



 CyrusOne

# SUSTAINABILITY REPORT

| 2024



# INTRODUCTION

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## ABOUT THIS REPORT

Published in June 2024, this report covers the calendar year 2023 and represents the best available information at the time of publishing. This report has been prepared in reference to GRI (Global Reporting Initiative) standardized metrics, presented in [Appendix 3: Standardized Metrics](#). It was formally reviewed by the ESG Committee of the Board of Managers and our Senior Management Team, in collaboration with our Sustainability Working Group. The primary data in this report [has been assured](#) to a moderate level ("type 2") by ISOS Group, Inc. For more information on sustainability programs at CyrusOne, visit the [CyrusOne ESG website](#).



## CEO LETTER



2023 was a year of acceleration. Advances in artificial intelligence (AI) were ambitious and impressive. As AI and other digital technologies accelerate, the demand for the datacenter infrastructure to support these technologies is also accelerating. Meeting our customers' growing needs for this infrastructure is at the core of our mission at CyrusOne. Working together with our suppliers and customers, we continuously seek to improve all dimensions of the delivery and operation of this infrastructure amid a fast-changing regulatory landscape around the globe.

Amidst this acceleration, 2023 was a year of progress for CyrusOne. We celebrated five years of operations in Europe, which included opening our fifth data center in London and breaking ground on our fifth facility in Frankfurt. Additionally, we are reporting the year's progress with this, our fifth annual Sustainability Report.

Among the CyrusOne team's accomplishments, I wanted to share with you a list of five sustainability "accelerations" of which I'm especially proud in 2023.

1. **Customer sustainability reports:** In February of 2023, for the first time, we provided our customers with individualized reports detailing their portion of several key environmental metrics (greenhouse gas emissions, water and fuel consumption, etc.) to assist them in providing detailed, accurate sustainability disclosures.
2. **Decoupling business growth from carbon emissions:** Our 2023 Scope 1 & 2 carbon emissions were 4.7% lower than they were in 2018, even while our business activity (as measured by overall energy usage) more than doubled.
3. **Successful CNDCP audit:** We were proud to be the first signatory of the *Climate Neutral Data Centre Pact* to have all fully operational data centers in Europe comply with the Pact's reporting terms.
4. **Investing in biodiversity:** We received NWF Wildlife Habitat certification for our two largest data center campuses in Arizona and Northern Virginia, dramatically increasing the percentage of our land certified to support native plants and wildlife.
5. **Improving operational circularity:** In 2023, we implemented a company-wide push to address operational waste, resulting in an overall diversion rate of 46%, more than double that in 2022.

As proud as I am of our progress, I'm not the only one who has taken note. We received a number of awards and recognitions in 2023. For example, Platform Congress recognized CyrusOne with their ESG Innovator Award and the Data Centre World Awards named us Best Talent Developer. Our Senior Director of Operations, Dan Moore, was named Sustainability Champion of the Year by the Business Intelligence Group, while Infrastructure Masons included Stuart Gray, our Senior Director of Engineering Services in Europe, in their IM100 list.

The recognition of which I'm proudest, however, comes from our own teammates. Based on employee surveys, CyrusOne was certified as a Great Place to Work in the UK and named a Top Workplace by USA Today and the Dallas Morning News. These awards are particularly meaningful because sustainability is an undertaking that is broader than limiting emissions and conserving resources. It's also about building an organization that engages people at CyrusOne with purpose and creates better conditions for our teammates and our communities.

At CyrusOne, we build data centers for a sustainable future. Thank you for collaborating and supporting our present efforts to make that future a reality.

Eric Schwartz  
CEO

## WHAT WE DO

CyrusOne is a leading global data center developer and operator specializing in delivering state-of-the-art digital infrastructure solutions across the globe. Based in Dallas, Texas, CyrusOne has more than 55 data centers across the globe with locations in the United States and Europe, as well as under development in Asia. The company ensures the continued operation of digital infrastructure for approximately 800 customers, including roughly 200 Fortune 1000 companies.

CyrusOne's leading global platform of hybrid-cloud and multi-cloud deployments offers customers colocation, hyperscale, and build-to-suit environments, which help enhance the strategic connections of their essential data infrastructures and support the achievement of sustainability goals. CyrusOne's build-to-suit offerings include an enhanced, state-of-the-art artificial intelligence (AI) workload-specific data center solution, Intelliscale™, that addresses the rapidly growing needs of customers' AI applications and services.

CyrusOne data centers offer world-class flexibility, enabling clients to modernize, simplify, and rapidly respond to changing demands. Combining exceptional financial strength, a broad global footprint, and continued investment in key digital gateway markets, CyrusOne provides the world's largest companies with long-term stability and strategic advantage at scale. For more information, please visit [CyrusOne.com](https://www.cyrusone.com).

## HOW WE OPERATE

As a colocation data center real estate company, CyrusOne shares some features with in-house data centers and commercial real estate companies, but there are also important differences. The sections below describe how we compare to these two types of operations.

## COLOCATION VS. IN-HOUSE DATA CENTERS

CyrusOne is a colocation data center company. This means that we build data halls and support infrastructure (such as the ability to deliver electricity and cooling) so customers can lease space and install their servers in our data halls. This has several important implications and distinctions from in-house data centers:

- **Designed for Flexibility:** Colocation data centers must be designed and built to handle a wide variety of customer loads, equipment types, and capacities. Except for our build-to-suit environments, which are designed to a single customer's exact specifications, our data centers are designed for flexibility and rarely run close to their maximum design capacity (see [Energy Efficiency](#)).
- **Support Role:** Colocation data center operators do not control the specification or installation of servers. CyrusOne supports our customers in planning and move-in, but ultimately our customers make crucial decisions around server efficiency, cold aisle containment, rack cooling solutions, and end-of-life equipment recycling.
- **Required Resilience:** Colocation data centers promise uptime to customers through redundant systems, comprehensive maintenance, and business continuity planning. While in-house data center operators might strategically allow some of their data halls to go offline during outages, that is not an option for us. For this reason, backup power generation is required.

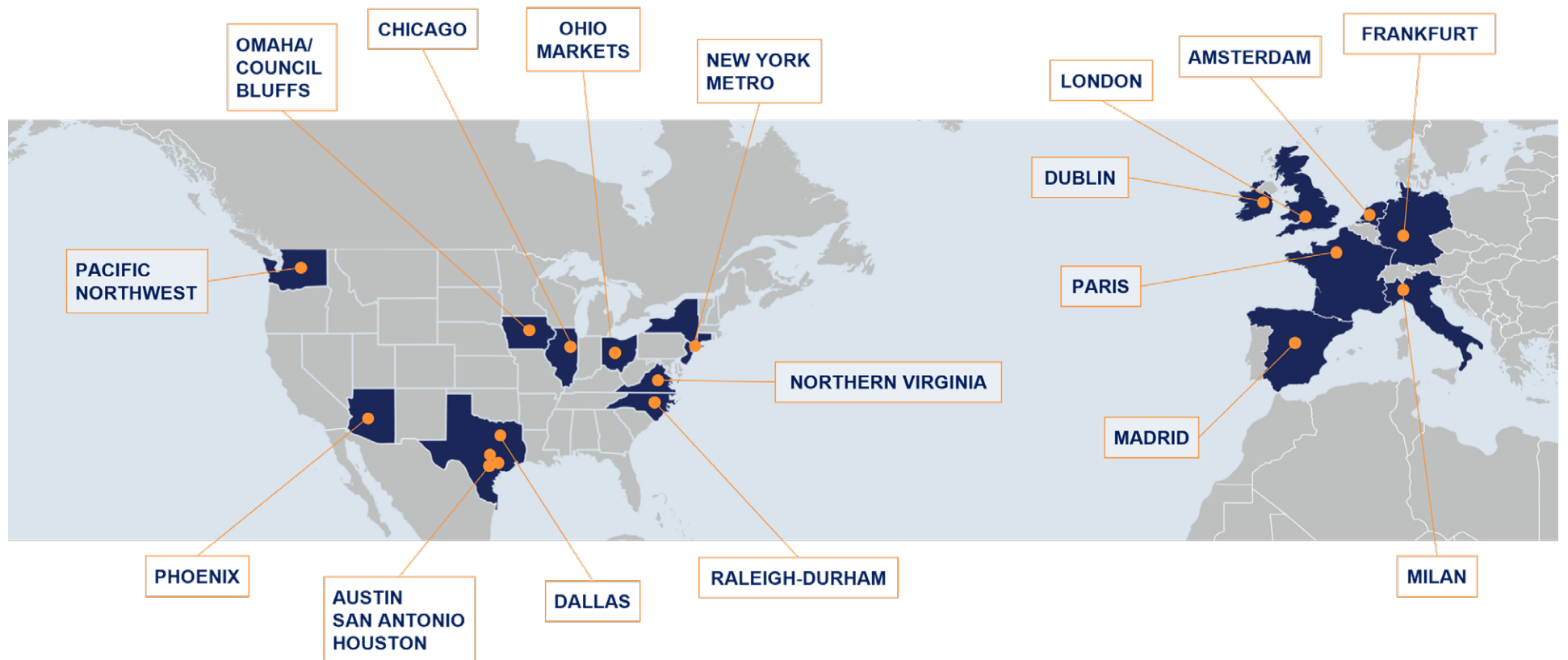
## COLOCATION VS. COMMERCIAL REAL ESTATE

CyrusOne is not just a real estate company, but is specifically a data center real estate company. This means that CyrusOne's real estate portfolios are data centers, and the space is utilized primarily by IT equipment such as servers. This differentiates us from commercial real estate companies which operate office buildings or commercial spaces in several ways:

- **Digital Occupancy:** Occupancy in our portfolio refers to the installation of IT equipment in a data hall rather than people, so topics of occupant wellness or comfort are not of primary importance to our design and operations.
- **Energy Density:** Data centers use much more energy per square foot than most buildings. Within a data center, the data halls use the most energy per square foot. Depending on the type of electricity the facility is currently using, this can also equate to a high carbon density compared to other types of real estate.
- **Episodic Waste:** Data centers don't generate waste in the same way other commercial real estate does. Our most frequent waste sources are break rooms and bathrooms, which contribute low amounts of waste from a small population of technical support, facility maintenance, and security staff and guests. To support customer move-in, we provide recycling for the cardboard boxes, crates, and pallets used to move equipment. This large-scale move-in waste is usually generated within a short time period, followed by years of only domestic waste until a customer does a major hardware upgrade or new customers move in.

## WHERE WE OPERATE

CyrusOne is a leading global data center developer and operator, delivering sophisticated digital infrastructure solutions worldwide. Headquartered in Dallas, Texas, the company operates over 55 data centers across the United States and Europe. Specializing in comprehensive solutions for hyperscale and Fortune 1000 companies, CyrusOne enables customers to align with their unique business and sustainability goals, catering to the complex needs of AI-driven applications and services workloads. CyrusOne's data centers offer unparalleled flexibility, enabling customers to modernize, simplify, and rapidly respond to changing demands. CyrusOne delivers tailored build-to-suit, colocation, and interconnection solutions that meet the evolving digital needs of its customers. For more information, please visit [cyrusone.com](https://www.cyrusone.com).



## MEETING THIRD-PARTY STANDARDS

This report has been designed to provide disclosure compatible with four third-party standards.

### TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) RECOMMENDATIONS

As part of our commitment to meeting the recommendations of the TCFD, we have structured this report around the four recommended topics: Governance, Strategy, Risk Management, and Targets and Metrics. Though not specifically addressed by the TCFD recommendations, we also report on additional highly relevant topics of water conservation, biodiversity, circular economy, and social responsibility.

TASKFORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) INDEX	
Topic	Section
<b>Governance</b>	
Board oversight of climate-related risks and opportunities	<a href="#">Board Oversight</a>
Management role in assessing and managing climate-related risks and opportunities	<a href="#">Senior Management Direction, Cross-functional Integration and Coordination</a>
<b>Strategy</b>	
Climate-related risks and opportunities	Climate Risk ( <a href="#">Risks and Impacts</a> , <a href="#">Opportunities and Impacts</a> )
Impact of climate-related risks and opportunities	Climate Risk ( <a href="#">Risks and Impacts</a> , <a href="#">Opportunities and Impacts</a> )
Resilience of organization's strategy	Climate Risk ( <a href="#">Scenario Analysis and Resilience</a> )
<b>Risk Management</b>	
Process for identifying and assessing climate-related risks	Climate Risk ( <a href="#">Risk Identification</a> )
Process for managing climate-related risks	Climate Risk ( <a href="#">Managing Climate Risk</a> )
Integration into overall risk management	Climate Risk ( <a href="#">Managing Climate Risk</a> )
<b>Metrics &amp; Targets</b>	
Metrics used to assess climate-related risks and opportunities	Appendix 3: Standardized Metrics ( <a href="#">TCFD</a> ) Climate Impact ( <a href="#">Metrics and Targets</a> )
Scope 1, 2, and 3 GHG emissions	Climate Impact ( <a href="#">Metrics and Targets</a> )
Targets and performance against targets	<a href="#">Metrics and Targets Summary</a>

## GLOBAL REPORTING INITIATIVE (GRI) STANDARDS

To provide transparency, this report has been prepared in reference to the GRI standards in GRI 1: Foundation 2021. Required elements are found throughout the report:

- **A Double Materiality Assessment** was performed based on guidance from GRI 3: Material topics 2021, using the dimensions of financial materiality and impact materiality.
- **Management Approach Disclosures** for material issues are detailed on a company-wide basis in the [ESG Strategy](#) section. Then, in each of the topic-focused chapters ([Social Responsibility](#) and [Environmental Impact](#)), we discuss our management approach for specific topics (e.g., energy, water, biodiversity), as well as specific approaches for subtopics (e.g., energy-efficient building design, energy-efficient operations).
- **Topic-Specific Disclosures** for material issues are included in [Appendix 3: Standardized Metrics](#). They are labeled with the GRI disclosure numbering system for ease of reference.

## SUSTAINABILITY ACCOUNTING STANDARDS BOARD (SASB) GUIDANCE

To benefit from the SASB guidance, we have included all relevant recommended metrics from our assigned category, Real Estate (IF-RE). However, since this Real Estate standard is not specific to data centers, we also referenced relevant guidance and metrics for the Internet Media & Services standard (TC-IM). We hope that this combination of metrics will provide a more useful picture for our customers and other stakeholders. Our standardized SASB metrics are listed in [Appendix 3: Standardized Metrics](#).

### THIRD-PARTY ASSURANCE

ASSURED






The primary data in this report has been assured to a moderate level ("type 2") by ISOS Group, Inc. The assurance statement can be found in [Appendix 4](#) and assured data is marked throughout the report with the stamp shown above.





## SUSTAINABLE DEVELOPMENT GOALS (SDG) ALIGNMENT

The following chart illustrates our alignment with the United Nations’ Sustainable Development Goals. To make sure that our targets are directly related, rather than just thematically related, we specify the SDG Indicator that our target will quantitatively affect. We have thematic connections to other SDG Goals, but their specific SDG Indicators are metrics that our activities do not directly affect, so they are not listed.

CYRUSONE SUSTAINABLE DEVELOPMENT GOALS ALIGNMENT				
SDG Goal	SDG Target	SDG Indicator	Sustainability Report Section	CyrusOne Target
	Target 6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	Indicator 6.4.1: Change in water use-efficiency over time;	<a href="#">Water</a>	Net positive water in high-stress regions
		Indicator 6.4.2: Level of water stress: freshwater withdrawal as a proportion of available freshwater resources		100% water-free cooling in new data centers
	Target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix	Indicator 7.2.1: Renewable energy share in the total final energy consumption	<a href="#">Energy Origination</a>	All facilities with renewable electricity option
	Target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix	Indicator 7.3.1: Energy intensity measured in terms of primary energy and GDP	<a href="#">Energy Efficiency</a>	Energy Efficiency Activities
	Target 9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	Indicator 9.4.1: CO <sub>2</sub> emission per unit of value added	<a href="#">Climate Impact</a>	Climate neutral by 2030  SBTI Near-term Carbon Target
	Target 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	Indicator 12.6.1: Number of companies publishing sustainability reports	<a href="#">Transparency</a>	This Report
	Target 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	Indicator 15.5.1: Red List Index	<a href="#">Biodiversity</a>	Improve habitat at each facility  Protected Areas Assessments

## GREEN BUILDING AND OPERATIONS CERTIFICATIONS

Until recently, we have pursued green building certifications on a case-by-case basis. In 2023, we committed to achieving BREEAM certification at all new European facilities and LEED at all new North American facilities. For all new facilities we design and construct in Europe, we are targeting BREEAM Very Good certification. This process is in progress for the following facilities:

- London (LON5)
- Frankfurt (FRA4-6)
- Madrid (MAD1)

Our new facility in Madrid is acting as a pilot development for BREEAM Spain and will become the first data center in Spain built under the BREEAM Data Centres International accreditation.

For all new facilities we design and construct in North America, we are targeting LEED certification. This process is in progress for the following facilities:

- Dallas (DFW4)
- Raleigh-Durham (DUR2)
- Chicago (CHI6)
- Pacific Northwest (PNW1)
- Columbus (COL1)
- Phoenix (PHX20)
- San Antonio (SAT8)
- San Antonio (SAT9)

The table to the right shows green building certifications that cover some or all of each building as of the end of 2023.

## CERTIFICATIONS



### BREEAM – Very Good

- London (LON2)\*
- London (LON5)



### Green Globe – 3 Globes

- Chicago (CHI1)
- Chicago (CHI2)

### Green Globe – 1 Globe

- Phoenix (PHX1)
- Phoenix (PHX2)
- Phoenix (PHX3)
- Phoenix (PHX4)
- Phoenix (PHX5)
- Phoenix (PHX6)
- Phoenix (PHX7)



### ISO 14001 EMS Certified

- Amsterdam (AMS1)
- Frankfurt (FRA1)
- Frankfurt (FRA2)
- Frankfurt (FRA3)
- London (LON1)
- London (LON2)
- London (LON3)

### ISO 45001 OHSMS Certified

- Amsterdam (AMS1)
- Frankfurt (FRA1)
- Frankfurt (FRA2)
- Frankfurt (FRA3)
- London (LON1)
- London (LON2)
- London (LON3)

### ISO 50001 Energy Management System Certified

- Frankfurt (FRA1)
- Frankfurt (FRA2)
- Frankfurt (FRA3)



### LEED Gold – Core and Shell

- New York Metro (NYM1)\*



### Energy Star Certified

- Phoenix (PHX1)\*\*
- Phoenix (PHX2)\*\*
- Phoenix (PHX3)\*\*
- Phoenix (PHX5)\*\*
- Phoenix (PHX6)\*\*



### National Wildlife Federation Certified Wildlife Habitat

- Dallas (DFW3)
- Cincinnati (CIN5)
- Dallas (DFW3)
- Northern Virginia (NVA5)
- Northern Virginia (NVA6)
- Northern Virginia (NVA7)
- Northern Virginia (NVA9)
- Phoenix (PHX1)
- Phoenix (PHX2)
- Phoenix (PHX3)
- Phoenix (PHX4)
- Phoenix (PHX5)
- Phoenix (PHX6)
- Phoenix (PHX7)
- Phoenix (PHX8)

\*Initial construction certified. Additions were not certified

\*\* Certified in the past, not current in 2023

## ALIGNMENT WITH REPORTING STANDARDS

In addition to our primary metrics, we have aligned our sustainability reporting with several industry standards to provide maximum transparency and to give our customers and investors accurate comparisons. These metrics mainly appear in [Appendix 3: Standardized Metrics](#).

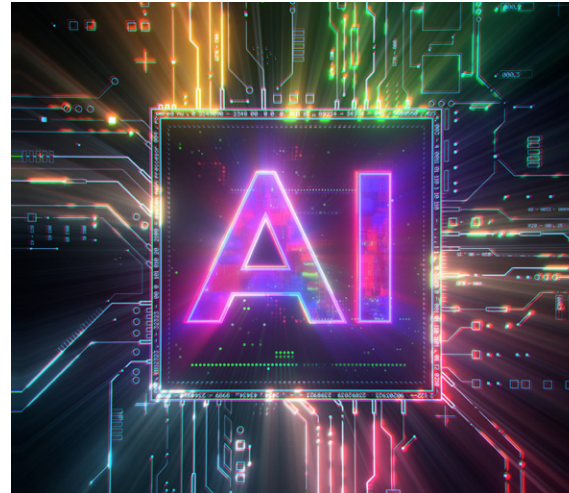
### DATA CENTER STANDARDS

Since we are a data center company, we follow industry-standard metrics developed by The Green Grid and standardized by ISO such as Power Usage Effectiveness (PUE), Carbon Usage Effectiveness (CUE), and Water Usage Effectiveness (WUE Site & WUE Source). For more details about these metrics, please see the [Energy Efficiency](#), [Climate Impact](#), and [Water](#) sections.

### SUSTAINABILITY REPORTING STANDARDS

In addition to the description in [Meeting Third-Party Standards](#) that covers TCFD, SASB, and GRI, we go beyond our primary metrics to report on additional standardized metrics and methods from GRESB (formerly known as Global Real Estate Sustainability Benchmark), CDP Climate and Water, S&P CSA (Dow Jones Sustainability Index), and the World Resource Institute's Greenhouse Gas Reporting Protocol (WRI GHGP). Specific primary metrics are included throughout the body of the report (with methods detailed in [Appendix 2: Primary Metrics](#)), and the full list of standardized metrics is detailed in [Appendix 3: Standardized Metrics](#). The primary data in this report [has been assured](#) to a moderate level ("type 2") by ISOS Group, Inc.

## SUSTAINABLE INTELLIGENCE



In August of 2023, CyrusOne launched Intelliscale™, an artificial intelligence (AI) workload-specific data center solution developed to address the rapidly growing needs of AI applications and services. Intelliscale data centers will be built with an ultra-high-density foundation, optimizing space utilization. These facilities can occupy just 25% of the space of typical data centers, depending on the application and needs. With Intelliscale comes a variety of sustainability considerations.

### FLEXIBLE SITE SELECTION

Historically, the placement of data centers requires proximity to availability zones (AZs) which are strategically located near population centers to ensure stable connections and faster speeds for customers. The concentration of data centers in specific areas can lead to conflicts with communities and contribute to local resource constraints. Some AI deployments can be located outside of traditional AZs which may present some relief, reducing the reliance on a few key markets to support much of a data center operators' infrastructure and increasing the industry's' resilience.

CyrusOne will have more choices to maximize sustainability when siting Intelliscale data centers. Site selection criteria such as renewable energy availability, low regional water stress, moderate average temperatures, low exposure to climate risk, and low impact to biodiversity can be prioritized over proximity to AZs.

### MATERIAL REDUCTION

AI workload-specific data centers reduce space utilization, decreasing the physical size of a data center thus reducing the quantity of materials used to build the data center. Reducing demand for materials within the supply chain will aid CyrusOne in reducing their embodied carbon footprint and other environmental impacts. The reduced footprint of an AI data center also means less impact and disruptions to local ecosystems.

### HEAT GENERATION

High-performance computing and AI's dense infrastructure will increase the demand for electricity and generate substantial heat. CyrusOne plans to leverage our standard water-free cooling design and direct liquid-to-chip technology to efficiently cool IT equipment while maximizing computing power. CyrusOne's water-free cooling also ensures that our facilities will not contribute to regional water stress, reducing the risk of community conflicts.

### ELECTRICITY DEMAND

Carbon-free electricity will be essential in meeting AI's demand for electricity while avoiding additional greenhouse gas emissions. Greater flexibility in siting AI data centers allows us to seek out regions rich in carbon-free electricity.

## METRICS AND TARGETS

To measure progress toward our sustainability goals, we have created a set of primary metrics and targets shown in the table below. These are the critical metrics that we find most relevant to measuring our progress and against which we set targets. Throughout this report, the primary metrics and targets for each topic are detailed in the relevant sections (look for the blue background). For a full list of metrics and their descriptions see [Appendix 2: Primary Metrics](#).

### CHANGES IN SCOPE

During 2023, the following three facilities shut down: Cincinnati (CIN97), London (LON99), and New York Metro (NYM10). Following Greenhouse Gas Protocol guidance, these facilities remain in our baseline and scope. The following new facilities began operations in 2023 and were therefore added to our scope (with no change to the baseline): Chicago (CHI3), Frankfurt (FRA4), Houston (HOU4), London (LON4), London (LON5), and Phoenix (PHX8).

## METRICS AND TARGETS SUMMARY

Primary Metrics	UOM	2023 Level	Target Level	Section
Carbon Usage Effectiveness (CUE)	kg CO <sub>2</sub> e /IT kWh	0.19	Climate neutral by 2030	<a href="#">Climate Impact</a>
Carbon Emissions, Scope 1 + 2 (market-based)	MTCO <sub>2</sub> e	607,227	Climate neutral by 2030	<a href="#">Climate Impact</a>
Carbon Emissions, Scope 3	MTCO <sub>2</sub> e	367,697	Measure and reduce	<a href="#">Climate Impact</a>
Facilities with Renewable Option	% of facilities	100%	100% by 2022	<a href="#">Energy Origination</a>
Electricity Procured as Carbon-free	% of all electricity delivered	61.1%	100% by 2030	<a href="#">Energy Origination</a>
Facilities in Europe Powered by Renewable Energy	% of facilities	100%	100% by 2030	<a href="#">Energy Origination</a>
Net Positive Water Facilities in High-Stress Regions	% of facilities in High-Stress Regions	39%	100%	<a href="#">Water</a>
New Data Centers with Water-Free Cooling	% of new facilities	83%	100% annually	<a href="#">Water</a>
Facilities with Improved Habitat	% of facilities	41%	100%	<a href="#">Biodiversity</a>
Diverse Supply Chain Spend	% of Tier 1 & 2 U.S. spend	20%	20% by 2024	<a href="#">Supplier Diversity Initiative</a>
Employee Injury Rate (Total Recordable Incident Rate)	Incidents/ 200,000 hours worked	0.24	0.82 annually	<a href="#">Employee Occupational Safety</a>
Employee Injury Severity Rate (Days Away, Restricted, or Transferred Duty)	Days/200,000 hours worked	0.17	0.40 annually	<a href="#">Employee Occupational Safety</a>



# CORPORATE GOVERNANCE

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## OUR COMMITMENT

CyrusOne is committed to institutional integrity and ethics throughout our organization. We seek to ensure the highest standards of business conduct through a variety of methods.

## ESG GOVERNANCE

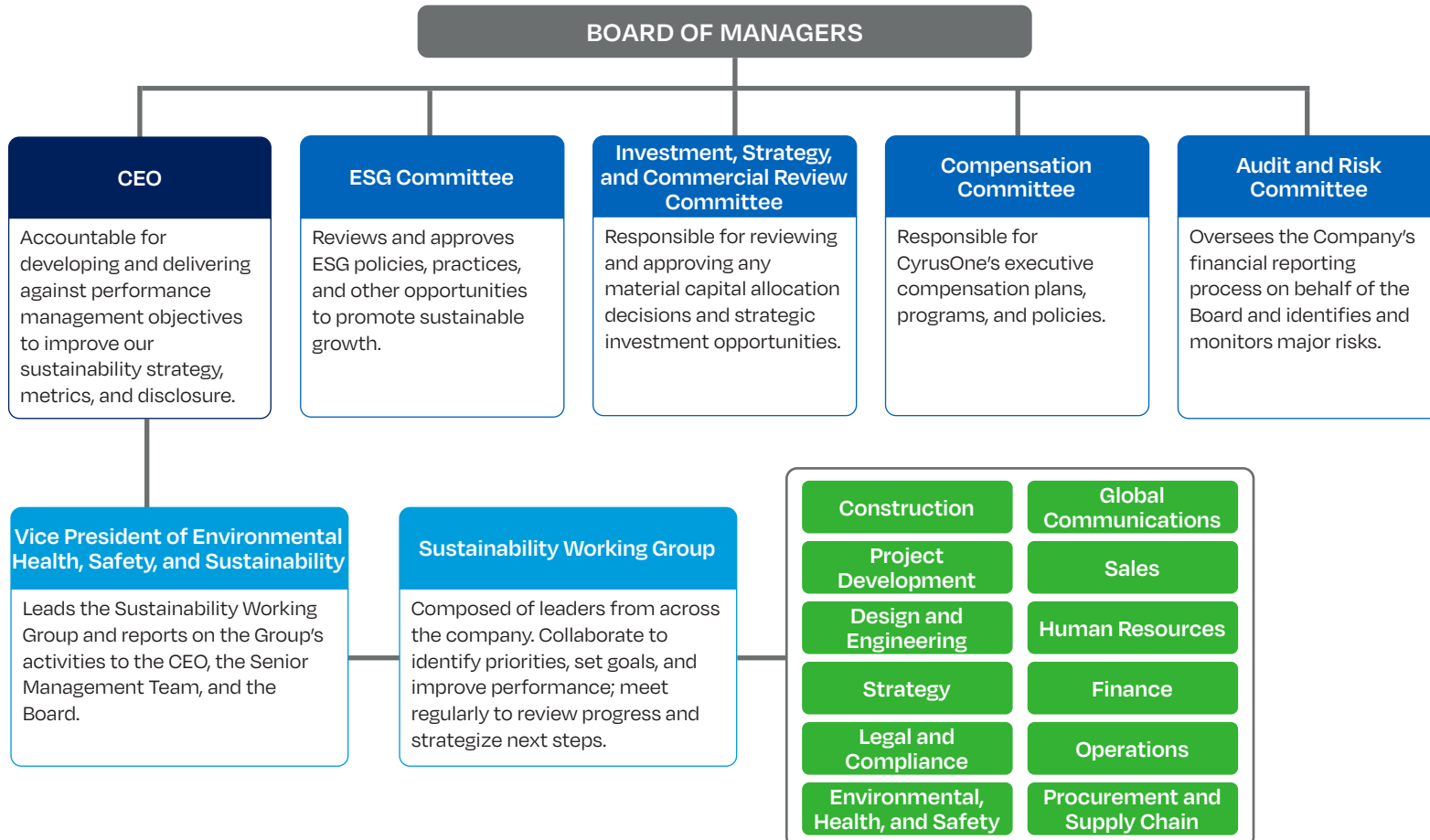
The management and execution of environmental, social, and governance initiatives occur at several levels in our company, as summarized by the Board Oversight diagram on the next page and detailed in the following sections.



