

BUILDING 2019 ON STRENGTH

Climate Report



About Freeport-McMoRan

Freeport-McMoRan Inc. (together with its operating subsidiaries, Freeport-McMoRan, FCX or the company) is a leading international mining company with headquarters in Phoenix, Arizona. The company operates large, long-lived, geographically diverse assets with significant proven and probable reserves of copper, gold and molybdenum. Freeport-McMoRan's portfolio of assets includes the Grasberg minerals district in Indonesia, one of the world's largest copper and gold deposits; and significant mining operations in North America and South America, including the large-scale Morenci minerals district in Arizona and the Cerro Verde operation in Peru. Freeport-McMoRan is one of the world's largest publicly traded copper producers. For purposes of this report only, references to (1) Freeport-McMoRan Minerals Corporation (FMC Mining) includes all mining operations in North and South America (the Americas), (2) Freeport-McMoRan Corporation Downstream Processing (FMC Downstream Processing) includes all operations downstream of mining in the Americas and Europe and (3) PT Freeport Indonesia (PT-FI) includes our operations in Papua, Indonesia.

Did You Know?

Copper is critical to achieving several of the United Nations Sustainable Development Goals and enabling the global energy transition. It takes an average of 4.1 metric tons of greenhouse gas (GHG) emissions to produce 1 metric ton of copper cathode from cradle to gate.¹ However, because of its effectiveness in electrical applications, copper's GHG emissions can be mitigated by a factor of up to 1,500 to 1. In fact, the International Copper Association² estimates that by 2030, copper could help reduce global emissions by 16%. Furthermore, an investment in copper is a good one as over two-thirds of copper produced since the 1900s is still in use today.³

Copper & Public Health

The COVID-19 global health pandemic has spotlighted the antimicrobial properties of copper. The same properties that make copper a good conductor of electricity also enable it to kill microbes. In fact, when copper comes into contact with microbes on a surface, it destroys the whole cell – including its DNA – so it cannot mutate. These properties enable copper to reduce, and in certain cases significantly diminish, the transmission of bacteria, viruses and other pathogens in health-care or general public settings. In a hospital, this can be the difference between a patient leaving healthy or acquiring an additional illness while admitted. The World Health Organization estimates that globally over \$80 billion is spent on hospital acquired infections every year. Copper can play an important role in reducing these infections and helping improve the health and well-being of the global population, an important contribution to sustainability. Learn more at www.copper.org

1 <https://copperalliance.org/wp-content/uploads/2018/02/ICA-EnvironmentalProfileHESD-201803-FINAL-LOWRES-1.pdf>

2 https://copperalliance.org/wp-content/uploads/2017/03/Copper_Circular-economy_20aug16.pdf, <https://sustainablecopper.org/sustainable-development-goals/>

3 Glöser, Simon; Soulier, Marcel; Tercero Espinoza, Luis A. (2013): Dynamic analysis of global copper lows. Global stocks, postconsumer material lows, recycling indicators & uncertainty evaluation. Environ. Sci. Technol., 2013, 47 (12), pp 6564–6572 DOI: 10.1021/es400069b.

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RICHARD ADKERSON

Vice Chairman of the Board,
President & Chief Executive Officer

June 3, 2020

Letter To Stakeholders

Dear Stakeholders,

Freeport-McMoRan's dedication to responsible copper production is visible in everything we do, including our approach to climate change. We supply the world with responsibly produced copper, which includes operating in a way that manages and mitigates our greenhouse gas (GHG) emissions and other climate-related risks.

We recognize that climate change poses considerable near and long-term challenges for society and to our own operational and financial performance. Mining is energy-intensive and generates significant GHG emissions that contribute to climate change.

However, copper plays an essential role in the technologies needed to develop and enable the energy transition. As one of the world's largest copper producers, Freeport-McMoRan is uniquely positioned to meet stakeholder expectations for both our contribution to, and our own alignment with, a 2-degree Celsius climate scenario. This is because emissions related to converting copper cathode that we produce into usable products like wire are minimal, and copper plays a significant role in electrification, renewables and energy efficient technologies.

Reducing our emissions and improving operational energy efficiency provides us with cost savings and environmental benefits within and beyond our operating boundaries. Over the last five years, we have reduced our absolute GHG emissions by 17%. Of our total global GHG emissions, the Americas and Europe represent approximately 70% (62% from mining and 8% from processing) and Indonesia represents approximately 30%.

In the Americas, we have spent the last three decades focused on developing and implementing mining and process innovations and grid decarbonization, which has resulted in lower costs and improved efficiency. We are pleased to report that our 2019 GHG emissions per ton of copper cathode are 30% lower than projected.

At our PT-FI operations, we are focused on mining and process innovation to decrease costs, increase efficiency and address climate-related risks. Given the remote nature of the mine and current limitation on alternative energy sources, it is difficult and cost-prohibitive to shift away from the reliance on coal for electricity production in the short-to-medium term. We will continue to pursue opportunities to reduce emissions and improve energy efficiencies.

In 2019, our management team undertook an extensive analysis of our historical climate performance with the goal of establishing a climate strategy to address climate risks and opportunities. We are pleased to formalize our climate change strategy, which is founded on three pillars:

1. Reduction: We strive to reduce our GHG emissions by 15% per ton of copper cathode in the Americas by 2030 from our 2018 baseline.
2. Resilience: We strive to enhance our resilience to the risks of climate change for our operations, our host communities and local stakeholders by working preventatively to analyze and prepare for extreme weather events, water stress and other climate change impacts.
3. Contribution: We strive to be a positive contributor beyond our operational boundaries by responsibly producing copper and molybdenum for the energy transition and collaborating with partners in our value chain.

As a founding member of the International Council on Mining & Metals (ICMM), we are committed to implementing the ICMM Climate Change Position Statement requirements as well as the Performance Expectations across the business. We also are committed to aligning our climate strategy and related disclosures with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in the coming years.

As I write this letter, the world is continuing to deal with major challenges associated with the COVID-19 pandemic, which has impacted our own workforce and host communities. The company is principally focused on maintaining safe and financially viable operations and supporting the economic recovery of the communities where we operate. As business conditions allow, we will look for opportunities to invest in innovative mining and processing technologies to support our 2030 emissions reduction goal. Over the long term, we are committed to contributing positively to global climate change mitigation by supplying the world with responsibly produced copper.

Freeport: Foremost in Copper.



OUR APPROACH

Freeport-McMoRan is committed to being a leader in the responsible production of the minerals and metals we produce. To be a responsible producer, we know it is imperative that we understand the risks and opportunities climate change poses to our operational and financial performance. We aim to manage and mitigate, to the extent possible, the climate-related risks we identify, and to be a positive contributor to climate change solutions through the production of responsible copper.

As shown below, our 2019 absolute GHG emissions were 8,012,451 metric tons, which is 21% lower than 2015. This 21% is comprised of two parts: (1) a 17% reduction in our emissions and (2) a 4% decrease due to improvements in how we calculate our emissions factors. Approximately 70% of our total emissions are generated by our Americas operations and 30% from our PT-FI operations on the Indonesian island of Papua. Our current estimates of Scope 3 emissions are relatively small as the majority of emissions in the copper life-cycle are generated upstream. A third-party GHG verification statement can be found at the end of this report.



REDUCTION



RESILIENCE



CONTRIBUTION

FCX GLOBAL (CO₂E METRIC TONS)

	2015	2016	2017	2018	2019
SCOPE 1	5,699,671	5,095,135	4,530,897	5,240,161	4,969,382
SCOPE 2	4,436,423	4,201,061	3,691,117	3,164,821	3,043,069
TOTAL	10,136,094	9,296,196	8,222,014	8,404,983	8,012,451
SCOPE 3	561,821	618,189	706,214	750,332	692,336

Strategy

Our work to identify and address climate-related risks and opportunities across our business has been underway for many years through our innovations in mining and processes, Sustainable Development Risk Register (Risk Register) process, governance framework, and annual GHG emissions disclosures. In 2019, our management team undertook an extensive analysis of our climate performance, establishing the following strategy, based on three pillars:

- 1. Reduction:** We strive to reduce our GHG emissions by 15% per ton of copper cathode in the Americas by 2030.
- 2. Resilience:** We strive to enhance our resilience to the risks associated with climate change for our operations, our communities and our stakeholders.
- 3. Contribution:** We strive to contribute positively beyond our operational boundaries by responsibly producing copper and molybdenum for the energy transition and collaborating with partners in our value chain.

Governance

The Freeport-McMoRan Board of Directors (Board) has four committees, each comprised of entirely independent directors who are responsible for providing oversight to the company's management team on specific matters. The Corporate Responsibility Committee, on behalf of the Board, is responsible for providing oversight on social and environmental matters, including climate-related risks and opportunities across our business.

