

Arch Capital Group Ltd.

# Task Force on Climate-related Financial Disclosures

For the year ended December 31, 2021

# ARCH CAPITAL GROUP LTD.: TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

As a leading (re)insurer, Arch Capital Group Ltd. (together with its consolidated subsidiaries, "ACGL," "Arch" or "the Company"), we offer specialty risk solutions, property and casualty (re)insurance, and housing sector products in communities across the globe.

Our approach to property-casualty underwriting integrates a comprehensive assessment of risks to provide solutions to protect our clients' employees, assets, property and business. Applied across our underwriting units, our risk management process monitors and manages climate risk and catastrophic events worldwide.

Climate change presents potentially far-reaching implications to our business, customers and the broader global economy. We are committed to improving our understanding of these implications and providing products and services that appropriately address evolving climate-related risks.

This report, in conjunction with the climate-related disclosures in our Sustainable Accounting Standards Board Report(s) and our Sustainability Report(s) (together, "Sustainability Reports"), discusses our approach to managing the risk associated with changing climate conditions. View our Sustainability Reports here.

This report is designed to align with the reporting framework set forth by the Financial Stability Board's Task Force on Climate-related Financial Disclosures ("TCFD") and includes the following disclosure categories:

- I. Governance
- II. Strategy
- III. Risk Management
- IV. Metrics & Targets

# I. Governance

The TCFD guidance requests that insurance companies disclose the organization's governance around climate-related risks and opportunities, including the roles of both the Board of Directors and management.

*Our Approach.* Our holistic approach to risk management involves analyzing risk from both a top-down and bottom-up perspective. The Company's risk management framework includes both our:

- Risk philosophy and policies to address the material risks confronting the group; and
- 2. Compliance, approach and procedures to control and/or mitigate these risks.

The actions and policies implemented to meet Arch's business management and regulatory obligations are at the core of this framework. Climate change risk is embedded in our existing risk management framework.



# **Three Lines of Defense**

Risk management responsibilities are delegated across our organization through a "Three Lines of Defense" approach to risk governance. This risk management framework, supported by key controls, is embedded within our operations and enables us to limit risk and evaluate opportunities. We view environmental, social and governance ("ESG") -related risks not as standalone risks but as enterprise-wide in their scope.

#### **BOARD OF DIRECTORS**

Accountable for Organizational Oversight

#### **MANAGEMENT**

Takes actions (including managing risk) to achieve our strategic goals.

**FIRST LINE:** These are our people on the front lines — such as our underwriters, pricing actuaries and investment professionals.

They're managing risk, complying with regulations and standards, and carrying out our risk control processes daily.

Natural catastrophe modeling and assessment.

Underwriting guidelines.

Reinsurance purchases.

Investment guidelines.

Predictive analytics.

Customer vetting.

Pricing models.

Business segment reviews.

Peer reviews and quality control.

IT Access Controls and cybersecurity.

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**SECOND LINE:** These roles are responsible for oversight and challenge of the front line.

They develop and implement risk management processes policies and procedures.

#### INDEPENDENT ASSURANCE

THIRD LINE: Their role is to independently assess and report on the work of the management lines of defense.

#### **KEY CONTROLS**

- Risk Management Board Reporting.
- Aggregate exposure measurement and monitoring.
- Risk Assessments and Control Mapping.Own Risk and Solvency Assessment.
- Capital modeling and forecasting.
- Operational Risk Committee.
- Regulatory issues reporting.
- Third-party service provider approval and monitoring.
- Board Underwriting Oversight Committee.
- Board Audit Committee.
- Board Finance, Investment and Risk Committee.
- Board Nominating and Governance Committee.Board annual approval of risk appetite, policies
- and assessment.Compensation plan.
- Internal Audit Enterprise Reviews.

## ESG Oversight.

Our Board of Directors ("Board") oversees and monitors enterprise risk in support of our long-term financial strategies and objectives. Our Board's Nominating and Governance Committee ("N&G Committee") oversees our ESG activities. Our Chief ESG Officer meets with the N&G Committee at least twice a year and provides quarterly updates.

