

ENERGY TRANSITION INSURANCE INSIGHTS REPORT 2025

Charting the role of insurance in the energy transition

Produced in partnership



 **XL Insurance**



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FOREWORD



Vicky Roberts-Mills
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XL Insurance

As a global commercial insurer, our clients are telling us their businesses are changing. They're transitioning to operating in the low carbon economy of the future. Those transitions may be taking place over different timelines in different places, but they are happening. Low carbon energy generation is often the right financial as well as environmental choice.

We're supporting our clients in energy businesses as they change how they operate. Our risk consultants help them manage out risk throughout the entire lifecycle of their assets, from planning, through operation, to decommissioning.

Data on those changes is vital. That's why this survey is so important. It shows that in the last year, the perception and awareness of the impact of climate change and extreme weather events has grown.

Likewise, the growth of renewables and low-carbon energy to meet an expected surge in demand over the coming years will be paramount to the success of the energy transition.

Insurance can support the transition to a low-carbon future. From supporting investment finance to reducing construction and operational risk, we're here to help energy businesses to grow.

ACTIONABLE INSIGHTS



The perceived risk of climate change and extreme weather events has become more acute year-on-year, with a greater share of respondents perceiving such events to have a very high impact on their risk landscape.



Energy organizations are still mostly engaging internal rather than external risk or insurance specialists at the earliest stages of a project's lifecycle, either at the research and development or project design stage.



External insurers are increasingly being viewed as allies and advisers throughout a project's lifecycle, rather than merely as service providers.



The expected surge in electricity demand over the coming years is most likely to be served by growing renewables capacity, however oil and gas market participants are confident that gas will play a longer-lasting role.



Barriers to the growth of renewables and low-carbon energy are most likely to be regulatory and financial in nature, with a lack of global and national targets felt most acutely by renewables developers.



Despite differences in the perceived method of delivery, the importance of a fair and just transition is a unifying factor for the energy sector. The vast majority said it was important to their business.

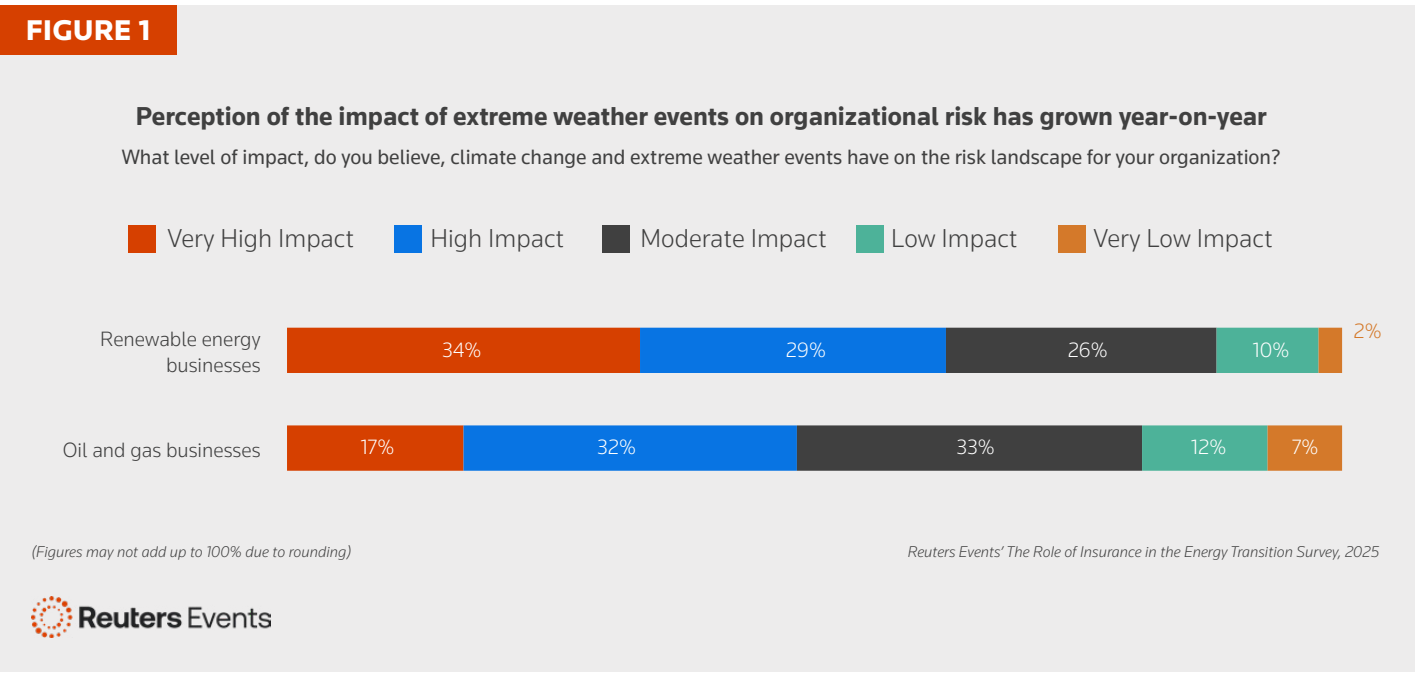
INSURING THE FUTURE: INSURANCE AND THE ENERGY TRANSITION

The energy transition remains an objective that is wrapped in both significant opportunity and considerable complexity. The climate crisis requires a response that takes into consideration broad decarbonization, cost and equity throughout.