Our Chief Executive Officer (CEO) has ultimate responsibility for the company's sustainability performance. The company's Sustainability Development Leadership Team (SDLT) includes members of the management team tasked with defining the sustainability strategy broadly – including climate risk – and implementing our policies, systems and programs across the business. The SDLT regularly reports to executive leadership, including our CEO and Chief Financial Officer, and members of the SDLT report to the CRC on key ESG matters throughout the year.

The SDLT is sponsored by our Senior Vice President and Chief Administrative Officer and is led by our Vice President of Environmental Services and Sustainable Development. Other members of the SDLT include our Chief Operating Officer, business unit Presidents, and Vice Presidents or senior representatives from groups including safety, security, supply chain, human resources, sales, legal, compliance, sustainability and finance functions. The SDLT regularly reviews, discusses and addresses climate-related and purchased-power matters in its scheduled meetings.

Through our Risk Register process, the business identifies and prioritizes the most salient climate-related risks and opportunities on both a corporate - and site-level basis in order to manage and take appropriate actions. This iterative process includes third-party validation of the ICMM Mining with Principles framework for our operations and corporate functions, which includes both the **ICMM Performance Expectations and Position Statements** and **Copper Mark** obligations at sites on a prioritized schedule. ICMM obligations include implementing governance, engagement and disclosure processes, advancing site-level adaptation and mitigation solutions, engaging with host communities as well as others in our value chain, monitoring and disclosing our Scope 1 and 2 GHG emissions, and working towards more aligned reporting of Scope 3 GHG emissions.



For more information on the company's sustainability approach, governance and Risk Register process, please refer to our 2019 Annual Report on Sustainability, which is available on our [website](#).



REDUCTION

The cost of energy is material to our business. In 2019, energy represented approximately 20% of our copper mine site operating costs. We have spent the last three decades relentlessly investing in mining equipment and metals processing technologies that provide innovative, lower cost ways of producing copper. This focus on improving our processes has led to significant improvements in the energy efficiency and intensity of our technologies, while we continue to operate and grow our business in a disciplined and responsible manner.

Mining Innovation

Declining ore grades in long-lived, aging mines often leads to longer and steeper haul routes and moving more material per ton of copper produced, which increases GHG emissions. This is a common industry-wide challenge, and we have developed innovative approaches to managing this challenge. In the last decade, we have become leaders in asset optimization – maximizing the lives of our haul trucks and enabling each truck to operate beyond industry standards.

Our haul trucks run an average of 100,000 hours before being rebuilt, which is significantly above the typical industry performance of 65,000 to 80,000 hours. Most recent studies indicate that we can increase this time period by another 7%. By lengthening the life of these critical pieces of equipment, we estimate we avoided the purchase of 12 new haul trucks that would have cost \$60 million in 2019. Since 2008, we have rebuilt 465 haul trucks, 120 of which were used and/or retired trucks purchased from other companies. We rebuild engines, frames and truck beds, resulting in the reuse of approximately 70% of a typical haul truck. The net result is over \$1 billion in capital avoidance and an estimated carbon emissions avoidance of 325 metric tons of CO₂ equivalent per truck rebuilt, reflecting more than 150,000 metric tons of avoided emissions in the last decade.

We also maintain an industry leading program on asset efficiency, with the goal of utilizing equipment as productively as possible. The program uses the Internet of Things to provide supervisors in remote control rooms with real-time insights to truck and driver performance as well as environmental conditions. This allows supervisors to intervene preventively, resulting in fewer failures and enabling us to operate our trucks 15% more hours each day than the industry standard, according to data from MineLens by McKinsey. This program has helped us avoid an additional 50 haul trucks in our fleet, by enabling a smaller fleet to do the same amount of work. Finally, we are constantly looking for ways to improve blasting efficiency because this has a direct correlation to our ability to deliver on mine plans and can impact processing.

OVER THE LAST 10 YEARS...

70% reused components	465 rebuilt haul trucks
------------------------------------	--------------------------------------



150,000 & **\$1 BILLION**
metric tons new capital
GHGs avoided avoided

Processing Innovation

Our earliest successes in processing innovation were in the development of large-scale copper leaching and recovery through solvent extraction/electrowinning (SX/EW) in the 1980s. SX/EW produces copper cathode without milling or smelting of concentrates, saving 30% in energy consumption per ton of copper produced, with a similar reduction in GHG emissions. This innovative process has revolutionized copper mining, enabling mines that would have been deemed uneconomic to extend their lives. In 2019, 45% of our copper cathode production in the Americas was produced through the SX/EW process, bringing significant benefits to our stakeholders and lower embedded carbon footprints to the products we put on the market.

Over the past decade, we have invested in new grinding technologies to enable our mill expansion projects to deliver significant energy efficiency gains where SX/EW is not an option. These technologies use high-pressure rollers to reduce ore rock size instead of traditional mills, which use steel balls to break down rock size. Essentially, these newer mills force the rocks against each other at high pressure, breaking them into smaller and smaller rocks. The use of these high-pressure grinding mills, now in place at Cerro Verde (2015) and Morenci (2014), is 20% more energy efficient than traditional grinding circuits, leading to commensurate GHG emission reductions per ton of copper produced. In total, 60% of our annual copper milling in our Americas operations is done through high-pressure grinding mills. Because of these investments, we will realize energy and carbon-saving benefits for years to come.

In 2019, the El Abra Process Automation team developed a new approach to optimize resources using automation technology, resulting in higher quality cathodes and a

20% REDUCTION

in energy consumption for electrowinning



Similarly, over the past decade, we have invested in developing and demonstrating a new approach, utilizing electrowinning for our sulfide concentrates instead of traditional smelting and refining. This concentrate leach process not only eliminates the need for smelting and refining of copper concentrates but also can be used to process molybdenum concentrates into an intermediate molybdenum product – molybdenum oxide – as opposed to shipping molybdenum sulfide concentrate to our roasting operations for conversion. In addition to the avoided energy consumption and carbon emissions from the smelting process, this technology enables us to produce a more highly refined product directly from the mine as opposed to shipping it to smelters, which are often overseas. It also provides an on-site source of sulphuric acid for our oxide leaching operations, which reduces shipping costs and related emissions. We are one of only a few copper mining companies in the world using this technology, and we own the intellectual property for processing molybdenum and copper in this way.

More recently, in 2018, we embarked on our Americas' Concentrator program to combine Artificial Intelligence (AI) machine learning with non-traditional team structures to create opportunities to identify production bottlenecks and propose and evaluate potential solutions in a rapid manner. Our initial successes with this effort at our Bagdad operation in Arizona in 2018 indicated we could increase our copper production in a material manner without increased capital expenditures. Additional benefits included a 60% decrease in energy intensity of the added production, improved workforce culture and improved safety performance. There also are significant benefits from being able to extend the capacity of an existing operation rather than establishing a new greenfield project, resulting in significantly lower GHG emissions involved in construction and operating activities.



At Cerro Verde in Peru, we operate the largest copper concentrating facility in the world, utilizing high-pressure grinding mills which significantly reduce our energy and greenhouse gas emissions intensity

Our Energy Transition

While we are a major retail customer of several utilities in the southwestern United States, we are responsible for directly delivering more than 80% of our electrical energy needs globally. Over the past two decades we have spent significant resources to both execute agreements specifying renewable energy resources in various locations and to develop and report on the carbon profile of our electricity sources using more detailed market-based and contract-specific information.

In late 2004, our Cerro Verde operation near Arequipa, Peru, entered into a public-private partnership with Electric Generation Company of Arequipa S.A. (EGASA) to raise the Bamputañe and Pillones Dams. The agreement included increasing the water storage capacity of Bamputañe Dam by 40 million cubic meters and Pillones Dam by 80 million cubic meters, with the work completed in 2010. This significantly increased the hydroelectric energy production of EGASA's electricity generation assets, operating downstream of the dams, by a total of 267 gigawatt hours annually.

In 2009, we set a target to establish two renewable energy facilities on mining-related property by 2014, which we achieved in 2011. These facilities include a 15 megawatt (MW) solar facility at our Bagdad, Arizona, mine site and a 4MW facility constructed at our discontinued operation in Ajo, Arizona. Subsequently, we have signed an agreement to purchase up to 14MW of wind energy from a facility in Wyoming for use at our Morenci mine in Arizona. We also have an agreement to partner with our utility provider on a solar facility that will provide approximately 5% of the annual electrical requirements of our Miami smelter in Arizona, beginning in 2021.

Like many companies, we have historically relied on EPA United States Environmental Protection Agency (EPA) eGRID published data for emission factors when calculating Scope 2 emissions for purchased electricity. In 2018, we began to transition to market-based factors specific to our contracted resources – the resource make-up of our suppliers with whom we have long-term purchase power agreements – and our retail utilities providers. This approach has led to emission factors that better reflect our actual electrical GHG emission intensity and enables us to demonstrate the choices we have made more accurately. In 2018, this led to reporting our absolute emissions 4% lower than if we had continued using traditional grid-based factors for the year. In addition, as part of our 2019 reporting efforts we aligned historical location-based Scope 2 emissions factors with updated US EPA eGrid factors. This true-up was verified by our auditors and is included with our verification statement at the end of the report.

