the shares of "post-2035" and "unclear" should also be considered to avoid interpreting the rise in "already peaked" solely as an increase in optimism.

At the other end, caution has grown: the proportion of experts expecting a peak after 2035 rose from 19% in 2022 to 29% in 2025, while the share of "unclear" also increased. In contrast, the expectation of a peak before 2030—though still the mainstream view—declined from a majority in 2022–2024 to 47% in 2025. Support for the 2030–2035 window also decreased significantly (from 27% in 2022 to 15% in 2023, 21% in 2024, and 13% in 2025). Overall, the trend illustrates polarisation. The rise in the shares of "post-2035" and "unclear" indicates a more conservative overall assessment compared to previous years.

**Table 2 —Survey results on the year of peak coal consumption in China**

| When do you expect China's total primary energy consumption to peak? | | | | |
|---|---|---|---|---|
| Options | Number of experts | | | |
| | 2022 | 2023 | 2024 | 2025 |
| A. Already at the Peak | 1 | 7 | 5 | 10 |
| B. By 2030 | 13 | 47 | 20 | 22 |
| C. By 2035 | 7 | 13 | 9 | 9 |
| D. After 2035 | 5 | 22 | 10 | 20 |
| E. Unclear | - | - | - | 7 |

In 2021, China announced that it would strictly control the growth of coal consumption during the 14th Five-Year Plan period, with gradual reductions during the 15th Five-Year Plan period. This policy direction suggests that China's coal consumption may peak around 2025.

Expert opinions on this issue are divided – 30 respondents (44%) believe that coal consumption in China has already peaked, while 29 (43%) adopt a more cautious stance, suggesting that a peak has not yet been reached, and 9 (13%) remain uncertain, emphasising that the timing of the peak will depend on political and economic developments in the coming years.

This uncertainty reflects the limited progress made in controlling coal consumption. In the early phase of the 14th Five-Year Plan, coal consumption continued to rise, and approvals and commencements of new coal-fired power projects reached near-decade highs. New signals emerged in 2025: driven by strong growth in renewable energy and a corresponding rise in electricity demand, the growth of coal consumption (and coal-fired power generation) slowed significantly—with some periods even showing year-on-year declines, reaching the lowest levels seen in recent years. However, the uncertainty underscores the need to consider policy implementation, economic cycles, and industrial restructuring when evaluating coal consumption trends.

Compared to the survey results from the past three years, expert assessments of the timing of China's coal consumption peak exhibit a polarisation, rather than a simple overall postponement. Using the metric of "peaking by 2025 (inclusive)" for cross-year comparison, 25% of respondents in 2024 expected coal consumption to peak no later than 2025, while 44% explicitly stated that coal consumption had already peaked in 2025.

At the same time, the shares of "post-2035" and "unclear" responses increased, indicating a shift toward later peak expectations and rising uncertainty in forward-looking assessments. A notable inflexion point occurred in the 2025 survey: for the first time, the share of experts who believed coal consumption had already peaked (44%) slightly exceeded those who believed it had not yet peaked (43%). Although the margin was narrow, it highlights the continuing divergence in expert opinion. Overall, the trend does not indicate a clear shift toward either optimism or pessimism.

Rather, it reflects a growing divide between those who believe the peak has already occurred and those who take a more cautious, wait-and-see approach.