Formed in 2019, our dedicated ESG team works to enhance our management of ESG factors and coordinate our sustainability efforts across our businesses, including the assessment of climate change risk in our corporate strategy. Our executive-level ESG Steering Committee, made up of leaders from across the business, provides constructive and practical guidance to our ESG team. There is regular communication between our Chief ESG Officer and leaders throughout our operations. The Chief ESG Officer provides formal reports to the ESG Steering Committee on a regular basis.

As our ESG program matures, the established oversight structure is expanding to incorporate committees at the business and operating levels to manage specific ESG integration initiatives. For example, in 2020, we established a committee to outline and implement an approach to integrating environmentally sensitive considerations into underwriting risks associated with the thermal coal industry. This committee, made up of senior underwriting officers, risk professionals and the ESG team, continues to meet and monitor submissions. See page 7 of our 2021 Sustainability Report for more information about our approach to underwriting thermal coal. In addition, in 2021, we formed an investments steering committee ("ESG Investments Steering Committee") to oversee the assessment of ESG risk

in our investment strategy. See "ESG Investment Governance" below for additional detail.

**Risk Identification and Assessment.** Our Board's Finance, Investment and Risk ("FI&R Committee"), Audit and Underwriting Oversight Committees oversee the top-down and bottom-up review of risks. These committees consider insurance, investments, operational, liquidity, credit, group and strategic risks within the scope of their assessments. Our Chief Risk Officer ("CRO") assists these committees in identifying and assessing all key risks. In addition, these risks are captured in our risk policies, which identify key roles and responsibilities for all risks

Risk Monitoring, Control and Reporting. Our CRO is responsible for maintaining the Company's Risk Register and continually reviewing and challenging risk assessments, including the impact of emerging risks such as climate change. In 2019, we introduced ESG factors into our Risk Register. Since then, we expanded the Risk Register and our risk assessment process to include climate change. Please also see the "Risk Management" section of this report for additional information on the Risk Register process. Quarterly, the CRO compiles the key risk review process results into a report to the FI&R Committee. The ACGL Risk Register is presented to the FI&R Committee on an annual basis for review, followed by Board approval.

**ESG** Investment Governance. Our investment team is responsible for preserving and protecting over \$26 billion in assets for our policyholders and shareholders (as of December 31, 2021). As stewards of Arch's capital and invested assets, they manage the portfolio conservatively in order to ensure our ability to pay claims when due. We believe that by incorporating material, nonfinancial factors such as climate risk into investment selection and risk



management, we will better manage our investment returns over the long term.

The FI&R Committee oversees the Board's responsibilities relating to the Company's investment policy, including reviewing strategic investments, manager selection, benchmarks and investment performance. Our Chief Investment Officer reports to the FI&R Committee quarterly and assists the committee in assessing our approach to long-term sustainable value creation and the incorporation of ESG factors in the investment process.

Our Chief Investment Services Officer is also responsible for ESG oversight and oversees the ESG Investments Steering Committee. This Committee sets forth the investment team's ESG strategy and focuses on managing ESG-related risks in our investment portfolio with sustainability-themed investments to support Arch's effort to address risks from climate change. Comprised of our CRO, Chief ESG Officer and key investment team members, the ESG Investments Steering Committee meets quarterly.

To deepen the integration of ESG factors into our investment process, we expanded our ESG Aware Policy into a formal Responsible Investing Policy (RI Policy). This Policy outlines our responsible investing governance framework and strategy and our approach to engagement, reporting, training and communications regarding our responsible investment practices. See pages 17-18 of our 2021 Sustainability Report for more detail regarding our RI Policy.