Electricity for our remote PT-FI operations in the eastern Indonesian province of Papua remains reliant on coal-fired power for electricity and alternative sources of energy are not currently reasonably available. PT-FI invests in projects to improve energy efficiency and engages on an ongoing basis to identify alternative sources of energy but the physical and economic challenges are significant. The Paniai Regency of Papua, which borders the Mimika Regency where PT-FI is located, holds the potential for large-scale hydropower projects and a significant natural gas resource is located in West Papua. Access to these resources or the development of renewable energy sources would enable PT-FI to shift to lower carbon electricity over the longer term.

In recent years, we have evaluated our historical efforts to use lower carbon sources such as renewables in our portfolio. This has included understanding emerging commercial structures of these projects and studying opportunities for the integration of renewable energy resources into our mining operations, energy procurement and environmental strategies. In 2018, we retained Rocky Mountain Institute to assist us in identifying a pipeline of conceptual projects, ranging from hosting renewable projects on our land to driving the development of these projects for our own energy needs. As we move forward, we will evaluate these opportunities in line with our operational needs for the coming decade.

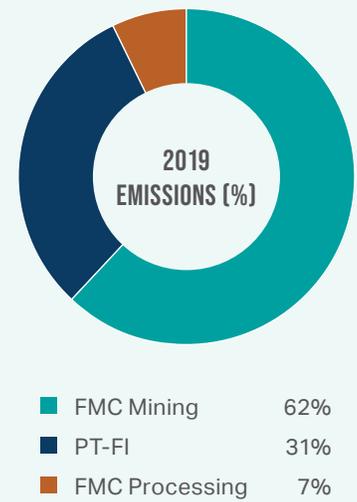
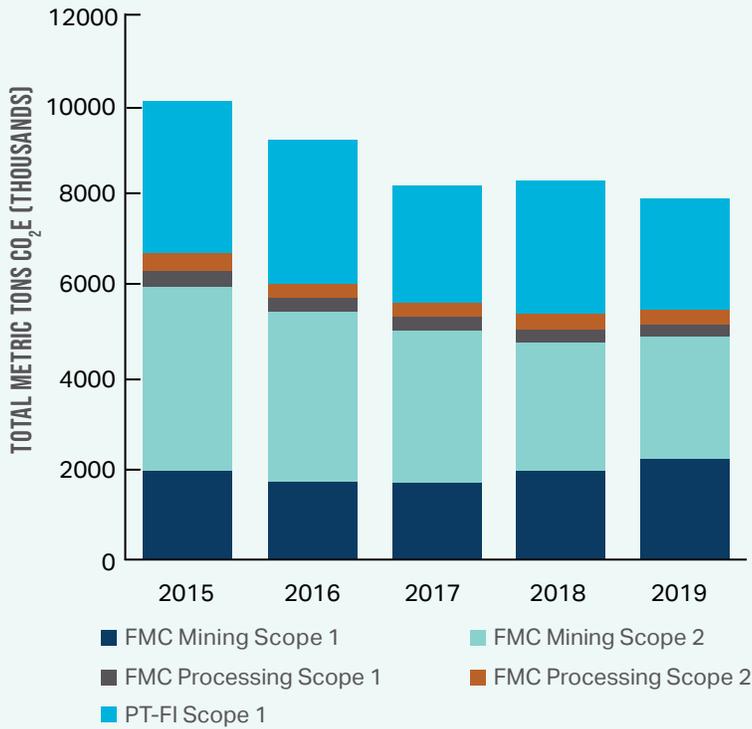


A 15MW solar facility located at our Bagdad operations

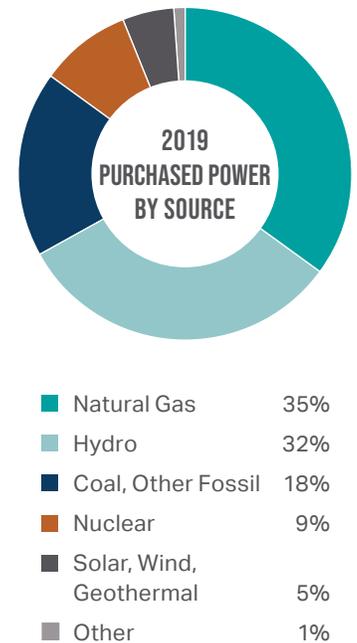
Performance

Our five-year trend for absolute GHG emissions is detailed in the global data table below. In 2019, our GHG emissions were 8,012,451 metric tons, which is 21% lower than 2015. This 21% is comprised of two parts: (1) a 17% reduction in our emissions and (2) a net 4% decrease due to improvements in how we calculate our emissions factors. Approximately 70% of our total emissions are generated by our FMC operations (including FMC Mining and FMC Downstream Processing) and 30% from PT-FI. Purchased power by source for our FMC Mining operations have achieved a significant decrease in coal and other fossil fuels since 2015. Our FMC Downstream Processing operations purchased-power sources have remained relatively unchanged since 2015 with the exception of a 2% increase in renewables.

GLOBAL GHG REDUCTION BY FIVE-YEAR TREND



Our global GHG emissions have
REDUCED BY MORE THAN 17%
 over the last five years



ANNUAL GHG EMISSIONS (METRIC TONS)

	2015	2016	2017	2018	2019
FMC MINING¹					
Scope 1	2,040,012	1,772,308	1,763,407	2,049,720	2,241,039
Scope 2 ²	4,007,548	3,834,801	3,349,819	2,774,994	2,705,132
PURCHASED POWER BY SOURCE					
Natural Gas	37%	36%	36%	39%	36%
Hydro	14%	20%	21%	33%	35%
Coal, Other Fossil	25%	25%	25%	18%	17%
Nuclear	16%	14%	13%	7%	7%
Solar, Wind, Geothermal	7%	4%	5%	3%	4%
Other	1%	2%	–	–	–
FMC DOWNSTREAM PROCESSING³					
Scope 1	275,451	240,647	239,102	254,961	264,083
Scope 2 ²	428,875	366,260	341,298	389,827	337,937
PURCHASED POWER BY SOURCE					
Natural Gas	29%	27%	27%	31%	28%
Hydro	8%	8%	8%	14%	9%
Coal, Other Fossil	25%	27%	27%	23%	24%
Nuclear	20%	22%	22%	17%	23%
Solar, Wind, Geothermal	13%	12%	12%	10%	15%
Other	4%	4%	4%	6%	2%
PT-FI					
Scope 1	3,384,208	3,082,180	2,528,388	2,935,480	2,464,261
Scope 2	–	–	–	–	–
FCX GLOBAL					
Scope 1	5,699,671	5,095,135	4,530,897	5,240,161	4,969,382
Scope 2	4,436,423	4,201,061	3,691,117	3,164,821	3,043,069
Scope 1 + 2 Total	10,136,094	9,296,196	8,222,014	8,404,983	8,012,451
Scope 3	561,821	618,189	706,214	750,332	692,336

Note: Some figures and percentages may not add up to the total figure or 100% due to rounding

1 FMC Mining includes Bagdad, Cerro Verde, Chino, Climax, El Abra, Henderson, Morenci, Safford, Sierrita and Tyrone

2 2015-2017 Scope 2 emissions were calculated using a location-based method; 2018-2019 Scope 2 emissions were calculated using a market-based method

3 FMC Downstream Processing includes Atlantic Copper Smelter and Refinery, Bayway Rod and Wire, Ft. Madison Moly Special Products, Kokkola Cobalt Refinery, Miami Smelter and Rod, Norwich Rod, Rotterdam, Stowmarket and El Paso Refinery and Rod

PT-FI

PT-FI's GHG emissions are primarily Scope 1, resulting from coal use to generate electricity on-site for milling and other processes, as well as diesel and other fuels used in the mine. In 2017, there was a significant emissions reduction primarily associated with reduced production following the issuance of new regulations by the Indonesian government in early 2017 (in effect at the time) which resulted in a temporary suspension of PT-FI's concentrate exports from February 10, 2017, through April 21, 2017. In 2019, another significant emissions reduction occurred as a result of ramping down our open-pit operation as we continued transitioning to underground operations. Although PT-FI's emissions have decreased by 27% since 2015, we expect emissions to increase in 2020 and 2021 as we continue to ramp-up production and complete the transition to underground mining.