The threat posed by the climate crisis has been underlined by recent devastating extreme weather events. The January 2025

fires in Los Angeles are widely expected to have economic impacts of billions of dollars, while particularly strong winter storms caused significant damage across Europe.

This influx of extreme weather events – the risks and likelihood of which scientists have attributed to the effects of man-made climate change – have caused the energy industry to take stock.



Conducting year-on-year analysis of our survey results, energy sector respondents would appear to now consider climate change and extreme weather events to be having a more severe impact on the risk landscape they face.

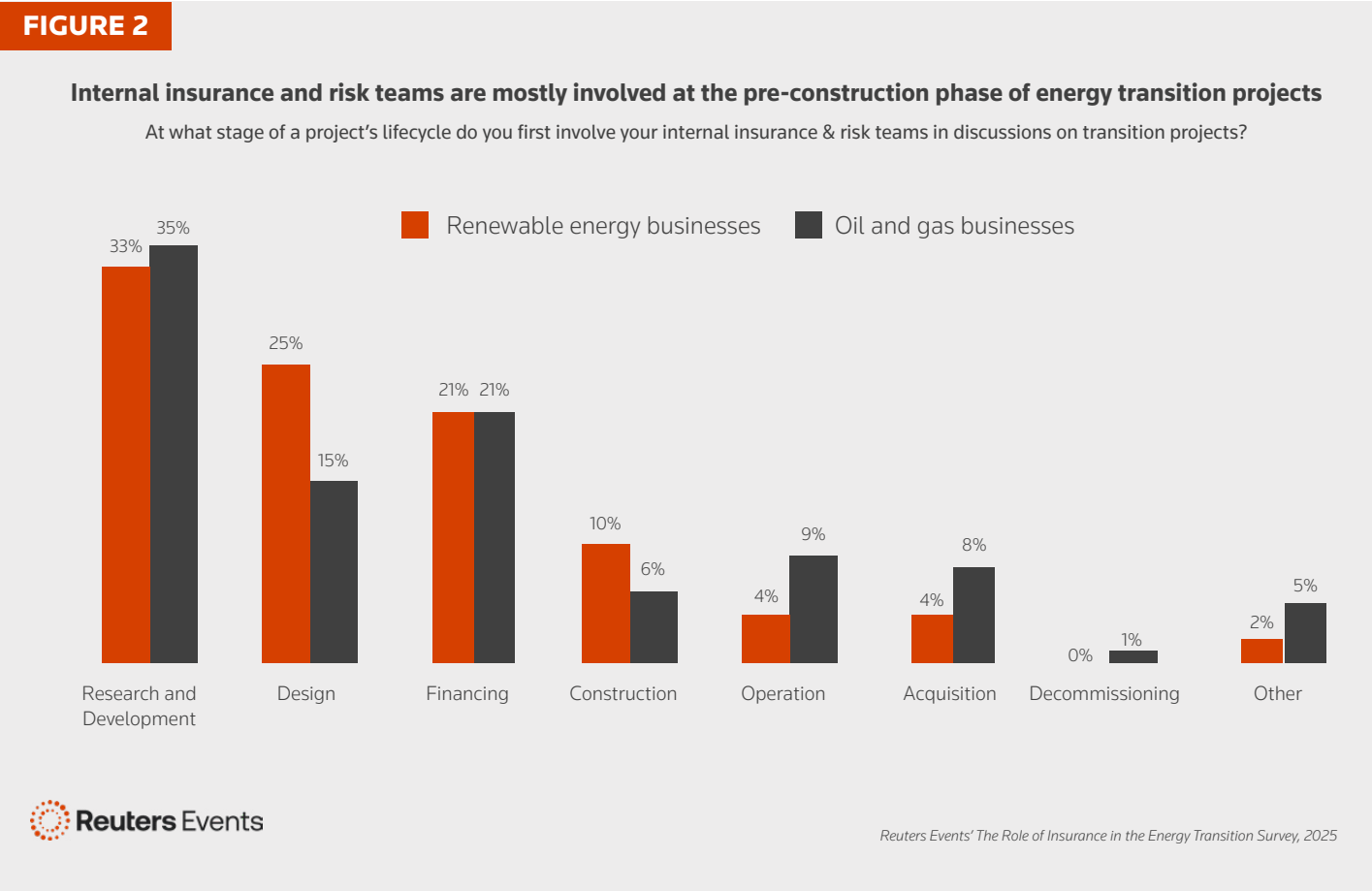
27% of respondents now consider the impact on their businesses of climate change and extreme weather to be very high, up from 20% in last year's survey. Correspondingly, the

number of people describing the impact as low or very low has decreased, from 22% in the previous survey, to 15% in this one.