Monitoring Exposure to Climate Impact and Carbon-Intensive Industries. Climate change necessitates careful consideration of carbon-intensive industries. Carbon metrics are included in our investment decisions. We seek to reduce and minimize our exposure to thermal coal, oil and low-ESG

scoring assets while also investing in companies making positive progress toward energy transition, allowing us to capture the upside of these efforts while reducing our overall risk. See page 18 of our 2021 Sustainability Report for more information on our portfolio exposure to fossil fuels and thermal coal.

# II. Strategy

The TCFD guidance requests that insurance companies disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning where such information is material.

Arch has undertaken several steps to integrate climate factors and considerations across our business. Starting at the corporate level, we completed a high-level assessment to determine the climate factors most materially relevant to our worldwide business over the short, medium and long term. We incorporated direct feedback from our global risk management leadership, underwriters and actuaries with our CRO's ultimate oversight. Included in this feedback was evaluations of natural catastrophe loss trends over the short, medium and long terms that in some instances led us to adjust the premium we require for assuming risk.

We focused on identifying climate-related risks and opportunities across our key business units and developing strategic responses for our underwriting and investment management activities.

The "Our Identified Climate-Related Business Risks" table outlines our identified climate-related considerations and the corresponding potential risk to our business.



# **Our Identified Climate-Related Business Risks**

Time Horizon	Climate Change Risks (Transition*/ Physical*/Liability*)	Business Risk
Short Term	Increased stakeholder expectations and regulatory requirements/mandates related to climate-related issues.	Underwriting and exposure selection risk.
(1–5 years)		Exposure monitoring and reporting risk.
		Reputational risk related to reporting requirements.
		Impact on investment strategies; adverse effect on the fair value of investments.
		Regulatory risk related to non-compliance.
	Increased uncertainty and unpredictability of frequency and severity of natural catastrophes such as extreme weather events, including the aggregation of such events.	Pricing and reserving risk.
		Product profitability and demand risk.
		Accumulation management and CAT losses risk.
Medium Term (5–10 years)	change risk (e.g., risk profiles, technological innovation, regulatory scrutiny, rating agency requirements and evolving consumer preferences).	Risk profile uncertainty for carbon-intensive assets, investments, firms or sectors, including revenue and/or income loss.
		Reputational risk associated with failing to transition to and/or meeting new market environment, customer expectations and regulatory requirements.
		External influences impact Arch's strategic plan.
		Changes in security-asset-prices risk may impact the value of our fixed income, real estate and commercial mortgage investments.
	Change in risk profiles of insurance product exposures.	Underwriting exposure and selection risk including property, general liability, directors' and officers' liability and mortgage insurance.
		Accumulation management risk.
		Model risk from increased claims frequency and severity not included in historical data.
	climate change events and regulation	Underwriting exposure and selection risk.
		Product design and demand risk.
		Pricing, reserving and regulatory risk.
		Potential loss of investment income and risk to capital.
Long Term (10+ years)	Stringent regulatory mandates such as government policies and sustainable reforms on climate change restricting insuring/investing in carbon-intensive sectors.	Revenue and/or business risk due to government policies and/or influence from activists.
	Increased frequency and/or severity of natural catastrophe and extreme weather events.	Underwriting exposure and selection risk.
		Accumulation management and CAT losses risk.
		Product design and demand risk.
		Potential loss of investment income and risk to capital.
	change.	Product design and demand risk.
		Reduction in reinsurer financial strength and risk transfer appetite or capacity.
	Increased capital requirements and/or reduced returns on equity.	Increased capital charges for climate change exposure from ratings agencies or regulators.
	Physical impact of climate change on business operations.	Increased business interruption and operational costs.

<sup>\*</sup>Transition Risk Factors: resulting from the global transition to a carbon-neutral or low-carbon economy.

<sup>\*</sup>Liability Risk Factors: relating to climate-related insurance claims under liability insurance policies and direct legal claims against insurers for failing to manage climate risks.



<sup>\*</sup>Physical Risk Factors: resulting from the direct damages caused by climate events.

#### **Climate Opportunities**

As we evolve, climate change presents new opportunities for our business. Below are examples of climate-related opportunities across our identified time horizons. These examples should not be construed as a characterization regarding the materiality or financial impact of these opportunities.