AMERICAS COPPER PRODUCTION

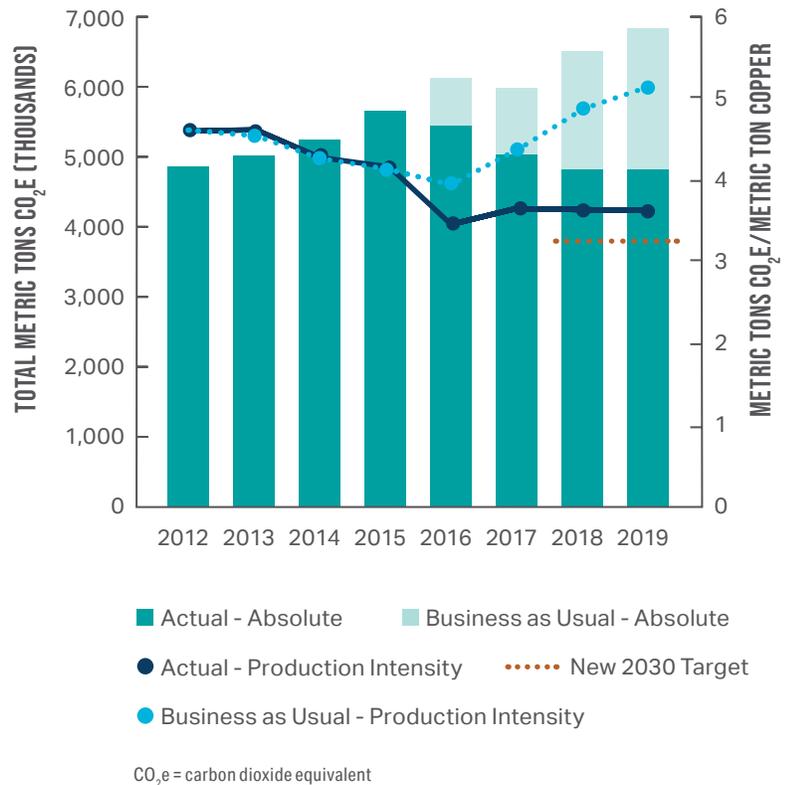
In 2019, we undertook an in-depth analysis of our GHG emissions performance in copper mining, smelting and refining in the Americas. This data set comprises 60% of our total global GHG emissions – a subset of the data presented in the global data table on page 11. The goal of the analysis was to better understand our progress to date and what we are capable of in the future. The analysis included our active copper mines, smelter and refinery in the Americas. It did not include operations downstream of cathode production or new projects such as our Lone Star copper leach development project in Arizona, where we broke ground in 2018 but have not started producing cathode.

As illustrated in the graph to the right, GHG emissions for this subset have remained relatively steady for the last decade at around 5 million metric tons of GHG emissions, with Scope 2 dominating but reducing over time as we have implemented the projects described above, electricity sources have decarbonized and we have switched to market based reporting (also described previously). While Scope 2 GHG emissions have decreased, Scope 1 GHG emissions have increased as a result of lower ore grades and longer haulage routes in our mines.

In 2014, our first significant processing improvement for the time period (2012-2019) was realized with the Metcalf mill construction completed at our Morenci mine in Arizona. This increased the production capacity of the site and significantly reduced the amount of electricity required per ton of product, shown in the solid dark blue trend line. In 2016, emissions intensity continued declining as a result of Cerro Verde completing the addition of its new mill. The new mill had two significant effects: (1) doubling production at the site, leading to increased demand for electricity and fuels for mining, and (2) improving the energy efficiency per ton of copper produced.

During the economic downturn in 2016, we deferred stripping waste rock at our Americas mines and purposefully sought out higher grade ore.

AMERICAS COPPER GHG REDUCTION PERFORMANCE



This led to a decrease in Scope 1 GHG emissions due to deferred stripping and higher grades of ore being delivered to for processing, which improved efficiency. In the latter half of 2017, and in 2018, we returned to normal stripping rates at our active mines, increasing Scope 1 GHG emissions. This was somewhat offset by switching to market-based emission factors as described above.

The solid blue line in the graph above represents actual GHG emissions intensity while the dashed light blue line represents Business as Usual (BAU). BAU was modeled assuming we had continued with the prior approach to truck maintenance and utilization, industry standard process technologies and purchased electricity emission factors. As indicated, GHG emissions intensity decreased over this time period by 18%, or 30% when compared to BAU. In addition, our absolute emissions (dark green bar) are 30% lower than BAU in 2019, as indicated by the lighter green bar above. Finally, the chart includes our newly established 2030 target to reduce GHG emissions by 15% on a 2018 baseline, or 3.1 metric tons of GHG emissions per metric ton of copper cathode produced.

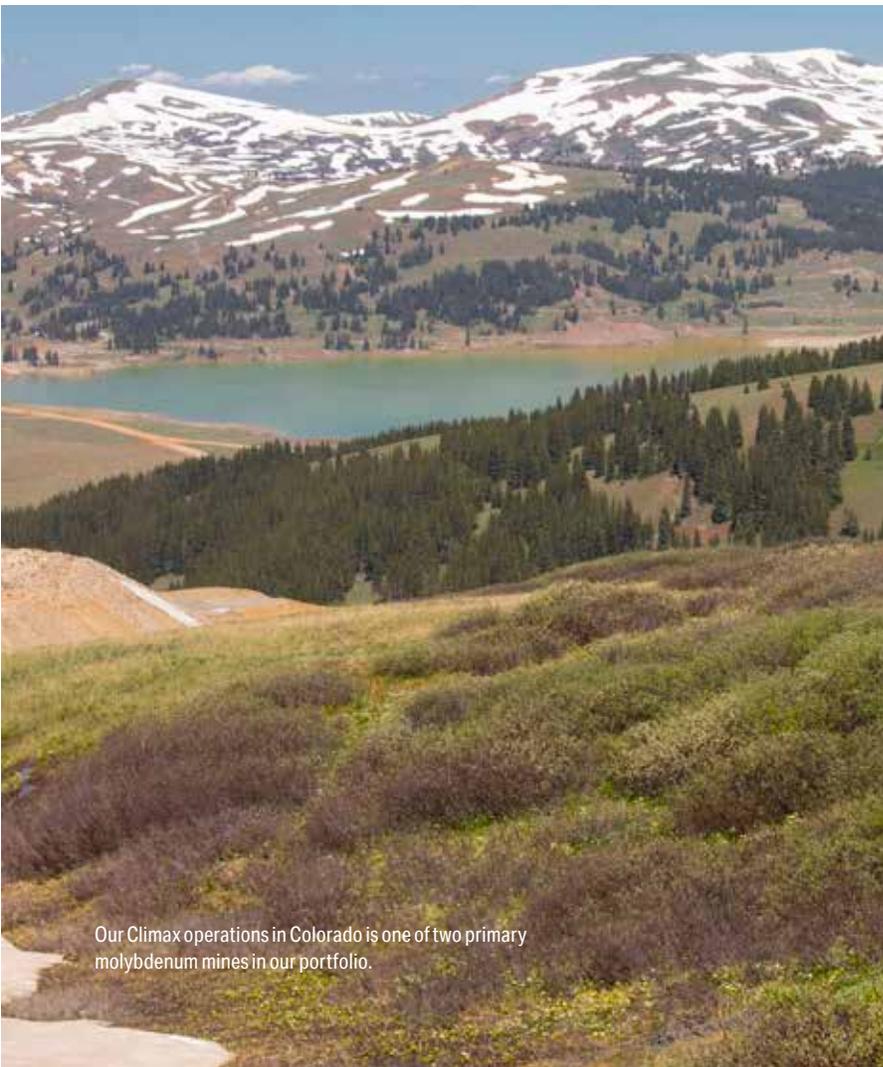
On an intensity basis, our 2019 GHG emissions in the Americas are **30% LOWER** than projected due to successful innovations in mining, processing and reporting

ATLANTIC COPPER SMELTER AND REFINERY

Our Atlantic Copper (AC) operations in Spain processes over 1 million tons of copper concentrate annually. In a Wood McKenzie study conducted in 2007, AC was benchmarked as one of the most energy efficient smelters in the world, despite being built in the 1970s. AC was the first copper smelter globally to be certified to ISO 50001 Energy Management System in 2011. Over the past decade, through a series of energy improvement projects, AC has improved its already industry leading energy efficiency by almost 20% per ton of material processed. Projects implemented to achieve this reduction include redesign of refining furnaces, reduction of fuel oil consumption, increased recovery and reuse of energy from the smelting process, and improvement of power plant efficiency. AC is included in the FMC Downstream Processing emissions in the global data table on page 11 and reported 2019 total emissions of only 125,211 metric tons, representing only 1.5% of our total global GHG emissions. AC's 2019 GHG emissions were 15% lower than in 2015. In 2019, AC signed the first of two long-term energy purchase contracts through a platform for large industrial consumers in Spain to help develop renewable energy projects in Spain.