We do see a distinct difference, however, in how respondents from oil and gas (O&G) organizations perceive climate risk. Such respondents were least likely to perceive the impact on their risk landscape to be very high, with just 17% of respondents doing so.

This may indicate that while the perception of climate and extreme weather risk is increasing across the industry, O&G respondents consider the risk to still be less severe. Renewable

energy assets, particular solar and wind generators, are more susceptible to extreme weather events and losses, which may also explain this perception.



Despite this shift in perception of climate risk, we have not recorded any distinct changes in how early or late energy organizations are engaging internal insurance and risk teams on discussions around transition projects. A slim majority (53%) engage internal insurance or risk teams early on in the project lifecycle – either at the research and development stage (32%) or during a project's initial design (21%).

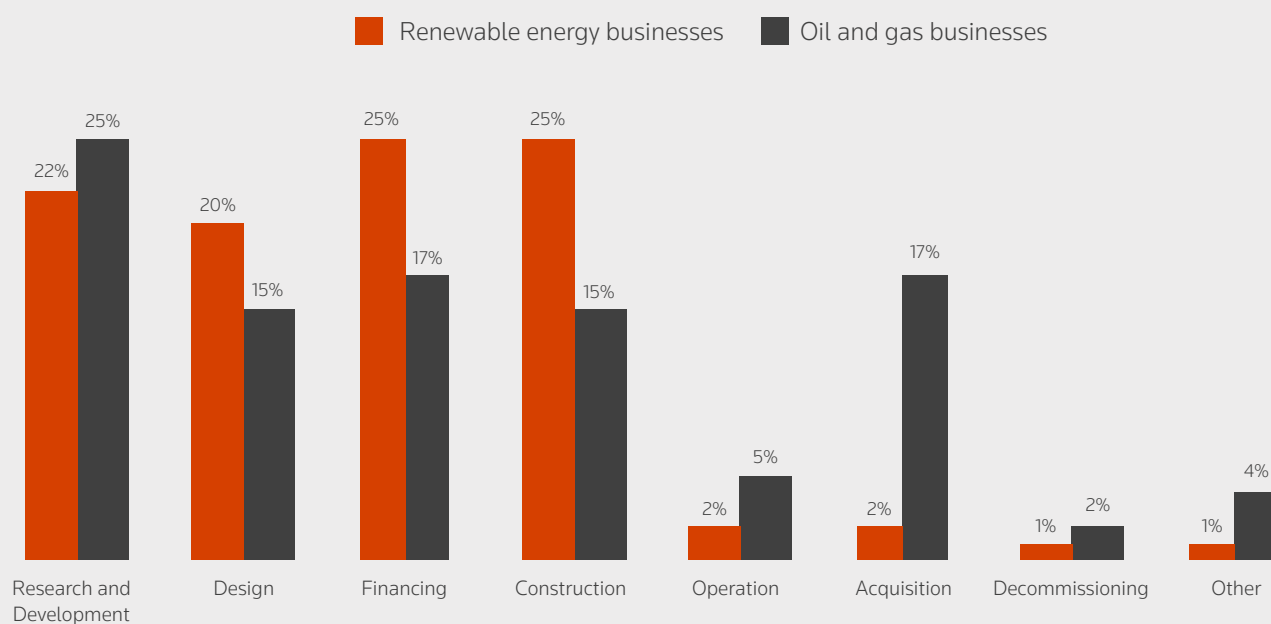
A further 19% engage internal teams during the financing stage, meaning that nearly three-quarters (72%) of total survey respondents are doing so prior to construction.

As figure 2 illustrates, this is mostly true across both renewables and oil and gas respondents, however a greater share of respondents from renewables organizations suggested internal teams were being engaged at the design stage compared to their O&G counterparts.

This indicates that despite the differing nature of project development across renewables and O&G organizations, it is still considered best practice to engage risk and insurance teams prior to construction. Those engaging teams later than that would be considered outliers in this respect.

FIGURE 3**External insurance providers are involved early on in the project development process**

At what stage of a project's lifecycle do you first involve your external insurance provider in discussions on transition projects?