#### **Climate Opportunities for Our Underwriting**

We have an opportunity to generate more revenue through the demand for clean energy, renewable energy and clean technology (short-term opportunity). An increase or expansion in legislation and regulation related to the environment, including solar energy, could increase demand for insurance products relating to such regulations. For example, there could be more demand for specialized insurance products for all aspects of the renewable energy industry, including construction policies for contractors who focus on renewable energy and LEED-certified (Leadership in Energy and Environmental Design) construction, surety products that support the efficacy of renewable energy sources, excess and surplus casualty products that cover all stages of renewable energy construction, directors' and officers' liability coverage in the renewables area and professional indemnity coverage for energy consultants, property managers, architects and engineers with LEED certifications. If these changes result in growth in the renewable energy and clean technology sectors, we could see increased sales of specialized insurance and surety products that address renewable energy associated risks. Through our lenders products, we could see a demand for service contracts for individuals generating renewable energy, mainly from solar energy. Similarly, if regulation encourages commercial and personal vehicle owners to drive hybrid or electric vehicles, Arch's wholly-owned subsidiary in the U.K., Somerset Bridge Group, could benefit through its current product offerings in these areas.

We have an opportunity to increase our risk control offerings to raise awareness of climate-change risk and mitigate risk for our insureds. Our risk control staff has helped our U.S. insurance customers better understand and manage their environmental exposures. Through our risk and loss control service platform, "Arch Risk Control," we work with insureds to improve their environmental preservation and safety approach. We provide businesses with comprehensive services that include dedicated training, technical information and consulting solutions for reducing the risk of fire and the related carbon emissions, emergency response planning, flood emergency response plan development, hurricane preparedness and avoiding the risks commonly associated with solar panel installations.

We have an opportunity to develop products and/or services for renewable energy businesses through innovation (medium-term opportunity). Since most of our non-mortgage (re)insurance contracts are renewed annually, we can offer natural catastrophe coverage to help our customers cope with current climate risks. In addition, we

undertake special efforts to help expand (re)insurance protection, through our sovereign lending products in underdeveloped markets and other innovative risk transfer instruments.

Arch is active in the renewable energy (re)insurance business and has focused on brokers and companies specializing in the clean energy sector. We anticipate new opportunities that will necessitate (re)insurance protection in many of our business units, including property, liability, construction and workers' compensation. For our onshore energy group, we are focused on growing our portfolio in energy efficient and low-carbon technology markets including renewable power generation, nuclear power generation, hydro, biofuel or geothermal power generation and biofuel production.

We have an opportunity to better position our products to offer our customers protection from weather-related events and their consequences (long-term opportunity). We see underwriting opportunities in construction projects as public and private entities address changing climate patterns, including projects to address flood control, infrastructure adaptability, water-proofing, fire safety and susceptibility. For our mortgage insurance business, because climate trends can develop over long periods, this time horizon allows our risk control team to assist customers with resources to conduct business impact analyses, prioritize and implement risk management action plans and physical improvements and improve resiliency over time. Similarly, we can provide education to help insureds adapt to the increased risks from climate change, including flooding and other natural disasters.

We have an opportunity to improve our operational efficiency by employing energy-efficient strategies to lower our emissions. At Arch, we are working to reduce and eliminate some of the harmful impacts our operations have on our world's natural environment. In this report, we share the results of an assessment of our 2020 and 2021 greenhouse gas emissions and provide an overview of our approach to not only measure our carbon footprint, but also align on a go-forward strategy to address and reduce our carbon emissions.