MOLYBDENUM OPERATIONS

Freeport-McMoRan is vertically integrated for 100% of molybdenum production, with two primary molybdenum mines in Colorado and by-product molybdenum production from multiple copper mines (Cerro Verde, Morenci, Sierrita and Bagdad). By-product molybdenum production has been increasing over the 2013-2019 time frame, particularly as we doubled production at Cerro Verde when the new concentrator came online in 2015. Given the cost advantages from by-product production, we have decreased the output from our primary mines in Colorado over this same time period. We roast molybdenum concentrates at our Sierrita operation in Arizona and our Fort Madison facility in Iowa, with roasting and subsequent conversion at our Rotterdam facility in the Netherlands. We produce a ferro-molybdenum product at a plant in Stowmarket, England. The total 2019 GHG emissions for our primary molybdenum mines plus our downstream processing facilities is approximately 400,000 metric tons.



Our Climax operations in Colorado is one of two primary molybdenum mines in our portfolio.



Molybdenum increasingly is used in new solar technologies to lower costs of power generation by enabling thinner, more flexible panels
Molybdenum also is being used to advance hydrogen energy capture technology



RESILIENCE

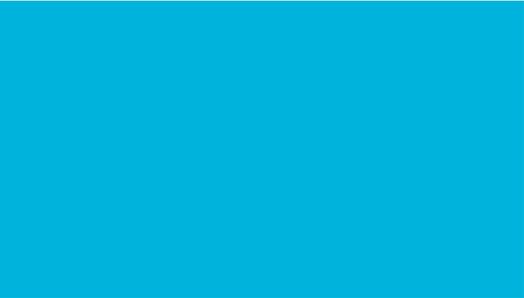
Some of Freeport-McMoRan's operations are located in challenging environments, where being resilient is part of our daily routine. This can include the health, safety and production risks of heavy rains, arid environments at risk for water stress or heat-related occupational illness, as well as others. In order to prepare our operations for potential severe weather events in the future, we take a holistic approach to risk management and preventive planning.

Risk Management

Company-wide processes to address climate-related risks and opportunities cover the full life cycle of our assets – from our pre-project sustainability review process to our Risk Register process to resiliency planning for reclamation and closure. Our mines are generally long-lived, and at the operating-level, each active mining and metals processing facility evaluates climate-related risks and opportunities through its Risk Register process. This includes reviewing the potential for physical or other climate risks that could jeopardize the resiliency of revenue generating operations (e.g., water availability and impacts from extreme precipitation events), regulatory matters that could have direct or indirect financial impacts as well as source trends in regional electricity grids that could affect our Scope 2 GHG emissions and operating cost structure.

From a climate policy and regulatory perspective, we do not currently operate in jurisdictions where existing mechanisms for carbon pricing signal a material increase to our costs. However, as countries implement programs to meet objectives of the COP 21 Agreement and the Nationally Determined Contributions, we may experience increased costs relating to changes in energy sources for, and GHG emissions from, our operations. In certain jurisdictions, however, we expect to enter into favorably priced power contracts with utilities as economic, renewable sources represent larger percentages of generation capacity.

In 2019, we began utilizing third-party data and risk indices to further inform our operating-level forecasts of potential impacts, including those to critical infrastructure. These impacts include those which could interrupt deliveries of good and services as well as distribution of our products to markets. The data also include indices to assist with monitoring regulatory changes in a range of jurisdictions (assuming a 2-degree Celsius scenario) as governments adopt measures to curb GHG emissions, which could both reduce our Scope 2 GHG emissions and affect our operating costs while driving demand.



In 2019, the European Commission released its new legislative framework called the European Green Deal which it describes as its roadmap for making the EU economy sustainable. The Deal outlines a new growth strategy that aims to transform Europe. It will be implemented through a number of different initiatives, such as a Climate Law, a Circular Economy and Raw Materials alliances. While early in its development, the Green Deal presents both opportunities and risks for copper. Opportunities for copper will come via significant market demand for clean energy technologies, in which copper plays a significant role. In addition, electrification of vehicles and green buildings will drive demand. Risks could come in the form of the newly described Carbon Border Adjustment Mechanism (CARB) or market penalties/preferences for low carbon products. We are working closely with industry associations and business partners in Europe to monitor and provide input as initiatives are developed.

Salient Climate-related Risks

To date, we have identified the following risks that warrant continued or additional planning and management:

- Physical impacts from weather events (intensity and frequency) and chronic changes in precipitation patterns
- Localized impacts such as flash flooding that can potentially jeopardize the health and safety of the workforce and local communities
- Operational and reclaimed facilities at risk of damage or inaccessibility resulting in temporary production curtailments and increased costs
- Continuing our occupational health program for managing heat stress in the workforce at our copper mining and processing operations in North and South America, which are all located in desert environments
- Offsite releases of impacted operational water as a result of acute, extreme precipitation events
- Physical impacts to transportation infrastructure affecting availability of operating supplies and our ability to ship product, including climate-related episodes of high-seas events which can also affect timing of product shipment
- Longer-term drought conditions, particularly in the Colorado River basin of the United States, which can affect the physical availability of water to our operations and/or put our rights to certain water sources at risk

Weather-related Operational Impacts

Our operations have experienced significant episodic weather events in the past. When these events materially impact our operating results, we disclose the nature of the impacts in our Annual Reports on Form 10-K and quarterly reports on Form 10-Q filed with the United States Securities and Exchange Commission. As we move forward with scenario analysis, we will incorporate data related to future weather stress into our analysis.

SUSTAINABLE ENERGY SOLUTIONS IN COMMUNITIES

In 2019, to enhance Indonesian family income and raise them above the poverty line in support of achieving the SDGs, PT-FI, Freeport-McMoRan and the Arizona State University's School of Sustainability implemented two sustainable energy activities in Papua, Indonesia.

The objectives of the first project were to reduce fish storage costs and improve quality by producing ice via a solar panel system. Sustainability of the activity relies on the participation of a local Catholic-affiliated cooperative, Maria Bintang Laut (MBL), that operates the system.

The Amungme and other indigenous groups grow, harvest, process and sell cacao with the assistance of local cooperatives to stimulate economic growth and reduce dependence on PT-FI. Cacao farmers were losing a sizable portion of their harvest during the drying stages because Papua is very humid and wet with limited amounts of direct sunlight. The partners developed a simple, effective cacao greenhouse dryer constructed from local materials. This reduced losses and provided a simple sustainable solution requiring no electricity.





Weather monitoring station at our Sierrita operations in Arizona.

Community Resilience and Adaptation

The increased frequency of weather events and general climatic changes can cause damage to infrastructure and impact vulnerable communities. Aiding communities in adapting involves supporting their efforts in building their climate resilience and increasing the ability to withstand events such as droughts and floods. Adaptation measures help people live with the effects of rising global temperatures and the resulting impacts over time.

A major flood event that struck El Abra operations in early 2019 caused extensive damage throughout the Alto El Loa region of the Atacama Desert. Already vulnerable, indigenous communities were particularly impacted as the heavy rainfall washed out local roads and destroyed homes and infrastructure.

Working with the affected communities, an emergency response plan was quickly developed, supporting immediate actions to address basic needs including transport, shelter and access to food and water. While restoring its operational infrastructure, El Abra prioritized community support by assisting with clearing and repairing roads, as well as providing construction materials for damaged homes. After the immediate response to the flood event, El Abra supported tasks that included removing flood debris, filling sinkholes, repairing homes, rehabilitating irrigation channels, and enhancing drinking water systems.

At our Cerro Verde operation in Arequipa, Peru, similar efforts have been implemented to enhance resiliency during the rainy season. Working with nearby vulnerable communities and civic leaders, Cerro Verde implemented relief actions in response to the impact of the 2019 rainy season to the Arequipa region. Support included the delivery of drinking water when the local water supply was inactive and the repair of damaged water piping infrastructure. Berms and retaining walls were constructed to reduce flooding risk to nearby homes. Cerro Verde also resourced the cleaning of fluvial channels by donating approximately 5,000 gallons of fuel to support the clearing of river and road debris that impacted agricultural and other livelihood activities. Agriculture is very important to the local economy and Cerro Verde has long supported local farmers with efficient irrigation systems as an adaptation measure for reduced water availability. Cerro Verde is now coordinating with INDECI, the National Institute of Civil Defense, and municipal leadership to develop a response and recovery plan for future extreme weather events.



COPPER UTILIZATION KEY TO GLOBAL DECARBONIZATION

Up to **4X**
more copper
vs. internal
combustion
engines



4-5X more
copper vs.
fossil fuel
power
generation



CONTRIBUTION

Copper is key to the energy transition as it is the main material used globally to conduct electricity. Freeport-McMoRan is one of the largest publically traded producers of copper with an estimated 7% of total worldwide mined copper production. As a leading copper producer for global markets, we know that we play an important role in providing copper the world needs. The market for copper has a robust future, and we know that stakeholders are demanding that we produce and deliver the red metal in a responsible manner.