## BOARD OVERSIGHT AND COMPOSITION

One of the key functions of our Board of Managers (the “Board”) is the oversight of our strategy and enterprise risk management, including in relation to environmental, social, and governance topics. The Board administers this oversight function directly with support from standing committees of the Board, each of which oversees strategy and risks specific to its respective area of responsibility:

- **Environmental, Social, and Governance (“ESG”) Committee:** Reviews and approves the Company’s ESG policies, practices, and other opportunities in connection with fostering sustainable growth of the Company.
- **Investment, Strategy, and Commercial Review Committee:** Reviews and approves the Company’s capital and operating expenditures, investment policies, material capital allocation decisions, strategic investments and dispositions, and other transaction opportunities.
- **Compensation Committee:** Evaluates, approves, and administers all compensation, severance, and other similar plans, policies, and programs and specifically reviews and approves compensation of teammates with a title of “senior vice president” or greater seniority.
- **Audit and Risk Committee:** Oversees our accounting and financial reporting processes as well as identifying and monitoring major financial, regulatory, security, enterprise, and operational risks.



## ESG COMMITTEE

The ESG committee reviews and approves ESG policies, practices, and other opportunities to promote sustainable growth. They assist the Board in discharging its oversight responsibility related to ESG matters, which may include climate change impacts, environmental sustainability (including the management of energy and water use), human rights and community relations, diversity, equity, and inclusion, employee engagement, employee health and safety, business ethics, and other ESG issues that are material to the Company. The ESG Committee also monitors developments related to improving the Company's understanding of ESG matters.

In furtherance of its mission, the ESG Committee formally adopted a goal for the Company to be *climate neutral* by the year 2030 for Scope 1 and 2 emissions.

## INVESTMENT, STRATEGY, AND COMMERCIAL REVIEW COMMITTEE

The Investment, Strategy, and Commercial Review Committee is responsible for reviewing and approving any material capital allocation decisions and strategic investment opportunities, including mergers, acquisitions, divestitures, joint ventures, and real estate purchases. Furthermore, the Investment, Strategy, and Commercial Review Committee reviews the Company's investment policies and practices, in addition to approving any project leasing, project pricing, or project underwriting guidelines. Environmental due diligence of acquisitions reports up to this committee.

## COMPENSATION COMMITTEE

The Compensation Committee is responsible for CyrusOne's compensation philosophy and policies, as well as the annual and long-term executive compensation program that flows from them. The Compensation Committee is specifically responsible for long-term equity and cash incentive awards and senior

management's performance evaluations. Our long-term success depends in part on our ability to attract, motivate, focus, and retain highly talented individuals who are committed to our vision and strategy. A key objective of our executive compensation program is to create an ownership culture that aligns pay with performance and overall value creation.

## AUDIT AND RISK COMMITTEE

CyrusOne is a privately held company, so we do not publicly disclose financial statements or regularly file reports with the SEC. However, we are committed to implementing strong financial oversight. Company management is responsible for the preparation of CyrusOne's financial statements and the financial reporting process. This process includes implementing, maintaining, assessing, and reporting on effective internal control over financial reporting. The Audit and Risk Committee oversees the Company's financial reporting process on behalf of the Board.

The Audit and Risk Committee is responsible for the appointment, compensation, and oversight of our independent auditor and monitoring their qualifications and independence. The Audit and Risk Committee, Company management, and the auditor review the audited financial statements annually. They also discuss the quality of the Company's accounting principles, the reasonableness of significant judgments, and the clarity of disclosures in the financial statements, and express an unqualified opinion on the Company's financial statements and internal controls. Furthermore, the Audit and Risk Committee reviews the Company's risk assessment and risk management policies, including by assessing the Company's major financial, regulatory, enterprise and operational risk exposure, cybersecurity, chain of custody, and information systems for the reporting of actual or potential accidents, breaches, and incidents, disaster recovery, and other identified hazards

and risks throughout the Company, except with respect to those risks for which oversight has been assigned to other committees of the Board or retained by the Board. The Audit and Risk Committee periodically reviews steps taken by Company management to mitigate or investigate and remediate any such risk exposure and to enhance the Board's understanding and the Company's oversight of the systems, policies, controls, and procedures to manage and mitigate risk, respond to incidents, and protect critical infrastructure assets.

## SENIOR MANAGEMENT DIRECTION

The Senior Management Team sets the strategic direction for the company. For topics related to operations within the company, the Operations Management Team has a lead role in most decisions regarding energy, water efficiency, and sourcing. Our CEO has ultimate oversight of ESG topics.

## CROSS-FUNCTIONAL INTEGRATION AND COORDINATION

Our Sustainability Working Group ("SWG") integrates sustainability and ESG strategy and planning into each function at the company, coordinates cross-functionality, develops metrics, and measures progress. The SWG is chaired by our Vice President of Environmental, Health, Safety, & Sustainability, and its membership consists of the leaders of functions across the company (see Board Oversight diagram). Updates on the SWG's activities are provided monthly to the Senior Management Team and quarterly to the ESG Committee and the Board.

We take an integrated approach to embedding sustainability in foundational decision-making by working across departments and sharing best practices. This allows us to manage risks and create opportunities across the company rather than restricting sustainability functions to a single department.



## ESG STRATEGY

Across Environmental, Social, and Governance topics we have conducted a sustainability reporting materiality analysis and established priorities. We have identified topics having the greatest impact on our industry based on guidance from the Sustainability Accounting Standards Board (SASB) and our own assessments based on stakeholder feedback. Accordingly, we have done the most development on our programs that reduce our environmental impact while continuing to address social and governance topics. Please see our environmental and social vision statements along with our priorities and materiality for all three ESG topics below.

## ENVIRONMENTAL VISION STATEMENT

At CyrusOne, we recognize that building and operating large data centers leads to a geographic concentration of environmental impacts, even if the total impact is reduced compared to inefficiencies of smaller data rooms. Being a leader in this industry means embracing our responsibility for reducing those impacts.

We approach our sustainability mission in three ways:

1. **Sustainable Future:** We build data centers that are compatible with a sustainable future. We cannot just build a data center to meet today's challenges; we need to build it with the future in mind.
2. **Energy and Water Conservation:** We are committed to conserving both energy and water through the effective design, maintenance, and operation of our facilities. We cannot just trade water for energy and ignore its impact.
3. **Strategic Partners:** We collaborate strategically with our customers to move their sustainability goals forward. Our customers have some of the most ambitious sustainability goals of any industry, so the best thing we can do for the environment is to help them succeed.

## SOCIAL VISION STATEMENT

We recognize that we have an opportunity to make a positive impact for our teammates, our community members, our suppliers, and our customers.

We approach our social sustainability mission in three ways:

1. **Inclusive and Equitable Future:** We work to create a world that's inclusive to all and where everyone has the opportunity to succeed. This includes a commitment to diversity and equity across all aspects of our business, as well as training and development opportunities to help our employees and community members reach their full potential.
2. **Safety and Fairness Across the Value Chain:** We are committed to promoting safe and fair working conditions across our value chain, including suppliers, construction, operational contractors, employees, and our communities.
3. **Strategic Partners:** We collaborate strategically with our customers to move their social responsibility goals forward. Our customers have some of the most ambitious social sustainability goals of any industry, so the best thing we can do to make a positive impact is to help them succeed.

## PRIORITIES AND MATERIALITY

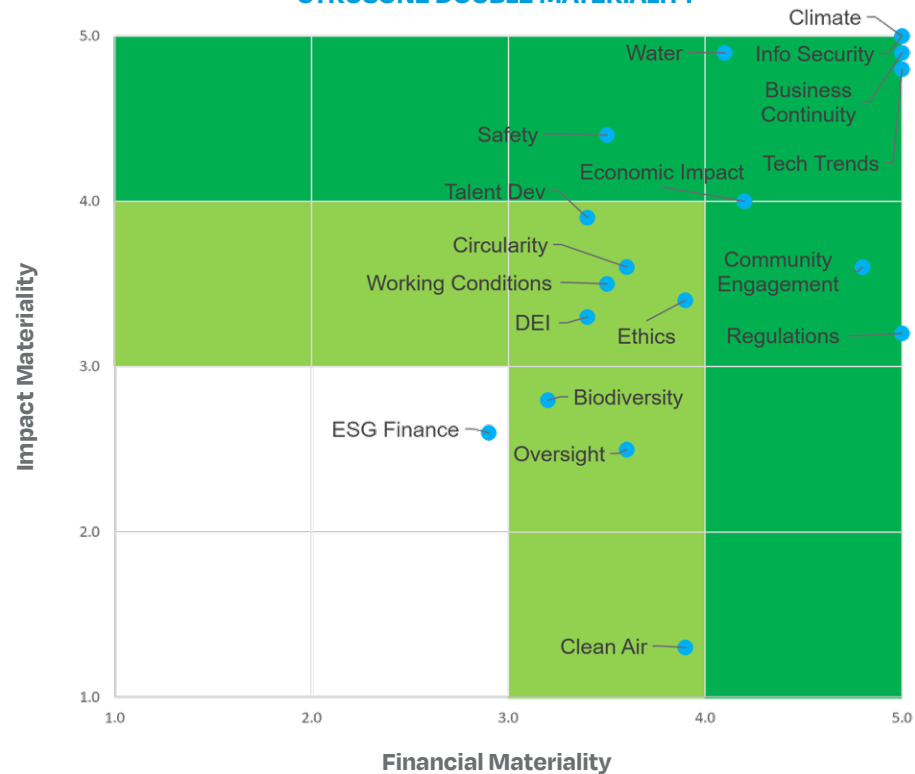
Priorities for strategy and materiality for sustainability reporting are intrinsically related. We use a unified process to identify where we have the biggest sustainability impacts and where we should therefore focus our improvements. ESG covers many different topics, so it was important to identify which topics are necessary for us to report and which issues to set aside. To make this distinction, we conducted a materiality assessment. Details of the methodology for that assessment can be found in [Appendix 1: Methodology](#).

We completed this assessment with input from members across CyrusOne and beyond who represent a large variety of stakeholders (customers, investors, teammates, etc.) and expertise (finance, HR, sales, legal, etc.). To align with new external reporting standards, particularly CSRD and GRI, we performed what is known as a “double materiality” assessment in September of 2023. Double materiality requires us to address two questions for each topic considered:

- 1. Impact Materiality:** What is the impact (negative or positive) of our industry on the environment or society?
- 2. Financial Materiality:** What is the impact (negative or positive) of the topic on our business?

Combining Impact Materiality and Financial Materiality gives us the following heat map of topics, with topics in the top right (dark green) requiring the most attention and topics in the bottom left (white) needing the least. The guidance for our sector from SASB (Real Estate) suggests a focus on environmental topics as a primary concern, but we also display social and governance topics as well. Discussion of reasoning for each topic is listed below in the section What's In, What's Out?

## CYRUSONE DOUBLE MATERIALITY



The scores shown in the table are an adjusted score based on our sensitivity analysis (see [Methodology](#)). This process slightly discounted scores where the top three scores were not consistent (e.g. {5, 5, 5} vs {5, 4, 3}, resulting in some decimal scores like 4.8 or 3.4.

As you can see, the following topics were rated most material, with a score of 4 or above on one or both axes:

- E1. Climate
- E2. Water
- S1. Occupational Safety
- S4. Community Engagement
- S5. Economic Impact

- G4. Business Continuity/Resilience
- G5. Information Security
- G7. Laws & Regulations
- G8. Technological Trends

Due to their high materiality, we prioritize these topics in our reporting.

Except for ESG Finance, which was rated below 3 on both assessment axes, the other topics were all deemed moderately material. Therefore, we include them in our reporting, though perhaps at a less detailed level than the topics of primary materiality.

**WHAT'S IN, WHAT'S OUT?**

Below, we give some additional context for what we have identified as material for our reporting.

WHAT'S IN	WHY?
<b>Environmental</b>	
Climate	Our single largest environmental impact is energy consumption and the carbon emissions associated with many forms of energy. We also have the potential for our operations to be impacted by climate change in the form of heat waves, floods, water scarcity, and other extreme weather.
Water	While many of our facilities do not consume significant water, a few of our sites do, so we must carefully manage their impact on local watersheds. In addition, increased water stress is an expected consequence of climate change over the next decade in many regions where we operate, and data centers can have a high water risk exposure if dependent on water for cooling.
Biodiversity	As a real estate developer we impact land use and thus have a responsibility to avoid high conservation value lands and to restore habitat in the lands that we do develop. Biodiversity-related issues can also have an impact on our business in the form of limits to development and customer preference.
Circularity	While our sites do not generate much waste during operation, some customers have communicated that effective recycling services are a priority for them. In addition, our selection of materials during construction can contribute to the transition toward a circular economy and limited supplies of those materials can affect our business success.
Clean Air	While the impacts on clean air from our emergency backup generators are limited, regional air pollution and associated regulations can have a large impact on our ability to install new backup generators at new or expanded sites.
<b>Social</b>	
Occupational Safety	The health and safety of our teammates and contractors are of high concern, especially with the risks inherent in the construction aspect of our business. Our customers have also communicated to us that this is a priority and affects their preference for business partners.
Working Conditions	While our number of employees is small for a company with our annual revenue, we can offer high-quality jobs across a variety of fields. Our success is affected by talent gaps and any shortages of qualified workers.
Diversity, Equity, & Inclusion	While our number of employees is relatively small and limits our ability to affect societal change, expanding the diversity of our supply chain gives us additional impact. Providing inclusive and equitable working conditions can help us attract top talent, including members of underrepresented groups.
Community Engagement	We have a responsibility to make a positive impact in the communities where we operate and to be a good neighbor. This, in turn, affects how welcome we are by local communities to develop new sites.
Economic Impact	Building a data center represents a significant investment in a local community and generates many construction jobs. During operation the jobs are fewer, but we contribute tax base to local communities. In addition, prevailing economic conditions affect our ability to raise capital, hire talent, and find customers.

WHAT'S IN	WHY?
<b>Governance</b>	
Company Oversight	While the method by which our company is provided oversight by our private equity sponsors has little effect on society, it has significant effects on the function of our business.
Ethics & Business Conduct	Maintaining ethical and equitable operations is very important to our stakeholders. Lapses in ethics can have significant impacts on our ability to earn new business with customers and local governments.
Talent Development & Succession	Our business has the ability to provide high quality jobs with ample on-the-job learning for employees. How well we develop this talent and plan for succession of leadership positions can have a high impact on the performance of our company.
Business Continuity/Resilience	Our ability to weather natural disasters and quickly recover is crucial to both the services provided by our data centers to society (such as emergency response communications) and our reputation as a reliable partner.
Information Security	It is critical that CyrusOne maintains secure facilities and protects our customers' infrastructure and data about our customers. Lapses in any of these aspects can have significant impacts on society and CyrusOne's business success.
Laws & Regulations	While our ability to affect laws and regulations is limited, they can have a significant impact on our operations.
Technological Trends	Technological trends such as the movement to cloud services and the proliferation of AI-based tools are key to the trajectory of both society and our business success.

It is equally important to identify what we will not focus on in our reporting and to give context for why these topics play a minor role for CyrusOne's business.

WHAT'S OUT	WHY?
<b>Governance</b>	
ESG Finance	While we attempt to link our ESG performance to financing through various mechanisms, our effect on the overall capital markets is minor. In addition, the effect of this on our financing has been small, but measurable. Thus, we will continue the efforts, but not make it a key piece of our reporting.

**FUTURE EVALUATION**

We will revisit the Materiality Assessment at least every three years to incorporate our learning and keep it relevant to our current context. This year we conducted a high-level double materiality assessment, asking participants to rate the overall materiality of each topic. For example, while Water was rated as highly material (Impact: 4.9, Financial: 4.1), discussion with our raters suggested that water withdrawal and consumption drove this high rating rather than the less material topic of water pollution. In 2024, we plan to conduct a more in-depth assessment, further detailing the materiality of subtopics under each topic.

## OWNERSHIP AND OVERSIGHT

### BOARD DIVERSITY

Our Board currently consists of ten directors. 30% of board members identify as an ethnic/racial minority. The prior sentence represents the state of the board as of December 31, 2023.

### EXECUTIVE COMPENSATION

The Board's Compensation Committee is responsible for CyrusOne's executive compensation philosophy and policies, as well as the annual and long-term executive compensation program that flows from them. Our long-term success depends on our ability to attract, motivate, focus, and retain highly talented individuals who are committed to our vision and strategy. A key objective of our executive compensation program is to create an ownership culture that aligns pay with performance and overall value creation.

### SUSTAINABILITY-LINKED EXECUTIVE COMPENSATION

We use a combination of compensation programs to incentivize our executive officers to achieve growth and value creation over the short and long term. A portion of our compensation program is tied to the completion of sustainability initiatives including progress on carbon-free electricity, water, biodiversity, recycling, safety, engagement, diversity & inclusion, and transparency. This collection of priority projects and metrics is intended to supplement and drive progress towards sustainability – an important area of interest for our stakeholders.

## FINANCIAL AUDIT

Since CyrusOne is now a privately held company, we no longer publicly disclose financial statements and SEC-related reports. However, this does not mean we do not continue to have strong financial oversight.

Management is responsible for the preparation of CyrusOne's financial statements and the financial reporting process. This process includes implementing, maintaining, assessing, and reporting on effective internal control over financial reporting. Our financial statements are subject to audit each year. Deloitte has been our auditor since 2011. CyrusOne maintains an internal audit function utilizing Ernst & Young which reports to the Audit and Risk Committee, including the reporting of ESG data.

The Board's Audit and Risk Committee oversees the Company's financial reporting process on behalf of the Board of Managers.

The Audit and Risk Committee is responsible for the appointment, compensation, and oversight of our independent auditor and ensuring their independence by limiting non-audit services from the firm. In fulfilling its oversight responsibilities, the Audit and Risk Committee, management, and the auditor reviewed the audited financial statements for the year ended December 31, 2023, and reported to the Board of Managers. They also discussed the quality, not just the acceptability, of the accounting principles, the reasonableness of significant judgments, and the clarity of disclosures in the financial statements, and expressed an unqualified opinion on the Company's financial statements in 2023.

## GREEN FINANCE

CyrusOne seeks to align its finance and borrowing with its sustainability ambitions through various instruments and options. These can include green bonds, sustainability-linked bonds, and green commercial mortgage-backed securities.

### GREEN BOND FRAMEWORK

CyrusOne looks beyond the horizon and helps develop creative solutions so our customers can meet their digital infrastructure requirements, while helping to build a sustainable future. Download the [Green Bond Framework](#).

We also sought a Second Party Opinion through Sustainalytics. Sustainalytics is of the opinion that the CyrusOne Green Finance Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2021 and the Green Loan Principles 2023. Download the [Second Party Opinion](#).

## ETHICS

Our governance practices to promote ethical business conduct are focused on three different programs:

1. Employee Ethics
2. Anti-Corruption
3. Antitrust

These programs, together, seek to avoid improper behavior or the appearance of improper behavior across our company.

### CODE OF BUSINESS CONDUCT & ETHICS

We are committed to the highest ethical standards in the conduct of our business; therefore, the integrity of each teammate (employee), officer, and director is of paramount importance. All teammates, officers, and directors are accountable for their actions and must conduct themselves with the utmost integrity. Teammates, officers, and directors must conduct business in strict observance of all applicable federal, state, and local laws and regulations as set forth by those bodies that regulate the company's business and those that regulate public companies, such as the Securities and Exchange Commission. Persons who act unethically or violate the company's [Code of Business Conduct & Ethics](#) and supplementing written policies may be subject to disciplinary action, up to and including termination or removal, and, if applicable, referral to the appropriate authorities for prosecution. CyrusOne hosts annual training for our teammates regarding our Code of Business Conduct & Ethics and provides resources to support compliance.

We are committed to establishing and maintaining an effective process for teammates, officers, and directors to report – and for the company to respond to and correct – any type of misconduct or unethical behavior. Each teammate, officer, and director has a duty to

report any known or suspected violation of the Code of Business Conduct & Ethics, including any violation of the laws, rules, regulations, or policies that apply to the Company. We make it easy for our teammates to report any suspected violations, including raising the concern with their manager or with any member of the Human Resources department, the legal department, or the senior management team. We maintain additional methods for reporting concerns or seeking guidance about known or suspected violations of the Code of Business Conduct & Ethics or any applicable law or Company policy, including an Ethics & Compliance Helpline. The Helpline allows for confidential and anonymous reporting of concerns in the United States and elsewhere as permitted under local law. All reports of known or suspected violations are handled sensitively and with discretion. We also prohibit retaliation against a teammate who, in good faith, seeks help or reports known or suspected violations.

### ANTI-CORRUPTION POLICY AND PROGRAM

Our anti-corruption and anti-bribery prohibition is simple – no teammate may:

1. Give or offer any payment, gift, hospitality or other benefit in the expectation that a business advantage will be received in return, or to reward any business received;
2. Accept any offer from a third party that you know or suspect is made with the expectation that we will provide a business advantage for them or anyone else;
3. Give or offer any payment (sometimes called a facilitation payment) to a government official in any country to facilitate or speed up a routine or necessary procedure; or

4. Threaten or retaliate against another person who has refused to offer or accept a bribe or who has raised concerns about possible bribery or corruption.

We maintain an Anti-Corruption and Anti-Bribery Policy and provide annual training which details the prohibitions and requirements for dealing with government officials, including employees of government agencies and state-owned entities. Due diligence must be conducted when hiring and doing business abroad with third-party agents, and any expenditures involving government officials must be pre-approved per the Anti-Corruption and Anti-Bribery Policy. Teammates who observe any “red flags” that indicate potential corruption must report them to the General Counsel or the Ethics & Compliance Helpline. CyrusOne is committed to complying with anti-corruption and anti-bribery laws wherever it does business.

### ANTITRUST INCIDENT PREVENTION

Antitrust laws (also known as competition laws or fair-trade laws) of the US, the EU, and other countries are designed to protect consumers and competitors against unfair business practices and to promote and preserve competition. Our practice is to compete vigorously and ethically while complying with all antitrust, monopoly, competition, and cartel laws in all countries, states, and localities in which the Company conducts business. Our teammates are advised to exercise caution in meetings with competitors since any meeting with a competitor may give rise to competition law concerns. Thus, we require that our teammates obtain prior approval from the General Counsel if they need to meet with a competitor for any reason. The contents of the meeting should be fully documented. Whenever any doubt exists as to the legality of a particular action or arrangement, teammates are encouraged to contact the General Counsel. As of December 31, 2023, CyrusOne was not under investigation for any antitrust actions.

## TRANSPARENCY

### ESG REPORTING

This is our fifth annual sustainability report, which is our primary method of reporting ESG topics. We treat transparency as our guiding principle in an attempt to honestly analyze our sustainability programs and report the areas that need improvement along with our successes. For instance, we promote the water-saving cooling we use at many facilities, hoping to inspire others in our industry to think seriously about water consumption. However, we also disclose the number of facilities in our portfolio that still consume large amounts of water.

We are methodical about both the content and structure of our report, which is designed to provide disclosure that is compatible with several third-party standards, as discussed in the [Introduction](#). To assist our customers with their environmental disclosure process, we also generate customized annual Customer Sustainability Reports which detail each customer's portion of our major environmental impacts, such as energy use, carbon emissions, waste generation, and water consumption. To help our customers prepare for their upcoming reporting requirements, these reports are sent at the beginning of each year and cover data from the previous year.

This year we have again pursued third-party assurance of our primary environmental and social data. The assurance statement can be found in [Appendix 4](#), and assured data is marked throughout the report with a green stamp.

We will continue this commitment to transparency in the coming years as we work toward our sustainability goals.

## 2023 AWARDS ROUNDUP

We felt that 2023 was a year of progress for CyrusOne, and were happy that others agreed. For the second year in a row, EcoVadis, the world's largest and most trusted provider of business sustainability ratings, ranked CyrusOne's sustainability efforts at the "Gold Level," which placed us in the top 5% of more than 85,000 rated companies.

The Business Intelligence Group awarded Dan Moore, our Senior Director of Operations their **Sustainability Champion of the Year**, while Infrastructure Masons named Stuart Gray, Senior Director, Engineering Services, Europe to their **IM100** list.

Our new Customer Sustainability Reports were recognized with both the SEAL **Environmental Initiatives Award** and the Business Intelligence Group **Sustainable Service Award** for their industry-leading transparency in delivering per-customer, per-facility sustainability data to customers in Q1.

Other recognition we received in 2023:

- Platform Congress **ESG Innovator Award** for sustainability initiatives and progress toward *climate neutral*
- Environment+Energy Leader **Top Product of the Year Award** for holistic ("[Big Four](#)") sustainability efforts at our Dallas (DFW3) data center
- Tech Capital Global Awards **In-house Team of the Year** for our Finance, Advisory, and Legal teams
- Data Centre World Awards **Best Talent Developer** as a major supporter of the Digital Futures program
- Dallas Morning News and USA Today 2023 **Top Workplaces** and **Great Place to Work**® Certified in the UK, following a dedicated process of employee feedback and independent analysis.



## ADVOCACY

CyrusOne engages in the policy development process through direct advocacy efforts when appropriate. In addition, we participate in industry trade associations that represent the interests of the data center industry in geographic regions where we have operations. Our participation within trade associations provides an opportunity for the company's views to be represented in the policy priorities of the organizations of which we are members.

In addition to these groups, we also communicate our desire for renewable electricity to our power providers and seek opportunities to partner with them to greenlight new renewable projects.

## INDUSTRY GROUP MEMBERSHIPS



The **Data Center Coalition (DCC)** represents and advances the interests of the data center community and advocates for a strong business climate, policies, and investments that support the growth and success of this business sector. CyrusOne serves on the board of directors of the DCC.



With over 800 members across the UK, **techUK** creates a network for innovation and collaboration across business, government, and stakeholders to provide a better future for people, society, the economy, and the planet.



**France Datacenter** promotes the sector as a pillar of the digital economy with public authorities. The group disseminates best practices between professionals and promotes the reliability and performance of the sector in the media.



The **European Data Centre Association (EUDCA)** developed the Climate Neutral Data Centre Pact (CNDCP), which creates binding terms for members to adopt a target to become climate neutral by 2030 with required annual reporting of progress. CyrusOne serves on the board of EUDCA and is a founding member of the Pact.



The **German Datacenter Association (GDA)** represents its members—operators and owners of data centers of all sizes—in relation to laws, regulations, standards, norms and political issues. In the long term, the group seeks to sustainably improve the framework conditions for operating data centers in Germany.



**Digital Infrastructure Ireland (DII)** is an industry representative body which includes: CyrusOne, Digital Realty, EdgeConneX, EngineNode, Equinix, K2 Data Centres, Keppel DC REIT, Pure DC, T5 Data Centres, Vantage Data Centers.



The **Clean Energy Buyers Association** is a community of over 330 energy customers and partners committed to achieving a 90% carbon-free US electricity system by 2030.