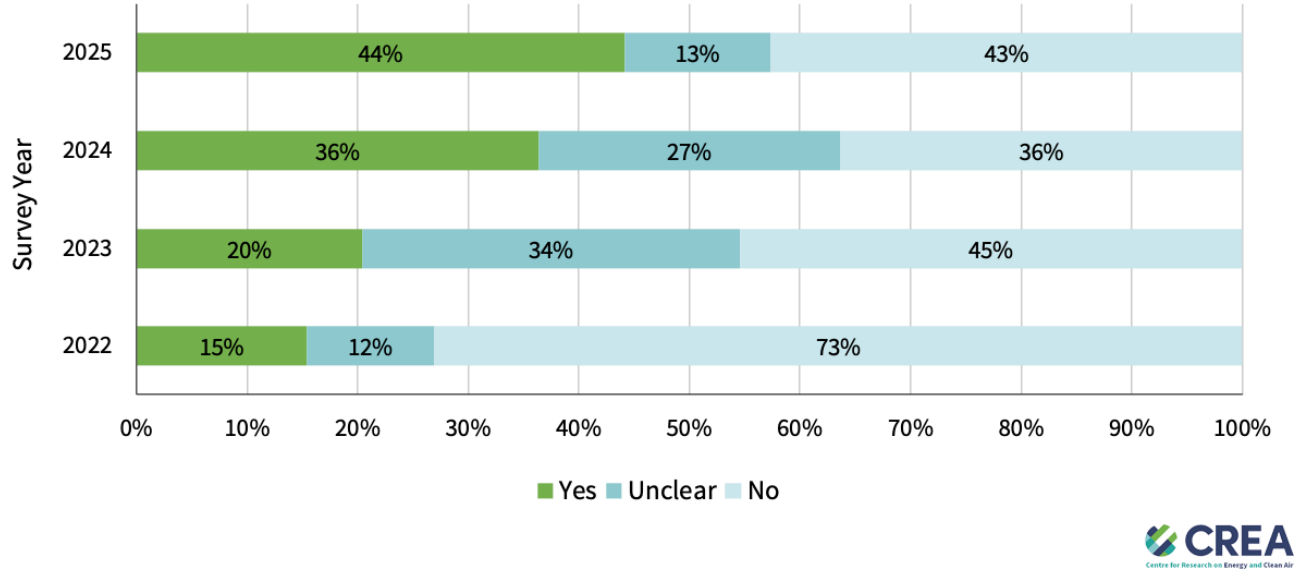


**Figure 4 — Has China's coal consumption reached the peak?**

**Table 3 — Survey results on the year of peak coal consumption in China**

| **Do you think China's coal consumption has already reached its peak?** | | | | | **Peak year** | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Options | Number of experts | | | | Year | Number of experts | | | |
| | 2022 | 2023 | 2024 | 2025 | | 2022 | 2023 | 2024 | 2025 |
| A. Yes | 4 | 18 | 16 | 30 | 2025 | 3 | 12 | 7 | 0 |
| B. Unclear | 3 | 30 | 12 | 9 | 2026 | - | 4 | 0 | 6 |
| C. No | 16 | 40 | 16 | 29 | 2027 | 2 | 2 | 0 | 7 |
| | | | | | 2028 | 3 | 6 | 2 | 6 |
| | | | | | 2029 | - | 0 | 1 | 0 |
| | | | | | 2030 | 3 | 5 | 4 | 8 |
| | | | | | 2035 | 3 | 1 | 2 | 2 |
| | | | | | 2038 | - | 1 | 0 | 0 |
| | | | | | 2040 | 1 | 1 | 0 | 0 |
| | | | | | Unclear | - | 8 | 0 | - |

# 4 The power sector

The power sector occupies a central position in China's emissions landscape, accounting for roughly 40% of national emissions and serving as both a major source and a critical enabler of decarbonisation in other sectors. Regarding the timing of the peak, over 70% of experts expect it to occur by 2030 (see Figure 5). Furthermore, nearly 40% of experts identify the peak as likely occurring within the 2026–2028 window (see Table 4). Using the metric of "peaking by 2025 or earlier" for cross-year comparison, the share dropped sharply—from 42% in 2022, to 45% in 2023, and 61% in 2024, down to 28% in 2025—almost halving. This shift likely reflects a decline in expert confidence in near-term emissions reductions, signalling a more cautious overall outlook.

While coal-fired power plant construction continues to grow as discussed above, capacity expansion does not necessarily translate into increased generation: in the first half of 2025, rapid growth in renewable energy largely met additional electricity demand. The next key task is to prepare for the structural transition post-peak: only by quickly reaching a brief plateau and entering a sustained decline trajectory can the power system achieve robust and lasting emission reductions under a high-renewable-energy scenario.