Opportunities

We believe copper will continue to contribute significantly to new technologies for energy efficiencies that advance communications and enhance public health. Identified products that will require additional copper in the medium to long term include: (1) high-efficiency motors, which consume up to 75% more copper than a standard motor and, (2) electric vehicles, which consume up to four times the amount of copper in terms of weight compared to vehicles of similar size with an internal combustion engine and (3) require copper-intensive charging station infrastructure to refuel, and (4) wind and solar renewable energy generation facilities, which consume four to five times the amount of copper compared to traditional fossil fuel generated power. More specifically, by 2027, an estimated 27 million electric vehicles will be on the road, up from 3 million in 2017. This will raise copper demand in electric vehicles from 185,000 metric tons in 2017 to 1.74 million metric tons in 2027. In addition, each electric vehicle charger will add 0.7 kilograms of copper – and fast chargers can add up to 8 kilograms of copper each.¹ As one of the world's largest producers of copper, we know we play a crucial role in delivering this demand to the market.

We are confident in the fundamentals and long-term demand outlook for mined copper, our primary product. We believe that mined copper will remain the primary source of copper for many decades as recycling, either in the form of scrap or circular economy materials, will not be able to meet the anticipated long-term global demand by itself.

Our portfolio of copper assets is large and high quality, with strong and established franchises in North America, South America and Indonesia. Our production profile is growing, which will boost our margins and cash flows. Our company's assets are long lived and durable with embedded organic options for reserve and resource growth. Our proven track record for navigating volatile market conditions provides confidence in our ability to maintain strength during uncertain economic times. We remain focused on executing our plans to provide long-term value to global markets.

Source: International Copper Association

Scope 3 Emissions

Scope 3 emissions for copper are minimal and in some cases negative, and we believe it is important that these data are known and understood. For us, this means we need to better understand the Scope 3 emissions generated by the copper we produce, and we partner with our industry peers to define what responsible production means to stakeholders.

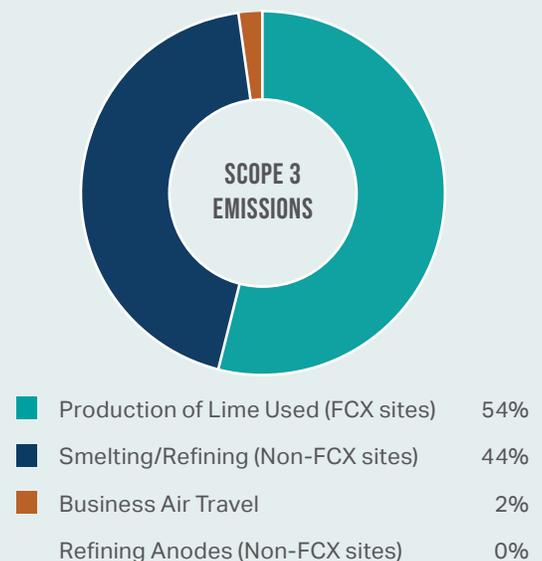
Freeport-McMoRan is vertically integrated for approximately 50% of our overall copper concentrate production, with our Miami smelter in Arizona processing approximately 850,000 metric tons of internally produced concentrate per year, and our Atlantic Copper smelter in Huelva, Spain, processing approximately 600,000 metric tons of our concentrate per year (as noted earlier, this facility also processes approximately 400,000 metric tons of concentrate purchased from other sources). Our copper refineries in El Paso, Texas, and at Atlantic Copper in Spain also operate to upgrade copper anode to 99.99% copper cathode. We also operate rod plants in Miami, Arizona; El Paso, Texas, and Norwich, Connecticut, to manufacture copper rod products. In fact, 65% of our internal cathode production is processed at our own rod mills. This puts us in a unique position to be able to provide rod customers with a secure supply produced as efficiently as possible. It also enables us to estimate Scope 3 emissions for customers of our concentrate or cathode products globally, which helps us understand the environmental life cycle profile of our copper. Finally, it helps global copper users make better decisions for market development and policy frameworks.

The Scope 3 emissions reflect the estimated amount of GHG emissions to process our sold copper concentrates to cathode products, based on the average energy intensity of our own integrated production. Also included are refining of anodes, air travel and upstream lime production. Scope 3 emissions to further manufacture copper rod products into copper wire products for use in products ranging from appliances to automobiles to consumer electronics are not material, in comparison with producing copper cathode. Published and peer-reviewed [Life Cycle Assessment studies](#) have confirmed this.

In the coming years, we will be focused on participating in dialogues with global stakeholders on calculating and communicating Scope 3 emissions. We also will work towards a more comprehensive and precise approach.

2019 SCOPE 3 EMISSIONS BY SOURCE

SOURCE	METRIC TONS CO ₂ E
Production of Lime used (FCX sites)	364,396
Smelting & Refining (Non-FCX sites)	300,456
Business Air Travel	14,606
Refining Anodes (Non-FCX sites)	123
Total	679,581





WHAT'S NEXT

We believe we have the opportunity, and obligation, to supply the world with responsibly produced copper, which includes operating in a way that manages and mitigates our GHG emissions and other climate-related risks. With the recent decline in the global economy due to the COVID-19 pandemic, we are focused in the near-term on maintaining safe and financially viable operations during uncertain times. In the short term, we are committed to work towards completing our alignment with TCFD recommendations in our strategy and disclosures. Over the long term, we remain committed to investing in innovative technologies that support making progress on our commitments. This section outlines our current metrics, targets and actions planned for each pillar of our strategy.



REDUCTION



RESILIENCE



CONTRIBUTION



Reduction

Freeport-McMoRan is committed to managing and mitigating our GHG emissions, both to support overall climate change mitigation efforts and the performance of our business. As noted previously, the cost of energy for the business is material to the business, at 20% of our operating costs. As our long-lived mines continue to mature, ore grades will decline and haulage profiles in our open pits are getting longer and steeper. As a result, our fuel use (reflecting Scope 1 emissions) will be prone to increase. Our continued focus on asset life cycle and efficiency at our mines will help to mitigate this.

In addition, our attention on energy efficiency and innovation in our processing equipment will continue to have a positive impact on our Scope 2 emissions, as it has over the last decade. We strive to make improvements over the next decade as we continue transitioning our electricity profile, either through renewable projects of our own or with partners.

We are targeting to achieve a 15% reduction in GHG emissions per metric ton of copper produced in the Americas by 2030, using a 2018 baseline



In the next decade, we are targeting to achieve similar success to the last decade, with a minimum improvement of 15% reduction in carbon intensity per ton of copper cathode produced in the Americas by 2030, based on a 2018 baseline. To do so, our emissions reduction approach for the next decade is focused on three key levers:

- 1. Energy Transition:** Reducing our carbon intensity through the further integration of renewable energy projects into the energy supplies of our mines.
- 2. Innovation in New Technology:** Continuing innovation in our processes through advancing new technologies, including concentrator technology which could lead to significant further improvements in energy efficiency.
- 3. Refining our Existing Technology:** Achieving increased copper production for the global energy transition through our Americas' Concentrator program, which combines Artificial Intelligence with innovative ways of working while increasing the energy efficiency of our existing production processes. In addition, we will continue our truck rebuild program and evaluate additional innovation options.



Resilience

Resilience is crucial to a strong and thriving business and a sustainable future. Freeport-McMoRan's preventive planning and risk management have been a part of our operational discipline for many years. Weather-related events can disrupt operations, negatively impact production volumes and financial performance, and cause environmental damage with lasting impacts on local communities. Climate change can exacerbate water stress in arid environments, where copper mines are often located.

We aim to take a holistic approach to risk management and preventive planning to prepare our operations and neighboring communities for the risks of climate change such as the potential impacts from weather events, disruptions or degradation of resources, health effects, and more. Our ability to remain resilient in the face of changing weather and resource patterns at our sites in arid environments where the vacillation between drought and rainfall can be significant is critical.

We commit to the following actions to enhance our resiliency:

- Continue implementation of our Safe Production Matters program to actively improve our safety culture and drive down incidents, which is a critical component to our resilience, especially in the case of future severe-weather events
- Develop company-wide climate scenarios and integrate the findings into our practices in line with the recommendations of the TCFD
- Publish our first stand-alone Water report in 2020, aligning with ICMM's Water Stewardship Position Statement and complementing our ongoing and previous efforts, including over a decade of GRI reporting and previous Carbon Disclosure Project disclosures
- Maintain operating discipline around production costs, particularly in light of the currently changing operating plans and potential long-term economic uncertainties which allows us to be nimble in the event of uncertain weather conditions
- Continue to identify corporate and site-level risks and opportunities through our Risk Register process and use critical controls to prevent or mitigate risks
- Assist local stakeholders and communities with preventive measures for potential impacts from climate change



Contribution

Copper is an important contributor to the energy transition and a decarbonized world as a result of its role in electrification and renewable technologies. We strive to produce and deliver our products responsibly while working to encourage circular economy frameworks including reuse and recycling of copper. From a value chain perspective, we do this in three key ways: (1) working to identify and mitigate risks in our supply chains through our responsible sourcing efforts, (2) assessing and communicating the risks of our products and by-products in use to support our customer's good management practice, and (3) working to leverage the benefits of our products along the value chain. Going forward, we commit to the following to support the Contribution component of our strategy:

- Deliver responsibly produced copper and molybdenum to the market to enable the energy transition
- Improve mapping of Scope 3 emissions to understand and support the copper and molybdenum value chains, lowering their footprints and contributing to a circular economy
- Follow the progression of the European Green Deal to provide input to decision makers to assist in meeting energy transition and circular economy targets, which we believe will positively impact copper and molybdenum demand
- Continue to use and share our life cycle inventories for the products we produce with our industry associations for the development of common datasets and with customers or other stakeholders to advance collaborations

A Bright Future

Copper, which is 100% recyclable, helps abate greenhouse gas (GHG) emissions and reduces the energy required to produce electricity. A recent study conducted by the World Bank, *The Growing Role of Minerals and Metals for a Low Carbon Future*, estimates significant growth in demand for both copper and molybdenum as a result of the increase in alternative energy solutions.¹ For example, wind turbines use copper for grounding wires, power cables, transformers, inverters, lightning protection and as part of generators and control systems. Copper is also a key component of solar energy systems, increasing the efficiency, reliability and performance of photovoltaic cells and modules. Finally, up to four times as much copper is required in an electric plug vehicle than an internal combustion engine vehicle. A study conducted by IDTechEx for the International Copper Association estimates that by 2027, an estimated 27 million electric vehicles will be in service – that's 24 million more than in 2017.²

In addition, molybdenum increasingly is used in new solar technologies to lower costs of generation by enabling thinner, more flexible panels. Molybdenum also is being used to advance hydrogen energy capture technology.

¹ Arrobas, Daniele La Porta; Hund, Kirsten Lori; McCormick, Michael Stephen; Ningthoujam, Jagabanta; Drexhage, John Richard. 2017. *The Growing Role of Minerals and Metals for a Low Carbon Future* (English). Washington, D.C. : World Bank Group. <http://documents.worldbank.org/curated/en/207371500386458722/The-Growing-Role-of-Minerals-and-Metals-for-a-Low-Carbon-Future>

² <https://copperalliance.org/wp-content/uploads/2017/06/2017.06-EMobility-Factsheet-1.pdf>

TCFD Reference Table

While we are not yet in full alignment with TCFD's recommendations, we are providing the table below to provide both a reference and gap assessment to the reader. Our commitment to develop enterprise level climate scenarios and integrate the findings into our practices in line with the recommendations of the TCFD is discussed in more detail in this section.

TCFD THEME 1: GOVERNANCE			
Disclose the organizations governance around climate-related risks and opportunities			
Recommendation 1: Describe the board's oversight of climate-related risks and opportunities	Complete	Pg 5 Governance 2019 Annual Report on Sustainability (pp 6-7)	
Recommendation 2: Describe management's role in assessing and managing climate-related risks and opportunities	Complete	Pg 5 Governance	Our Risk Register and enterprise-wide prioritization of risks to be managed are processes that are overseen and managed by senior management.
TCFD THEME 2: STRATEGY			
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			
Recommendation 3: Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term	In-Process	Pg 6 Reduction Pg 14 Risk Management Pg 15 Salient Climate-related Risks Pg 18 Opportunities	While climate-related risks and opportunities are embedded in our Risk Register, we have not yet completed scenario analysis.
Recommendation 4: Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	In-Process	Pg 7 Reduction Pg 14 Risk Management Pg 15 Salient Climate-related Risks Pg 18 Opportunities	While climate-related risks and opportunities are embedded in our Risk Register, we have not yet completed scenario analysis.
Recommendation 5: Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	Pending	Pg 20 What's Next	Our commitment to enhance resilience is to be completed as described in Pillar 2: Resilience.
TCFD THEME 3: RISK MANAGEMENT			
Disclose how the organization identifies, assesses, and manages climate-related risks			
Recommendation 6: Describe the organization's processes for identifying and assessing climate-related risks.	In-Process	Pg 5 Governance Pg 14 Risk Management	
Recommendation 7: Describe the organization's processes for managing climate-related risks.	In-Process	Pg 5 Governance Pg 14 Risk Management	
Recommendation 8: Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	In-Process	Pg 5 Governance Pg 14 Risk Management	
TCFD THEME 4: METRICS & TARGETS			
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material			
Recommendation 9: Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	Pending	Pg 10 Performance Pg 20 What's Next	Several of our metrics are described in this report. Additionally, we intend to disclose metrics to assess climate-related risks and opportunities in line with our strategy and risk management process upon completion of scenario analysis.
Recommendation 10: Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Complete	Pg 10 Performance Pg 19 Scope 3 Emissions Pg 20 What's Next	
Recommendation 11: Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	In-Process	Pg 10 Performance Pg 20 What's Next	

VERIFICATION STATEMENT

INTRODUCTION

Trinity Consultants, Inc. ("Trinity") was contracted by Freeport-McMoRan Inc. ("Freeport") to verify its greenhouse gas (GHG) emissions inventory for its global operations for the 2019 (calendar year) period. Freeport reports annual GHG emissions and climate data for various purposes and interests of stakeholders. To elevate the assurance level of accuracy and validate the emissions data, Freeport has the option to have this annual GHG emissions inventory independently verified by an accredited Verification Body ("VB"). The GHG inventory compiled by Freeport and the GHG inventory verification performed by Trinity is a component of Freeport's long-term sustainability reporting program.

Freeport has sole responsibility for preparation of the data collection, analysis, compilation, and external reports. Trinity's verification and assurance engagement are based on the understanding that the data and information provided by Freeport are true and complete. Trinity's responsibility in performing the verification and assurance work is to the management of Freeport only and is solely for Freeport's benefit in accordance with the terms of the contract. Our assurance statement, however, represents Trinity's independent opinion and is intended to inform all stakeholders, including Freeport. Trinity disclaims any liability or responsibility on Trinity's work to any other party who may have access to this statement.

SCOPE OF VERIFICATION AND ASSURANCE

The scope of work agreed with Freeport includes the following:

- Organizational boundaries for the GHG inventory are all global sites operating under Freeport's operational control, except for its remaining oil and gas assets;
- Verification was carried out to a reasonable level of assurance;
- Verification was conducted using the ISO 14064-3:2019 Standard;
- The reporting of the GHG emissions were conducted using the World Business Council for Sustainable Development (WBCSD)/World Resources Institute (WRI) Greenhouse Gas Protocol as applicable;
- GHG emissions were verified for the calendar year 2019 from January 1 to December 31;
- Verification activities were conducted from April 2020 to June 2020; and
- Emissions data verified includes Scope 1, Scope 2 (market-based method), and Scope 3 (specifically, (1) Purchased goods & services, (2) Business air travel, and (3) Processing of sold products).

VERIFICATION METHODOLOGY

Trinity was contracted by Freeport to provide an independent and objective review of the GHG emissions inventory for its worldwide operations (except for its remaining oil and gas assets) for Scope 1, 2, and 3 emissions for the calendar year 2019. The emissions data report is reviewed against the criteria and standards stated below:

- World Resources Institute (WRI) / World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol - A Corporate Accounting and Reporting Standard
- ISO 14064-3:2019 – Greenhouse Gases Part 3: Specification with Guidance for the Validation and Verification of Greenhouse Gas assertions.

Trinity applied a risk-based approach throughout the assurance engagement, concentrating on the areas that Trinity believes are at risk of materiality. The following tasks and methodologies were applied during the verification of Freeport's GHG data, inventory, supporting documents, and management processes:

- Identify and review conformance with the accuracy level declared in ISO 14064-3:2019 verification standards as appropriate;
- Review and verify emissions estimates with the applicable GHG emissions calculations/reporting protocols and principles such as WRI/WBCSD Greenhouse Gas Protocol;
- Review and verify the enterprise-wide GHG emissions inventory data for completeness and accuracy;
- Conduct virtual site-visits¹ to 1) Safford Mine, Arizona, 2) Sierrita Mine, Arizona, and 3) Cerro Verde Mine, Peru;

¹ Due to the travel restrictions driven by COVID-19 global pandemic during the verification period, a physical site-visit to any of the selected locations was not feasible. Therefore, a virtual site-visit by using the means of video conference calls, online share screen/presentation, and real-time translator via online platform was conducted for this verification period.

- Evaluate facility boundaries and operations;
- Review a selection of data provided from a sampling of Freeport facilities (Safford Mine, Sierrita Mine, and Cerro Verde Mine) which is consistent with the selected level of assurance;
- Review Freeport's data management systems for emissions data, transactions, bookkeeping records, reports, and compliance documents;
- Evaluate and check materiality of any misstatement in actual data;
- Review, identify, and list all deficiencies and conformance gaps; and
- Provide Freeport with an official verification statement with a verification summary that includes the findings of the verification process and any improvements and corrective actions taken.

VERIFICATION PROVIDER AND ACCREDITATION

Trinity Consultants, Inc.