Established in 2014, **Host In Ireland (HII)** works to inform global decision-makers within the technology and data industries about Ireland's data hosting caliber and capabilities.



**Tech Titans®** is a forum that connects the North Texas technology community to collaborate, share and inspire creative thinking that fuels tomorrow's innovations.



The **Data Centre Trade Association (DCA)** is a not-for-profit trade association comprising leaders and experts from across the data center sector.



The **Dutch Data Center Association (DDA)** unites leading data centers in the Netherlands in a common mission: the strengthening of economic growth and the profiling of the data center sector to government, media, and society.



**SPAIN DC** connects the market-leading data centers and high-quality providers in Spain with one mission: to strengthen economic growth and profile the data center sector before the government, media and society.



## ENTERPRISE RISK MANAGEMENT

### ROLE OF THE BOARD IN RISK OVERSIGHT

One of the key functions of the Board is oversight of our enterprise risk management process with support from standing committees of the Board, each of which is responsible for addressing risks specific to its respective areas of oversight.

The Audit and Risk Committee, particularly, has the responsibility to consider and discuss our major financial and regulatory risk exposures (including cybersecurity) and the steps Company management has taken to identify, manage, and mitigate or investigate and remediate these exposures, including related policies and practices. The Audit and Risk Committee also reviews and evaluates the performance of our internal audit function, the system of internal controls, and the results of internal audits, as well as oversees and monitors compliance with the Company's policy on related party transactions, our executives' compliance with the company's Code of Business Conduct and Ethics, and the Company's Ethics and Compliance Program.

The Compensation Committee oversees the performance of our executive officers and assesses and seeks to align compensation with the company's strategic goals, including with respect to risks and opportunities.

The Investment, Strategy, and Commercial Review Committee has the responsibility of overseeing the Company's investment policies and practices and considering certain risks associated with the Company's material capital allocation decisions and strategic investment or disposition decisions.

The ESG Committee is responsible for identifying, assessing, and monitoring ESG risks and opportunities that could affect the Company's business activities, reputation, and performance.

### DATA PROTECTION AND INFORMATION SECURITY

CyrusOne recognizes the critical importance of data protection, information security, and privacy for our teammates, customers, and our business. Our commitments in this area are a foundational pillar of brand trust and, increasingly, a source of competitive advantage in an era of accelerated innovation, global data proliferation, and fast-changing regulatory frameworks.

We take a three-tiered approach to our program by:

- 1) Developing a comprehensive understanding of the landscape of data we must protect;
- 2) Employing multiple layers of protection;
- and 3) Establishing a hierarchy of controls to minimize exposure to risk from the outset whenever possible.

### DATA PROTECTION

Having a holistic view of the data we must protect is just as important as putting measures in place to protect it. Our efforts break down into four major categories:

1. **Privacy of Our Customers and Teammates:** Our privacy policies and standards have been developed to keep personal data safe and secure, to respect privacy, and to maintain the confidence of our customers, teammates, and partners at all levels. Our [Privacy Policy](#) describes our global principles and practices, including the purposes of processing, data disclosure, security & retention, and data subject rights. Additionally, our [UK & EU Privacy Notice](#) specifically aims to keep CyrusOne in good standing with the UK & EU General Data Protection Regulation. We provide training to ensure our teammates understand how to respect and protect privacy. Training topics include HIPAA Privacy and Security, Protecting

Personal Information, Global Data Protection, and the ISO 27001 International Standard for Information Security Systems, among others. High-risk processing activities are subject to a Data Protection Impact Assessment procedure, while the selection of vendors is subject to sophisticated Vendor Due Diligence procedures.

2. **Operational Technology:** We protect the function of and data captured by the systems managing the operations of our data centers, such as our Building Management Systems (such as HVAC controls, CCTV, and access control systems) and Emergency Power Systems.
3. **Business Data:** We protect the data generated during the course of normal business, such as personnel records, accounting and invoicing records, and sales information.
4. **Customer Server Data:** We do not have logical access to customers' data that is housed in our data centers, save for our small managed service business in a few data centers, which represents less than 2% of our annual gross revenue. Therefore, our exposure to risk from customer data is very limited and primarily takes the form of physical security.

In 2022, we completed a comprehensive process to document the specific instances of personal private information we capture across the organization and how long that data is stored, including a comprehensive Data Protection Agreement and the EU Fair Processing Notice.

## INFORMATION SECURITY

Information Security is defined as the protection of data and its critical elements, including the systems and hardware that store, process, and transmit that information. The physical security of our facilities, cybersecurity, and network security are important components of information security and guide our strategy.

## PHYSICAL SECURITY

The protection of our facilities and physical assets is essential to maintain the trust and confidence of our customers. At CyrusOne, we employ seven layers of security protocols at our data center facilities, including:

1. Facilities are surrounded by anti-scale, high-security fencing.
2. Outer perimeter areas, such as parking lots, are monitored with closed-circuit cameras.
3. The outside of buildings is monitored with closed-circuit cameras.
4. Lobby areas are guarded by security guards at all times, as well as monitored by closed-circuit cameras; dual authentication is required for access beyond all lobby areas.
5. The inner core of the facility is monitored by closed-circuit cameras and employs strict access controls.
6. Data halls are monitored by closed-circuit cameras and employ strict access controls.
7. Customers may customize security protocols for entrance to their cage.

In 2021 and 2022 we undertook significant steps to ensure consistency in our physical security standards across all our facilities, both in the US and Europe. In 2023, we concluded upgrading our Global Security Platform at all facilities. We have also implemented enhanced training programs for our teammates on topics such as Emergency Response Planning, Business

Continuity Planning, Customer Service Standards and Expectations, and Safety Standards and Compliance. To learn more about the measures we take to ensure the physical security of our facilities, see our web page on [Physical Security](#).

## CYBERSECURITY

We have a Cybersecurity Program with a dedicated internal team coupled with specialized 24/7 security services partners. The team actively monitors and responds to potential threats. Our control framework is based on the NIST Cybersecurity Framework and enables us to manage cybersecurity-related risks. These controls have been designed to collectively ensure data confidentiality, integrity, and availability at CyrusOne. We also perform annual third-party audits including Penetration Testing and Vulnerability Analysis to benchmark our maturity, and our senior management team provides quarterly updates to the Audit and Risk Committee on cybersecurity.

In our commitment to sustainability, our annual information security program plays a crucial role in protecting our organization's information assets. The program includes internal and external audits to ensure compliance with ISO 27001, ISO 22301, HITRUST, FISMA HIGH, SOC 1, SOC 2, PCI DSS, and HIPAA standards and regulations. We conduct comprehensive risk assessments to identify and mitigate potential risks, prioritize resources towards critical areas, and enhance our resilience. Regular tabletop exercises test our incident response capabilities, ensuring we are prepared to handle cybersecurity incidents. Through employee awareness programs, we educate and empower our workforce to actively contribute to our information security goals. These efforts demonstrate our commitment to sustainable practices and safeguarding our operations and stakeholders.

Teammates are key to the success of our cybersecurity strategy. All teammates and contractors undergo annual mandatory Information Security Awareness Training on how to identify and avoid potential security risks by keeping data, devices, and networks secure. In addition, we conduct continuous simulated phishing campaigns, as well as communication for awareness of social engineering tactics. This past year, we launched a new training program based on real-world attacks, designed to give teammates immediate feedback and training materials. We aim to provide protections across all our operations while continuing to build confidence with our customers, teammates, and partners.

## NETWORK SECURITY

At CyrusOne, we take pride in utilizing advanced AI and machine learning features to enhance the security of our communications with all customers and external partners. Our data centers are equipped with cutting-edge technology that continuously monitors network traffic, identifying any anomalies or potential threats. By doing so, we create a secure environment where our customers can confidently house critical systems and data. Additionally, our efficient resource allocation strives for optimal performance, reduces costs, and provides a reliable infrastructure for seamless communication. This demonstrates how customer data protection and peace of mind are our top priorities.

## Hierarchy of Controls

When it comes to the protection of data and our physical technology assets, our belief is that we should minimize exposure to risk from the outset whenever possible. We have established a hierarchy of controls that help us minimize risk in four ways:

- 1. Minimize Collection:** We limit the sensitive information we collect to what is necessary, such as customer data for billing, site access, or security purposes.
- 2. Limit Retention:** Once collected, we only retain the data that is necessary for our business operations.
- 3. Protect Retained Data:** The data we do retain is protected with security measures described above, such as encrypted transmission of data to third parties and strict access controls.
- 4. External Assurance:** Our facilities and operations are designed to comply with rigorous standards set by trade groups and certifying organizations.

For more information, see our [Security Certifications and Audits web page](#).

## BUSINESS CONTINUITY

At CyrusOne, we prioritize business continuity as a fundamental management priority and a core competency. Given that our business relies on delivering a highly reliable and resilient data center environment to customers, we approach business continuity planning through four key strategies:

- 1. Site Selection:** We carefully select locations for our facilities, opting for low-risk areas as identified in a variety of risk screens, including Climate Risk. Our buildings and systems are designed with resilience in mind, incorporating redundancies where necessary.

- 2. Business Continuity Planning:** We develop comprehensive Business Continuity Plans and Procedures to address a spectrum of event scenarios, ranging from natural disasters to power outages and cyber-attacks. These plans are crafted at both the companywide level and for each individual facility. CyrusOne proudly holds ISO 22301 Certification, and our planning adheres to ISO 22301 Business Continuity Framework standards.
- 3. Testing and Training:** Regular tabletop exercises and incident drills are conducted at our facilities and within our IT environments. This ongoing training ensures that our team members are well-prepared to respond effectively to various scenarios. Additionally, annual training sessions cover different aspects of emergency response planning.

- 4. Continual improvement:** We continuously evaluate and enhance our Emergency Action Plans based on the outcomes of drills and exercises. Adjustments are made as necessary to improve our response capabilities.

In the event of an emergency, CyrusOne has an Event Management System and Emergency Response Protocols in place to safeguard the safety and security of our team members, customers, and partners. Our priority is to minimize risks to our business while keeping our customers informed through timely communications, allowing them to activate their own business continuity plans as needed.



## CLIMATE RISK

It is becoming more evident every year that companies must understand climate risk to achieve long-term success. No longer a far-off threat, the impacts of climate change are being felt worldwide in the form of increased storm intensity, devastating wildfires, and massive flooding. We cannot just continue “business as usual” and expect to prosper — instead, we must learn to predict and prepare for potential future conditions across a large range of scenarios.

At CyrusOne, we consider climate change in two ways. First, we evaluate how our activities impact the climate and contribute to climate change. We discuss these impacts and our ongoing efforts to reduce them in the [Climate Impact](#) section. Secondly, we think about how the changing climate might impact our business — in other words, our climate risk. We understand that even if we mitigate our climate impact by reducing carbon emissions to zero, we will still need to prepare for the potential effects of climate change on our business.

CyrusOne's approach to understanding and addressing climate risk is multi-faceted. Below are the most salient risks we have identified and how we are working to mitigate them.

### RISK IDENTIFICATION

CyrusOne takes several approaches for identifying climate-related risks:

- **Enterprise Risk Management:** Climate issues raised in the annual enterprise risk assessment process are delegated to senior management for action, such as further investigation using our [Climate Risk Management Tools](#).
- **Stakeholder Engagement:** Issues raised by our stakeholders highlight emerging risks and opportunities that inform our overall climate risk management and reporting capabilities.
- **Climate Risk Investigations:** We contract experts to perform initial climate risk investigations on our behalf. These investigations give us an idea of the scope of the issue as it applies to our operations. If the investigation finds significant risk, we commission a full Climate Risk Assessment, such as the ones detailed in [Climate Risk Management Tools](#).
- **Industry Engagement:** We engage with our peers through industry associations like the Data Center Coalition (DCC), and the European Data Center Association (EUDCA) to identify climate-related risks that are specific to our industry.

## RISKS AND IMPACTS

We have identified five main climate risks, detailed below with their impacts.

### TRANSITIONAL RISKS

#### Regulatory Risk/Barriers to Operate

Laws, regulations, or public perception may limit our ability to develop new facilities in a particular region or restrict areas where we wish to operate. We address the risk of new barriers to operation by anticipating local impacts from climate change and limiting the related local impacts of our facilities by design. Limiting our facilities' water demand and improving wildlife habitat in the areas where we operate will allow us to demonstrate benefits to local communities. Our Environmental Impact Assessments and Protected Areas Assessments help us to avoid barriers by identifying sensitive lands that affect the local community and slow project development. Our Water Risk Assessment helps us to understand the regional water risk of an area during site selection so we can minimize our impact on local water supplies,

which are anticipated to be reduced by climate change in many places. For more information, see the [Water](#) and [Biodiversity](#) sections. The UK Biodiversity Net Gain planning requirement is an example of our sustainability planning anticipating a new requirement. Our early efforts in biodiversity planning before this requirement paved the way for additional responsible development in the London area.

### Cost to Operate

Global climate change and the adaptations required to mitigate it can increase operating expenses in various ways. We performed a detailed Carbon Pricing Assessment to evaluate the impact of potential carbon price increases, such as national carbon taxes and customer internal carbon prices. Unsurprisingly, we learned that our highest risk from carbon price increases comes from increased costs for carbon-intensive electricity. This analysis helps to inform our drive to improve efficiency and acquire carbon-free electricity for all facilities, and it gives us a way to prioritize regions where the carbon emissions from grid electricity are highest.

### Customer Preference

It is important to consider not only how climate risk affects our business but also how it impacts our customers. As the business environment changes along with the climate, our customers' preferences and incentives are also adjusting, which can impact the competitiveness of our product offering. For example, our Carbon Pricing Assessment gave us increased insight into how our customers' internal carbon charges and carbon reduction goals might affect their purchasing decisions. As companies prioritize climate change mitigation strategies, they will be looking for business partners who can help them achieve these goals. Through a dedication to transparency, we help our customers understand how our services support their sustainability

objectives. Through stakeholder engagement, our customers have also communicated an increased focus on water conservation in recent years, so our Water Risk Assessment and ongoing commitment to water-consumption-free cooling align us well with this customer preference.

## PHYSICAL RISKS

### Water Stress

Drought is one of the commonly predicted consequences of climate change. Increased water stress in areas where we operate may reduce our access to water for operations or increase friction with local communities. Facilities dependent on water for cooling may face operational interruptions or require costly retrofits to less water-intensive types of cooling.

To understand our exposure to water risk, we conduct an annual Water Risk Assessment, which is described in the [Water](#) section. We address the risk of increased water stress through our commitment to building new data centers that are not dependent on water for cooling. Furthermore, we have a target for our facilities in high water stress regions to become *net-positive* contributors of water to their local watersheds; this serves to reduce our exposure to water stress and improve the regions' water supplies. We believe that our aggressive stance on prioritizing water conservation will insulate us from significant risk of business disruption as water scarcity increases.

### Flooding

Climate change is predicted to increase the likelihood of flooding due to excessive rainfall events and sea-level rise. Shifts in weather patterns have demonstrated that flood risk maps based solely on historical data do not accurately predict future flood risk. Sea-level rise from climate change is predicted to cause flooding in regions near coasts and increase the range of impacts from severe coastal weather events like hurricanes.

To understand this risk, we have conducted a Future Flood Risk Assessment using a variety of tools to consider the effects of different climate change projections on the flood risk at our facilities. This allows us to anticipate any additional risk in the future to existing facilities and develop mitigation strategies when needed. This is also an opportunity to use more complete information about future risks to select sites for new facilities.

## OPPORTUNITIES AND IMPACTS

Given the almost unthinkable scale of the potential challenges and loss related to climate change, it seems callous to refer to it as an opportunity. Instead, we strive to manage risk and seek ways to grow our business ethically in the face of climate change and other environmental challenges by providing solutions to the problems and helping to shape our industry for the better.

Increased digitization of work and materials is one path toward decreasing our collective environmental and climate impacts. As virtual meetings replace air travel and cloud document storage replaces file cabinets, there are true benefits for the environment. Data centers like ours assist in this transformation. Our goal is to reduce our own environmental and climate impacts so we can contribute to the transformation without simply shifting the impacts to different areas.

Our strategy for this transformation includes:

- **A transition to carbon-free electricity:** Like most data center operators, we recognize that our high electricity consumption is our primary climate impact and that the solution is to phase out the use of carbon-intensive electricity in favor of high-quality renewable options that are both *additional* and *regional*, with nuclear electricity when renewable electricity is not feasible.

- **A focus on water conservation:** Unlike many in our industry, we strive to build data centers that do not rely on evaporating large amounts of water for cooling. Since climate change is likely to increase water scarcity in many places, this strategy will prevent us from contributing to water shortages in the communities and landscapes where we operate.
- **Innovation in backup generation:** To meet our *climate neutral* target, we will have to address our diesel-fueled backup generators. We are investigating various potential strategies to maintain uptime during electricity outages without burning fuels that contribute to climate change.

We believe that, by building our business in a way that provides solutions to global problems, we will appeal to our customers by helping them to meet their own sustainability goals. In doing so, we will ethically grow our business in the face of this collective global challenge.

## SCENARIO ANALYSIS AND RESILIENCE

Our tools use different climate scenarios to ensure that our strategy is resilient and adaptable to changing conditions. Overall, our targets are set to contribute to staying below 1.5°C warming and striving for the SSP1-1.9 scenario. When weighing climate risks, the specific scenarios considered in our tools include two climate scenarios (RCP4.5 and RCP8.5) and two socioeconomic scenarios (SSP2 and SSP3), based on CMIP6 models. Our Carbon Pricing Analysis uses a schedule of prices suggested by IEA's *NetZero by 2040* publication.

## MANAGING CLIMATE RISK

The management of climate risk requires [Cross-functional Integration and Coordination](#) organized by the Sustainability Working Group, which meets monthly to report on progress, assign responsibility for required actions, and request support from other groups. Group members discuss identified climate risks, related tools, and progress toward climate goals. The Sustainability Working Group reports to senior management who update the Board on climate risk management progress, which is then integrated into the [Enterprise Risk Management](#) process. Climate risks are represented both as primary risks (such as impacts from natural disasters) and as secondary contributions to other primary risks (such as competitive risks). For more detail, see the [ESG Governance](#) section.

## SITE SELECTION

When selecting sites for new data center construction, we use our climate risk assessment techniques to evaluate factors such as future flood risk and water stress (current and future). This provides insight into the chance of climate and weather-related impacts for each potential site and allows us to make more informed siting decisions.

When looking for new data center locations, we prioritize sites in areas already designated for data centers or similar uses via zoning or in existing planned developments like technology or business parks. This selection process, along with Environmental Impact Assessments and Protected Areas Assessments, gives us confidence that our facilities will not create negative impacts on prime wildlife habitats. By understanding sensitive habitats that are on or adjacent to our sites, we can anticipate and mitigate impacts during site selection. See the [Biodiversity](#) section for more information about our Environmental Impact Assessments and Protected Areas Assessments.

We also take into account the carbon emissions rate of the local electricity grid and the local availability of carbon-free energy purchasing opportunities, prioritizing sites that support our *climate neutral* goal. For more information about how we prioritize carbon-free electricity opportunities, see [Energy Origination](#). As we advance our green building strategy, site selection takes on an expanded role for additional selection criteria such as development density, transportation options, parking capacity, habitat, and open space. Adding these criteria to the initial due diligence process helps us select sites for purchase that support our later design and construction ambitions.

## CLIMATE RISK MANAGEMENT TOOLS

This section summarizes our inventory of climate risk management tools used to evaluate the risks identified above:

- **Carbon Pricing Assessment:** See below
- **Environmental Impact Assessments:** See [Biodiversity](#)
- **Future Flood Risk Assessment:** See below
- **Lifecycle Assessment:** See below
- **Protected Areas Assessments:** See [Biodiversity](#)
- **Water Risk Assessment:** See [Water](#)

We know that there are additional strategies we can employ to further understand our exposure to climate risk, which we see as an important aspect of managing business risk. We will continue to expand our efforts to reduce exposure to climate risk in the future, investigating topics such as extreme heat and wildfire risk.

## CARBON PRICING ASSESSMENT

We conducted a detailed Carbon Pricing Assessment, in which we projected pricing scenarios from IEA's *NetZero by 2040* publication and evaluated impacts to each of our facilities, taking into account the effects of different customer contract types, variations in the carbon intensity of electricity, and consumption of carbon-emitting fuels (diesel and natural gas). We also evaluated the potential impact of carbon price increases on new facility construction. We use this information to understand how carbon prices might impact our business situation, as well as how it may affect our customers' priorities and requirements.

For more information about this assessment see [Appendix 1: Methodology](#).

## LIFECYCLE ASSESSMENT

To better understand the climate impact of data center construction as a portion of the facility's entire emissions, we performed a simple lifecycle assessment of our Council Bluffs, Iowa data center. Compared to the United Nations Environmental Program (UNEP) finding that building construction accounted for 28% of global emissions from the building sector versus 72% from building operation, construction of our data centers accounts for approximately 1-2% of their lifetime total emissions when using traditional electricity. We recognize that as the electricity we use becomes greener, construction-related emissions will be a larger percentage of what's left, so we must also consider more sustainable construction materials and methods. For more details about this strategy, see [Circular Economy](#).

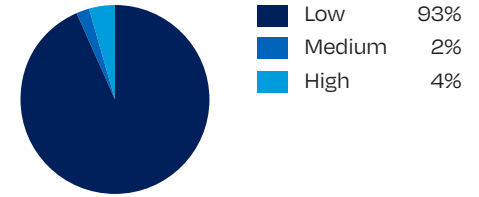
**FUTURE FLOOD RISK ASSESSMENT**

According to government flood maps that rely on historical data (such as US FEMA or UK Environment Agency), we only have one facility with any exposure to flood risk. However, we understand that traditionally “flood-safe” areas may face increased flood risk due to climate change. We evaluated projections of future flood risk using a variety of tools, including the Risk Factor and UK Long Term Flood Risk tools, as well as other government-issued reports.

Using these tools, we found that over 90% of our facilities are located in areas that will retain a low flood risk categorization over the next 30 years. For the remaining facilities that are projected to face increased flood risk, we can now evaluate targeted actions to make these facilities more resilient to this potential future flooding. We also use these future flood risk tools proactively to research and select new locations.

For more detail about this assessment see [Appendix 1: Methodology](#).

**FUTURE FLOOD RISK**





# ENVIRONMENTAL IMPACT

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## OUR PHILOSOPHY

CyrusOne takes a holistic view of environmental impact. We are committed to reducing our carbon footprint and providing industry-competitive energy efficiency without sacrificing water or imposing negative impacts on biodiversity where we operate. Instead, we strive to make our impact on the environment a positive one through restoring water to watersheds in high-stress regions and improving habitats on or near our data center campuses in an attempt to do not only “less harm” but also to do “more good.”



## THE “BIG FOUR”: CLIMATE, WATER, BIODIVERSITY, & CIRCULAR ECONOMY

At CyrusOne, we have long had a strategic focus on efficiency. We are known for building data centers quickly and effectively due to detailed planning and a standardized design. These same strengths lend themselves well to reducing environmental impacts. From site selection to cooling design to construction, efficiency is key to saving both time and resources.

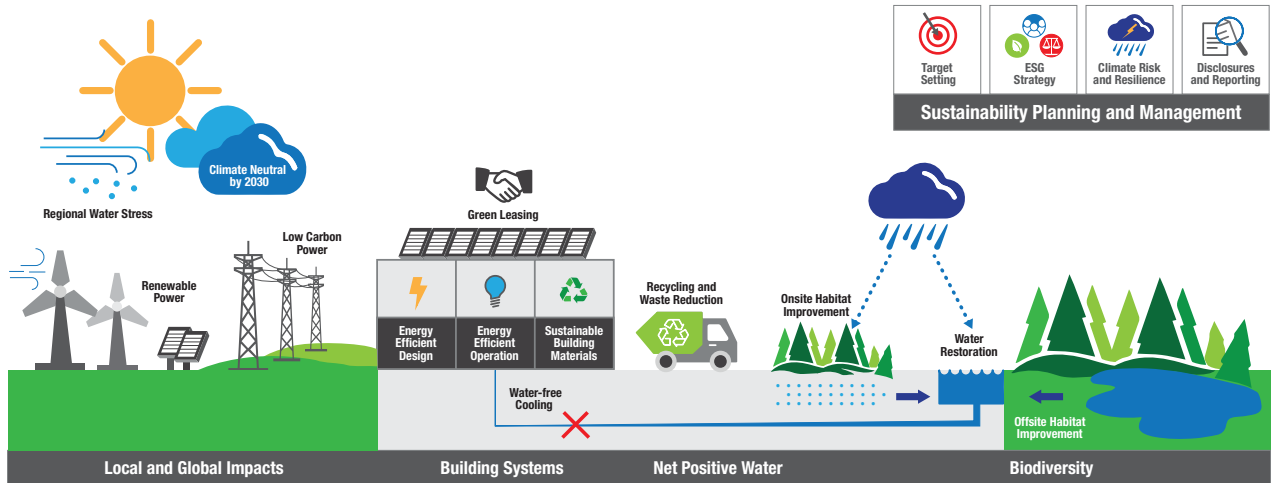
In the past, sustainability programs in the data center industry have been almost exclusively focused on energy and carbon emissions since climate change is the most pressing global challenge of our era. Data centers consume large amounts of energy and, historically, have contributed accordingly large greenhouse gas emissions, making this an important issue for the industry.

However, we believe this singular focus to be short-sighted and prefer to take a more holistic view of environmental impact in order to build a sustainable future. While we do our part to mitigate the effects of climate change, we must simultaneously address water scarcity, habitat and biodiversity loss, and wasted resources. We consider these to be the “Big Four” environmental issues: Climate, Water, Biodiversity, and Circularity.

This chapter is divided into four primary sections, representing each of our Big Four topics:

- **Climate** (includes [Energy Efficiency](#), [Energy Origination](#), and [Climate Impact](#))
- **Water** (includes [Risk-based Water Management](#) and [Energy/Water Tradeoffs](#))
- **Biodiversity** (includes [Onsite Habitat Improvement](#) and [Offsite Habitat Improvement](#))
- **Circular Economy** (includes [Construction Circularity](#) and [Operations Circularity](#))

# Sustainable Data Center Infrastructure



## METRICS & TARGETS

Relevant Metrics and Targets can be found in each section (look for the blue background) at the following links:

### Climate

- [Energy Efficiency Metrics and Targets](#) (such as total energy, PUE, and energy intensity)
- [Energy Origination Metrics and Targets](#) (such as carbon-free electricity percentage)
- [Climate Impact Metrics and Targets](#) (such as carbon emissions, CUE, and carbon intensity)

### Water

- [Water Metrics and Targets](#) (such as water withdrawal, consumption, discharge, and restoration, and WUE)

### Biodiversity

- [Biodiversity Metrics and Targets](#) (such as sites with improved habitat)

### Circular Economy

- [Circular Economy Metrics and Targets](#) (such as recycling rate and air pollution)

## CLIMATE

Climate has long been the environmental topic of greatest concern in the data center industry. By nature, data centers require a large amount of energy. They must remain fully operational 24/7 and run IT equipment that draws large amounts of power. Furthermore, these systems generate a large amount of heat, requiring energy to keep them cool. Our main source of energy is electricity, though we also use diesel for backup generation and some facilities use small amounts of natural gas for comfort heating. Traditionally, the carbon emissions from all of this energy has been our most significant environmental impact. In this section we will discuss:

- Our efforts to improve the [Energy Efficiency](#) of our facilities (this page)
- Our carbon-free [Energy Origination](#) strategy
- How we measure our [Climate Impact](#)

For information about how we assess Climate Risk, please see the [Enterprise Risk Management](#) section in Governance.

## STRATEGY

Our approach to reducing the environmental impact of our energy consumption falls under three main strategies: (1) Our standard design for new data centers incorporates many energy efficiency measures. We review best practices in the industry, partner with suppliers, and take innovative approaches in design and construction to achieve cost-effective efficiency. (2) For existing facilities, we strive to reduce energy and carbon emissions through smart operational practices and facility upgrades. (3) Through strategic site selection and energy origination, we can increase renewable and low-carbon power sources for our operations.

A key part of our strategy is to integrate water and energy metrics together to give a more complete picture of our efficiency. As described in the [Energy/Water Tradeoffs](#) section, water use is usually “invisible” to energy calculations like PUE, frequently leading to the tradeoff of decreased energy use for increased water consumption. However, we know that water consumption can have huge regional environmental impacts. By reporting energy metrics that reference water use, we are charting a new course in our industry for increased transparency and hope that others follow suit.