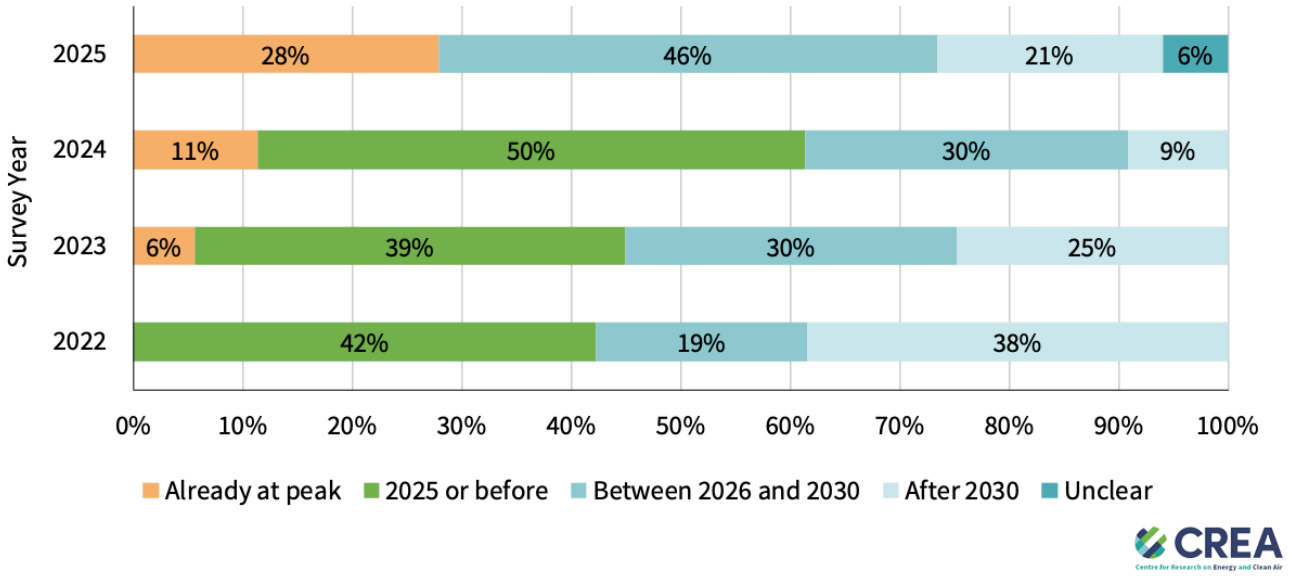


**Figure 5 — Peak year of $CO_2$ emissions in China's power sector**

**Table 4 — Survey results on the peak year of carbon emissions in China's power sector**

| When do you predict CO2 emissions in China's power sector will peak? | | | | | Peak year | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Options | Number of experts | | | | Year | Number of experts | | | |
| | 2022 | 2023 | 2024 | 2025 | | 2022 | 2023 | 2024 | 2025 |
| A. Already reached the peak | 0 | 5 | 5 | 19 | 2026 | 1 | 1 | 0 | 8 |
| B. Before 2025 | 11 | 35 | 22 | - | 2027 | 3 | 7 | 1 | 7 |
| C. Between 2026 and 2030 | 5 | 22 | 4 | 31 | 2028 | 2 | 5 | 3 | 10 |
| D. After 2030 | 10 | 27 | 13 | 14 | 2029 | 1 | 1 | 0 | 3 |
| E. Unclear | - | - | - | 4 | 2030 | 3 | 5 | 0 | 3 |
| | | | | | Unclear | - | 3 | 0 | - |

# 5 The industrial sector

The steel industry ranks as China's second-largest carbon emitter and plays a pivotal role in the success of industrial decarbonisation. As shown in Figure 6, expert assessments of the timing of peak $CO_2$ emissions in the sector are gradually converging, though they remain slightly more conservative overall compared to the past three years. Around 80% of experts believe that the industry has already reached its peak or will do so before 2030, with nearly half expecting the peak to fall within the 2026–2030 window (see Table 5).

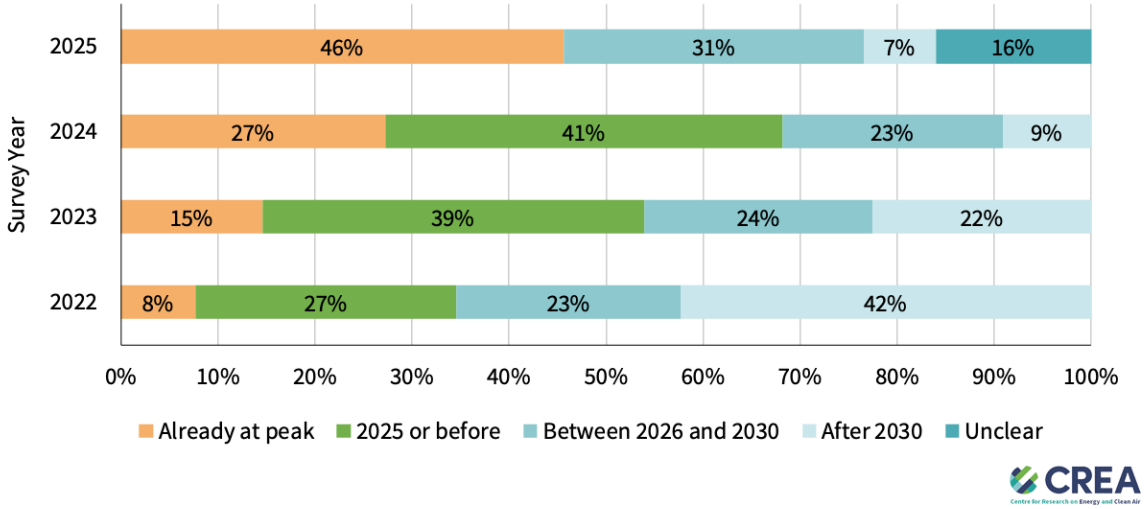


**Figure 6 — Peak year of $CO_2$ emission in China's steel industry**

Using the metric of "peaking by 2025 or already peaked" for cross-year comparison, the trend shows a decline: 35% in 2022, 54% in 2023, 68% in 2024, and 46% in 2025—the lowest level since 2022. This shift reflects weakening expert confidence amid the relatively slow progress in steel sector decarbonisation, indicating a more cautious overall outlook. Notably, the share of respondents selecting "Unclear" reached a new high in 2025, highlighting the sector's growing complexity and uncertain trajectory. Nevertheless, for the first time in the 2025 survey, the proportion of experts who believe the sector has already peaked (46%) exceeded those who believe it has not yet peaked (38%)—suggesting that some experts view emissions as having reached, or being very close to, their peak, even though a clear consensus has not yet formed.

These cautious assessments are well-founded. Steel sector decarbonisation continues to face path dependency and uncertainty in its technological pathways, including issues such as scrap steel supply and price cycles, the availability and cost of green electricity, the commercial deployment pace of low-carbon processes such as hydrogen-based steelmaking and direct reduced iron (DRI), and interregional disparities in electricity and carbon costs. These factors may influence both the duration of the post-peak plateau and the rate of decline. Thus, while a peak is in sight, "post-peak management" remains a critical challenge. The next key task is to shorten the plateau period and ensure a stable declining trajectory—ultimately transforming the prospect of a peak into a structurally declining new normal for the industry.