- California Air Resources Board (CARB)-Accredited GHG Verification Body (#H-19-020)
- CARB-Accredited GHG Offset Verification Body (#H2-18-018)
- CARB-Accredited Low Carbon Fuel Standards (LCFS) Verification Body (#H3-20-146)

Charles C. Lee, Ph.D.

- CARB-Accredited GHG Verifier of Emissions Data Reports for Mandatory Reporting-Lead Verifier, Transaction Specialist, Process Emission Specialist, and Oil and Gas Specialist (#H-18-083)
- CARB-Accredited GHG Verifiers of Offset Project Data Reports – Lead Verifier, Livestock Specialist, and ODS Specialist (#H2-17-181)
- CARB-Accredited Verifiers of LCFS Data Reports – Lead Verifier Accreditation, Fuel Pathways, Alternative Fuel Transactions, and Petroleum-Based Fuel Reports (#H2-20-086)

CONCLUSIONS

Freeport's GHG assertions by Scope 1, Scope 2, and Scope 3 categories for the calendar year 2019 are as follows:

- Scope 1 emissions of 4,969,382 metric tonnes CO₂e
- Scope 2 emissions of 3,043,069 metric tonnes CO₂e
- Scope 3 emissions of 692,336 metric tonnes CO₂e

Based on verification activities performed, Trinity attests with a reasonable assurance that the GHG reporting and assertions for the 2019 calendar year are free of material misstatements for each category of emissions including Scope 1, Scope 2, and Scope 3 emissions (i.e., the estimated percent error/discrepancy is less than 5% of the verified total for each Scope emissions enterprise-wide). Trinity's conclusions are based on the understanding that the data and information provided by Freeport to Trinity are true and complete.

INDEPENDENCE

Trinity was not involved in the preparation of any part of Freeport's data or reporting. This is Trinity's sixth year of providing GHG verification service for Freeport.



Charles C. Lee

Charles C. Lee, Ph.D.

Principal Consultant, California Accredited Lead Verifier

VERIFICATION STATEMENT FOR HISTORIC SCOPE 2 EMISSION FACTORS RECONCILIATION

INTRODUCTION

Trinity Consultants, Inc. ("Trinity") was contracted by Freeport-McMoRan Inc. ("Freeport") to verify its Location-Based Scope 2 greenhouse gas (GHG) emission factors for its operations within the United States of America (US) for the 2012-2019 (calendar year) period. Freeport historically reported Scope 2 GHG emissions based on available location-based emission factors. However, the publicly available emission factors were typically one (1) to five (5) years outdated compared to the representative data year. Recognizing this discrepancy of emission factors, Freeport desired to reconcile and voluntarily took corrective actions to true-up the emission factors with the most representative factors for each of the respective years. Freeport reports annual GHG emissions and climate data for various purposes and interests of stakeholders. To elevate the assurance level of accuracy and validate the emissions data, Freeport has the option to have the true-up of the historic Location-Based Scope 2 GHG emission factors independently verified by an accredited Verification Body ("VB"). The GHG inventory compiled by Freeport and the GHG inventory verification performed by Trinity is a component of Freeport's long-term sustainability reporting program.

Freeport has sole responsibility for preparation of the data collection, analysis, compilation, and external report. Trinity's verification and assurance engagement are based on the understanding that the data and information provided by Freeport are true and complete. Trinity's responsibility in performing the verification and assurance work is to the management of Freeport only and is solely for Freeport's benefit in accordance with the terms of the contract. Our assurance statement, however, represents Trinity's independent opinion and is intended to inform all stakeholders, including Freeport. Trinity disclaims any liability or responsibility on Trinity's work to any other party who may have access to this statement.

SCOPE OF VERIFICATION AND ASSURANCE

The scope of work agreed with Freeport includes the following:

- Verification was carried out to a reasonable level of assurance;
- Verification was conducted using the ISO 14064-3:2019 Standard;
- The reporting of the Location-Based Scope 2 GHG emission factors were conducted consistent with the World Business Council for Sustainable Development (WBCSD) / World Resources Institute (WRI) Greenhouse Gas Protocol;
- Historic Location-Based Scope 2 GHG emission factors were verified for the calendar years from 2012 to 2019.
- Reconciliation or true-up driven changes of Location-Based Scope 2 GHG emission factors were verified for the calendar years from 2012 to 2019.
- Verification activities were conducted from April 2020 to June 2020.

VERIFICATION METHODOLOGY

Trinity was contracted by Freeport to provide an independent and objective review of the true-up derived changes of Location-Based Scope 2 GHG emission factors for its US operations (except for its remaining oil and gas assets) for calendar years 2012-2019. The emission factors are reviewed against the criteria and standards stated below:

- World Resources Institute (WRI) / World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol - A Corporate Accounting and Reporting Standard
- ISO 14064-3:2019 – Greenhouse Gases Part 3: Specification with Guidance for the Validation and Verification of Greenhouse Gas assertions.
- US Environmental Protection Agency (EPA) Emissions & Generation Resource Integrated Database (eGRID)

Trinity applied a risk-based approach throughout the assurance engagement, concentrating on the areas that Trinity believes are at risk of materiality. The following tasks and methodologies were applied during the verification of Freeport's GHG data, inventory, supporting documents, and management processes:

- Identify and review conformance with the accuracy level declared in ISO 14064-3:2019 verification standards as appropriate;
- Review and verify historically reported and true-up driven revised Location-Based Scope 2 emission factors with the applicable US EPA eGRID emission factors for completeness and accuracy;

- Evaluate and check materiality of any misstatement in actual data;
- Review, identify, and list all deficiencies and conformance gaps; and
- Provide Freeport with an official verification statement with a verification summary that includes the findings of the verification process and any improvements and corrective actions taken.

VERIFICATION PROVIDER AND ACCREDITATION

Trinity Consultants, Inc.

- California Air Resources Board (CARB)-Accredited GHG Verification Body (#H-19-020)
- CARB-Accredited GHG Offset Verification Body (#H2-18-018)
- CARB-Accredited Low Carbon Fuel Standards (LCFS) Verification Body (#H3-20-146)

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- CARB-Accredited GHG Verifier of Emissions Data Reports for Mandatory Reporting-Lead Verifier, Transaction Specialist, Process Emission Specialist, and Oil and Gas Specialist (#H-18-083)
- CARB-Accredited GHG Verifiers of Offset Project Data Reports – Lead Verifier, Livestock Specialist, and ODS Specialist (#H2-17-181)
- CARB-Accredited Verifiers of LCFS Data Reports – Lead Verifier Accreditation, Fuel Pathways, Alternative Fuel Transactions, and Petroleum-Based Fuel Reports (#H2-20-086)

CONCLUSIONS

Freeport’s Location-Based Scope 2 GHG emission factors for calendar years 2012-2019 that are reconciled and implemented as true-up are as follows:

- 2012: EPA eGRID 2012 (eGRID state year data)
- 2013: EPA eGRID 2012 (eGRID state year data)
- 2014: EPA eGRID 2014v2 (eGRID state year data)
- 2015: EPA eGRID 2014v2 (eGRID state year data)
- 2016: EPA eGRID 2016 (eGRID state year data)
- 2017: EPA eGRID 2016 (eGRID state year data)
- 2018: EPA eGRID 2018v2 (eGRID state year data)
- 2019: EPA eGRID 2018v2 (eGRID state year data)

Based on verification activities performed, Trinity attests with a reasonable assurance that the Location-Based Scope 2 GHG emission factors implemented as reconciliation and true-up for the 2012-2019 years are free of material misstatements (i.e., the estimated percent error/discrepancy is less than 5% of the verified value for each year). Trinity’s conclusions are based on the understanding that the data and information provided by Freeport to Trinity are true and complete.

INDEPENDENCE

Trinity was not involved in the preparation of any part of Freeport’s data or reporting. This is Trinity’s sixth year of providing GHG verification service for Freeport.



Charles C. Lee

Charles C. Lee, Ph.D.

Principal Consultant, California Accredited Lead Verifier



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We Welcome Your Feedback

We would love to hear from you. Please contact us at ir@fmi.com or sustainability@fmi.com to ask questions and provide input to our company.

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements, which are all statements other than statements of historical facts. The words "anticipates," "may," "can," "plans," "believes," "estimates," "expects," "projects," "targets," "intends," "likely," "will," "should," "could," "to be," "potential," "assumptions," "guidance," "future" and any similar expressions are intended to identify those assertions as forward-looking statements. Freeport-McMoRan (FCX) cautions readers that forward-looking statements are not guarantees of future performance and actual results may differ materially from those anticipated, expected, projected or assumed in the forward-looking statements. Important factors that can cause FCX's actual results to differ materially from those anticipated in the forward-looking statements include, but are not limited to, factors described under the heading "Risk Factors" in FCX's Annual Report on Form 10-K for the year ended December 31, 2019, filed with the U.S. Securities and Exchange Commission (SEC), as updated by FCX's subsequent filings with the SEC, and available on our website at fcx.com