## ENERGY EFFICIENCY

### STRATEGY

We have mentioned the large amount of energy used by data centers, and our goal to reduce our dependence on fossil fuel-derived electricity with regional, additional renewable electricity. However, the first step is to decrease our environmental impact by increasing energy efficiency. Our standardized design incorporates efficiency at every level. The four primary design strategies we employ are:

1. Minimize data hall heat
2. Right cooling, right place, right time
3. Computational Fluid Dynamics (CFD) optimization
4. Supplier partnerships



## MINIMIZE DATA HALL HEAT

As a colocation data center company, much of our energy use comes from our customers' equipment and is therefore out of our direct scope of control (i.e. we cannot specify how efficient their servers are). Our role is to ensure that our support equipment is as efficient as possible. Inefficient equipment not only wastes electricity but also produces excess waste heat which must then be cooled, thus consuming more electricity. There are several areas we focus on to minimize data hall heat:

### 1. **High-efficiency uninterruptible power supplies (UPS):**

The UPSs we source generate little waste heat and operate efficiently even while operating at 50% of maximum capacity, so the data center doesn't have to run at full capacity for peak efficiency.

2. **Ultrasonic humidification:** Instead of using heat or pressurized water to produce water vapor for humidification, our ultrasonic humidification systems maintain the necessary humidity using only 7% of the energy of more traditional electric steam humidifiers, all without adding heat to the data hall.

3. **LED lighting:** Older lighting technology converts more of its electricity into heat than into light, but modern LED lighting gives us the double dividend of less data hall heat and less wasted electricity. Coupled with occupancy sensors, our LEDs deliver lighting only where and when it's needed.

## RIGHT COOLING, RIGHT PLACE, RIGHT TIME

Because colocation data halls host a variety of customers running a variety of servers, they must be built to be flexible and remain efficient at a wide range of capacities. This is especially noticeable when a facility is first starting up and customers have yet to finish their server installations. Older cooling technologies had to be run at full capacity regardless of the actual need for cooling, resulting in overproduction and waste. Our standardized data centers use a variety of technologies to deliver the right cooling to the right place at the right time, regardless of capacity. Those technologies include:

1. **Building management systems:** Using intelligent systems and sensor networks, the data center predicts the need for cooling and adjusts chiller output, air handling, and other factors to meet customer needs with minimal electricity use.

2. **Economizers:** Also called "free cooling" systems, economizers use low outdoor ambient air temperatures to cool when the weather is right, using roughly 15% of the electricity required by standard chillers. Economizers are installed in facilities where the local climate provides efficient free cooling.

3. **High-efficiency chillers:** The air-cooled chillers that we source are selected for efficiency, flexibility, and reliability. New facilities are designed for water-free cooling from the ground up, which maximizes the efficiency of our systems and avoids dependence on water. In our standard design, water is used only in a closed-loop system to transport heat from the data hall to the chillers, but no water is consumed in the process.

4. **Throttling:** Our systems use controllable variable frequency drives (VFDs) to power air handlers and pumps, meaning they don't have to be "all on" or "all off." The cooling distribution equipment is operated at precisely the right level needed for optimal cooling without wasting energy.

5. **Partnering with customers:** We work with customers to provide optimal cooling to their servers and achieve good hot aisle/cold aisle separation and containment. We also optimize airflow directed to customer equipment to best match its power draw and select efficient temperature setpoints to meet equipment needs.

6. **Liquid-to-chip cooling ready:** This system allows even higher efficiency for customers who want to use various liquid cooling methods (in-row cooling, liquid-to-cabinet, liquid-to-chip, and immersion cooling) instead of air cooling.

## COMPUTATIONAL FLUID DYNAMICS (CFD) OPTIMIZATION

We use Computational Fluid Dynamics (CFD) modeling to simulate the flow of chilled air throughout a facility. CFD Models are advanced mathematical simulations that require expert configuration and hours on high-performance computers to complete but give key insights into how air and heat move through our facilities.

Chilled air enters the data halls through ventilated tiles into cold aisles created by barriers that surround the servers. The ventilated tiles have different sizes of openings which allow us to control the amount of air that enters each cold aisle, and the barriers keep the chilled air contained to the space where cooling is needed (near the air intakes for the servers). These barriers can include blanks installed in empty racks, end-of-row doors, and roof panels (rack top baffles). Together these features help optimize the amount and location of cooling while reducing the overall power demand of the system. When this arrangement is not working properly, chilled air is directed into equipment that does not require as much cooling while missing other areas that need cooler air. The air handler fans then need to work harder to meet the supply air setpoint, wasting electricity. We adjust our cooling through CFD modeling to best support our customers' evolving needs.

Optimizing the speed of air handler fans can yield surprising results. Fans consume more electricity to turn faster, but electricity consumption doesn't increase linearly. For example, we might expect a fan running at 100% speed to use four times as much power as one that is running at 25% speed. In fact, it uses 30 times more power, since air resistance against the fan blade increases geometrically with increased speed. So, three fans moving at 33% speed will move the same air as one fan running at 100% speed, but they will use 86% less power. This is key to understanding how CFD modeling

can achieve significant energy savings by fine-tuning our cooling performance.

This is one way we address the unique challenges of a colocation data center environment. Unlike in-house data centers, colocation data centers have a split responsibility between the servers (controlled by the customers) and the cooling systems (controlled by CyrusOne). Coordinating these two efforts for energy efficiency is not a simple matter. By using CFD modeling we can recommend optimal settings for our cooling equipment and customer server arrangements to ensure that both operate efficiently. CFD Modeling provides opportunities to customize the cooling of each data hall between construction and operation, during customer build-out, and for ongoing optimization.

### Between Construction & Operation

During commissioning, data centers are tested to ensure that the cooling system can remove the heat that will be generated by servers. The data centers must remain running after being tested so that they are fully operational when customers move in. Unlike in-house data centers, colocation data centers face the uncertainty of not knowing exactly when customers will install their equipment, so there is often a period when the data center support systems are running without any servers occupying the space. Using CFD modeling, we have optimized cooling during that fallow period by reducing fan speeds and strategically allocating ventilated floor tiles, thereby lowering total energy demand.

### Supporting Customer Build-out Process

Our colocation data centers are designed to flexibly use cooling system configuration and cold aisle containment to match the varying need for cooling based on different data hall capacities and occupancy rates.

When customers move in and begin installing servers in our data halls, we bring the expertise of our CFD modeling to make recommendations on server arrangement, cold aisle containment, and chilled air flow rates to maximize the efficiency of both our equipment and theirs. This is the beginning of our partnership for efficiency with our customers.

### Ongoing Optimization

After customers have moved in, we continue to look for opportunities to improve efficiency. Data halls evolve over time: servers get upgraded, their loads change, and their temperature tolerances change. If we don't evolve our cooling strategies with them, then our cooling systems gradually become less efficient. We run the CFD modeling periodically to inform updates to our cooling system arrangement (such as optimizing airflow tiles and cold aisle containment) so that we can maintain efficiency without affecting customer server placement.

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## Achievement Unlocked

In 2023, we performed various energy efficiency upgrades at existing facilities, including tile optimization and humidification system upgrades. Combined, these projects are expected to save us approximately 6,600 MWh each year!

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**SUPPLIER PARTNERSHIPS**

Finally, we partner with our equipment suppliers to identify new high-efficiency technologies and to alter equipment specs to support our particular design needs, rather than just using off-the-shelf equipment when it's an imperfect fit. In our annual Supplier Summit, working together to make improvements to sustainability is always one of the main topics.

**RISK MANAGEMENT**

Energy efficiency reduces our environmental impact and also provides resilience against some types of risk. By reducing our reliance on energy, we also reduce the strain we place on the grid and the resulting risk of grid power interruptions, as well as our exposure to price volatility. Additionally, having efficient operations allows us to minimize regulatory risk, such as preempting costly adaptation measures with energy-efficient programs in place to meet more stringent regulations in the future.

**DATA CENTER PORTFOLIO COMPOSITION**

Within our strategy, there are two key distinctions we make in our portfolio: 1) whether the facility is a *standardized* build or a *non-standardized* design, and 2) whether the facility consumes water for cooling ("wet") or not ("dry"). For a full explanation of facility designations (*standard, nonstandard, wet, dry*) see [Appendix 2: Primary Metrics](#).

This chart summarizes the composition of our data center portfolio. The percentage is based on the total available Critical Load Capacity (CLC) at directly managed *built-out* facilities. Critical Load Capacity (CLC) is a measurement of the maximum customer electrical load a data center can support and is a common measurement of the size of a data center. "Built-out" means that a customer has not only leased the space, but has also installed their servers and begun to draw significant power.

Data Center Portfolio	
Reporting Category	% of Portfolio Capacity (CLC)
Nonstandard Dry Facilities	3%
Nonstandard Wet Facilities	21%
Standard Dry Facilities	76%
<b>Total</b>	<b>100%</b>
<i>Scope: Total Critical Load Capacity (CLC) at directly managed built-out facilities</i>	



Total Energy Consumption (MWh-equivalent) <span style="float: right; border: 1px solid green; padding: 2px;">ASSURED</span>			
Energy Type	2018	2022	2023
Non-renewable fuels purchased and consumed	18,683	29,934	33,186
Non-renewable grid electricity purchased	1,362,020	1,641,242	1,611,677
Non-renewable carbon-free electricity purchased	0	0	168,297
Renewable electricity purchased or generated	296,950	1,717,344	2,419,555
Steam/heating/cooling and other energy (non-renewable) purchased	0	0	0
Energy sold	0	0	0
<b>Total Energy</b>	<b>1,677,653</b>	<b>3,388,520</b>	<b>4,232,715</b>

*Scope includes: CyrusOne electricity for server support and common areas; Customer electricity for their servers in our data halls, including customer-procured renewables; Natural gas for comfort heating (only used at some facilities); and Diesel for emergency backup generation. Some non-applicable categories are listed for consistency with third-party surveys.*

**ENERGY EFFICIENCY METRICS AND TARGETS**

Below are the primary metrics we use to measure our progress on energy-efficient operations. For more information about these metrics, see [Appendix 2: Primary Metrics](#).

**METRIC: ABSOLUTE ENERGY CONSUMPTION**

Our operational energy use calculations include four sources:

1. **CyrusOne electricity** for server support and common areas
2. **Customer electricity** for their IT equipment in our data halls
3. **Natural gas** for comfort heating (only used at some facilities)
4. **Diesel** for emergency backup generation.

These data are combined into a common unit for aggregation (MWh). We use standard conversion factors for natural gas and diesel (from the European Framework Initiative for Energy & Environmental Efficiency in the ICT Sector). For more detail about the scope and methods, see Energy Inventory in [Appendix 1: Methodology](#).



**METRIC: POWER USAGE EFFECTIVENESS (PUE)**

Power Usage Effectiveness (PUE) is the ratio of a data center's total electricity usage to the electricity delivered to customer IT equipment, such as servers. This extra, non-server power (anything in excess of a PUE of 1.0) is used to operate the cooling, lighting, and other mechanical systems necessary for IT equipment operation. Since CyrusOne doesn't make any decisions about the efficiency of the servers themselves, we focus on how efficiently we can support their cooling and power distribution needs. For more information about PUE see [Appendix 2: Primary Metrics](#).

We make a distinction between a facility's Design PUE (the idealized PUE of a facility running at full capacity, based on its design and assumptions about customer equipment) and its Operating PUE (the measured PUE of a facility in a given year based on actual conditions). Operating PUE will generally be higher than Design PUE because, to maintain redundancy and flexible capacity, colocation data centers are almost never run at full capacity.

**METRIC: DESIGN PUE**

Though we use a standardized design, the Design PUE varies at each facility due to the influence of the local climate; the warmer it is outside, the more energy it takes to maintain data hall temperatures. Therefore, we report the range of Design PUE across our facility locations. Since PUE varies by season, we report the annual average PUE ("annualized"). In 2020, we updated our standard design to incorporate higher-efficiency air-cooled chillers that take advantage of external air temperatures to enhance cooling efficiency (also called "economizers" or "free cooling"). While these systems provide increased efficiency everywhere, they give particular benefit to facilities in cooler climates, leading to a wider Design PUE range for our new design than for previous iterations.

Since PUE has a theoretical minimum of 1.0 (meaning no support energy used), our updated standard design reflects a 44% reduction in support energy in cooler climates and a 22% reduction in warmer climates from our previous design.

**METRIC: OPERATING PUE**

Below are our Operating PUE metrics for 2018 (baseline) and 2022-2023 for the different facility categories we track. These averages only include *built-out* data centers that have finished their commissioning, start-up, and initial customer installations. *Pre-built-out* facilities, those under development, and those for which data is unavailable are not included in the PUE averages. PUE has a minimum ideal score of 1.00 (meaning that no power is used to cool or light the facility), and a lower score indicates greater efficiency.

While we expect some year-to-year variability due to weather and occupancy, we have shown an improvement in PUE across all categories except *nonstandard dry* facilities. This is due to energy efficiency activities as well as some newer facilities that were newly built and previously underutilized being filled out with customer installations (increasing the server electricity denominator).

Annualized <i>Standard Dry</i> Design PUE: (Total kWh/IT kWh)				
Metric	Climate	2018	2022	2023
Low PUE	Cooler Climates	1.32	1.18	1.18
High PUE	Warmer Climates	1.36	1.28	1.28

*Scope: Highest and lowest design PUE for locations where CyrusOne operates*

Average Operating PUE (Total kWh/IT kWh)				
Reporting Category	% by CLC	2018	2022	2023
<i>Nonstandard Dry</i> Facilities	3%	1.56	1.57	1.60
<i>Nonstandard Wet</i> Facilities	21%	1.63	1.51	1.48
<i>Standard Dry</i> Facilities	76%	1.48	1.43	1.42
<b>All Facilities</b>	<b>100%</b>	<b>1.53</b>	<b>1.45</b>	<b>1.44</b>

*Scope: Includes facilities that are built-out and directly managed by CyrusOne.*



## ENERGY ORIGATION

The sources from which we originate or procure energy have a big impact on our energy and carbon goals, as well as our total water impact. This section describes our efforts toward “green” energy origination.

### STRATEGY

Our carbon-free electricity strategy primarily serves to meet our *climate neutral* target, though it also provides additional benefits. First, it allows us to help our customers meet their supply chain carbon reduction goals. Next, by “locking in” electricity contracts instead of relying exclusively on unbundled RECs, we may reduce our exposure to both energy and REC price volatility and maintain our ability to offer competitive rates. Finally, as we mentioned in [Onsite Water vs. Energy Supply Chain Water](#), solar and wind energy do not consume the large quantities of water that thermoelectric power (fossil fuels and nuclear) does, thus allowing us to further reduce our impact on regional water supplies.

Carbon-free electricity procurement is the biggest part of meeting our *climate neutral* goal because we defined our target to include the emissions from electricity supplied to customer equipment. Lowering our energy demand with efficiency measures only affects our support equipment – and even there, efficiency alone won't get us to *climate neutral*. To help us consider the effect of carbon-free electricity on carbon emissions, we also monitor the relative carbon intensity of different grids where we operate to understand the carbon reduction per MWh from switching to alternative sources. While we prefer renewable electricity sources like solar and wind power, nuclear power may be required to meet our *climate neutral* goal, particularly in areas without ready access to renewables. Finally, our transition to carbon-free electricity is a key strategy for managing risks in our energy supply chain and climate risks, like carbon pricing risk and water scarcity risk. These are discussed below in [Risk Management](#).

In articulating our Energy Origination Strategy, we think about it on two different levels:

- 1. Origination Hierarchy:** The types of power in order of preference
- 2. Transition Roadmap:** How we plan to transition to a carbon-free electricity future

### ORIGINATION HIERARCHY

In addition to considerations of cost and reliability, we follow a carbon-free electricity procurement hierarchy to guide our energy planning and purchases (see table below). We screen all of our energy purchases, giving preferences for generation sources that do no significant harm. Beyond that aspect, we strive to support renewable electricity generation projects that are *additional* (supports adding new generation capacity), *regional* (contributing to the same grid where the energy is used), and *bundled* (where delivery of power remains “bundled” to renewable energy certificates or other instruments).

Therefore, direct renewable power with additionality via a physical Power Purchase Agreement (PPA) is our most desirable procurement option. Next most desirable is a Green Tariff associated with additional new renewable

projects, particularly when bundled with regulated utility power supply. Where PPAs or Green Tariffs are not available, we consider Virtual Power Purchase Agreements (VPPA) with a preference for generation on the same grid as our demand.

Lastly, we may utilize Renewable Energy Certificates (RECs), Guarantees of Origin (GO), Renewable Energy Guarantees of Origin (ReGO), or Emission Free Energy Certificates (EFECs) as a “bridge.” For example, the time between when we sign a new PPA and when the project finishes construction and begins delivering renewable power might be one to three years. In such cases, we may use unbundled RECs to “bridge” the time between signing and delivery. We may also acquire RECs when requested by customers. We are currently investigating the role nuclear power (documented by EFECs) can play in our carbon-free mix (see [Nuclear Curious](#)) and will evolve our strategy as we learn.

We do not intend to achieve carbon neutrality solely with unbundled RECs; instead, we consider them to be an incremental mechanism. Unfortunately, because of the density of power data centers demand, onsite renewable generation alone cannot meet the needs of our facilities.

Carbon-free/Renewable Electricity Origination Hierarchy						
Desirability	Origination Type/Instrument	Additionality	Regionality	Bundled	No Significant Harm	Renewable
Most	PPA/Retail Block	☑	☑	☑	☑	☑
	Green Tariff	☑	☑	☑	☑	☑
	VPPA (same region)	☑	☑		☑	☑
	VPPA (different region)	☑			☑	☑
	RECs/GOs (grid specific)			☑		☑
	RECs/GOs (national)					☑
Least	EFECs (nuclear)		☑	☑	☑	

## TRANSITION ROADMAP

In the development of new facilities, we evaluate and source carbon-free electricity with the goal of beginning operation carbon-free on day one. Some of our long-term power contracts at existing facilities were signed before the emergence of our *climate neutral* ambitions, so we must wait for existing contracts to expire before evaluating new options. We have already achieved 100% renewable electricity in Europe and plan to continue along our roadmap to *climate neutrality*. Our priority roadmap for carbon-free electricity procurement across our existing facilities is:

1. Europe, prioritizing additional physical PPAs – **Complete!**
2. Deregulated US power markets, prioritizing larger loads first
3. Regulated US markets with carbon-free power options
4. Regulated US markets without ready carbon-free power options

By prioritizing our transition to carbon-free electricity in this way, we aim to make the most progress in the least time. Hopefully, the US markets currently without ready carbon-free power options will develop them as we finish the first three phases. In the shorter term, we will need to work with less desirable energy origination tools in these markets. Longer term, in regulated US power markets, we will work with our utility partners to develop green tariff offerings.

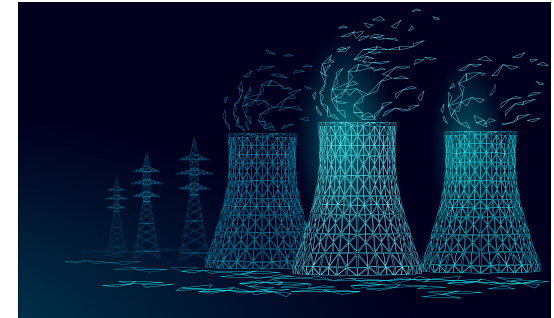
## Risk Management

Switching to carbon-free power can reduce both financial and physical risks. By lowering the carbon footprint of our power supply, we reduce our exposure to impacts from a potential carbon tax. (For information about the potential impact of Carbon Pricing Risk on electricity prices, see [Climate Risk](#).) Signing long-term energy purchase agreements allows us to avoid price volatility and maintain our rates during severe weather events that influence market prices. Most renewable electricity generation is also less water-intensive and therefore results in a reduction of energy supply chain water consumption. We operate in some regions of high water stress where reductions in water use across our operations, including power generation, are necessary (for more information on our Water Risk Assessment see [Water](#)).

## Carbon-free Outlook

During 2024, contracts already signed are expected to deliver 60,000 MWh of additional renewable power and 170,000 MWh of additional nuclear power. We will continue to evaluate and expand our origination of additional carbon-free sources.

## NUCLEAR CURIOUS



2023 marked the first year that we trialed purchasing certified nuclear power as part of our efforts to reach *Climate Neutral* by 2030. Specifically, we purchased [Emission Free Energy Certificates](#) from Constellation Energy, which certifies that our electricity usage is matched with carbon-free electricity sources, mainly nuclear. We trialed this at three locations in the US which have limited renewable options, helping us to reduce the carbon emission factor of electricity we deliver to customers at those sites. This represented 4% of our global electricity purchase.

Why nuclear? While our [Energy Origination Hierarchy](#) shows we are focused on high quality renewable electricity, such as solar, wind, and hydropower, our goal is to make real reductions to our carbon emissions as quickly as possible. We are continuing to add renewable instruments to our portfolio such as PPAs, retail offerings, and green tariffs but this process takes time and is not equally accessible everywhere, so nuclear power is a “right now” power for this transition. Also, with the increasing industry interest in [24/7 Carbon Free Energy](#) and its use of nuclear power to provide important night-time power, we figured it was time to get some experience with this option and explore opportunities.

## ENERGY ORIGATION METRICS AND TARGETS

Most of our energy origination metric performance is represented in the *climate neutral* target and the metrics we use to evaluate it (see [Climate Impact](#)). By switching to less carbon-intensive electricity providers, energy origination contributes to overall carbon reductions. There are a few metrics specific to carbon-free electricity that we track for insight into our current performance for customers and other stakeholders. For more information about these metrics, see [Appendix 2: Primary Metrics](#).

### TARGET: MAINTAIN 100% RENEWABLE ELECTRICITY IN EUROPE

The first step on our Transition Roadmap was to power our European operations with 100% renewable electricity. We first achieved this milestone in June of 2021. However, since we are growing quickly in Europe (we opened three new European facilities in 2023 alone), we have to continually source new renewable power contracts to keep up with our growing demand.

### METRIC: PERCENTAGE OF ELECTRICITY PROCURED AS RENEWABLE IN EUROPE

We measure the amount of electricity that we procure in Europe as 100% renewable, as a percentage of all the electricity that we purchase (including electricity delivered to customers). In 2023, we continued powering all our European facilities with 100% renewable electricity.

### METRIC: PERCENTAGE OF ELECTRICITY PROCURED AS RENEWABLE

We measure the amount of energy that we procure as 100% renewable, as a percentage of all the electricity that we purchase (including electricity delivered to customers). In 2023, expanded renewable electricity in Europe and North Texas raised our renewable percentage to 18.1% of total CyrusOne electricity procured. This was a significant improvement over the 0.6% renewable electricity across our portfolio in 2018.

### METRIC: PERCENTAGE OF ELECTRICITY PROCURED AS NUCLEAR

We measure the amount of energy that we procure as 100% (carbon-free non-renewable) nuclear, as a percentage of all the electricity that we purchase (including electricity delivered to customers). In 2023, we began our first contracts for nuclear power in Illinois, New Jersey, and Connecticut representing 4% of our total electricity consumption.

### METRIC: PERCENTAGE OF ELECTRICITY PROCURED AS RENEWABLE BY CUSTOMERS

We also measure the renewable electricity that we can confirm has been procured by our customers to cover their server and cooling electricity in our facilities (which we include in our Scope 2 reporting) as a percentage of all the electricity that we purchase.

### METRIC: PERCENTAGE OF ELECTRICITY PAIRED WITH RENEWABLE CERTIFICATES

We also measure the amount of energy that we pair with unbundled Renewable Energy Certificates (RECs), Guarantees of Origin (GOs), or other certificate mechanisms. In 2023 we acquired limited regional RECs to support customer goals, representing 0.2% of our global electricity consumption. As mentioned under [Origination Hierarchy](#), we do not expect to consider unbundled certificates as a long-term part of our strategy to meet our *climate neutral* target.

### METRIC: PERCENTAGE OF FACILITIES WITH RENEWABLE OPTION

Currently, 100% of our facilities can offer customers some form of renewable electricity as an upgrade.

Procured Carbon-free Electricity <span style="float: right; border: 1px solid green; padding: 2px;">ASSURED</span>			
Origination Type	2018	2022	2023
CyrusOne-Procured Renewables	0.6%	17.6%	18.1%
CyrusOne-Procured Nuclear	0%	0%	4.0%
Customer-Procured Renewables	17.3%	33.5%	39.4%
Renewable Certificate Procurement	0%	0%	0.2%
<b>Total Carbon Free Electricity</b>	<b>17.9%</b>	<b>51.1%</b>	<b>61.6%</b>
<i>Scope: Includes facilities that are directly managed by CyrusOne.</i>			

As carbon-free electricity contracts signed in previous years start delivering power, our CyrusOne-procured renewables percentage continues to increase. Along with increasing customer-procured renewables and the addition of nuclear power, this has resulted in a large increase since 2018 in the percentage of our electricity that is carbon-free.

## CLIMATE IMPACT

As a responsible corporate citizen, CyrusOne recognizes the importance of reducing our carbon footprint to contribute to global efforts to mitigate climate change and its associated risks. Consequently, we have taken several actions to address our climate impact from energy use and its associated carbon emissions.

To understand our climate impacts, we prepare an annual greenhouse gas inventory using the standards set by the World Resource Institute Greenhouse Gas Protocol (WRI GHGP). For details about the scope of our inventory, please see [Appendix 1: Methodology](#).

### STRATEGY

Our climate impact strategy is guided by two goals: (1) reduce our carbon footprint, and (2) provide useful business insight to our operations, customers, and other stakeholders.

To reduce our carbon footprint, we first focus on reducing energy consumption (see [Energy Efficiency](#)). Second, we look for carbon-free energy options such as directly procured renewables. Finally, we consider limited use of offset mechanisms like Renewable Energy Certificates (RECs) and carbon offsets (see [Energy Origination](#)).

Our purpose in preparing our greenhouse gas inventory is to meet stakeholder information needs while informing internal decisions. We do this by [Meeting Third-Party Standards](#) set forth by WRI, GRI, SASB, TCFD, and CDP Climate. By providing transparency about our impacts, we support our stakeholders' goals and decision making.

The high-quality carbon emissions data from our greenhouse gas inventory also informs internal strategic decisions across the company, helping us to avoid emissions by design. These assessments are detailed in the following Risk Management section.

To extend this insight to our customers, we provide clear carbon emissions data to current customers to help them make informed decisions about reducing their emissions through our facility-specific Customer Sustainability Reports, which we distribute annually.

### RISK MANAGEMENT

We assess our direct and indirect carbon emissions to manage risk and inform our carbon reduction strategy. This involves tracking regional and national grid emissions factors to understand how carbon intensity varies across our facilities based on the fuel composition of each electrical grid. We also seek out supplier-specific emission factors for even greater accuracy. Energy consumption makes up nearly all of our Scope 1 and 2 carbon footprint.

We manage climate impact (how we affect the climate) separately from climate risk (how the climate affects us). To find out more about our strategies toward managing the effect climate change has on our business, please see the [Climate Risk](#) section.

Currently, our greenhouse gas data covers 100% of our directly managed colocation capacity. Furthermore, 95% of our Scope 1 and 2 carbon emissions are due to electricity generation, which already has a low-carbon option available in many markets. The remaining 5% is largely diesel for backup generation and refrigerant loss, which does not currently have widely available low-carbon substitutions. We are monitoring the industry for backup generation alternatives such as using renewable diesel in existing diesel generators or alternative generation technologies such as high-efficiency natural gas generators burning renewable gas, fuel cell generators with green hydrogen, or large-capacity batteries. We are also working with suppliers to monitor advancements in equipment that can use low global warming potential refrigerants.

By conducting a grid carbon intensity assessment, we can predict the future carbon emissions of our energy sources. To manage the risk of carbon emissions resulting from these sources into the future, we are working towards procuring direct carbon-free power to provide long-term and reliable energy supplies. For more details see the [Energy Origination](#) section.

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**Achievement Unlocked:**  
While the emissions projected by our energy consumption (represented by the location-based metric) more than doubled from 2018 to 2023, our actual emissions (market-based) slightly decreased.

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## CLIMATE IMPACT METRICS AND TARGETS

Here are the primary metrics and targets we use to measure or progress reducing our climate impact. For more information about these metrics, see [Appendix 2: Primary Metrics](#).

### METRIC: ABSOLUTE GREENHOUSE GAS TOTALS

Our internal carbon emissions reporting is separated into Scope 1 and 2. Scope 1 includes emissions from diesel, natural gas, and refrigerants, while Scope 2 includes both emissions from customer IT equipment electricity and electricity used to service common areas and cool data halls. Scope 2 emissions are reported using both Market-based and Location-based methods.