Reuters Events' The Role of Insurance in the Energy Transition Survey, 2025

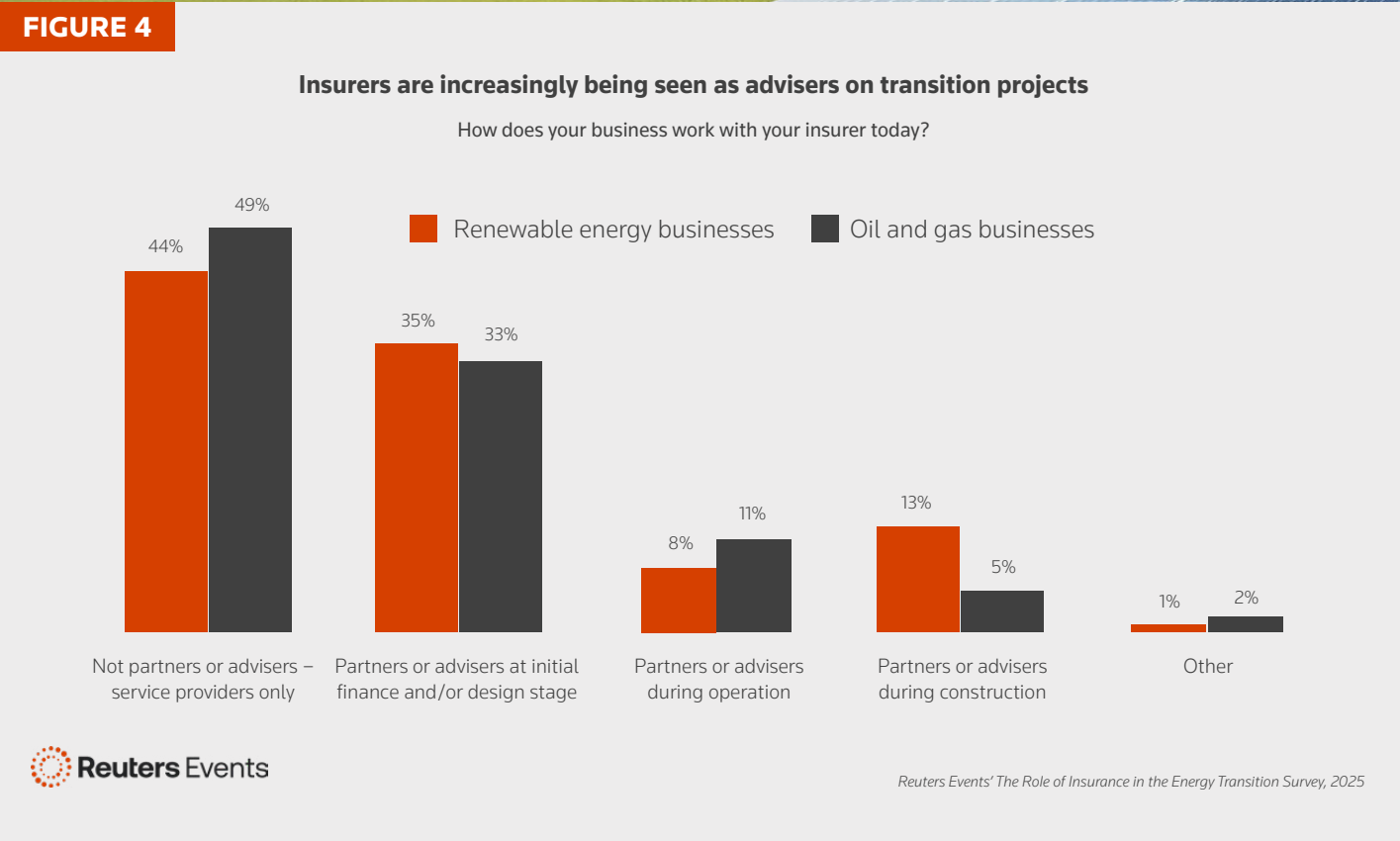
This is also evident in how early energy organizations are engaging external insurance providers and teams, as illustrated in figure 3. While a greater share of respondents are engaging external teams during the construction phase or later compared to internal teams (33% vs 28%), the majority are still engaging external insurance or risk providers pre-construction.

There is, however, a notable increase in the share of respondents who said they were engaging external teams during the construction phase, compared to internal teams. While just eight percent of respondents said internal teams were engaged during the construction phase, 16% of total respondents said this was when external providers were engaged.

This is particularly acute within respondents from renewables developers. One quarter of renewables respondents said external providers are engaged during construction, compared to 15% of O&G respondents.

We also see an inverse in the share of respondents from sub-verticals engaging external insurance providers at the operation stage. While 17% of respondents from O&G firms said they first engage external firms during asset operation, just two percent of respondents from renewables firms said the same.

This is likely attributable to the perceived higher financial risk owing to the intermittent operating nature of renewables projects compared to the more predictable generation of O&G assets. This requires insurers to be engaged earlier.



These findings correspond with those in figure 4, which show how while 43% of organizations see insurers as purely service providers, sizeable shares are considering insurers as allies or advisers at various stages of the project life cycle.

One third of respondents (33%) say they consider insurers as advisers at the initial financing and/or design stage, reinforcing the perception of insurance providers as making meaningful contributions to project development.