**Table 5 — Survey results on the peak year of $CO_2$ emissions in China's steel industry**

| **When do you predict CO2 emissions in China's steel industry will peak?** | | | | | **If the peak is expected to occur between 2026 and 2030, which specific year within this range do you consider most likely?** | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Options | Number of experts | | | | Peak year | Number of experts | | | |
| | 2022 | 2023 | 2024 | 2025 | | 2022 | 2023 | 2024 | 2025 |
| A. Already reached the peak | 2 | 13 | 12 | 31 | 2026 | 2 | 2 | 2 | 1 |
| B. Before 2025 | 7 | 35 | 18 | - | 2027 | 1 | 0 | 1 | 7 |
| C. Between 2026 and 2030 | 11 | 20 | 4 | 21 | 2028 | 3 | 3 | 1 | 6 |
| D. After 2030 | 6 | 21 | 10 | 5 | 2029 | 1 | 5 | 0 | 2 |
| E. Unclear | - | - | - | 11 | 2030 | 3 | 4 | 0 | 5 |
| | | | | | Unclear | - | 6 | 0 | - |

The cement industry ranks as China's third-largest carbon emitter. As shown in Figure 7, 84% of experts in the 2025 survey believe that the cement industry has already peaked or will reach its peak before 2030. Based on the 2024 and 2025 data, the main change is that some respondents who previously believed emissions would peak "no later than 2025" have shifted to the "uncertain" category, indicating a slight increase in uncertainty. However, the majority of experts still expect the cement sector's $CO_2$ emissions to peak no later than 2025.

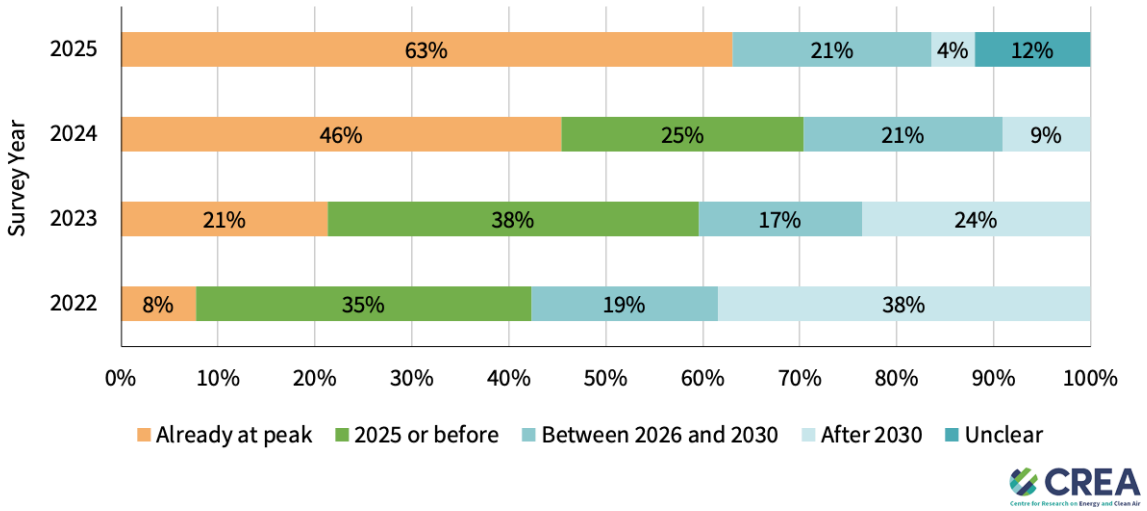


**Figure 7 — Peak year of $CO_2$ emission in China's cement industry**

Examining cross-year trends using the comparable metric of "peaking by 2025 or already peaked," the shares were 43% in 2022, 59% in 2023, 71% in 2024, and 63% in 2025. This indicates a decline from 2024, though the 2025 figure remains higher than in 2023 and 2022. Given the increase in the "already peaked" share in 2025, expert judgments appear to simultaneously reflect both "having reached or approaching the peak" and "divergence within the interval," signalling a more cautious, rather than uniformly optimistic, perspective. Therefore, a prudent interpretation is that, amid slowing demand, declining capacity utilisation, and ongoing cost pressures, expert consensus on the cement industry having reached its peak has strengthened—yet uncertainty persists regarding the precise timing and the trajectory of post-peak decline.