For our internal (Scope 1 and Scope 2 Market-based) emissions, there was a decrease in GHG emissions from 637k metric tons of CO<sub>2</sub>-equivalent (MTCO<sub>2</sub>e) in 2018 to 607k MTCO<sub>2</sub>e in 2023. This decrease was driven by increased carbon-free electricity procurement, even while occupancy expanded at new facilities. In 2023, our internal (Scope 1 and Scope 2) emissions were 62% of our total inventory. The remaining 38% were from Scope 3 emissions (see [Scope 3 Estimates](#)).

We completed construction on six new facilities in 2023: Chicago (CHI3), Frankfurt (FRA4), Houston (HOU4), London (LON4), London (LON5), and Phoenix (PHX8). Except for London (LON4), these facilities, along with several other newer data centers, are still *pre-built-out* based on customer install schedules. Data from *pre-built-out* facilities is included in our absolute totals, but not in averages for 2023. The following facilities became *built-out* in 2023: London (LON4) and Phoenix (PHX7).

We measure or estimate refrigerant loss for all global facilities. For most facilities, this is based on maintenance

Absolute Greenhouse Gas Totals: Market-Based (MTCO <sub>2</sub> e) <span style="float: right;">ASSURED</span>			
Scope 1 & 2 Market Based	2018	2022	2023
Scope 1	19,552	23,152	28,937
Scope 2 Customer Equipment Electricity (Market)	403,473	409,434	401,590
Scope 2 CyrusOne Support & Admin Electricity (Market)	213,841	184,245	176,700
<b>Total Scope 1 &amp; 2 Market Based</b>	<b>636,865</b>	<b>616,831</b>	<b>607,227</b>
<i>Scope: Facilities that are directly managed.</i>			

Absolute Greenhouse Gas Totals: Location-Based (MTCO <sub>2</sub> e) <span style="float: right;">ASSURED</span>			
Scope 1 & 2 Location Based	2018	2022	2023
Scope 1	19,552	23,152	28,937
Scope 2 Customer Equipment Electricity (Location)	448,733	791,504	1,025,889
Scope 2 CyrusOne Support & Admin Electricity (Location)	237,829	356,177	451,391
<b>Total Scope 1 &amp; 2 Location Based</b>	<b>706,114</b>	<b>1,170,833</b>	<b>1,506,217</b>
<i>Scope: Facilities that are directly managed.</i>			

records of additional refrigerant replaced in systems after servicing. For a few facilities without this data, we estimate refrigerant loss based on the total system charge. We have restated previous years with estimates of refrigerant loss based on known years to provide accurate comparisons.

In 2023, more than 95% of our Scope 1 and Scope 2 emissions came from purchased electricity (Scope 2), as is typical for the data center industry. Approximately 5% of our annual carbon emissions were generated from diesel, natural gas, and refrigerant loss in our operations (Scope 1). Since diesel is used for emergency backup generation, year-to-year use is highly variable based on

the number of power disruptions that occurred. The quantities are summarized below.

It is worth noting that our annual 2023 change in market-based emissions (1.6% decrease) diverged greatly from the change in location-based emissions (28.6% increase). This is a demonstration of the impact that carbon-free electricity procurement can have on decoupling the growth of our business with the growth of emissions.

For more information about these metrics, see [Appendix 2: Primary Metrics](#).

**METRIC: SCOPE 3 ESTIMATES**

Our Scope 3 emissions are not directly emitted by CyrusOne. These emissions are from sources indirectly associated with CyrusOne, such as construction materials (capital goods), fuel and energy-related activities, business travel, employee commuting, and customer-operated facilities (downstream leased assets). Note that electricity used by customer IT equipment inside facilities that we operate is counted as Scope 2 emissions, and their associated fuel and energy-related activities are included in Scope 3. After years of tracking business travel and employee commuting, we have confirmed that they are *de minimis* and will not be tracked going forward.

See how we calculated the emissions from these sources in [Appendix 1: Methodology](#).

These results show the variability of our Scope 3 emissions. The Capital Goods (construction materials) category is highly variable due to the fluctuating number of facilities built in a given year (all emissions are recognized in the calendar year the facility completes construction). Most of our Scope 3 emissions come from the Fuel-and-Energy-Related Activities category (upstream emissions from the extraction, refining, and transport of fuels), which are directly proportional to the fuel-based electricity, diesel, and natural gas we consume on-site at our facilities. We have one customer-operated facility that shares energy data with us, allowing us to track our scope 3 emissions there (Downstream Leased Assets). This represents 1% of our colocation capacity.

**TARGET: CLIMATE NEUTRAL BY 2030**

Our main target for Climate Impact is our *Climate Neutral* by 2030 commitment. We will continue to refine the particulars of how we will draw down our carbon emissions while we grow as a company, but we have committed to operating *climate neutral* by

Scope 3 Emissions (MTCO <sub>2</sub> e) <span style="float: right; border: 1px solid green; padding: 2px;">ASSURED</span>			
Activity	2018	2022	2023
Capital Goods (Construction Materials)	19,552	23,152	28,937
Fuel-and-Energy-Related Activities	164,896	206,824	212,774
Downstream Leased Assets (Customer-operated Facilities)	356	257	709
<b>Total Scope 3 Emissions</b>	<b>236,055</b>	<b>230,213</b>	<b>367,697</b>
<i>Scope: Material Scope 3 components.</i>			

2030. In this commitment, we include both the carbon emissions from our support infrastructure (cooling, lighting, power distribution, etc.) and those of our customers' IT equipment (servers) for Scope 1 and market-based Scope 2 emissions. Overall, our targets are set to contribute to the Earth staying below 1.5°C warming, striving for the SSP1-1.9 scenario (a world of sustainability-focused growth and equality).

**TARGET: NEAR TERM SCIENCE-BASED CARBON TARGET (1.5°C BY 2030) (SBTi TARGET)**

As validated by the Science Based Targets initiative (SBTi) in 2022, CyrusOne Inc. commits to reduce scope 1 and market-based scope 2 GHG emissions 38% by 2030 from a 2021 base year, and to measure and reduce its scope 3 emissions. In addition to our *climate neutral* by 2030 target, this near-term target gives us important early milestones for making progress on our journey to *climate neutral*.

**TARGET: CLIMATE NEUTRAL DATA CENTER PACT**

CyrusOne is a founding member of the European Union *Climate Neutral Data Centre Pact* — an agreement among data center operators, cloud service providers, and industry bodies in Europe to reach carbon neutrality by 2030. By participating in this pact, CyrusOne is supporting the EU carbon neutral by 2050 goal through a variety of targets related to efficiency, renewable

electricity, water use, and circular economy. In addition to being a founding member, our own EVP & Managing Director of Europe, Matt Pullen, is Chair of the CNDCP's Board of Directors. Since the end of 2021, we procure 100% renewable electricity for our facilities in Europe.

Our last remaining sources of carbon in Europe are our diesel backup generators, a small amount of natural gas, and refrigerant loss. This represents less than 1% of our potential carbon footprint, so we purchased carbon offsets to balance the emissions from these minor sources.

In selecting carbon offsets, we looked for opportunities to support multiple objectives at once, which is why we selected Bonneville Environmental Foundation's "stacked offsets". These innovative offerings "stack" verified carbon offsets with efforts that support biodiversity. In 2023, our verified carbon offsets were from the Rio Grande Valley Landfill and represent capturing the potent greenhouse gas methane, while our biodiversity support is through tree planting for habitat restoration and recovery in the Western United States. Since the tree planting is not verified for its carbon reduction, we don't claim any carbon credit for it, but we know we're supporting our [Offsite Habitat Improvement](#) objectives.

## CARBON INTENSITY METRICS AND TARGETS

We measure carbon intensity from two different perspectives:

- 1. Carbon Usage Effectiveness (CUE):** The ratio of total carbon (Scope 1 and 2) to the electricity delivered to IT equipment (kgCO<sub>2</sub>e/IT kWh)
- 2. Grid Carbon Intensity:** The carbon use per megawatt-hour (MWh) delivered to our facilities from the grid, measured in metric tons of carbon dioxide equivalent per MWh of electricity (MTCO<sub>2</sub>e/MWh). Also, the basis for GHGP Location-based emissions.

Each of these metrics gives us a different perspective on how we're doing to reduce the carbon intensity of our operations. They are detailed below.

### METRIC: CARBON USAGE EFFECTIVENESS (CUE)

Since 95% of our Scope 1 and Scope 2 carbon emissions are due to electricity consumption, CUE and PUE are closely related within a facility, but can vary between different facilities based on the source of electricity. For more information about PUE, see the [Energy Efficiency](#) section.

Shown at right is the CUE for *built-out* facilities that are managed directly. CUE has a minimum of zero and a lower value indicates greater efficiency and/or cleaner sources of energy. For an explanation of facility designations (*standard, nonstandard, wet, dry*) see [Appendix 2: Primary Metrics](#).

Carbon Usage Effectiveness (kg CO <sub>2</sub> e/IT kWh)				
Reporting Category	% by CLC	2018	2022	2023
<i>Nonstandard Dry Facilities</i>	3%	0.73	0.62	0.58
<i>Nonstandard Wet Facilities</i>	21%	0.70	0.35	0.18
<i>Standard Dry Facilities</i>	76%	0.56	0.24	0.18
<b>All Facilities</b>	<b>100%</b>	<b>0.61</b>	<b>0.28</b>	<b>0.19</b>
<i>Scope: Includes facilities that are built-out and directly managed by CyrusOne.</i>				

*Standardized (dry) and nonstandard wet facilities represent most of our operating capacity and have shown steady improvement in CUE since 2018, largely due to increasing their carbon-free electricity sourcing. CUE at nonstandard dry facilities has shown less improvement, but is better since 2018, largely as a result of energy efficiency improvements and reductions in grid carbon intensity. These facilities are primarily located in regulated US markets with limited access to renewable electricity. Our 2023 company-wide average was 0.19 kg CO<sub>2</sub>/kWh IT electricity use in 2023, less than a third of our 2018 CUE.*

### METRIC: GRID CARBON INTENSITY

To understand the impact that our electricity sourcing has on carbon emissions, we maintain a carbon intensity assessment. In this assessment, we see dramatic differences in carbon intensities between different non-renewable electricity supplies (i.e., supplier-specific, regional, or national grid electricity): the highest carbon intensity (0.703 MTCO<sub>2</sub>e/MWh) is almost seven times higher than the lowest (0.106 MTCO<sub>2</sub>e/MWh). Having a facility-by-facility understanding of carbon intensity informs our decisions about prioritizing facility upgrades, renewable electricity procurement, and site selection.

## WATER

In many data centers, water is consumed for cooling purposes, replacing electricity or other energy sources. However, we recognize that water is a limited resource in high demand, meaning that issues with water supply could reduce our access to water for operations or increase friction with local communities. Facilities dependent on water for cooling may face operational interruptions or require costly retrofits to less water-intensive types of cooling. To minimize risk, we strive to make our operations as water-efficient as possible, with the goal of reaching *net positive water* in regions with high water stress. Most of our facilities use water-free cooling, and we have begun to acquire BEF Water Restoration Certificates® (WRCs) to restore water to local ecosystems, making our presence a net benefit to the watersheds where we operate. We believe that water has been the “invisible resource” for too long in the data center industry and it is time to develop reporting standards to integrate water into energy and carbon reporting to tell the full picture of a data center’s impact on resources and the local region.

### STRATEGY

Our water conservation strategy has three main goals: 1) remove barriers to data center efficiencies, 2) design to avoid dependence on water for cooling, and 3) restore water in high-risk regions.

### DATA CENTER EFFICIENCIES

Data centers like ours have great potential to achieve energy and greenhouse gas improvements by combining the computing power of many smaller data rooms into fewer larger data centers. The concentration of this computing power allows for more efficiencies, but it also concentrates the environmental impacts into a single region. For issues like greenhouse gas emissions, this concentration is of small consequence since the

emissions go into the same atmosphere and climate change is a global issue (though pollutants from fossil fuel power plants can have local air quality impacts). But for purely local issues like water stress, concentrating the water demand into a single watershed can have big impacts on local communities and ecosystems. Our strategy is to remove the negative consequences of water demand so we can enable the efficiencies brought by large data centers.

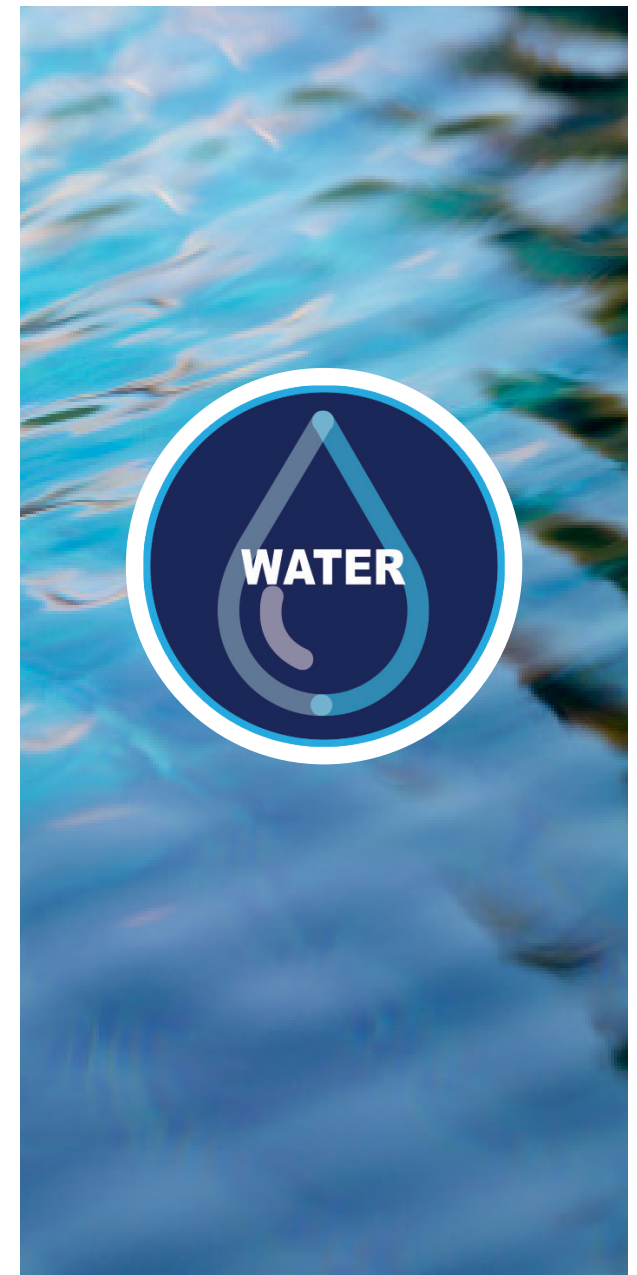
### PLAN FOR SUSTAINABLE FUTURE

We aim to build and maintain facilities that can function sustainably both now and into the future. With a high likelihood of strained water resources in many regions where we operate, we strive to avoid dependence on water for cooling in both our new and existing facilities. Most of our facilities already use cooling systems that do not consume water (water-free cooling), and we continue to update our cooling systems at existing facilities. We also use future regional water stress projections to inform site selection and design for new facilities. This strategy allows us to make improvements to facility reliability and resilience while becoming future-proof against increased local water stress.

### ENERGY/WATER TRADEOFFS

New CyrusOne data centers are designed to avoid dependence on water consumption-based cooling, providing increased reliability and reducing regional environmental impacts. Traditionally, data centers have utilized cooling systems that evaporate water, removing millions of gallons of water from the watershed and discharging wastewater with highly concentrated contaminants to the local treatment system.

Avoiding evaporative cooling results in a somewhat higher design PUE (Power Usage Effectiveness, a common metric used to measure data center efficiency) than could be achieved by “burning” water instead of





electricity, but it allows us to prepare for the future and mitigate the impacts data centers have on regional water supplies. We do not ignore our carbon footprint — on the contrary, we are aggressively pursuing energy efficiency and low-carbon electricity. Our facilities are designed for a future where they will neither consume large amounts of water nor emit large amounts of carbon.

### ONSITE WATER VS. ENERGY SUPPLY CHAIN WATER

We understand that no matter how much we reduce our onsite water consumption, as long as we are reliant on grid electricity, we are indirectly responsible for the consumption of large amounts of water through traditional thermoelectric electrical generation for the foreseeable future. We have begun efforts to quantify this energy supply chain water consumption to understand both our full impact on water resources and the risk of electrical supply disruption due to increased water stress. The water consumed in electricity production, sometimes referred to as the “embodied water of electricity” or “virtual water,” is often used to justify employing less expensive evaporative cooling to save electricity. The rationale is that water expended onsite is simply replacing water that would have been used in electrical generation and that it all evens out in the end.

There is some truth in this hunch, especially when the electricity consumed comes from thermoelectric sources (like fossil fuel or nuclear generation). However, we know that solar and wind generation consume negligible amounts of water. As both electrical grids and individual consumers like CyrusOne replace thermoelectric sources with wind and solar generation, the water embodied in the electricity we consume decreases dramatically. If we can reach our *climate neutral* target solely through the use of renewable electricity, we will consume effectively no water for cooling at the vast majority of our facilities, whether directly through water-consuming cooling or indirectly

through our electricity use. However, if we need to use nuclear electricity as part of a carbon-free mix, it will still consume some water to generate electricity for us.

We had the opportunity to perform a case study to test the theory that water used for evaporative cooling is made up for by water saved in the electricity generation process. In 2020, we upgraded the chillers at our flagship Dallas (DFW1) facility from a water-consuming system to a water-free alternative. This resulted in a small increase in PUE but cut our onsite water consumption by 65%. This 65% decrease looks great in theory, but we wondered if the supply chain water for the extra electricity would mean that the total water consumed by the facility stayed the same or even increased due to the upgrade. Using the World Resource Institute’s emissions factors for water consumption in the local electrical grid, we estimated the total water consumed (onsite and for electricity generation) by DFW1 in 2019 and 2020. While we discovered that supply chain water greatly outstripped the water used onsite, DFW1’s overall water use still decreased by more than 5 million gallons between 2019 and 2020 due to its switch to a water-free cooling design. This result challenges the conventional wisdom that consuming water for cooling saves total water, at least in today’s supply chain.

This improvement in overall water consumption occurred even though the electricity consumed at DFW1 was the standard grid mix. Our nearby DFW3 facility, however, combines water-free cooling technology with 100% renewable electricity from a mix of solar and wind generation, both of which result in negligible water consumption. DFW3 demonstrates the potential for a data center to have a truly low impact on regional water resources through a combination of water-free cooling and low-water renewable electricity. In fact, as a member of our *net positive water* portfolio, DFW3 is a positive contributor of water to the regional environment.

To see the results of our company-wide supply chain water analysis, see [Metric: Total Water Usage Effectiveness \(WUE Source\)](#).

### RISK-BASED WATER MANAGEMENT PROGRAM

Water as a resource is chronically undervalued. We manage water as a risk, rather than simply a cost, as we understand the risks that water stress can bring to our business continuity and to the communities in which we operate.

Water stress is highly regional. Some areas have abundant water, but many areas are facing water stress from increasing demand and a decreasing supply of fresh water. Because of this, no single approach will work for every situation. To take a risk-based approach, we analyze every watershed in which we operate to determine its local water stress, both now and projected into 2030 and 2040. In areas where water is scarce, we prioritize conservation. But we also want to do more. In these regions, we have begun to partner with environmental nonprofits to support projects that restore the water flows to overdrawn watersheds. This provides benefits to both human water supplies and biodiversity, making our presence in that region *net positive* for water.

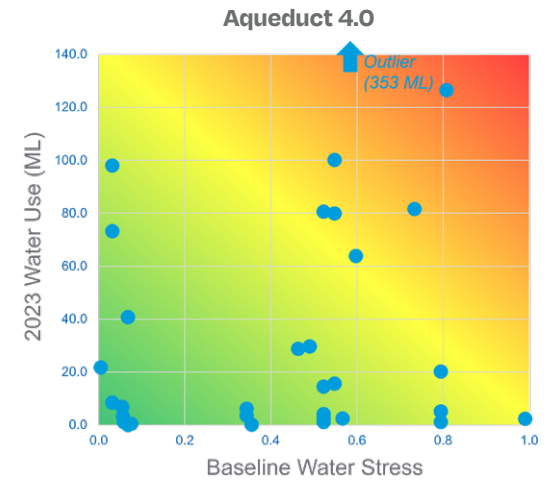
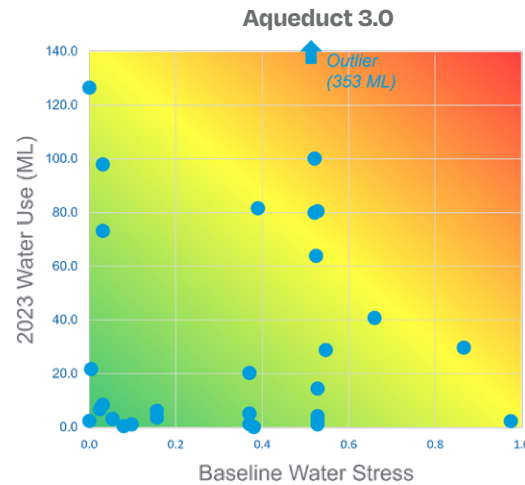
Our strategy leaves us largely insulated from future water risk, as opposed to many other data centers that are designed around water consumption. This underscores the importance of considering PUE (Power Usage Effectiveness) and WUE (Water Usage Effectiveness, see below) in tandem, rather than treating them as isolated metrics.

For more information about PUE, see the [Energy Efficiency](#) section.

## RISK MANAGEMENT

There are two main ways we manage our risk of water supply disruptions and the operational disruptions that they bring. The first step is to understand the current and future regional water stress and risk to our facilities through a Water Risk Assessment (see below). The second is to use less water in our operations, which insulates us from whatever water risk is present in the regions where we operate. In areas with potential water shortages in the future, decreasing our dependence on water can help us avoid issues with competing water interests, increased water prices, and reduction of supply. CyrusOne's water-free cooling design provides significant insulation from the risk of water-supply-based business disruption in regions where water is scarce. As shown in the portfolio summary in the [Energy Efficiency](#) section, 79% of our total colocation capacity is cooled by water-free cooling, which significantly insulates our portfolio from the regional water stress described in our Water Risk Assessment. We firmly believe that our aggressive stance on prioritizing water conservation will become an opportunity for success as water scarcity increases.

## WATER STRESS - KEEPING UP WITH THE TIMES



In our 2023 Sustainability Report, we were proud to announce that we had achieved *net positive water* status at all facilities classified as extremely-high water stress. It was a nice milestone for us to reach and it felt good to acknowledge the progress of our *net positive water* program.

However, nothing is static, and all models must be updated with more recent data to better reflect a changing world. Later that year, WRI updated the tool we use to determine water stress, releasing Aqueduct 4.0. When we performed our annual water risk assessment update at the end of 2023, we found significant changes in water stress for a number of our facilities.

According to the data we used for our previous risk assessments (Aqueduct 3.0), two regions where we operate were extremely-high stress: the Phoenix, AZ and Dallas, TX areas. With the new data in Aqueduct 4.0, Dallas moved down a category to high stress, while the Chicago, IL region moved from a categorization of low stress to extremely-high stress. Overall, the number of facilities categorized as high stress or above increased from 22 to 33.

This was not entirely unexpected, because we have been monitoring not only current water stress, but also water stress predictions for 2030. For example, we knew that the Chicago area was predicted to increase dramatically by 2030 – the change simply came a few years earlier than we expected.

We have a large facility in the region that uses evaporative cooling. It's neither easy nor inexpensive to upgrade cooling equipment, but we are now forewarned and can look for water efficiency opportunities at the facility that would reduce our exposure to water risk. Fortunately, our strategy of building all new facilities with water-free cooling means that our two newer facilities in the same region do not consume water, leaving them insulated from regional water risk.

This underlines the importance of our annual water risk assessment strategy. This knowledge will give us time to address our water use in the Chicago region before it's likely to become a problem for our business.

## WATER RISK ASSESSMENT

To understand the risk of water supply disruption for our data centers, we conduct an annual assessment of current and future water stress in the regions where we operate. This helps us to monitor the water availability both now and projected into the future, to prioritize facilities for our water conservation efforts, and to reduce risk by avoiding dependence on water. This is part of our overall climate risk strategy detailed in the [Climate Risk](#) section.

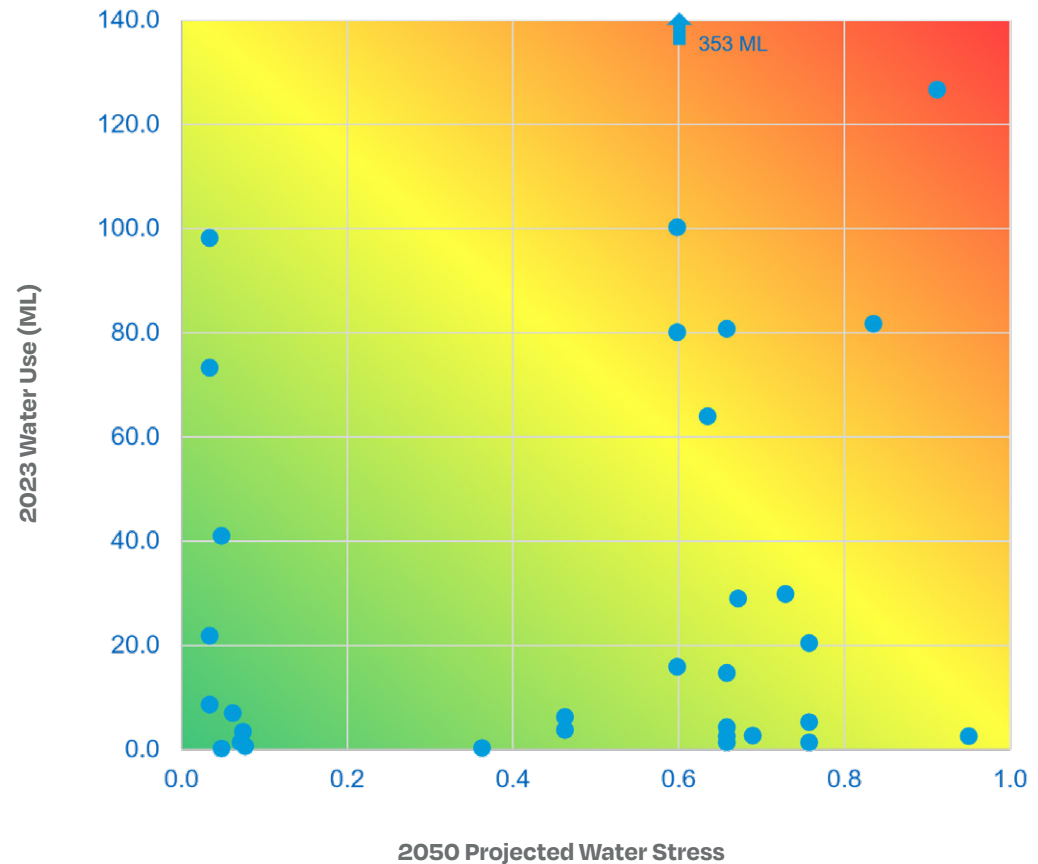
At CyrusOne, we recognize the risk of business interruption at some sites due to water shortages or price increases in just the next decade. With the information from this assessment, we can understand the level of water stress in each region and can take informed steps to address the water risk for our facilities.

### RESULTS

For each of our facilities with water use data, we evaluate water risk by comparing water use to local water stress, current and future. The heatmap to the right illustrates this comparison for each facility's 2023 water use and its region's projected 2050 water stress. This chart illustrates the success of CyrusOne's water-free cooling strategy — most of the facilities are already using relatively little water. Additionally, only two facilities fall into the high-risk exposure orange or red areas which indicate high use sites in regions expected to experience high water stress, indicating where we should focus our water reduction strategies.

The Water Risk Assessment provides us the foresight to plan for efficiencies and alternatives now, rather than be surprised by water scarcity in the future. Our water risk assessment informs us that 73% of our facilities are projected to face increased water stress in 2030 (compared to 2020), and 52% of our sites are projected

## 2050 PROJECTED WATER STRESS HEATMAP



to be rated high or extremely-high stress by 2030. Fortunately, most of these sites are already low water users, underscoring the benefit of water-free cooling.

### UPDATES

We update our Water Risk Assessment annually to monitor this important issue and provide our business processes with the latest data for making decisions.

As new facilities are added to our portfolio, they will be added to the next assessment. We use the results of the Water Risk Assessment to inform many decisions inside the company, including site selection, operations, and new facility design.

## WATER METRICS AND TARGETS

Here are the primary metrics and targets we use to measure our progress on water conservation issues. For more information about these metrics, see [Appendix 2: Primary Metrics](#).