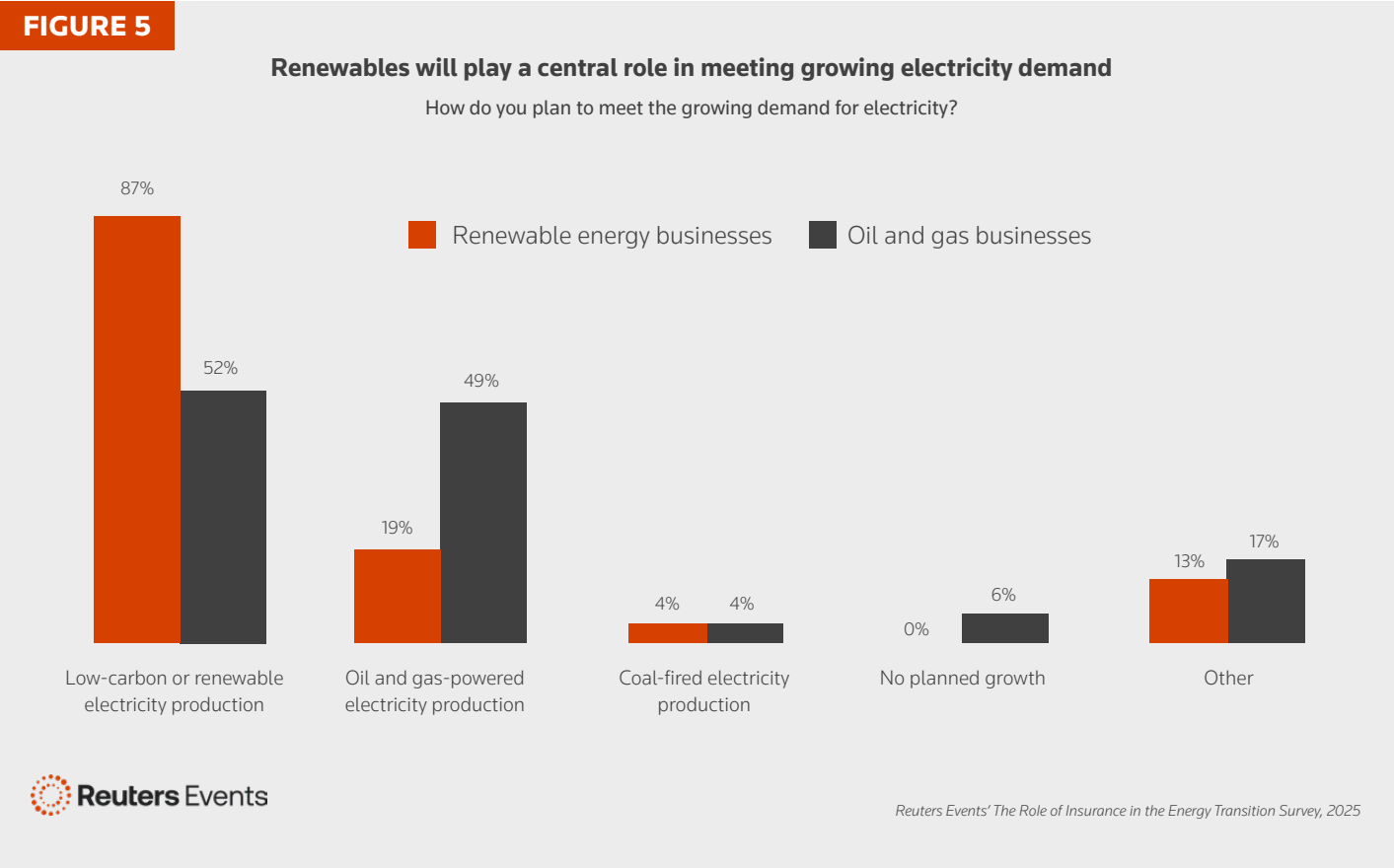
EMERGING TRENDS SHAPING THE TRANSITION

The energy transition has often been described as the most profound change to the economy since the industrial revolution. Global economies must drastically change the way they are powered, with renewables and other low-carbon electricity sources needing to play a starring role.

In tandem, greater electrification of the energy ecosystem, particularly in heat and transport, will be required to achieve a truly net zero economy. This will, in turn, send electricity demand soaring. Within its 2024 World Energy Outlook, the [International Energy Agency \(IEA\)](#) expects global electricity

demand to reach between 50,000 terawatt hours and 66,000 terawatt hours by 2050, compared to around 27,000 terawatt hours in 2023.

The IEA's 2024 forecast also expects the share of renewables generation of final energy consumption to increase from 13% in 2023 to 20% by 2030, jumping to between 26% and 36% by 2035. This demonstrates that while renewables capacity will grow strongly over the second half of this decade, it will need to increase much further and faster in order to deliver lasting change.