**Table 6 — Survey results on the peak year of $CO_2$ emissions in China's cement industry**

| **When do you predict CO2 emissions in China's cement industry will peak?** | | | | | **If the peak is expected to occur between 2026 and 2030, which specific year within this range do you consider most likely?** | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Options | Number of experts | | | | Peak year | Number of experts | | | |
| | 2022 | 2023 | 2024 | 2025 | | 2022 | 2023 | 2024 | 2025 |
| A. Already reached the peak | 2 | 19 | 20 | 43 | 2026 | 0 | 0 | 0 | 2 |
| B. Before 2025 | 9 | 34 | 11 | - | 2027 | 1 | 2 | 0 | 4 |
| C. Between 2026 and 2030 | 5 | 15 | 4 | 14 | 2028 | 1 | 4 | 2 | 3 |
| D. After 2030 | 10 | 21 | 9 | 3 | 2029 | 1 | 2 | 1 | 1 |
| E. Unclear | | - | - | 8 | 2030 | 2 | 3 | 1 | 4 |
| | | | | | Unclear | - | 4 | 0 | - |

# 6 The transportation sector

The transportation sector is China's largest source of energy-related $CO_2$ emissions after the power and industrial sectors, with road transport accounting for the majority of emissions within the sector. As shown in Figure 8 and Table 7, the 2025 expert survey indicates that 41 respondents (60%) expect the sector's $CO_2$ emissions to peak before 2030, 17 (25%) anticipate a peak between 2030 and 2035, 7 (10%) expect a peak between 2035 and 2040, and 3 (4%) are uncertain or unable to judge; none believe the peak will occur in 2045 or later.

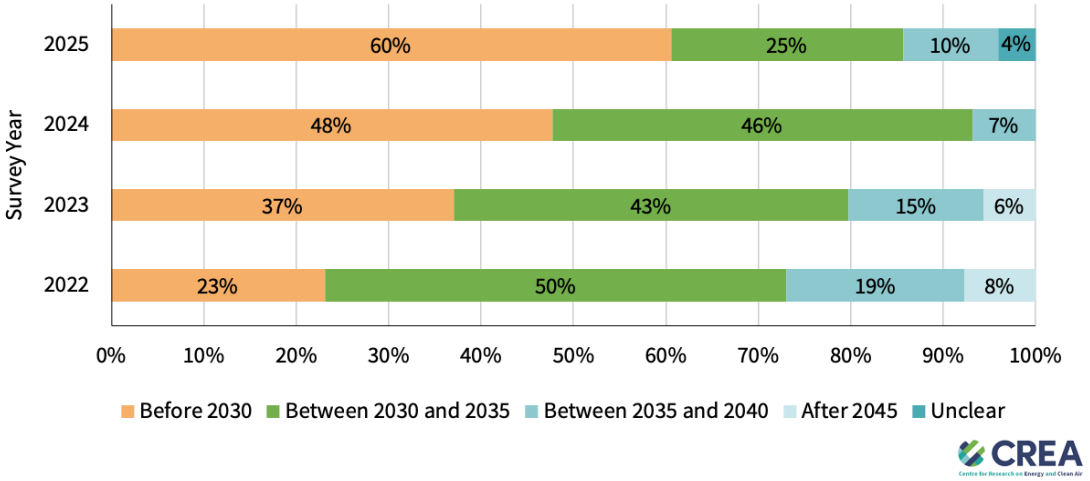


**Figure 8 — Peak year of $CO_2$ emission in China's transport sector**

Compared with previous outlooks, the latest results suggest a more optimistic outlook regarding the timing of the transportation sector's $CO_2$ emissions peak. The share expecting a peak before 2030 rose significantly from 48% in 2024 to 60% in 2025, while the proportion predicting a peak between 2030 and 2035 declined correspondingly. Judgments of a peak after 2045 have virtually disappeared. Overall, most experts now expect the sector to peak within this decade.

This shift is closely associated with the rapid transformation of China's transportation sector in recent years. The penetration rate of new energy vehicles (NEVs) has surged from around 5% in 2020 to nearly 50% in 2025, driving parallel declines in oil consumption and carbon emissions from road transport. Accelerated electrification of passenger vehicles and urban mobility has significantly slowed emissions growth in the sector, likely reinforcing expert confidence in achieving a peak before 2030.

**Table 7 — Survey results on the peak year of CO2 emissions in China's transport sector**

| When do you predict CO2 emissions in China's transport sector will peak? | | | | |
|---|---|---|---|---|
| Options | Number of experts | | | |
| | 2022 | 2023 | 2024 | 2025 |
| A. Before 2030 | 6 | 33 | 21 | 41 |
| B. Between 2030 and 2035 | 13 | 38 | 20 | 17 |
| C. Between 2035 and 2040 | 5 | 13 | 3 | 7 |
| D. After 2040 | 2 | 5 | 0 | 0 |
| E. Unclear | - | - | - | 3 |

# 7 New dynamics

In 2025, experts expressed divergent views on the impact of domestic economic transition and the complex geopolitical environment on short-term energy transition policies. More than half (56%) of experts believe that these factors will accelerate the energy transition (Figure 9). This perspective may stem from the convergence of multiple trends: the continuous expansion of renewable energy capacity, accelerated decarbonisation in high-emitting sectors such as steel and cement amid slowing demand and tightening environmental constraints, the rapid development of emerging green industries, and the elevation of green and low-carbon initiatives to a core component of "new-quality productivity" at the national level. Notably, clean energy–related industries have already become a key engine of economic growth, accounting for 10% of GDP in 2024. This suggests that the clean energy industry is not only a pillar of emissions reduction but also a critical driver of China's economic transition and structural upgrading.