### TARGET: 100% WATER-FREE COOLING IN NEW DATA CENTERS

We have a target to build all new facilities with the ability to operate with zero water-consumption cooling. By committing to this strategy, these facilities can be efficient facilities cooled without the consumption of water both now and into the future. This results in a Design WUE of 0.002 L/kWh based on the water used in humidification.

### METRIC: PERCENTAGE OF NEW DATA CENTERS WITH WATER-FREE COOLING

In 2023, we finished construction on Chicago (CHI3), Frankfurt (FRA4), Houston (HOU4), London (LON4), London (LON5), and Phoenix (PHX8). All except FRA4 employ water-free cooling, for a total of 83%. FRA4 marks the last facility designed before we established our target of 100% water-free cooling in new data centers. Our standard going forward is for all new data centers to use water-free cooling.

### TARGET: NET POSITIVE WATER IN HIGH-STRESS REGIONS

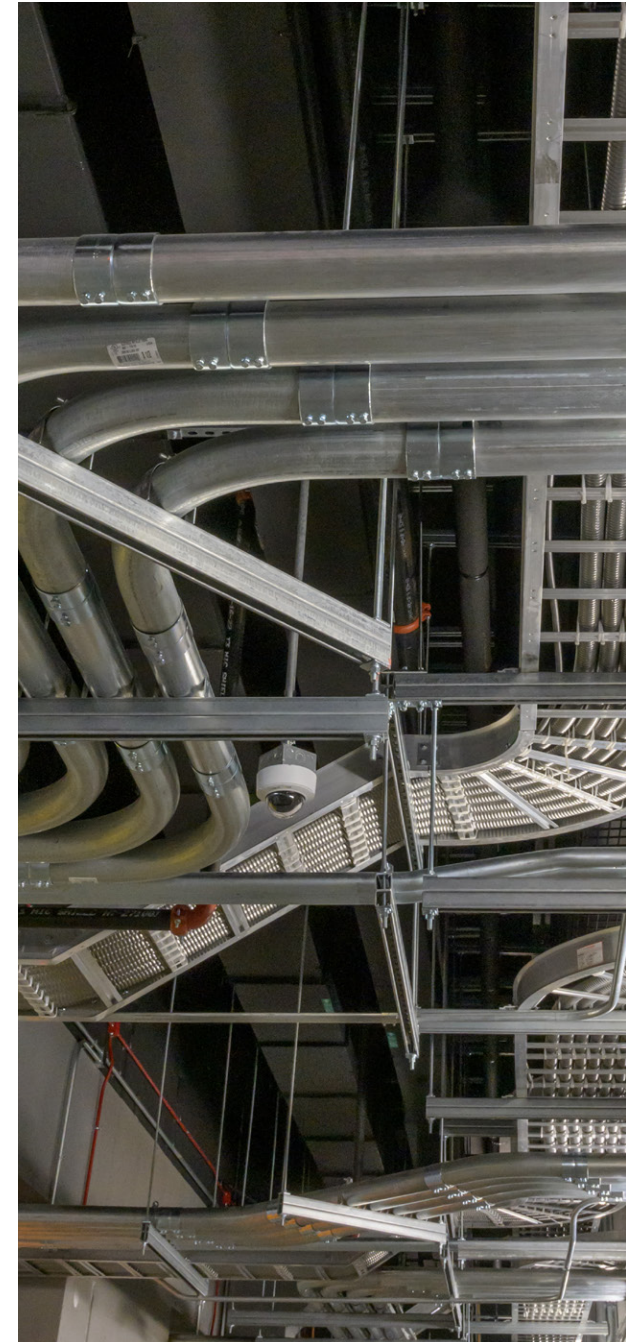
Our target for water conservation is not to simply do “less bad” but to do “more good” and leave regions better than if we were never there. With this in mind, we have set a target to make all our facilities in high water stress regions into *net positive water* facilities. We accomplish this in three steps. First, we identify which regions are considered *high* or *extremely high* water stress using our Water Risk Assessment. Then, we attempt to reduce onsite water usage through operational efficiency measures and upgrades. Finally, we partner with environmental nonprofits to restore water flows in

these regions such as through [Bonneville Environmental Foundation](#) (BEF) Water Restoration Certificates® (WRCs). If we can restore at least 20% more water than we use, we consider this to be a *net positive water* facility.

We continue to update our multi-year plan to convert all our facilities that are currently in high-stress regions to *net positive water*. After we accomplish our *net positive water* goals, we will continue to purchase WRCs annually to maintain our *net positive water* status and monitor our Water Risk Assessment for new regions that become high water stress. When they do, we make a plan to convert facilities in those regions to *net positive water* facilities.

### METRIC: NUMBER OF NET POSITIVE WATER FACILITIES

In 2023, we added our new Phoenix (PHX8) facility to our portfolio to maintain our 100% *net positive water* status in Arizona. In addition, now that the San Antonio, Texas region was evaluated as high water stress in our water risk assessment, we also added San Antonio (SAT1). This brings our total number of *net positive water* facilities to twelve data centers plus our US headquarters in Texas, or 39% of facilities in high stress regions.



**METRIC: WATER WITHDRAWAL, CONSUMPTION, DISCHARGE, AND RESTORATION**

We estimate the total water withdrawn, consumed, and discharged by our facilities, regardless of whether the water goes toward cooling, facility maintenance, or domestic water uses. At our *net positive water* facilities, we have purchased WRCs which restore at least 120% of the amount of water we withdraw for these facilities to the regional watershed. See more about our *net positive water* facilities above.

*Net withdrawn water* is the total water taken in by our facilities, regardless of how it is used, minus the amount of water restored by WRCs. All sources of withdrawn water are municipal supply except for the geothermal cooling system at our Cincinnati (CIN4) facility in Hamilton, Ohio. This system pumps groundwater through the facility, using its low ambient temperature for cooling, before discharging it to surface waters. Since some of our facilities rely on water for cooling, water withdrawal indicates how vulnerable these facilities are to regional water shortages.

Once water enters our facilities, it is either 1) discharged to water treatment works and returned to the watershed or 2) consumed through evaporative cooling or irrigation. Since our consumption of water removes it from the watershed, water consumption indicates our impact on regional water availability.

For more information about the scoping of our water conservation metrics, see [Appendix 2: Primary Metrics](#).

Our overall use of water has increased over time, representing the growth in the number of facilities we operate and, therefore, our overall demand for water inputs. The variation in our water discharge (from water-free cooled facilities) is expected based on annual variation in weather conditions (since it is largely driven by irrigation) and some of the increase this year is likely

due to installation of new landscaping at a number of facilities (see [Biodiversity](#)). While the native species we planted will reduce our irrigation water consumption in the long run, new landscaping requires extra water to establish. Our water restoration efforts have increased year over year as we add more facilities into our *net positive water* portfolio.

**METRIC: WATER WITHDRAWAL, CONSUMPTION, AND DISCHARGE IN HIGH-STRESS REGIONS**

To focus our attention on areas where water is scarce, we track the total water withdrawal, consumption, and discharge from regions listed as currently in *high* or *extremely high* stress, according to the [Aqueduct Water Risk Atlas](#).

This metric includes all 33 of our facilities in *high* or *extremely high* water stress regions.

The increase in water consumption between 2018 and 2023 is due to four newer facilities that were designed with water-consuming cooling equipment coming online in Europe (these facilities were designed before our water-free target was set). We are investigating potential efficiency upgrades to save water at these sites.

Water Usage (ML) <span style="float: right;">ASSURED</span>			
	2018	2022	2023
Water Withdrawal	643.7	1,259.7	1,307.2
Water Consumption	540.2	1,146.9	1,143.2
Water Discharge	103.5	112.8	164.0
Water Restoration	0	-65.8	-98.2
<b>Net Water Withdrawal</b>	<b>643.7</b>	<b>1,193.9</b>	<b>1,209.0</b>
Hamilton Geothermal Water Withdrawal and Discharge	2,984.4	2,984.4	2,984.4

*Scope: Facilities for which water data is available (representing 92% of colocation capacity).*

Water Usage in High-Stress Regions (ML) <span style="float: right;">ASSURED</span>			
	2018	2022	2023
Water Withdrawal	386.9	943.7	1,017.1
Water Consumption	305.7	872.8	901.0
Water Discharge	81.2	70.8	116.1
Water Restoration	0	-65.8	-98.2
<b>Net Water Withdrawal</b>	<b>386.9</b>	<b>877.9</b>	<b>919.0</b>

*Scope: Facilities for which water data is available (representing 92% of colocation capacity).*

**METRIC: ONSITE WATER USAGE EFFECTIVENESS (WUE SITE)**

The standard metric for measuring water efficiency in data centers is Water Usage Effectiveness (WUE). This metric was created by The Green Grid specifically for data centers to understand and compare their water impact on an intensity basis. In the past, we have used the term WUE to refer to the water intensity of our data centers' onsite water use. Going forward, we will refer to this metric as WUE Site. In an effort to increase transparency around water consumption, we also report the water intensity of the electricity used in the facility combined with the onsite water, which we will refer to as WUE Source (see below).

WUE Site is a ratio of liters of IT support water use to kilowatt-hours of server energy use, and thus is measured in liters per kilowatt-hour (L/kWh). Unlike PUE, it has a theoretical minimum value of zero (no water withdrawn for the site). Our new water-free cooling facility Design WUE Site is 0.002 L/kWh based on the water used to humidify the data center. Because our Operating WUE Site measurements include all water onsite (including water used for domestic use, facility maintenance, and landscape irrigation), even our zero water-cooling facilities have a WUE Site above 0.002 (but nowhere near that of a site that consumes water for cooling). For an explanation of facility designations (*standard, nonstandard, wet, dry*) see [Appendix 2: Primary Metrics](#).

While water use at our *dry* facilities has remained low for both *standard* and *nonstandard* facilities, our *nonstandard wet* facilities' water use has remained higher. Our *standard dry* facilities have improved in efficiency over time due to some updated operational strategies and our *net positive water* program. Because these facilities generally only use water for facility maintenance and domestic water, the variability in water demand is largely driven by year-to-year changes

in irrigation requirements based on local weather conditions. The growth of water use in our *nonstandard wet* facilities is discussed above in [Metric: Water Withdrawal, Consumption, and Discharge in High-Stress Regions](#).

**METRIC: TOTAL WATER USAGE EFFECTIVENESS (WUE SOURCE)**

As discussed in the [Energy/Water Tradeoffs](#) section, as long as we are reliant on grid electricity that includes thermoelectric sources to power our facilities, we are indirectly responsible for the consumption of large amounts of water in the production of that electricity. WUE Source is an estimation of the total water burden of a facility. This includes water consumed onsite as well as water consumed in the production of the electricity we use, referred to as "supply chain water". Supply chain water estimates are based on the World Resource Institute's [Guidance for Calculating Water Use Embedded in Purchased Electricity](#).

WUE Source is a ratio of liters of supply chain water plus onsite water usage to kilowatt-hours server energy use thus is measured in liters per kilowatt-hour (L/kWh). For an explanation of facility designations (*standard, nonstandard, wet, dry*) see [Appendix 2: Primary Metrics](#).

It is interesting to note that the results of our WUE Source comparison dispute the conventional wisdom in our industry that water evaporated onsite for cooling is made up for by the energy supply chain water saved by using less electricity. On average, our *nonstandard wet* facilities, which use evaporative cooling, have a significantly higher total water burden than our *dry* facilities.

WUE Site (L/IT kWh)				
Reporting Category	% by CLC	2018	2022	2023
Nonstandard Dry Facilities	3%	0.04	0.10	0.15
Nonstandard Wet Facilities	21%	1.96	2.40	2.12
Standard Dry Facilities	76%	0.14	0.03	0.02
<b>All Facilities</b>	<b>100%</b>	<b>0.62</b>	<b>0.56</b>	<b>0.38</b>

*Scope: Facilities for which water data is available (representing 92% of colocation capacity).*

WUE Source (L/IT kWh)				
Reporting Category	% by CLC	2018	2022	2023
Nonstandard Dry Facilities	3%	2.96	2.92	3.10
Nonstandard Wet Facilities	21%	5.14	4.42	3.92
Standard Dry Facilities	76%	3.90	3.67	2.92
<b>All Facilities</b>	<b>100%</b>	<b>4.17</b>	<b>3.81</b>	<b>3.10</b>

*Scope: Facilities for which water data is available (representing 92% of colocation capacity).*

## BIODIVERSITY

In our 2020 Sustainability Report, we made a formal pledge to biodiversity, making it an additional pillar of our commitment to the environment alongside climate, water, and circular economy. Our data center campuses are mostly covered by buildings, but the small amount of landscaped area that we own still offers an additional opportunity for sustainability efforts. We seek opportunities for the land around our facilities to support a diversity of resilient biological networks, as well as our digital ones.

### STRATEGY

There is growing global understanding that nature faces exponential deterioration and biodiversity is declining faster than we can easily measure. The ecosystem services that we depend on both economically and socially are faced with extreme disruption. In response to our current biodiversity crisis, governments and companies throughout the world have been diligently working to determine how we can address our dependencies, impacts, risks, and opportunities. 2023 marked a significant year for reporting and engagement frameworks focused on biodiversity. The Taskforce for Nature-related Financial Disclosures (TNFD) released their final recommendations and guidance. Science-Based Targets for Nature (SBTN) also published a formal framework and guidance for the first three steps in their process (assess, prioritize, and target setting). The full guidance for SBTN with final steps (act and track) has been released to a handful of companies that will participate in a pilot project and submit their targets for validation to test criteria. We are expecting a broader public release with full guidance in the next two years.

The initial guidance of the frameworks suggests a similar hierarchy of control to ours indicating that we are on the right track. In 2024, we will be reviewing the final

frameworks to ensure alignment and identify any gaps in our current strategy. Sector-specific guidance has yet to directly address data centers, suggesting that creative interpretation will be necessary for our industry. As we make plans to incorporate these frameworks, we approach our biodiversity strategy through the same hierarchy of control that we use to approach other aspects of our environmental portfolio (climate, water, and circularity). First, we have immediate control over reducing our biodiversity impact within the physical footprint of our facilities. Prioritizing site selection in zones designated for industrial development ensures that we avoid areas of high habitat quality. Next, once our data centers are built, we can use the available green space to give back to what should naturally be there by landscaping with locally appropriate native species in a landscape design that encourages benefits to wildlife. Finally, we seek offsite opportunities to improve habitats near our facilities by working with local nonprofits that have conservation expertise.

Our supply chain provides a less direct link to habitat mitigation efforts than those that include agricultural products or materials harvested from forests. The primary aspect of our supply chain that impacts habitat is electricity generation. These and other impacts come largely in the form of water use, so the work we have done so far with our watershed restoration efforts is connected to one of the primary biodiversity impacts from our supply chain.

Finally, we look for opportunities to provide biodiversity co-benefits when we work on other sustainability efforts. For example, when selecting Water Restoration Certificates or Carbon Offsets, we look for projects that not only provide the benefit to water or carbon, but also to biodiversity.



## RISK MANAGEMENT

Our approach to managing risks related to habitat largely revolves around minimizing the harm from our sites. To evaluate this, we use two forms of risk assessments: (1) Environmental Impact Assessments and (2) Protected Areas Assessments. For more details about our methodologies for these assessments, see [Appendix 1: Methodology](#).

## ENVIRONMENTAL IMPACT ASSESSMENTS

Habitat impacts are a significant aspect of the Environmental Impact Assessments required by law in many markets before the construction of a new facility. By considering sensitive habitats when selecting project sites, we avoid harm and minimize the need for remedial activities and project delays.

## PROTECTED AREAS ASSESSMENT

To monitor our ongoing risk related to habitat, we conduct annual Protected Areas Assessments to verify that our facilities are not adjacent to any protected areas or that adjacent areas have not become protected since construction. This allows us to continue to monitor potential critical habitat issues after a site is in operation.

## FROM REMEDIATION TO RESTORATION



Our Amsterdam (AMS1) facility in Halfweg is sited in an area historically used as a processing area for waste silt from dredging and land reclamation projects. Due to previous activities, the area was known as being polluted and even received the nickname “rotten polder”.

Following the purchase of the land in 2018, CyrusOne began an extensive remediation project to remove the most heavily polluted material and restore a living soil layer. In some cases, it was necessary to dig to a depth of 4m to remove the contaminated land before replacing it with suitable soils. During this time CyrusOne worked closely with the local environmental agency, successfully restoring an area of approximately 6.5 acres to a biodiverse habitat for wildlife and humans to enjoy.



In 2021, once remediation and drainage works were complete, we implemented pollinator-friendly actions outlined in Host In Ireland’s DCs for Bee’s Pollinator Plan. This included planting native tree species and pollinator-friendly plants such as low-maintenance perennials and shrubs and establishing groundcover to provide habitat and food sources for pollinators, birds, and small mammals. We also follow sustainable gardening practices such as avoiding the use of pesticides and reducing mowing in certain areas which allows the space to grow wild with pathways cut to allow access.



In 2020, we rescued a swarm of bees from our chiller housing. This was the start of our onsite beekeeping, and we now have a dedicated area with an expansion to two hives for this coming year. We produce approximately 6-8 kg of honey per year, always leaving at least half the honey in the hive to support the bees. We work closely with our local beekeeper and have recently donated surplus building materials to improve the roof of the winter storage areas at the beekeeper’s premises.

Since establishing the new landscaping, we have identified numerous wild species using the space including herons, storks, spoonbills, cormorants, buzzards, owls, pheasants, geese, various ducks, hares, a domestic rabbit, and a small family of foxes. We see visits from a variety of these animals daily, including individuals, breeding pairs and family groups.

Despite the impact our buildings can have on the local lands, we believe that we can have a positive impact on the ecosystem by strategically planning our landscaped areas to enhance local biodiversity.



## ONSITE HABITAT IMPROVEMENT

### STRATEGY

We aim to achieve several objectives through landscaping at our buildings. By cultivating locally adapted native plants, we can minimize the water and other resources needed for maintenance while benefiting nature. Although most of our facilities have minimal landscaping, small areas can have a big impact if we create wildlife habitat through careful plant selection and placement. At sites with improved habitat, we've integrated plants, features, and practices that attract local pollinators and migratory birds. Our landscape designs include attention to the diversity of forage options throughout the seasons as well as creating shelter and nesting locations. Though we are in the early stages of implementing habitat landscape improvement across our portfolio, we have learned from the projects that we've pursued thus far and are prepared to apply our methods to new sites and existing facility upgrades going forward.

### ONSITE HABITAT METRICS AND TARGETS

Here are the primary metrics and targets we use to measure our progress on onsite habitat improvement. For more information about this metric, see [Appendix 2: Primary Metrics](#).

#### TARGET: HABITAT NETWORKS

As our facilities are strategically located to primarily improve data networks, we recognize that the same strategic placement can help provide habitat networks as well. Our target is to improve habitat at each of our facilities with landscaping we control, focusing on pollinator-friendly gardens to support local biodiversity.

For us, this means landscaping that uses native and climate-adapted species to provide food, water, shelter, and nesting for pollinators and other wildlife. In addition, we prefer landscape management practices that conserve water, avoid unnecessary disturbance and chemical use, and strive for a natural aesthetic.

We understand that third-party verification is crucial to ensure our efforts are supporting wildlife in a rapidly changing world. In 2023, we certified the landscaping at 13 North American facilities in Northern Virginia, Arizona, and Ohio as [National Wildlife Federation's \(NWF\) Certified Wildlife Habitat®](#) bringing our total to 14 facilities. In Europe, we have followed the [DCs for Bees Pollinator Plan](#) at our facilities in Dublin and Amsterdam. In 2024, we will be exploring other certification and measurement schemes to aid us in quantifying our impact and improvements.

#### Habitat Networks Target

	2018	2022	2023
Facilities with Improved Habitat	0%	9%	42%

*Scope: Sites eligible for improved habitat (which have landscape that we can replant).*

#### METRIC: FACILITIES WITH IMPROVED HABITAT

To measure progress toward our target, we will track and report how many of our eligible facilities have some improved habitat onsite that supports biodiversity in the area. We consider a site to be eligible if it has landscape (as opposed to a high-rise, for example) that we have operational control over (rather than a leased facility where the landlord manages landscape). Currently, 63% of our data centers are eligible for habitat improvement.

### Achievement Unlocked:

In 2023, we increased our facilities with certified habitat improvements from 9% to 42%!

## OFFSITE HABITAT IMPROVEMENT

Where our portfolio doesn't offer an opportunity for planting and habitat creation, we strive to work with local non-profit organizations and communities to enhance biodiversity in local areas.

### STRATEGY

Given our industry and the size of our company, we are working to find a way to meaningfully contribute to improving biodiversity. We recognize that this is not a problem we can tackle on our own — it will require partnership, creativity, and collaboration. A good example in our industry is [Host In Ireland's DCs for Bees](#) program, which provides a toolkit for pollinator plantings on-site at data centers and has also supported native plantings off-site at properties managed by the Irish Native Woodland Trust.

We know that biodiversity is intertwined with other environmental targets that we have set. For example, the electricity we consume can impact biodiversity through fossil fuel extraction and water consumed during electrical generation. These impacts will decrease significantly as we increase renewable electricity consumption, but we want to do more. However, there aren't readily tradable credits for habitat restoration in the same way that there are for carbon offsets, RECs, and water restoration. Biodiversity gains are more often a co-benefit of projects completed for other purposes. Therefore, our strategy is to look for projects with multiple co-benefits to help us work toward several target topics at the same time. The co-benefits can include expanding or preserving wildlife habitat, reducing water stress, improving communities, carbon reduction and removal, or improved renewable energy.

One way that we have pursued this strategy is through the purchase of Bonneville Environmental Foundation (BEF) Water Restoration Certificates® (WRCs) to increase water flows, improving regional water stress for both human use and local wildlife habitat. For more information about this water restoration, see [Water](#). In selecting carbon offsets, we have also worked with BEF to use "stacked offsets" which pair a certified carbon offset with additional funding to support US West Coast tree plantings. We do not claim carbon credit for these additional tree plantings, but support them as part of our offsite habitat improvement goals. We have begun to map out additional offsite efforts to maximize biodiversity co-benefits. Possibilities include expanding partnerships with conservation organizations, supporting nature-based carbon removal or emissions reductions projects, and additional water restoration projects.

### OFFSITE HABITAT METRICS AND TARGETS

To tackle this problem innovatively, we are avoiding prescribing metrics in the short term; however, we are closely following the application of reporting frameworks like the Taskforce for Nature-Related Financial Disclosures and Science-Based Targets for Nature. In 2024, we will assess the most recent publications of these frameworks to inform our decisions on metrics to report and targets to set for biodiversity moving forward.

## TREES IN THE TAUNUS



Our focus on protecting and improving the habitats where we operate is an integral component of our sustainability program. It really doesn't get any better than when we bring our teammates together to work side-by-side with communities to make a difference.

In the fall of 2023, we sponsored a tree planting with Herzenswald Schmitt to support their reforestation efforts in the Schmitt Forest. Our German teammates, together with family and friends, took to the Hessen countryside to plant 300 native trees to counteract forest loss in the beautiful Taunus mountains west of Frankfurt.

We value the opportunities Herzenswald Schmitt provides for organizations and individuals to participate in improving the communities where they live and work.



## CIRCULAR ECONOMY

In 2023, CyrusOne continued to develop and expand our strategy for transitioning to a circular economy. In general, one of the key strategies of a circular economy is dematerialization: transitioning material processes to digital ones. We recognize that data centers play a central role in dematerialization by providing a reliable digital infrastructure that can make alternatives not only less material-intensive but also more energy and labor efficient. Other sections of this report detail how we are reducing the environmental burdens of data centers so the benefits of dematerialization do not simply shift the impacts to carbon or water. In this section, we describe our efforts at making our material streams more circular.

For material issues, CyrusOne's challenges are more closely related to those of a typical real estate company than to those of an in-house data center operator. For example, the *EU Climate Neutral Data Centre Pact's* Circular Economy commitment sets a high bar of reusing, repairing, or recycling 100% of used server equipment. However, as we described in the [Introduction](#), we do not control the servers in our colocation facilities — they belong to our customers. Due to this, our typical operational material waste generation is very low, largely consisting of customer packaging and break room waste. However, because we are building new facilities each year, our primary opportunity to contribute to the circular economy transition comes from incorporating circularity into our construction practices. Our efforts in both construction and operations are detailed below.

### STRATEGY

Our approach to a circular economy is grounded in the fundamental principles of reduce, rethink, reuse, and recycle. These strategies are implemented during both the construction and operation of our data centers.

We recognize that reducing consumption and waste generation at the source is where we can have the biggest impact. Therefore, we focus on construction upstreaming or eliminating the need for a material all together. We then rethink our processes to look for alternative products or materials that either incorporate recycled or renewable content, or have longer lifespans, reducing the frequency that the product needs to be replaced. Next, we consider ways to reuse material that may otherwise end up in landfill such as integrating fly ash into our concrete mixtures or reusing waste produced during demolition in the construction of a new facility. Where we can't reduce or reuse, our final line of defense is recycling. We ensure comprehensive recycling practices are in place for most waste materials, encompassing e-waste, construction byproducts, packaging, and more.

### RISK MANAGEMENT

We think of risk management for circularity in two ways: risk from the management of waste and risk from the availability of alternative materials for construction.

Overall, our waste generation is a small source of risk for our company. We generate relatively small amounts of regulated wastes, e-waste, and unregulated recyclables. Our most significant risk is associated with one of our largest sources of waste – spent lead-acid batteries from Uninterruptible Power Supplies (UPSs). Classified as a regulated waste (a Universal Waste in the US), proper disposal is essential in mitigating compliance and regulatory risks. Additionally, improper management of regulated waste can result in environmental pollution and contamination. We manage this risk by partnering with battery service providers that provide full lifecycle management including recycling our batteries. We are also exploring alternative battery chemistries that are longer-lived with lower environmental impact.



A more long-term strategic risk is in the availability of circular and low-carbon alternatives to traditional building materials. We recognize that we need to reduce the impacts of our construction process, but access to alternative materials is currently limited. Our efforts to improve circularity and reduce Scope 3 carbon emissions due to construction are largely dependent on those alternatives becoming more widely available.

## CONSTRUCTION CIRCULARITY

### CONSTRUCTION UPSTREAMING

One technique that we have used to improve the circularity of our construction practices is through “upstreaming” construction so more of it happens at the manufacturer rather than on the construction site. This seemingly simple change in support of our innovative modular construction techniques means that each manufacturer’s waste stays with the manufacturer, where they can better manage it in bulk. For example, during construction, a process may generate a remnant 5-foot carbon steel pipe. If this fabrication occurred at the construction site, the pipe remnant would most likely end up in the recycling bin since the opportunities to reuse it would be limited. At a high-volume manufacturing facility, however, there are many more opportunities for that pipe section to be used rather than recycled.

### CONSTRUCTION MATERIAL CHOICES

Our construction material choices also provide opportunities to close the loop and contribute toward a circular economy. We are evaluating the potential for recycled content and low-carbon construction materials in addition to other environmentally preferable materials, like low-VOC paints and adhesives. Each choice is another step on the road to circularity and reducing the other environmental impacts of construction.

In 2023, we integrated a variety of sustainability features during the construction of our Northern Virginia (NVA9) data center. 100% of the concrete used in the building included fly ash in the mix, replacing some of the Portland cement. The mix replaced about 20% of the Portland cement with fly ash, which reduced the carbon footprint of the concrete by a similar percentage. Given that cement accounts for approximately 95% of concrete’s total carbon footprint, this alteration marked a substantial improvement. Moreover, our commitment extended to the materials used throughout the facility. The drywall, ceiling materials, wall framing, and grating all incorporate 20–100% recycled content. Furthermore, in our efforts to streamline construction waste management, we successfully recycled 83% of the waste generated during the construction process.

### CONSTRUCTION RECYCLING

Our construction processes focus on reducing the impact of our construction activities on the environment, including site waste management. In Europe, we set strict targets for our General Contractors for the diversion of waste from landfill and to date all our live projects are achieving a minimum of 95% waste diversion through reuse or recycling.

For example, on our Frankfurt (FRA4) development we adopted a Variable Gravel Compaction Pile method to form the main building foundations. A pile casing is driven into the ground and filled with gravel, which is then compacted as the casing is withdrawn. We utilized a mix of materials retained from site demolition and imported recycled aggregates to achieve this, considerably reducing the volume of concrete required to construct the building foundations. After piloting this method at FRA4, we plan to apply the same strategy to our FRA5 facility.