# **Climate Opportunities for Our Investing**

We have an opportunity to invest in companies committed to positive and measurable environmental outcomes. We consider ESG factors for both our internally managed assets and those assets managed by third parties. We systematically screen our investments against companies with poor ESG ratings (MSCI CCC rated) for the portfolio to be optimally positioned for risk and performance. Simultaneously, we seek to add companies with better ESG ratings (MSCI A or above) to the portfolio through all sectors and asset classes. Analyzing these factors across all asset classes leads to a complete evaluation of an investment's sustainability and risk profile. We regularly engage with our external asset managers to allow us to monitor the asset manager's ESG integration into investment decisions and



their portfolio, and we opportunistically seek out ESG-positive "impact" investments within both our Alternative and Liquid market investments. Through these investments, we create intentional, positive, measurable and sustainable impacts on society and at the same time deliver positive financial market returns.

We understand that climate change necessitates that the risks inherent to carbon-intensive industries are considered carefully.

The transition to a low-carbon economy also creates opportunities for specific asset classes, described below in "Impact Investments."

## III. Risk Management

The TCFD guidance requests that insurance companies disclose how the organization identifies, assesses and manages climate-related risks. Time frames for risks and scenarios should include short-, medium- and long-term milestones. Insurers should include evaluations of physical risks, transition risks and liability risks.

The Risk Register and the Own Risk and Solvency Assessment ("ORSA") process are two key elements of our risk management framework. Our Risk Register includes an analysis of all risks facing Arch and details the corresponding controls and/or mitigation with respect to these risks; the ORSA process contemplates all risks facing the control group as articulated in the Risk Register, and is designed to assist our Board in understanding and managing the Company's key risks. Material changes in the underlying risks, such as changes in business mix, reinsurance strategy and investment strategy, are evaluated for potential impact upon the Company's capital requirements. This process ensures that material risks are included within the Risk Register and in our ORSA report, feed into the analysis of capital requirements and, in some cases, trigger further investigation through stress testing.

While risks tied to climate change have historically been embedded within other risks in our Risk Register and ORSA process, our current process is to identify climate-change risk components in our risk universe and articulate these more specifically in our Risk Register and in our ORSA process, a process that began in 2020. This initiative was a collaborative effort among our ESG, Risk Management, Investments and business teams to embed evaluations of climate-change risk into our already mature enterprise risk management processes. The current climate-change risk assessment summary is contained in this report in the "Our Identified Climate-Related Business Risks" table.

## IV. Metrics & Targets

The TCFD guidance requests that insurance companies examine how resilient their strategies are to climate-related risks and describe risk exposure to weather-related catastrophes in their property insurance by iurisdiction.

Underwriting Resilience under Different Scenarios. For Arch's natural catastrophe exposed business, we seek to limit the amount of exposure we will assume from any single insured or reinsured, and the amount of the exposure to catastrophe losses from a single event in any geographic zone. We monitor our exposure to catastrophic events, including earthquakes and windstorms, and periodically reevaluate the estimated probable maximum pre-tax loss for such exposures. We seek to limit the probable maximum pre-tax loss to a specific level for severe catastrophic events. Currently, we seek to limit our 1-in-250 year return period net probable maximum loss from a severe catastrophic event in any geographic zone to approximately 25% of tangible shareholder's equity available to Arch (total shareholders' equity available to Arch less goodwill and intangible assets). We reserve the right to change this threshold at any time.

Based on in-force exposure estimated as of January 1, 2022, our modeled peak zone catastrophe exposure is a windstorm affecting the U.S. Northeast, with a net probable maximum pre-tax loss of \$748 million, followed by windstorms affecting the Florida Tri-County area and the Gulf of Mexico with net probable maximum pre-tax losses of \$727 million and \$649 million, respectively. As of January 1, 2022, our modeled peak zone earthquake exposure (San Francisco, California, area earthquake) represented approximately 78% of our peak zone catastrophe exposure, and our modeled peak zone international exposure (U.K. windstorm) was substantially less than either our peak zone windstorm or earthquake exposures.

Net probable maximum loss estimates are net of expected reinsurance recoveries, before income tax and excess reinsurance reinstatement premiums. Catastrophe loss estimates are reflective of the zone indicated and not the entire portfolio. Since windstorms can affect more than one zone and make multiple landfalls, our catastrophe loss estimates include clash estimates from other zones.