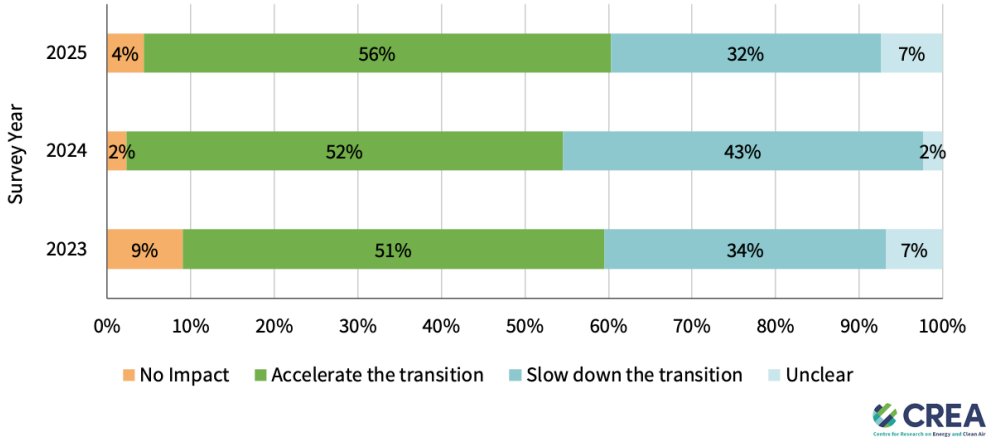


**Figure 9 — Impact of economic conditions on the energy transition**

At the same time, 32% of experts expressed concern that the current economic situation may slow the pace of the energy transition, citing factors such as the short-term prioritisation of economic growth and continued reliance on fossil fuels as a "safety net" for energy security. Another 4% believe that the economic situation has little impact, while 7% remain uncertain. This distribution reflects persistent uncertainty in both the domestic and external macroeconomic environment, suggesting that the precise effects on the pace of the energy transition are yet to be fully observed.

Compared with last year's survey, the share of experts expecting the economic situation to accelerate the energy transition increased from 52% to 56%, while those anticipating a slowdown declined from 43% to 32%.

Regarding whether future domestic economic transition and the complex geopolitical environment will affect China's long-term "dual carbon" strategy, expert opinions in 2025 were largely consistent. A majority of experts (54%) believe that the future macroeconomic environment will further strengthen the emphasis on the "dual carbon" targets, suggesting that carbon neutrality is now widely recognised as a key driver of high-quality development. Meanwhile, 19% of experts argue that the "dual carbon" process should be moderately slowed or adjusted to balance economic growth with transition costs, reflecting concerns over economic pressures and industrial competitiveness. Additionally, 13% of experts recommend lowering the priority of the "dual carbon" strategy, underscoring that amid economic headwinds and rising external uncertainty, stakeholders continue to hold differing views on the appropriate pace of the low-carbon transition.

**Table 8 — Survey results on the impact of future domestic economic transition and complex geopolitical environment on the long-term 'Dual Carbon' strategy**

| **How do you think the future domestic economic transformation and complex geopolitical environment will affect China's long-term 'dual carbon' strategy?** | | |
|---|---|---|
| Options | 2025 | |
| | Number of experts | Share |
| A. No impact | 7 | 10% |
| B. Strengthen the importance of the "dual carbon" goals | 37 | 54% |
| C. The targets can be moderately relaxed to promote economic growth | 13 | 19% |
| D. Weaken the importance of the "dual carbon" goals | 9 | 13% |
| E. Unclear | 2 | 3% |

The latest survey indicates that experts remain generally optimistic about China's ability to achieve its 2030 Nationally Determined Contribution (NDC) targets: 99% believe the targets will be met or exceeded, with 24% considering the targets broadly achievable, 60% expecting slight overachievement, and 15% anticipating significant overachievement. Meanwhile, only 1% regard them as difficult to attain.

It is important to emphasise that this assessment takes place against a critical backdrop: progress toward the 2025 targets—such as reductions in carbon intensity per unit of GDP and coal consumption control—remains uneven. To achieve the 2030 targets, a more comprehensive and forceful policy package will be needed to realign progress and strengthen implementation.

**Table 9 — Survey results on the achievement of China's 2030 Nationally Determined Contribution (NDC) targets**

| How do you assess China's progress toward achieving its 2030 NDC targets? | | |
|---|---|---|
| Options | 2025 | |
| | Number of experts | Share |
| A. Failed to meet the targets on schedule | 1 | 1% |
| B. Just achieved the targets | 16 | 24% |
| C. Achieved and slightly overfulfilled the targets | 41 | 60% |
| D. Significantly overfulfilled the targets | 10 | 15% |

On September 24, China announced a new round of Nationally Determined Contributions (NDCs): by 2035, net economy-wide greenhouse gas emissions are to be reduced by 7 to10% from peak levels, striving to do better. Regarding this new target, expert expectations remain broadly positive and confident. The survey shows that nearly 69% of experts believe China will exceed the target, with most expecting it to be "slightly exceeded," reflecting widespread confidence in China's steadily strengthening emissions reduction capacity under the long-term "dual carbon" strategy.