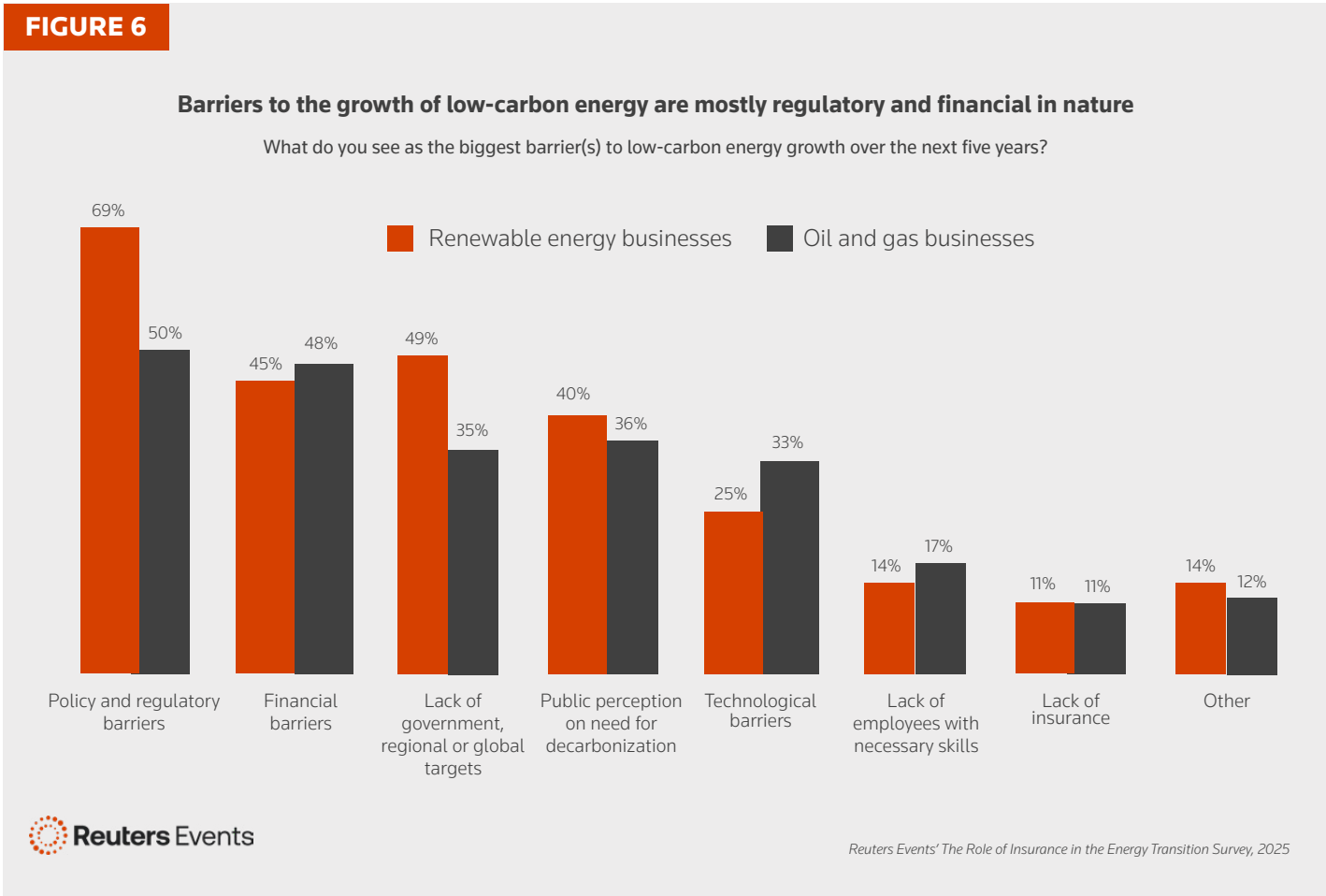
As figure 5 highlights, a majority of respondents plan to use low-carbon or renewable energy to meet that forecasted demand for electricity. More than two-thirds (68%) of total survey respondents have suggested this, placing the generation class firmly in the driving seat to meet any demand surge.

The chart also shows a relatively distinct split in approach between industry participants, one that would perhaps be largely expected. While a significant majority (87%) of renewables developers expect any increase in demand to be met by renewables, oil and gas participants are less likely to consider this the case. Just 52% of respondents from oil and gas organizations suggested renewables would be the answer, while almost half (49%) said demand would be met by an increase in oil and gas.

This indicates that while renewables is considered the answer by a majority of the energy sector in general, oil and gas firms still see longevity for the generation class. This ties with the notion that gas in particular is to serve as a bridging technology that will have a role to play in the energy sector long into the 2030s and 2040s.

Just 4% of respondents expect coal to have a role to play in the future. With major economies phasing out the most polluting of electricity generation technologies, coal’s role in the sector continues to diminish.

The energy transition will not be without its barriers, however, and the most significant of these will likely be steeped in policy and regulation.





More than half (59%) of respondents expect policy and regulatory barriers to be the most prominent blockers of low-carbon energy growth through the second half of this decade. A greater share of respondents from renewables developers cited this compared to those from O&G organizations, as figure 6 illustrates, highlighting the ongoing role of regulation in stimulating renewables deployment.

Financial barriers were also selected by around half (49%) of total respondents. The cost of the energy transition is a much mentioned line, with total cost expectations in the trillions of dollars. Recent market shifts and economic headwinds, including inflationary pressures and interest rates, have also beset certain renewables markets, particularly offshore wind.

The cost and financing of renewables and low carbon infrastructure projects will therefore likely be a point of focus as the energy transition looks to accelerate. There are several products and services from insurers that can reduce the financial barriers to construction and operation of energy

infrastructure. AXA XL is trying to facilitate the financing of projects through two types of insurance. The first involves insurance against significant political risk of expropriation or confiscations of assets. The second is credit insurance, protecting lenders from non-repayment of loans. De-risking loans can allow banks to lend capital at more competitive rates. As well as this, large insurance companies can also be major investors in low-carbon infrastructure.