By evaluating our modeled natural catastrophes across multiple global zones and differing return periods (i.e., likelihoods of occurrence), we can draw observations about the range of possible impacts to our portfolio. We evaluate the impact of single occurrences and study the impact of the aggregation of multiple losses over select periods as part of our corporate risk management.

Climate change may make modeled outcomes less certain or produce new, non-modeled risks. Consequently, we evaluate natural catastrophe models, tools, loss trends and data on a peril-by-peril and region-by-region basis. In 2021,



detailed evaluations included U.S. flood, wildfire and hurricane frequency and severity of losses. *A priori* evaluations of our clients' risk selection, the quality of the exposure data they provided to us and the tools and processes supporting their risk management are key components of our underwriting process.

Our appetite for natural catastrophe risk is determined by estimated climate patterns and other important factors such as our overall mix of business, market conditions, our market share, regulatory constraints, corporate structure and costs of capital. The complex combination of these, among other factors, determines our appetite for assuming natural catastrophe-related risk.

A key tenet of our business approach is the diversification of risks across risk sources. To the extent that climate change leads to a greater proportion of our overall risk exposure coming from weather-related events, we could elect to adjust our appetite or required economic returns for the risks we would be willing to (re)insure. In addition, climate changes may lead to shifts in population densities and the location of physical assets, which could drive our exposure opportunities.

Based on our ongoing evaluation of climate-related risks, our current exposure remains within our risk appetite. We continually measure and monitor our evaluations and assumptions to adjust our views on risk for new information. Since most property/casualty (re)insurance contracts have a duration of one year, we can adequately adjust the price and manage risk efficiently and effectively.

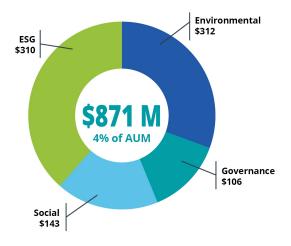
*Investments.* We have begun to examine and assess the potential financial impacts of climate change on our investment portfolio. This analysis includes more fully understanding various climate-change factors, metrics and scenarios. Through this process we will continue to inform and support our go-forward responsible investing approach.

Additionally, our Investment team is engaging with data providers and utilizing third-party tools to help identify, benchmark and manage our understanding of our portfolio's climate impact profile. Analysis of the relevant climate risks and exposures, including scenario analysis across our portfolio, is the first step in this process.

We also recognize the need to examine the portfolio's exposure to the transition and physical elements of climate risk. Future GHG (Greenhouse Gas) emissions and controversial business practices can expose the portfolio to stranded asset risks over time. Our Portfolio Carbon Risk Rating can indicate how issuers are prepared for a transition over time and provide forward-looking analysis. Physical risk metrics include analysis of the issuer's physical risk management plans and exposures to major hazards that might increase due to climate change.

Impact Investments. We believe that responsible investing and performance are not contrary ideas, and we make an effort to allocate capital to companies committed to positive and measurable social and environmental outcomes. We have made certain investments over time that reflect our consideration of ESG factors in both internal and externally managed investments. Impact investments provide the opportunity to selectively add exposure to renewable energy or socially focused funds. Our impact investments currently total approximately 4% of our total assets under management ("AUM").

# IMPACT INVESTMENTS (\$M) as of February 2, 2022



### **Environmentally Efficient Operations**

#### **Greenhouse Gas Emissions and Methodology**

We engaged a third-party greenhouse gas ("GHG") and sustainability consulting firm to measure our 2020 and 2021 emissions and set a go-forward reduction strategy, including targets. The GHG data shared in this report represents our 2020 and 2021 emissions across our worldwide operations, including the Scope 3 emissions categories reflected in the table below, due to activities from assets not owned by Arch but which indirectly impact our value chain. These figures were calculated using a verified methodology in line with the Greenhouse Gas Protocol's¹ reporting standards.