This also indirectly supports analyses suggesting that the 2035 target is relatively conservative and should be viewed as a floor rather than a ceiling. Estimates indicate that if current trends in clean energy expansion and electrification continue, emissions could decline by at least 30% by 2035 compared with 2024.

Meanwhile, 31% of experts believe the target will be "just achieved," a slight increase compared with assessments of the 2030 target, reflecting a measured recognition of potential uncertainties in long-term economic and energy structural adjustments. Overall, the expert community maintains a cautiously confident outlook on China's ability to achieve deeper decarbonisation by around 2035.

**Table 10 — Survey results on the expected achievement level of China's 2035 Nationally Determined Contribution (NDC) targets**

| **On September 24, China announced a new round of Nationally Determined Contributions (NDCs): by 2035, China aims to reduce economy-wide net greenhouse gas emissions by 7%–10% from the peak level, and will strive to achieve even greater reductions.**<br><br>**How do you assess China's prospects for achieving the 2035 NDC target?** | | |
|---|---|---|
| Options | 2025 | |
| | Number of experts | Share |
| A. Failed to meet the targets on schedule | 0 | 0% |
| B. Just achieved the targets | 21 | 31% |
| C. Achieved and slightly overfulfilled the targets | 36 | 53% |
| D. Significantly overfulfilled the targets | 11 | 16% |

# 8 Survey methodology and sample description

To ensure consistency and enable longitudinal comparison, the overall framework of the 2024 questionnaire was retained and distributed online. However, in response to feedback from some respondents who found it difficult to provide definitive answers to all questions, an "uncertain/cannot judge" (unclear) option was added. In addition, while maintaining the continuity of core questions, new items were introduced to capture expert views on China's updated NDC targets and their implications.

The questionnaire primarily focuses on expert assessments regarding the peaking of China's total $CO_2$ emissions and energy consumption, as well as emission outlooks for key sectors—including power, industry, buildings, and transportation.

A total of 68 valid responses were collected, representing experts from universities and research institutions, government departments, and senior executives in the energy and sustainable development sectors—ensuring broad representativeness and authority. Among the respondents, 53 were domestic experts and 15 were based overseas; approximately half had participated in previous surveys, ensuring continuity and comparability over time.

Notably, over 80% of respondents identified "energy" as their primary field of expertise: 37% specialised in energy and climate economics, 37% in energy policy and management, and 9% in energy engineering (see Figure 10). This underscores the centrality of energy issues within the "dual carbon" process.

For context on sample changes over time, the number of valid responses in previous years was 26 in 2022, 89 in 2023, 44 in 2024, and 68 in 2025.

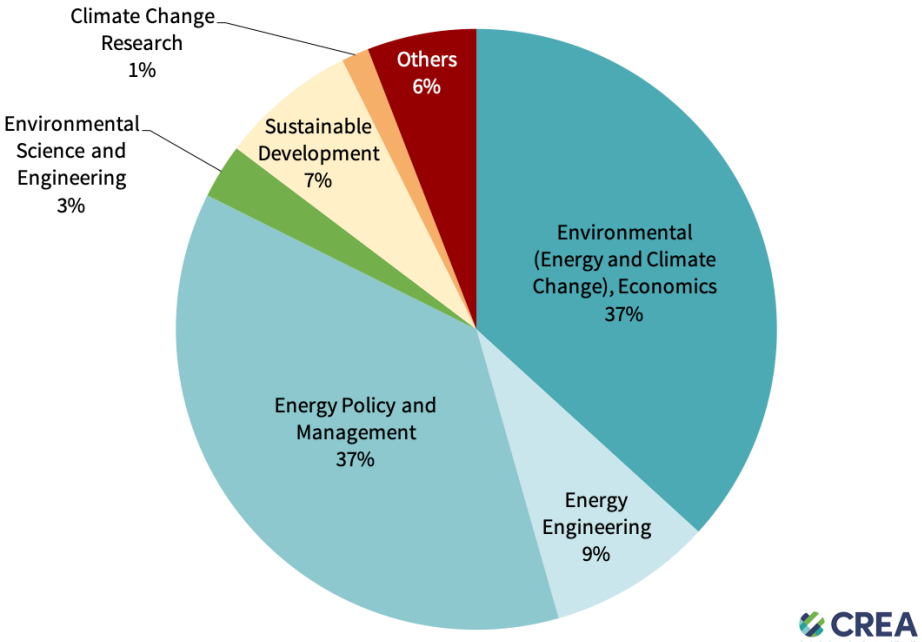


**Figure 10 — Fields of expertise of survey respondents**

In terms of professional background, the survey respondents demonstrate notable diversity (see Figure 11), covering the full industrial chain across coal, power, renewable energy, oil and gas, and other related sectors. Experts from the broader service sector—including education, research institutions, and think tanks—account for 40% of respondents, representing the largest share among all groups.