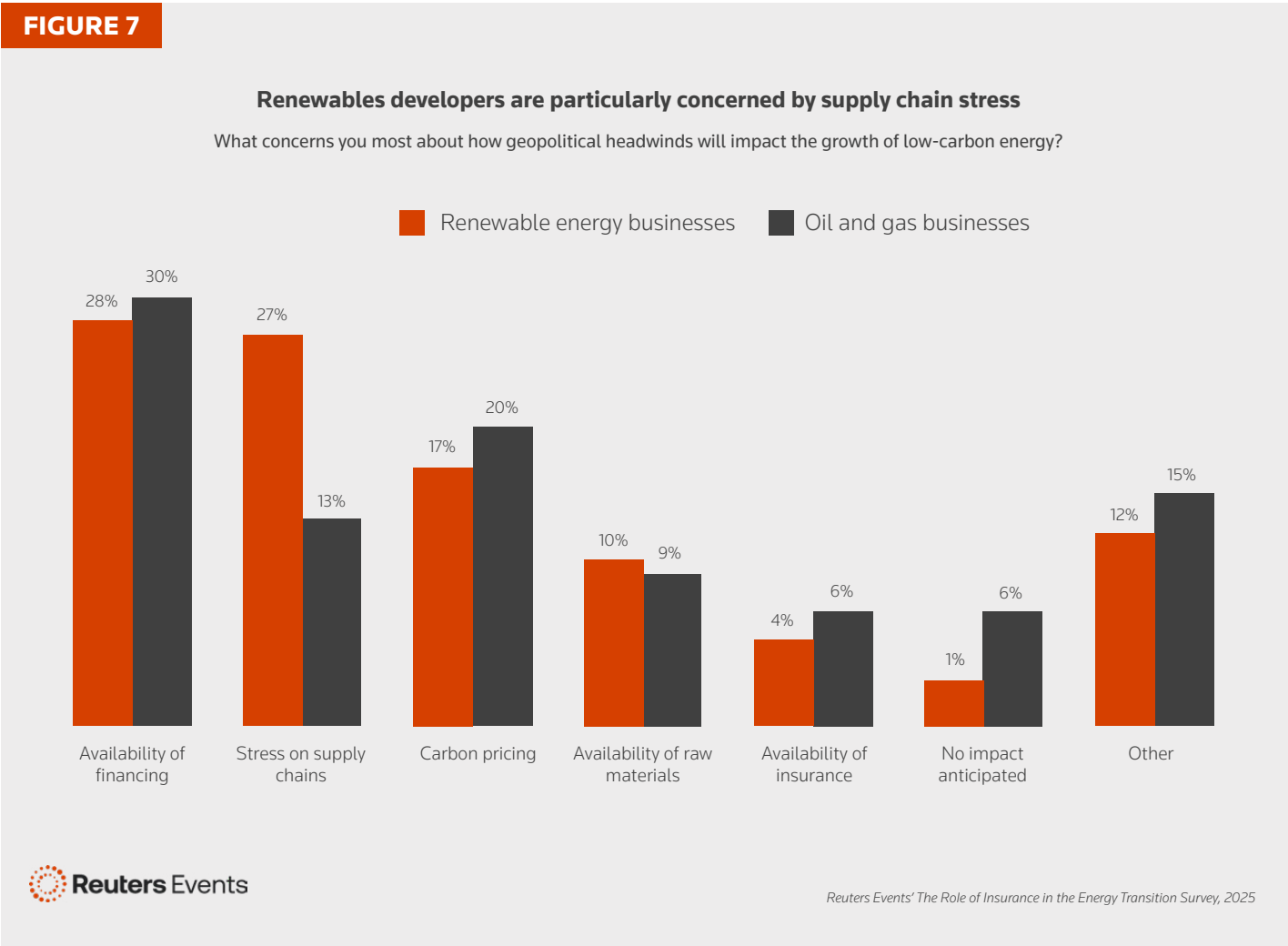
While there appears to be cross-sector agreement on the above two barriers, there is less consensus around the role of renewables targets. Nearly half (49%) of respondents from renewables developers said that a lack of global, national or regional targets stood to stymie renewable growth over the next five years, compared to just 35% of those from O&G organizations who said the same.

However, there is little indication that a lack of insurance constitutes a major barrier to renewables growth, with just 11% of total respondents citing this as a blocker.

GEOPOLITICAL HEADWINDS

With policy and regulation cited as a likely barrier to renewables growth, geopolitical headwinds are set to present themselves in a number of ways. Our survey suggests that energy market participants expect geopolitical headwinds to present themselves in a predominantly financial manner.

The availability of financing was the most cited concern geopolitically, identified by almost one-third (31%) of total respondents. Perhaps interestingly, O&G respondents were just as likely to identify this as their renewables counterparts, suggesting financing conditions are expected to be difficult across the board, rather than concentrated in particular technologies or generation classes.