<sup>&</sup>lt;sup>1</sup> World Resources Institute and the World Business Council for Sustainable Development. 2015. "The Greenhouse Gas Protocol - A Corporate Accounting and Reporting Standard, Revised Edition." WRI and WBCSD. Available at: https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf



Arch Capital 2020 & 2021 GHG	Emissions (metric	Emissions (metric	
Inventory Results*		tonnes CO2e)	tonnes CO2e)
	Natural Gas	253	213
	Diesel	3	3
Scope 1	Jet Fuel	176	352
	Gasoline	6	6
	Refrigerant Leakages	591	591
Total Scope 1 Emissions		1,029	1,165
	Electricity	4,757	4,628
	Natural Gas	280	188
Scope 2	Diesel	18	23
	Steam	23	34
	Chilled Water	145	128
	District Energy	_	_
Total Scope 2 Emissions (Market-based)		5,223	5,001
Total Scopes 1+ 2 Emissions (Market-based)		6,252	6,166
	Cat 1: Purchased Goods and		
	Services	95,602	88,617
Scope 3	Cat 2: Capital Goods	5,480	6,576
	Cat 3: Fueled- and Energy- Related Activities	1,181	1,821
	Cat 4: Upstream Transportation (Courier	4.500	2 007
	Services)	1,582	2,097
	Cat 5: Waste	194	191
	Cat 6: Business Travel	3,825	1,604
	Cat 7: Employee Commuting	4,004	3,565
	Cat 13: Downstream Leased Assets	724	1,523
Total Scopes 1, 2 and 3 Emissions (Market-based)		118,844	112,160

2020

2021

#### **Highlights of Our Emissions Data:**

 Even as our operations grew in size by office area and headcount, our operational emissions fell in both absolute and intensity terms between 2020 and 2021. These improvements were tied to ongoing efforts led by the Global Facilities team to drive efficiencies across our offices, as well as to the changed nature of our office space utilization and travel habits due to the global pandemic.

- For our Scope 3, Category 6, Business Travel, Arch had a 58% reduction in travel emissions from 2020 to 2021, primarily due to the pandemic and a companywide shift to working from home.
- Our 2021 data shows that the top 35 suppliers by spend for known vendors contributes to nearly 51% of our Scope 3, Category 1 emissions. A key goal for 2022 is determining the best engagement approach to drive improvements for this figure.

# Improving Efficiency and Setting Targets for GHG Reduction —2022 Priorities

Over half of Arch's carbon emissions come from electricity powering our worldwide offices. Monitoring and reducing our office electricity and natural gas consumption levels are priorities for our global facilities team and our environmental sustainability committee, "Blue Goes Green." While we are an office-based company that primarily leases our building space, we still see strong value in analyzing our Scope 1 and Scope 2 emissions to identify the areas where we can work to improve efficiencies each year.

Aligning with the Science-Based Targets initiative, we recently defined the activities, boundaries, timeline and scope of ambition for our GHG reduction targets. Going forward, we have set the following targets:

- Commit to reducing absolute Scope 1 and Scope 2 GHG emissions 42% by 2030, from a 2020 base year, and;
- 2. Commit to achieving net zero operations by 2030 by purchasing carbon removal offsets for our remaining Scope 1 and Scope 2 emissions.

We are excited to take on these ambitious commitments to decarbonizing and offsetting Arch's direct climate impacts from our operations so we can achieve net zero operations (Scopes 1 and 2) by no later than 2030.

#### **Important Legal Information**

This report may include forward-looking statements, which reflect our current views with respect to future events, risks and uncertainties. Actual events and results may differ materially from those expressed or implied in these statements. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise. For a complete description of the risks and factors that could cause actual results to differ from our current expectations, see our annual reports on Form 10-K and quarterly reports on Form 10-Q filed with the Securities Exchange Commission.



<sup>\*</sup>Emissions calculations are based on a combination of actual, estimated and extrapolated data. We are committed to the continual improvement of our data collection, management and calculation processes. As our calculation methodology is refined in future years, our emissions numbers are subject to change.