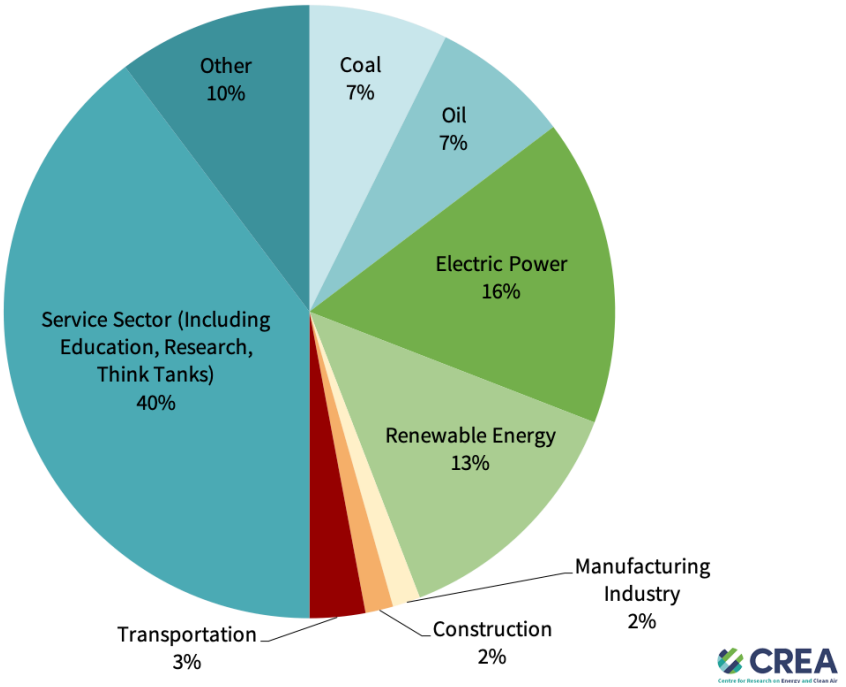


**Figure 11 — Distribution of survey respondents by sector**

By organisational type, respondents from research institutions and universities represent the largest share (60%), while the remaining participants are drawn from consulting firms, enterprises, government departments, and other sectors (see Figure 12). This composition reflects the diverse and cross-sectoral nature of the sample, reinforcing the scientific rigour and robustness of the study's conclusions.

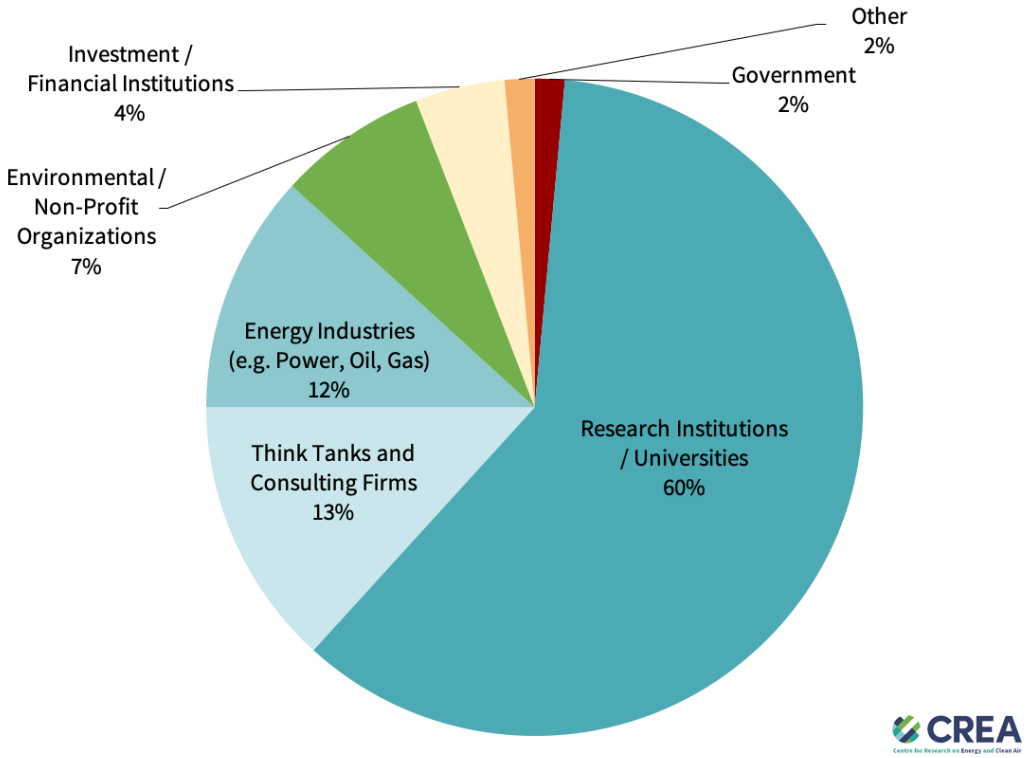


**Figure 12 — Affiliation types of survey respondents**