There is, however, a point of difference in how the industry anticipates supply chain constraints presenting themselves.

While an average of 24% of respondents identified supply chains as a challenge, O&G respondents were least likely to state as such. Just 13% of respondents from O&G organizations said supply chains would be challenging, compared to 27% of respondents from renewables developers. This is most likely attributable to the concentration of renewables supply chains in China and Southeast Asia.

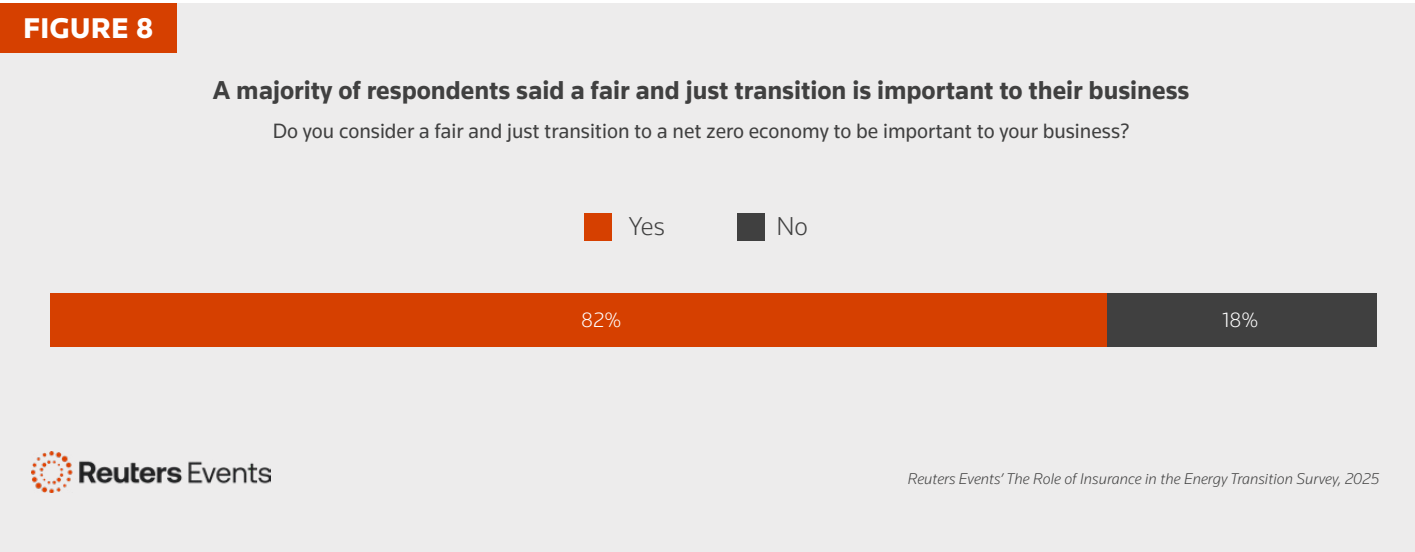
Supporting other findings within our research, the availability of insurance is not seen as a significant concern for the industry in its attempts to upscale renewable energy in the immediate term.

UNDERLINING THE IMPORTANCE OF A FAIR AND JUST TRANSITION

A critically important factor of the energy transition is that it remains fair and just. No one party should benefit substantially more than others as global economies transition to low-carbon economies, with any potentially unfair social and economic impacts needing to be actively addressed.

To this point, it will serve as good news for the industry that a significant majority of respondents – some 82% - consider a fair and just transition as important to their business.

This is felt most acutely within our renewables developer cohort, where 85% of respondents outlined the importance of a fair and just transition.



Further research does show market participants appear stuck in their ways and resistant to change in this regard. Of those respondents that perceive a fair and just transition as unimportant, just 26% said their organization would create a policy to support a fair and just transition within the next year.

However, it remains important to note that those who do not regard a just transition as important are still in the minority, a finding which should resonate with the sector. While delivering a low-carbon economy is unquestionably a leading priority for energy market participants, achieving it fairly and justly is of paramount importance.

METHODOLOGY

This report is based on the findings of Reuters Events' The Role of Insurance in the Energy Transition Survey 2025. The survey was conducted in December 2024 and January 2025. Additionally, data from the Reuters Events Energy Transition Survey 2024, conducted in Q1 2024, is used to facilitate a year-on-year comparison analysis.

Both surveys engaged energy transition professionals and practitioners across the energy value chain including renewables developers, utilities, oil and gas (upstream, midstream, downstream), integrated energy companies, independent power producers (IPPs), petrochemicals, mining and grid owner/operators, among others.

A total of 497 respondents from regions across the globe participated in the Reuters Events' The Role of Insurance in the Energy Transition Survey 2025.

The data was gathered through web surveys which were designed and implemented following strict market research guidelines and principles. However, there may be limitations where the survey cannot represent an overview of the current state of the energy transition industry. Furthermore, the current data does not capture the entire energy value chain; the representativeness might be limited in certain regions.

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