## CIRCULARITY IN FRANKFURT



As a data center operator, the largest portion of our waste is generated through construction. Therefore, construction is an important focus of our circularity efforts. Our upcoming FRA5 facility in Hanau, Germany, sets a good example for thoughtful management of demolition waste.

FRA5 is part of an initiative to breathe new life into a historic neighborhood in Hanau, and the city set strong sustainability requirements for the development. The first step of the project, completed in 2023, was demolition of the existing industrial buildings on the site (see photo above).

Working with local demolition and recycling companies, CyrusOne diverted 94% of all demolition materials from landfill. Eighteen different material types, including scrap wood, masonry, concrete, glass, asphalt, and insulation, were sorted on site and delivered to processing plants in Frankfurt and across the country.

In all, approximately 33 metric tons of materials were recovered for reuse, with a highlight being the 19 cubic meters of timber beams that will be incorporated into FRA5 as exterior signage and seating, bringing a piece of the site’s history into the state-of-the-art facility.

See this [demolition time lapse video](#) for more details.

## OPERATIONS CIRCULARITY

While construction is our major opportunity to contribute towards the transition to a circular economy, we still look for opportunities to improve waste and circularity in our operations.

### PAPERLESS PROCESSES

We have transitioned several of our standard business processes to paperless systems. Two examples with major impacts are our customer contracts system and our commissioning documentation. By transitioning from paper to electronic formats, we are (in our own small way) realizing the potential of dematerialization that data centers can offer to the economy at large.

### GENERAL RECYCLING

As part of our service to customers during their move-in process, we provide recycling for their packaging, such as cardboard boxes. For each facility, this waste generation is highly episodic — we may have a few months of this waste during move-in and then very little for years until the customer upgrades their equipment and generates more packaging. Many of our data centers also offer meeting rooms for customer use, and as part of this service, we offer office recycling of paper and drink containers. This matches the recycling we implement at our US and European headquarters. In 2023, we executed a portfolio-wide waste management strategy across our US portfolio to increase our recycling rates. We have standardized our infrastructure and processes at each facility including bins, labeling/signage, and consolidation.

In 2023, we began a pilot of TRUE Zero Waste certification at our San Antonio (SAT5) facility, which requires the diversion of at least 90% of solid waste headed to landfills and incineration from our campuses and datacenters. At the end of 2023, SAT5 reached a total diversion rate of 89%. In 2024, we look forward to reaching 90% diversion and certifying SAT5.

## BATTERY RECYCLING AND WASTE REDUCTION

The most significant part of our waste stream is the spent lead-acid batteries that power our Uninterruptible Power Supply (UPS) systems. In the event of a power outage, these systems provide a large amount of power capacity for 5-10 minutes as the backup generators come online, ensuring continuous uptime to our customer environments. With the traditional UPS systems in service at the majority of our sites, the batteries must be replaced every 5-7 years and spent batteries are recycled by our battery service provider. In 2023 we recycled around 2.4 million pounds of batteries.

We are also researching how to reduce this waste by upgrading our UPS technology. A pilot project at two New York Metro area data centers replaced our standard lead-acid (VLRA) UPS system with an advanced lithium-ion UPS system. Lithium-ion batteries have a much longer expected lifespan, in part because they do not degrade during power outages as lead-acid batteries do. The lithium-ion batteries' expected lifespan of at least 15 years allows us to build operational resilience while significantly reducing battery waste. These two projects resulted in the diversion of 168,000 pounds of lead battery waste.

We are also keeping an eye on the development of nickel-zinc battery technology, which shows promise as a more stable and power-dense option than lithium-ion, but with a similar long lifespan.

### ELECTRONIC WASTE

While CyrusOne has long recycled its own electronics, in 2022 we implemented a new partnership with AIT Electronic Recycling Solutions to provide electronic waste collection bins for our customers and team members as well. Each CyrusOne facility in the US now has a bin to provide a convenient way for them to properly recycle these materials. In addition to waste

produced at work, customers and teammates can also bring in e-waste from home for recycling, including old computers, printers, keyboards, monitors, etc. In 2023, AIT picked up about 280,000 lbs. of recyclable materials. This new recycling program is a vital part of CyrusOne's Circular Economy efforts to keep valuable materials in circulation and toxic materials out of the environment.

### AIR POLLUTION

We are not a significant generator of major air pollutants since our primary source is our diesel generators used for emergency generation only. To demonstrate the insignificance of our air pollutant generation, we estimated the amount of six common pollutants emitted from our diesel generators during 2023.

These generators are operated under air permits with recordings of run time and fuel inventory. These estimates demonstrate the low levels of emissions from our facilities relative to heavy industrial emitters and why we do not consider air pollution to be a material issue for our reporting.

Air Pollution Emissions (short tons)	
Air Pollutant	2023
NO <sub>x</sub>	247
CO	52
VOCs	10
PM <sub>10</sub>	6
PM <sub>2.5</sub>	4
SO <sub>2</sub>	7

*Scope: Estimated emissions from diesel generators at directly managed facilities.*

### CIRCULAR ECONOMY METRICS AND TARGETS

Here are the primary metrics and targets we use to measure our progress on waste management. For more information about this metric, see [Appendix 2: Primary Metrics](#).

#### TARGET: RECYCLING RATE

As part of our circularity efforts, we have been improving our methods for tracking diversion. We set an internal goal of 40% recycling for non-regulated waste in 2023, and exceeded it by 6%. We will continue to set annual internal goals until we establish a long-term/multi year goal.

#### METRIC: RECYCLING RATE

In 2023, we have gathered centralized waste and recycling records for 48 of our facilities (representing 96% of our directly managed capacity).

Waste and Recycling (short tons)			
Reporting Category	2020	2022	2023
Non-regulated Landfilled	1342	1832	1513
Non-regulated Incinerated	-	10	103
Non-regulated Recycled	260	500	1363
Batteries Recycled	1200	626	1205
Other Regulated	-	0.13	156
<b>Recycling Rate</b>	<b>52%</b>	<b>38%</b>	<b>63%</b>

*Scope: Includes operational waste from facilities directly managed by CyrusOne. Includes non-regulated waste and spent battery recycling.*

### WHERE ARE YOUR SERVERS?

As we described in the [Introduction](#), as a colocation data center operator, we do not own or control the servers of our customers located in our facilities. Rather, these servers are owned, operated, and retired by our customers. This is different from owner-operated data centers — such as those operated by hyperscalers — where they manage both the data center and its servers. Because of the importance of data security, server end-of-life management is managed by our customers so they retain custody of their confidential data. Because of this, the decision to dispose of, recycle, or reuse these assets is entirely up to them. To support our customers, we do offer onsite e-waste recycling services at all US facilities where our customers can choose to deposit their retired assets for recycling by our partner. In addition, we practice e-waste recycling for our own electronic assets, such as teammate laptops and monitors, but this is a small component of our overall waste profile.





# SOCIAL RESPONSIBILITY

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## OUR DUTY

At CyrusOne, we understand that we have a responsibility to act as good corporate citizens. We pride ourselves on our **Core Values** of *Community, Agility, Respect, Enjoyable Workplace, Ethics, and Exceptional Service* (referred to as CAREEE).

### SOCIAL RESPONSIBILITY CATEGORIES

Our social responsibility efforts fall under the following four headings:

- **Responsible Supply Chain:** Because we have a relatively small number of teammates, our supply chain provides us an important opportunity to increase our social impact.
- **Responsibility to Our Teammates:** Our people are our most important resource, and we have a responsibility to promote their well-being and help them grow.
- **Responsibility to Our Customers:** We value our customers and work to deliver exceptional service and keep them safe when they're at our sites.
- **Responsibility to Our Communities:** We strive to build networks of resilience in the communities where we operate.

### SAFETY ACROSS THE VALUE CHAIN

We take seriously our responsibility to promote a safe working environment not only for our employees, but across our value chain. We discuss how we address safety throughout the rest of this chapter. For a summary, you can see our [Health and Safety website](#) or link to the sections below:

- [Contractor Occupational Safety](#)
- [Employee Occupational Safety](#)
- [Customer Safety](#)





## RESPONSIBLE SUPPLY CHAIN

At CyrusOne, we realize that much of our impact and influence on society comes through our supply chain. Our commitment to creating a responsible supply chain means that our ethics extend to 1) our relationship with our suppliers and 2) our suppliers' behavior. We have established practices to set clear guidelines and expectations for a responsible relationship with our suppliers, prevent conflicts of interest, and create mutually beneficial long-term relationships. It is also important to us that our suppliers conform with all applicable human rights standards, labor and employment laws and norms, and environmental regulations and best practices.

CyrusOne's 60 top suppliers, representing more than \$1.5 billion in annual spend, are in the following major categories:

- Architectural and engineering services
- Data center equipment providers
- General contractors (construction)
- Professional services such as payroll, consulting, and legal services
- Security services
- Utilities

### STRATEGY

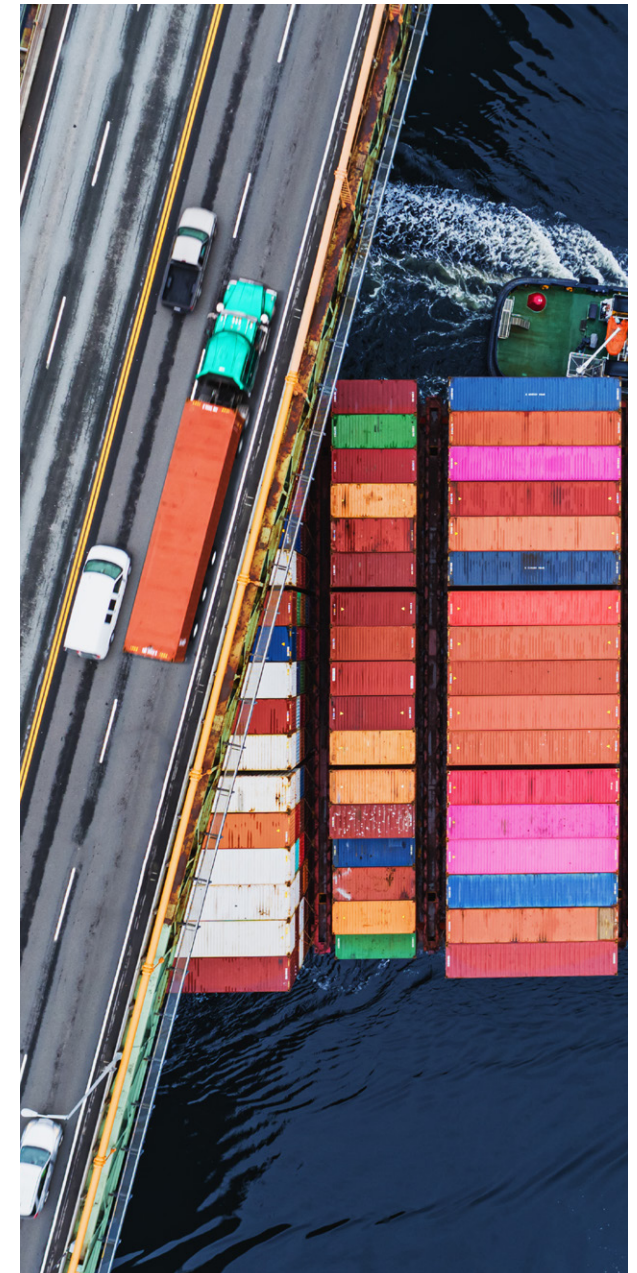
Our strategy to manage a responsible supply chain is to integrate our supplier ESG tools into all stages of the vendor lifecycle:

1. **Vendor Code of Conduct:** To properly communicate our values and expectations, CyrusOne provides suppliers with a comprehensive framework of standards in the form of our [Vendor Code of Conduct](#).

2. **New Vendor Screening and Prequalification:** Our approach to managing risks related to our suppliers is embedded in our initial vendor lifecycle stages. Through these initial stages, we evaluate the ethical standing of our potential suppliers. By applying the standards of our Vendor Code of Conduct to these two steps, we manage the risks that can come from forming partnerships with companies that don't share our values.
3. **Vendor Onboarding and Life Management:** We don't simply "check the box" when our vendors are selected. Instead, we continue the conversation and maintain integrity through our supply chain standards. Long after selection and onboarding, we use these standards as part of our Quarterly Business Reviews with vendors to maintain responsible relationship management.
4. **Vendor Surveys:** We periodically survey our vendors to understand their programs and practices, learn more about the impacts of our supply chain, and help uncover new ways for CyrusOne to have a positive influence on our suppliers.

### VENDOR CODE OF CONDUCT

At CyrusOne, we adhere to our Core Value of commitment to ethical business practices. To reinforce this value, we use a Vendor Code of Conduct to share our standards with our business partners and facilitate ethical and professional relationships. We take the Vendor Code of Conduct seriously and have integrated it as a decision tool across all parts of the vendor lifecycle (see Strategy above).



Our Vendor Code of Conduct can be found on our [website](#) and covers the following topics:

#### Workplace and Business Practices:

- No Bullying, Discrimination, or Harassment
- Human Rights & Dignity
- Health & Safety
- Compensation & Benefits
- Freedom of Association/Collective Bargaining
- Environmental Compliance
- Anti-Corruption & Anti-Bribery

#### Conflicts of Interest:

- Vendor & Supplier Relations
- Business Entertainment, Meals, Gifts, & Favors
- Participation in Purchasing Decisions
- Purchases From Related Businesses

#### HUMAN RIGHTS

Our Vendor Code of Conduct prohibits all forms of slavery, human trafficking, forced labor, and child labor as defined by applicable law. CyrusOne requires that Vendors affirmatively prohibit such human rights violations and adopt policies and procedures which comply with national and local laws on working hours, wages, benefits, and minimum working ages, and are designed to prevent human rights violations with respect to such Vendors' business operations.

All of our Tier I suppliers operate solely in developed democracies (the United States, the United Kingdom, and the European Union) with strong human rights protections, so our risk of human rights issues in our Tier I supply chain is minimal.

#### SUPPLIER DIVERSITY

Diversity, equity, and inclusion within our supply chain is important to us at CyrusOne and important to our customers. To see how we integrate these values into our teammate community, please see [Responsibility to Our Teammates](#). Since we have relatively few teammates for a company with our revenue, our greatest potential contribution to addressing diversity, equity, and inclusion comes from our supply chain.

To track our impact on this important topic, we have set a goal to increase our partnerships with diverse and underrepresented suppliers, such as small businesses, minority-owned businesses, or women-owned businesses. In 2023, we made progress against our goals, reaching our 2024 supplier diversity target a year early (see below).

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**Achievement Unlocked:**  
We met and exceeded our Supplier Diversity target a year early, with 21% of our Tier 1 & 2 US Spend going to diverse suppliers!

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#### CONTRACTOR OCCUPATIONAL SAFETY

Our focus on safety extends to our contractors as well. To help build our relationships with our contractors, in 2023 the US and Europe EHS Teams hosted networking and best practice sharing events for the contractors that we work closely with. These multiday events allowed the EHS Team to learn from and share best practices with our contractors and strengthen our relationships, providing a foundation for better collaboration in the future.

Information about [Employee Occupational Safety](#) and [Customer Safety](#) are covered in other parts of this chapter.

#### CONSTRUCTION SAFETY

Since construction projects pose a higher risk for serious injuries than our everyday operations, supporting the safety performance of our construction general contractors is a top priority. We want to ensure that we not only get the best, but also the safest company for the job. There are three primary components to our Construction Safety Program: Prequalification, Metrics Monitoring, and Onsite Assessments.

#### PREQUALIFICATION

Our process begins with the prequalification phase. To be considered for a project, all general contractors must first qualify by submitting evidence of strong and measurable safety performance. The safety prequalification is conducted by our team of EHS experts and results in the company receiving an overall score. Indicators we review include the level of safety support provided to projects, insurance indicators, injury rates, and evidence of a comprehensive safety program.

**METRICS MONITORING**

Once a construction general contractor is hired for a CyrusOne job, they are given requirements for safety metrics reporting. Safety metrics are to be submitted to the CyrusOne EHS department monthly. These monthly metrics include a blend of both leading and lagging indicators, such as injury rates and unsafe worksite observations. These monthly metrics are aggregated and scored with a minimum score that must be maintained. If a project drops below our target threshold or we identify a negative trend, CyrusOne implements a series of interventions. These interventions are intended to signal concern, ensure alignment on priorities, and lend additional resources to the project as necessary.

**Onsite Assessments**

CyrusOne also engages third parties to perform physical safety audits at our construction sites. The purpose of the third-party audit is to verify the status of the various safety management functions of the project, highlight areas where the general contractor meets or fails to meet minimum requirements, and identify management deficiencies to be corrected. This project safety management audit covers items such as:

- Safety leadership and planning
- Accident/injury prevention and management
- Safety training and communication
- Soft tissue injury prevention
- Safety monitoring and accountability
- General liability exposures and controls

**IF YOU SEE HER, YOU CAN BE HER**



In March 2023, CyrusOne hosted 40 women with experience in the construction industry from Finland, Spain, the UK, and the US for an exciting day of talks, networking, and even the chance to visit our new state-of-the-art data center, Madrid (MAD1). Currently under construction, MAD1 will be a BREEAM 'Very Good' certified facility (the first BREEAM data center in Spain and our first in the country) providing 6,000 m2 of technical space and a total IT load of 18MW.

The event also included a thought-provoking panel discussion with six female industry leaders on the topic of "Forging Inclusive Work Cultures." The panel included:

- Mariana Bonino Álvarez, Commercial Manager, CyrusOne
- Carolina Castro, Project Manager, Quark
- Paula Sánchez, Tender Director, Itercon
- Mirka Campbell, Chair of the Board of Directors, Women in Construction Finland
- Teresa Rey, Health & Safety Project Manager, JLL
- Carmen Peña Sanchez, Senior Cost Manager, Turner & Townsend



The discussion raised a number of important considerations that all companies in the data center and construction industry should be thinking about to drive respectful workplaces in which everyone can thrive.

Events such as this are a celebration of how far we've come and a chance to discuss progress, key learnings, and what's gone well. However, we know there is still a long road ahead of us in achieving equality in the industry, and by openly talking about the challenges we face, we can address these issues head-on and work together to create positive change.



## SUPPLY CHAIN METRICS AND TARGETS

### DIVERSITY METRICS

We measure our supply chain diversity progress by identifying the percentage of our supply chain spend that goes to certified small businesses, minority-owned businesses, women-owned businesses, or other historically underrepresented groups. Companies that are certified to multiple of these criteria are counted in each applicable category. Since the US has certification systems in place for these designations, we started our target there (US business represents 70% of our total spend).

#### TARGET: DIVERSE SUPPLY CHAIN SPEND

Our target is to expand our supply chain spend on small businesses or businesses owned by disadvantaged, women, veteran, minority, or disabled owners to 20% of Tier 1 and 2 US spend by the end of 2024.

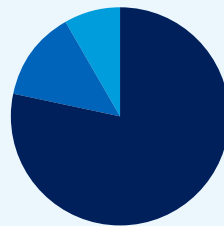
#### METRIC: DIVERSE SUPPLY CHAIN SPEND

We reached and exceeded our 2024 target a year early. As of the end of 2023, businesses owned by disadvantaged, women, veteran, minority, or disabled owners represented 21% of our Tier 1 and 2 US spend.

We also track the breakdown of spending on the different business categories, shown in the chart below. Companies whose owners represent more than one of these categories (such as women veterans) are represented in multiple categories.

### Diverse Supply Chain Percentage

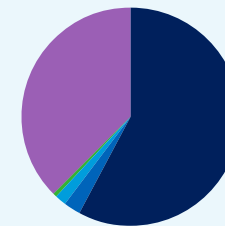
ASSURED



Tier 1 Diverse Spend	13.5%
Tier 2 Diverse Spend	8.1%
Remaining US Spend	78.3%

### Diverse Supply Chain Distribution

ASSURED



Small	58.0%
Woman	2.5%
Disadvantaged	1.7%
Minority	0.3%
Veteran	0.0%
Tier 2 Mixed Designations	37.5%

\*The charts above contain data from October 1, 2022 – September 30, 2023 in order to capture a full 12-months.



### CONTRACTOR SAFETY METRICS

These metrics represent CyrusOne’s global reporting for construction contractors and operations contractors (i.e., facility management and security). Definitions for each metric can be found in [Appendix 2: Primary Metrics](#).

#### METRIC: CONTRACTOR INJURY INCIDENTS

These metrics indicate the total count of injuries, categorized by severity. In 2022, we expanded our EHS team to include a Health and Safety Construction Manager for our Europe construction projects. The expansion of the team, along with growth in construction projects, resulted in an increase in reported incidents. This increase in construction projects is represented as an increase in Total Hours Worked used to calculate our injury rates (below). So while the total count of construction-related injuries increased in 2022, when normalized as a incidents per 200,000 hours worked, the rates actually decreased.

#### METRIC: CONTRACTOR INJURY RATES

These metrics normalize the injury incidents metrics to the amount of work performed that year to arrive at an injury rate. This is shown below as the performance metric per 200,000 hours worked (the number of hours typically worked by a full-time employee in a year, commonly used for US OSHA reporting).

Contractor Injury Incidents: Construction <span>ASSURED</span>			
Incident Counts	2021	2022	2023
Number of Fatalities	0	0	0
Number of Total Recordable Cases	6	12	15
Number of Total Lost Workday Cases	3	5	5
Number of First Aid Cases	15	45	47
Number of Near Miss Incidents	33	89	27

*Scope: Includes both US and European construction contractor data.*

Contractor Injury Incidents: Operations <span>ASSURED</span>			
Incident Counts	2021	2022	2023
Number of Fatalities	0	0	0
Number of Total Recordable Cases	6	3	2
Number of Total Lost Workday Cases	2	3	1
Number of First Aid Cases	3	6	16
Number of Near Miss Incidents	1	0	6

*Scope: Includes data for US facility management and US and European security. European facility management is performed by employees, and therefore included in employee safety metrics.*

Contractor Injury Rates: Construction <span>ASSURED</span>			
Incident Rates (per 200,000 hours worked)	2021	2022	2023
Total Hours Worked	771,358	2,814,871	2,896,403
Lost Time Injury Rate	0.78	0.36	0.35
Total Recordable Incident Rate (TRIR)	1.56	0.85	1.04

*Scope: Includes both US and European incidents.*

Contractor Injury Rates: Operations <span>ASSURED</span>			
Incident Rates (per 200,000 hours worked)	2021	2022	2023
Total Hours Worked	1,397,611	1,322,843	1,569,862
Lost Time Injury Rate	0.29	0.45	0.13
Total Recordable Incident Rate (TRIR)	0.86	0.45	0.25

*Scope: Includes data for US facility management and US and European security. European facility management is performed by employees, and therefore included in employee safety metrics.*

## RESPONSIBILITY TO OUR TEAMMATES

At CyrusOne, we aim to be a preferred employer and neighbor. We are committed to having a positive social impact on the communities we serve, attracting great talent, and building diverse and inclusive teams. In doing so, our efforts are focused on creating a culture of belonging, ensuring the health and safety of our teammates, and providing a work environment that promotes career development and community. We recognize that our 600+ teammates are the foundation of CyrusOne and that we are stronger when we grow together. Our leadership strives to give each teammate what they need to thrive in their careers, grow, and contribute at their highest potential. We aim to be an employer of choice, with passionate, innovative, and fully engaged teammates. All our teammates operate solely in developed democracies (the United States and Western Europe) with strong human rights protections, so our risk of human rights issues related to employment is minimal.

### TEAMMATE ENGAGEMENT

Our company culture fosters an environment of inclusion, engagement, honesty, respect, and growth. Listening to our teammates, collecting their feedback, and identifying ways to improve the teammate experience helps to strengthen our culture. In 2023, more than 68% of our teammates participated in our Employee Engagement Survey, which resulted in [Top Workplaces 2023 Awards](#) for Cultural Excellence, Employee Appreciation, Employee Well-Being, and Professional Development. Based on employee surveys, CyrusOne was named a Top Workplace in the Technology Industry in 2023, a Top Workplaces DFW Regional Winner in 2023, a 2024 Top Workplaces USA Winner, and was certified as a 2024 Great Place to Work in the UK.

## EMBRACING DIVERSITY, EQUITY, AND INCLUSION

We can most effectively support and serve our diverse customer base with a diverse and inclusive team. Our diverse workforce is a reflection of a changing world and marketplace that recognizes that there are many ways of seeing the world, solving problems, and working together. Our goal is not simply to create diverse representation within our employee population, but also to nurture an environment where all workers are treated equally and have opportunities to connect, belong, and grow. Diversity, Equity, and Inclusion (DEI) is a business imperative that helps us build and empower our future workforce while also doing our part to address societal challenges.

The pillars of our DEI strategy focus on:

- Shaping and nurturing a culture that embraces and values a diverse team
- Attracting, recruiting, and hiring diverse talent
- Onboarding, developing, and retaining diverse talent
- Community engagement to support diversity within our workforce

We recognize that proactive leadership is imperative in moving the needle concerning racial equality and social justice. Our employee-led Community, Agility, Respect, Enjoyable Workplace, Ethics, and Exceptional Service (CAREEE) Group opens channels of communication across our company and creates an environment where listening and understanding different perspectives promotes a culture of increased awareness.



## TEAMMATE RESOURCE GROUPS

Employee-led groups are an important aspect of helping us create a diverse and inclusive work environment and helping teammates find ways to connect, belong, and grow. We recognize that a key area of opportunity for CyrusOne is increasing talent acquisition and improving development opportunities for women. In 2023, we relaunched our Women’s Resource Group (WRG) as the Women’s Initiative Network (WIN) to cultivate an inclusive environment that supports and encourages women to advance their skills and leadership potential through connection, networking, mentorship, collaboration, and discussion. Additionally, WIN will feature guest speakers and sponsor events that encourage career development. The WIN team is sponsored and chaired by four senior female leaders, including our Chief Customer Officer. The team also includes six female ambassadors from various internal departments.

In 2023, WIN organized a Dress for Success donation event. Dress for Success is a non-profit that provides women in Dallas with the tools for financial independence. WIN aided this mission by organizing the donation of gently used professional clothes that women can shop for and use for successful interviews and securing employment opportunities.

## INTERNSHIP PROGRAMS

CyrusOne has a long history of supporting internship opportunities for underrepresented groups to help individuals develop business and technology skills and build careers in the data center industry. These programs also help CyrusOne attract and recruit a more diverse talent pool.

In 2023 CyrusOne hosted eight interns through the AFCOM Potomac Chapter Summer Internship Program. These interns spent ten weeks in our Operations Department at our Northern Virginia facilities.

## WALKING THE GREEN WALK AT HQ

While our data centers often steal the spotlight for sustainability, we also extend our efforts to our headquarters in both Dallas and London. We discussed our London office sustainability program in last year’s report, so we’re focusing on Dallas here.

Situated in the vibrant Harwood District, our Dallas headquarters spans the upper three floors of a 22-story building. Since we share this building with many other businesses, we consider our impact based on the square footage we occupy and our employee count.

Here is how we approach our sustainability pillars at our Dallas HQ:

- **Carbon:** Just as we procure carbon-free electricity for our data centers, our Dallas HQ is powered by 100% solar electricity. We also have energy saving technology that aids us in reducing our demand for electricity including Energy Star appliances, LED lighting with timers and motion sensors, and a Building Energy Management System.
- **Water:** Being in an area of high-water stress, we restore 120% more water to the regional watershed than we use, making our office net water positive. Energy Star dishwashers with sensors also aid in minimizing water usage.
- **Biodiversity:** The BEF Water Restoration Certificates® we purchase for our *net positive water* program also improve wildlife habitats in and around the nearby San Saba River.
- **Circularity:** We have recycling available throughout our office complemented with informative infographics to facilitate correct recycling practices. Dishwashers promote the use of durable cups and utensils, and paperless processes are the norm.

In 2024, we will explore additional opportunities such as transitioning away from single-use dishware, implementing composting to minimize landfilled food waste, and sponsoring native gardens at employee’s homes. Additionally, we continue to foster employee involvement in our sustainability efforts through activities such as local park clean-ups (see photos) and educational sessions.



### COLLECTIVE BARGAINING

CyrusOne recognizes the right of teammates to participate in collective bargaining if they desire. As of 2023, no CyrusOne employees are represented by an independent trade union or covered by collective bargaining agreements.

### ENSURING A HARASSMENT- AND DISCRIMINATION-FREE WORKPLACE

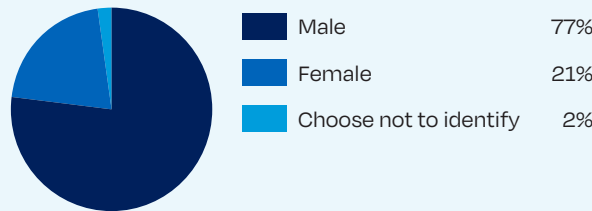
Congruent with our company values and our policy against harassment and discrimination in the workplace, we aim to maintain a work environment free from all forms of harassment and retaliation. We affirm the fundamental principle that everyone is entitled to fair treatment and equal opportunity without discrimination on the basis of any characteristic such as race, ethnicity, color, nationality, gender, sexual orientation, gender identity, age, language, religion, creed, social status, or disability. We expect a workplace where customers, teammates, suppliers, business partners, visitors, and shareholders are treated with dignity, respect, and courtesy. All teammates are provided with transparent, respectful, and confidential avenues to bring forth concerns or workplace misconduct, including a 24/7 ethics and compliance helpline. The law and CyrusOne's policies prohibit disparate treatment on the basis of sex or any other protected characteristic, with regard to terms, conditions, and privileges of employment.

### WORKFORCE METRICS DISCLOSURE

We use our metrics to track progress toward achieving our strong goals for racial and gender equity and inclusion. Our talented team boasts an average tenure of 4.3 years and experienced a 9% voluntary turnover rate in 2023. The graph below contains workforce metrics as a snapshot in time as of September 30, 2023.

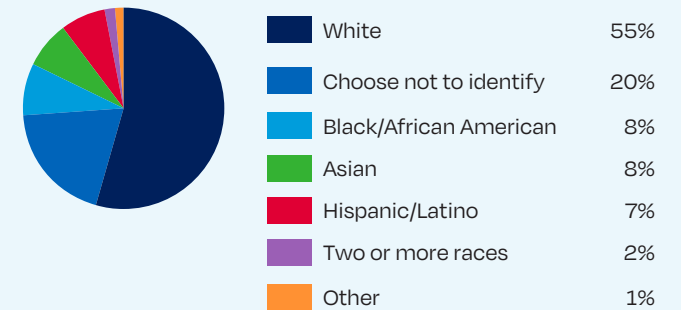
#### Global Gender

ASSURED



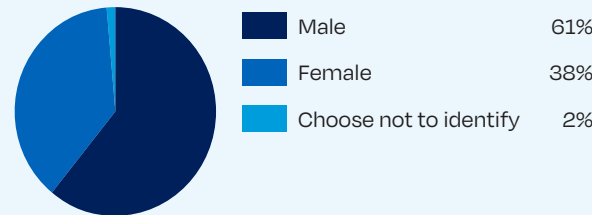
#### Global Race and Ethnicity

ASSURED



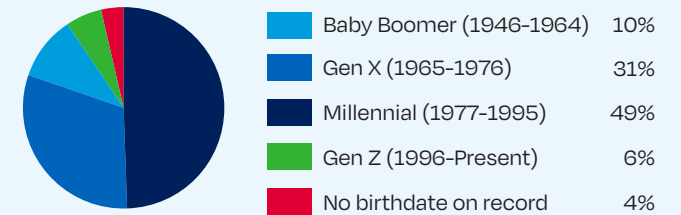
#### Gender at Corporate HQ (Dallas & London)

ASSURED



#### Global Generations 2022

ASSURED





## HUMAN CAPITAL

One of the ways we grow our company is by attracting, developing, and retaining talent. This section lists our efforts to offer competitive, modern benefits, and provide training and development opportunities.

### TEAMMATE COMPENSATION AND BENEFITS

CyrusOne offers a Total Rewards package that is market competitive and performance-based, including salaries, bonuses, and a wide range of benefits to support our teammates and their families' health and well-being, including:

- Medical, Dental, and Vision Coverage
- Life & Accidental Death & Dismemberment (AD&D) Insurance
- Retirement Savings Plan (401k) with Company Match
- Parental Leave
- Employee Assistance Program
- Health Savings Account/Flex Spending Account
- Telemedicine
- Short- and Long-Term Disability Insurance
- Fifteen Paid Holidays and a Volunteer Day
- Paid Time Off and Sick Leave
- Flexible Work Schedule

### ESG-BASED COMPENSATION

As our teammates have become more informed and educated in all areas of corporate sustainability, we have integrated sustainability metrics into our annual cash bonus, including progress on carbon-free electricity, water, biodiversity, recycling, safety, engagement, diversity & inclusion, and transparency.

### OUR COMMITMENT TO PAY EQUITY

CyrusOne believes that our teammates should be paid fairly and equitably, regardless of their gender, race, or other personal characteristics. We benchmark and set pay ranges based on market data and consider factors such as an employee's role, location, and performance. Our teammates receive annual compensation reviews where base, bonus, and long-term incentives are all considered.

### TEAMMATE TRAINING AND DEVELOPMENT

We are committed to helping teammates reach their full potential and strengthen technical, professional, and leadership skills at every level throughout their careers. We focus on developing our teams through onboarding and assimilation training, ongoing education, experiential learning, and ongoing performance feedback.

Our learning management system also provides our teammates with more than 800 courses on a vast array of topics that can assist them with their ongoing professional development. This online tool includes our mandatory annual compliance training courses, which focus on topics including data protection, HIPPA privacy, emergency response plans, ethics and values, code of conduct, and Diversity, Equity, and Inclusion (DEI). In 2023, our teammates spent more than 2,600 hours completing online training. For detailed lists on specific training topics, please see the [Ethics](#), [Data Protection](#), [Business Continuity](#), and [Employee Occupational Safety](#) sections of this report.

Our leadership team reviews the performance and potential of our team each year as part of our "Talent Day" process, which includes succession planning within our organization and professional development plans for our talent.



## EMPLOYEE OCCUPATIONAL SAFETY

At CyrusOne, we view the health and safety of our teammates as a fundamental value. Eliminating injuries requires teamwork, focus, and a continuous improvement mindset. We have aligned our practices with ISO 45001 international safety standards with six areas of focus: leadership and worker participation, planning, support, operation, performance evaluation, and improvement.

CyrusOne takes a methodical, systems-based approach to health and safety, which has resulted in world-class performance, including high productivity, high employee morale, low injury rates, low worker's compensation costs, and a low average cost of injury.

Information about our efforts to improve [Contractor Safety](#) and [Customer Safety](#) are covered in other parts of this chapter.

## STRATEGY

CyrusOne understands that as an employer, we have a duty to our teammates to create and invest in a workplace that is free from recognized hazards. At CyrusOne, we live by our CAREEE core values. As seen in these core values, we are here to improve the lives of our teammates, our communities, and our other stakeholders.

Creating a safe workplace is not only the right thing to do, there is also a business case for safety as it saves the company money by lowering workers' compensation and medical expenses, avoiding regulatory penalties and citations, and avoiding potential lawsuits. We also recognize that when teammates are working in an environment that is free from hazards, they are less likely to leave to find employment elsewhere and will be more productive at work.

All in all, we are "Safe by Design" and strive to protect and improve the health, safety, and well-being of all our teammates through our health and safety program.

## RISK MANAGEMENT

As a company, we aim to achieve excellence in our health and safety program and performance through several layers of risk management and planning: our written EHS programs; training; assessments/audits; hazard recognition, evaluation, and control; and incident management.

## WRITTEN PROGRAMS

CyrusOne has a wide range of written EHS Programs that serve as the backbone of our successful EHS performance. These programs help ensure that we not only follow regulatory standards, but that we also have plans in place to go above and beyond such standards. Our written programs are reviewed at least annually to make sure they are kept up-to-date. For a detailed list of our written EHS programs and additional information, please see our [Health & Safety website](#).

## TRAINING

CyrusOne takes pride in our EHS training program. Along with on-the-job training, our online training courses follow best practices and local standards. In 2023, we implemented a global EHS training program to ensure both our US and European teammates are assigned relevant EHS trainings. New training courses are available monthly and we work to ensure 100% of our teammates complete the trainings. Our EHS training program is continuously improving to ensure the information provided in these courses is up-to-date, comprehensive, and relevant to the job being performed. For a list of EHS training topics and additional details on our training program, please see our [Health & Safety website](#).

## HAZARD RECOGNITION, EVALUATION, AND CONTROL

To prevent incidents from occurring and to maintain a safe working environment, recognizing, evaluating, and controlling hazards is of utmost importance. Our two primary tools for this are our Job Hazard Analysis (JHA) and Near Miss programs, which undergo continuous improvement to ensure effectiveness.

- **Job Hazard Analysis (JHA) Development:** Our JHA program allows for hazards to be properly identified and helps to ensure that steps or procedures are put into place to mitigate such hazards. With potential hazards being mitigated through JHAs, many incidents and near misses can be avoided. Our JHAs are continually reviewed and expanded to ensure that the information remains up to date for the tasks performed by our teammates.
- **Near Miss Program:** Our Near Miss Program helps to proactively identify potential hazards before an injury event occurs. Available to all CyrusOne teammates, this program allows for near misses to be easily reported and documented online. In analyzing and correcting near misses, we can identify areas that need improvement and prevent incidents from occurring.

## INCIDENT MANAGEMENT

All EHS related events are reported and documented, whether it is an injury, environmental event, property damage, or a general liability case. All stages of the incident investigation process are fully documented through our enterprise safety information management system. For more details on our Incident Management process, please see our [Health & Safety website](#).

### FACILITY ASSESSMENTS

To ensure facility compliance, each of our data centers undergoes an annual in-depth EHS assessment led by our team of experts. Conducting these assessments annually allows us to see the progress and progression in our data centers when it comes to overall EHS performance. These assessments help to ensure that our facilities are both in compliance with local standards, such as 29 CFR 1910, and follow all CyrusOne's health and safety programs and policies. This also is in alignment with the ISO 45001 "Plan Do Check Act" cycle, giving us the ability to check our performance and act to improve it. Not only do we conduct our assessments to confirm compliance, but these assessments serve as an opportunity to discover best practices that can be shared across the company. To learn more about our assessment process, please visit our [Health & Safety website](#).

### EMPLOYEE SAFETY METRICS AND TARGETS

These metrics measure the health and safety outcomes for all CyrusOne teammates. A description of each metric and formula is found in [Appendix 2: Primary Metrics](#). Metrics for contractors can be found in the [Contractor Safety](#) section.

#### METRIC: EMPLOYEE INJURY INCIDENTS

These metrics indicate the total count of injuries categorized by severity.

#### METRIC: EMPLOYEE INJURY SEVERITY

These metrics indicate the severity of the metrics reported above, as measured by how many days an employee spends away from work recovering or on restricted duty to allow healing at work.

#### METRIC: EMPLOYEE INJURY RATES

These metrics normalize the metrics above to the amount of work performed that year to arrive at an injury rate. This is shown as the performance metric per 200,000 hours worked below (the number of hours typically worked by a full-time employee in a year, commonly used for US OSHA reporting).

#### METRIC: CHEMICAL SPILLS

These metrics indicate the spills of chemicals (including fuels) that could impact local health or the environment.

Chemical Spills			
Performance Metric	2021	2022	2023
Reportable Spills with Environmental Impact	0	0	0
Reportable Spills without Environmental Impact	0	0	0

*Scope: Includes major spills that require reporting to local agencies, whether they resulted in environmental impact or not.*

Employee Injury Incidents			
Performance Metric	2021	2022	2023
Number of Fatalities	0	0	0
Number of Total Recordable Cases	4	2	2
Number of Lost Workday Cases	1	2	1
Number of Restricted/Transfer of Duty Cases	3	0	1
Number of Other Recordable Cases	3	0	1
Number of First Aid Cases	1	2	3

*Scope: All global CyrusOne employees, including full- and part-time employees.*

Employee Injury Severity			
Performance Metric	2021	2022	2023
Number of Days Away from Work	36	68	2
Number of Restricted/Transfer Duty Days	116	163	0

*Scope: All global CyrusOne employees, including full- and part-time employees.*

Employee Injury Rates			
Incident Rates (per 200,000 hours worked)	2021	2022	2023
Total Hours Worked	911,990	970,676	1,166,411
Lost Time Injury Rate	0.22	0.41	0.17
Days Away Restricted or Transferred (DART) Rate	0.22	0.41	0.17
Total Recordable Incident Rate (TRIR)	0.88	0.41	0.24

*Scope: All global CyrusOne employees, including full- and part-time employees.*

## RESPONSIBILITY TO OUR CUSTOMERS

CyrusOne is a trusted partner to the world's leading companies and we work with each of our customers to improve their operations, economic performance, and sustainability goals. Our responsibility to customers begins with delivering a great product with great customer service. However, since we are part of our customers' supply chains, we recognize we also have a responsibility to help them move their sustainability and social goals forward while ensuring their safety while they are at our facilities.

### CUSTOMER SAFETY

Just as we prioritize the safety of our teammates (see [Employee Occupational Safety](#)) and partner with contractors to work safely at our sites (see [Contractor Safety](#)), our focus on safety extends to our customers who share our colocation spaces. To provide shared guidelines, we've developed a [Customer Safety Handbook](#). This Handbook outlines general safety rules, as well as topic-specific considerations, such as safe ladder use, electrical safety, fire prevention, and material handling. These rules all have one thing in common: they are there for the safety of all who work in or operate our data centers.

In 2022, we created a [safety video for customers and visitors](#) to view prior to visiting or working in our data centers. As there are various safety hazards in data centers, CyrusOne wants to ensure that all customers and visitors are well-informed of these hazards and how they can stay safe when visiting or working in our facilities. The safety video highlights general safety information and best practices for customers and visitors to follow when inside our data centers.

## CUSTOMER SATISFACTION

At CyrusOne, we put the experience of our customers at the center of everything we do. Our highly responsive team is committed to providing a trusted layer of service and counsel, and we collaborate with our customers to co-create the right solutions to meet their specific needs. One of the foundations of our approach is listening to and acting on client feedback. Our approach consists of:

- 1. Surveying customers for feedback:** We regularly survey our customers for feedback on our service and support and occupant comfort at our facilities, among other topics.
- 2. Investigating and resolving issues:** When customer feedback identifies an issue, we take steps to investigate the root causes and make improvements to address the issue.
- 3. Communicating progress:** We follow up with customers on the improvements we make and to demonstrate their feedback is valued.

In addition to our regular ticket-based satisfaction surveys, our last comprehensive customer survey was conducted in 2021. During this survey, more than 2,300 individuals were invited to provide feedback to CyrusOne on aspects including account management, billing and invoicing, facility operations, our Global Service Desk, physical security, and service delivery. This portfolio-wide survey generated valuable insights from 162 of our customer accounts.

## SPECIAL DELIVERY



### Updated Customer Sustainability Reports

Last year we debuted customized Customer Sustainability Reports which detailed each customer's portion of our major

environmental impacts, such as energy use, carbon emissions, and water consumption. To help our customers prepare for upcoming SEC, California, and European reporting requirements, these reports were sent for the first time in January 2023 covering data from calendar year 2022 and included a single page of information for each of our facilities in which a customer operates.

In 2024, we expanded the report to two pages to accommodate waste data – an addition requested by many customers. With the added space afforded by a two-page report, we also included information on the biodiversity certification status of their facility as we pursue the goal of upgrading habitat to support local wildlife at all of our data centers. In addition, for those customers who receive renewable electricity offerings at our facilities, we added automatically-generated Letters of Attestation to verify their Renewable Energy Credits (RECs) for the supplied green power. Altogether, we sent out more than 600 reports totaling close to 2,000 pages, providing customers with the highly granular detail needed to improve their own ESG reporting and management. By leveraging expertise in both sustainability and software, we're helping to improve transparency and accountability not just for us, but for 600 other companies as well.

## RESPONSIBILITY TO OUR COMMUNITIES

We manage more than 55 data centers around the world. Each one of them operates within a local community, where we do business and where our teammates live, work, and raise their families. While we are a global company, we must also think locally, taking responsibility to positively impact the communities where our facilities are located. When we take time to volunteer, contribute to a local organization, or just meet with our neighbors and get to know each other, we are contributing to the overall wellness and connectedness of our communities.

### STRATEGY

#### BUILDING NETWORKS OF RESILIENCE

At CyrusOne, building resilience into our business is a core competency of our teammates and crucial to our success. We believe we have a great deal to contribute by extending our efforts outward into our local communities.

Specifically, we intend to develop volunteering and giving initiatives and target our philanthropic support in three specific areas where we can help build Networks of Resilience:

1. **Building a resilient workforce:** To give our teammates and contractors the support and inclusive environment they need to adapt to changing business and world conditions, and to nurture new talent through internships and training programs.
2. **Building resilient community networks:** To help our communities weather unexpected shocks and downturns, such as those that have been impacted by natural disasters or are facing food insecurity.
3. **Building resilient ecological networks:** To give communities (both human and wildlife) access to water and a healthy, biodiverse habitat and to minimize the effects of climate change.

## COMMUNITY ENGAGEMENT

### BEING A GOOD NEIGHBOR

We recognize that our operations can have both positive and negative impacts on the communities in which we operate. While we strive to make an overall positive impact, at the bare minimum, we seek to do no harm. We listen to our neighbors and community stakeholders, and take action on their feedback if and when our operations are affecting their lives. When we get complaints, such as for noise coming from our operations, we make it a point to engage with neighbors rather than retreating behind the letter of the law. We listen to their point of view and then work to remedy issues so we will continue to be welcome members of the community.

### TEAMMATE GIVING AND VOLUNTEERISM

Community is central to our company CAREEE core values. We believe in giving back to the communities in which we do business. Each year, our teammates are provided eight paid hours for volunteering within their respective communities. Through company-sponsored events and on their own, many of our teammates make time to work alongside our neighbors to make the community a better place.

This year, CyrusOne teammates participated in several events to support the Community Partners of Dallas (CPD), a nonprofit that addresses the needs of abused children. They packed school supplies and backpacks for students in the Dallas Independent School District and supported the annual Toy Drive, among other events. Additionally, CyrusOne employees continued the tradition of celebrating Earth Day by participating in a park clean up at Reverchon Park in Dallas.



**CORPORATE GIVING**

Every year, CyrusOne and its teammates support a variety of charities and organizations across the country, including partnerships, fundraising and food drives with North Texas Food Bank and Houston Food Bank. CyrusOne is also involved with the Knowledge is Power Program, Carry The Load, Girl Scouts of the USA, Midtown Educational Foundation, Light The Night Cincinnati, Girlstart – STEM Education, Katy Trail 5K, March of Dimes, Big Brothers Big Sisters Community Partners of Dallas, Cotes de Coeur (American Heart Association) and Relay For Life.

Some highlights of our past corporate giving include:

- **The CyrusOne Leadership and STEM Achievement Scholarship** at Allen High School in Allen, Texas: This scholarship is awarded to students who have demonstrated strong academic and leadership skills, and are planning a career in a STEM-related field.
- **Louden County Toys for Tots:** CyrusOne donated 10,000 square feet of office space for storage and distribution for the Loudoun County Toys for Tots 2023 toy drive.
- **Data Center Coalition Blood Drive:** CyrusOne team members joined with others in our industry to roll up our sleeves for the #DataCentersSleeveUp blood drive campaign, organized by the Data Center Coalition.
- **Slough Foodbank:** Our London area team members joined with Phoenix ME Limited to make regular donations of food to the Slough Foodbank.

**OPENING DOORS TO THE FUTURE**

CyrusOne is committed to sharing our knowledge to inspire the next generation of data center professionals. But due to security requirements, the doors to data centers are usually closed to the public. In pursuit of this sharing, our London (LON1) facility hosted two different groups of students for behind-the-scenes insight into the daily operations of a working data center.

Seven engineering students and their teachers from the Digital Futures program at our partner school UTC Heathrow were inspired by the opportunity to see server racks, backup generators, and massive chillers up close, with a CyrusOne engineer to explain how it all fits together.



Summing up the day, one of the visiting students, Yaseen, said: "I found the trip to be fascinating because of the orderliness of such a complex operation. Everything was so under control to the point where any issue they have is predictable and resolvable in seconds, if not minutes, and I found this to be an inspiration for how I should maximize efficiency in my day-to-day life. I was surprised to see how relaxed everyone was given that if the servers were to go down it would cost them thousands of pounds, but I think they are so organized that they never need to worry!"

LON1 also partnered with HireHigher to host more than 40 sixth form students (ages 16 to 18) for a day of workshops with industry professionals and a tour of the facility. Steve Hayward, VP European Operations, CyrusOne says, "We feel truly privileged to have had the opportunity to open up our data centers to this remarkable group of students and their teachers. We get as much out of our interaction with students as they do from us – their bright young minds will shape the future of our industry – it's essential we listen and learn from them. We very much look forward to supporting the Rising Stars on future projects."



# APPENDICES

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## APPENDIX 1: METHODOLOGY

### MATERIALITY ASSESSMENT

#### PROCESS

We surveyed representatives of the following stakeholder groups:

- Internal departments, including:
  - Energy origination
  - External Affairs
  - Finance
  - HR
  - Legal
  - Marketing
  - Operations
  - Sales
- Key customers
- Private equity ownership groups

Stakeholder representatives were asked to rate each topic on a scale of 1 to 5 (1 being low impact, 5 being high impact) on two scales:

1. **Impact Materiality:** Our industry's impact on the world
2. **Financial Materiality:** The world's impact on CyrusOne's success

As a general scale, Financial Materiality (the world's impact on CyrusOne's success) was rated based on a rough value of financial impact in USD per year, either through direct expense, lost opportunity, increased sales, or other impact:

1. \$10,000 of financial impact per year
2. \$100,000 of financial impact per year
3. \$1,000,000 of financial impact per year
4. \$10,000,000 of financial impact per year (~1% of Revenue)
5. \$100,000,000 of financial impact per year (~10% of Revenue)

#### STAKEHOLDER EXPERTISE

Not all stakeholder representatives were asked to rate all topics. The Sustainability team determined which representatives had exposure to or expertise on each topic, prioritizing topics of direct exposure or expertise or where we strongly value a particular stakeholder's input. For example, representatives from HR were not asked to rate our industry's impact on environmental topics, because they do not have that expertise, but they were key experts on several social topics.

#### AVOIDING SELF-REPORTING

As part of the structure of this assessment we tried to avoid asking a company function how important their own function is (such as asking the Safety department to evaluate the importance of Occupational Safety to external stakeholders). Instead, we asked functions that had the most exposure to external stakeholders (such as Sales or External Affairs) to evaluate the topic.

For some topics, however, this was unavoidable due to topics where few members of the company have exposure or expertise.

- HR evaluated Working Conditions and Talent Development
- External Affairs and Marketing evaluated Community Engagement
- Finance evaluated ESG Finance
- Board ESG Committee evaluated Corporate Oversight

For each of these self-reported topics, the self-report was always the highest score for that topic. This is why we performed the Sensitivity Testing (see below) to see if these results were durable past the self-reported evaluations.

#### COMBINING SCORES AND SENSITIVITY TESTING

Once we collected each representative's scores, we then needed to combine them to make an aggregate score for Financial and Impact materiality for each topic. We then conducted a sensitivity analysis to see the effect of outlier scores on the overall score by evaluating the top 3 scores for each topic. For example, there were some topics where the top 3 scores were {5, 5, 5} demonstrating a clear consensus of the importance of the topic. But in other topics, the scoring was less consistent in a broad range, such as top 3 scores of {5, 5, 4} or {5, 3, 2}. For ease of presentation, we wanted to represent this as a single score, so we discounted the adjusted score by 0.2 points for each point of lower score in the 2nd and 3rd highest scores.

For example, {5, 5, 5} would have an adjusted score of 5.0 (no discount), but {5, 5, 4} would have an adjusted score of 4.8 (0.2 discount for the 4 being 1 lower than the rest). A {5, 3, 2} would have a steeper discount since the second and third highest scores were 2 and 3 points lower than the highest score (5 points x 0.2 discount = a 1.0 discount) arriving at a 4.0 adjusted score.

This method was used (as opposed to taking a mean or median score) to anchor high scores as high on the understanding that if it's highly impactful to at least one function or stakeholder, then it's impactful to the whole company. But it also provides some distinction between a topic that is highly impactful to multiple functions or stakeholders versus one that is impactful to a single group.



## CLIMATE RISK

### FUTURE FLOOD RISK ASSESSMENT

#### US PROPERTIES

All US properties were assessed with the [Risk Factor Tool](#). Based on the property's address, the tool issues a score of 1-10 (10 being the maximum risk) indicating the probability of a flood occurring and the depth of the flooding (i.e., a higher score indicates that the property is either more likely to flood, the flood height will be higher, or both). A full description of its methodology can be found [here](#).

If the tool was unable to locate the property from its address, we used a nearby location. These locations were never more than a couple of buildings away or across a road.

Scores of 1-3 were categorized as *low* risk, scores of 4-6 as *medium*, and scores of 7-10 as *high* risk.

#### UK PROPERTIES

All UK properties were assessed using UK government [Flood Risk Tool](#). The tool assesses an area's flooding risk from rivers and sea as well as from surface water. Reported risk is a function of the probability of flooding and the consequences of flooding (be that environmental, economic, human health, etc.). The tool's full methodology can be found [here](#). All UK properties scored low or very low in both flooding risk from rivers and sea, as well as from surface water, and were therefore included in the report's low risk bucket.

#### REMAINING PROPERTIES

The remaining properties were evaluated using country-specific reports and tools. The Amsterdam property was assessed with this [governmental report](#). The Dublin property utilized this [online tool](#). The Frankfurt properties utilized this [study](#) from 2010 and this [study](#) from 2016. For each of these properties, the method was unable to tie a level of risk with a particular address. Rather, the general location of the property (often the city or region) was used to match the granularity of the study. All of these sites were in the low categories of risk from their respective evaluation and were therefore included in the report's *low risk* bucket.

### CARBON PRICING RISK ASSESSMENT

We analyzed the effects of carbon pricing on CyrusOne's operations based on the International Energy Agency's 2021 publication "NetZero by 2040 – A Roadmap for the Global Energy Sector." In it, IEA suggests an evolving schedule of carbon prices to assist countries in meeting their Paris accord commitments, as shown below.

- 2025: \$75/ MTCO<sub>2</sub>e
- 2030: \$130/ MTCO<sub>2</sub>e
- 2040: \$205/ MTCO<sub>2</sub>e
- 2050: \$250/ MTCO<sub>2</sub>e

It is highly unlikely that a carbon tax would be levied directly on CyrusOne; instead, it will likely increase the cost of energy and raw materials. We analyzed the impact of these increases on CyrusOne's business activity, including both facility construction and operations. We then applied these impacts on a per-facility basis to compare the potential energy price increases to each facility's current electricity price. Then, we considered the different styles of customer contracts to understand, at the facility level, how much the carbon price would affect (1) our direct expenses, and (2) our competitive position (by passing through to our customers). This per-facility analysis also gave us a way to calculate the benefit of new carbon-free electricity contracts in reducing carbon pricing risk.

## ENERGY

### ENERGY SOURCE SCOPING

Our operational energy-use calculations include four sources:

1. CyrusOne electricity for IT equipment support and common areas
2. Customer electricity for their IT equipment in our data halls
3. Natural gas for comfort heating (only used at some facilities)
4. Diesel for emergency backup generation at all facilities

These data are combined into a common unit, kWh (using standard conversion factors for natural gas and diesel from the European Framework Initiative for Energy & Environmental Efficiency in the ICT Sector). The energy-use data in this report covers all global facilities where we exercise operational control. Facilities that we do not include are those operated by our customers (such as San Antonio (SAT4)) or the few leased facilities where we do not have operational control (such as our HQ office suites). We anticipate that all directly managed facilities built in the future will be included in our scope of operational control, and we will clearly state any exceptions to this rule.

### ENERGY INVENTORY

The table below summarizes how we group different energy types into our metrics.

ENERGY INVENTORY CATEGORIES	
Fuels	
Non-renewable	Diesel (1 US gallon = 40.8 kWh) Natural gas (1 therm = 29.3 kWh) Hydrogen from nonrenewable sources
Renewable	Biodiesel, renewable diesel, biogas, green hydrogen
Electricity (CyrusOne support equipment AND customer server loads)	
Non-renewable, Carbon-free	Thermoelectric from nuclear
Non-renewable, Fossil Fuel	Thermoelectric from coal, oil, gas
Renewable	Solar, wind, hydroelectric, geothermal
Carbon-free Electricity Procurement Types	
Direct	PPA, Green Tariff, retail product, direct generation, VPPA, EFECs
Offsets	Unbundled RECs/Guarantees of Origin and other Energy Attribute Certificates (both National and Regional)
Other Imported Energy	
Non-renewable	Offsite steam, district heating, district chilled water, etc. from carbon-emitting energy sources
Renewable	Above, generated from renewable energy

## CLIMATE IMPACT

### GREENHOUSE GAS INVENTORY

Our greenhouse gas (GHG) inventory accounts for greenhouse gas emissions from electricity, diesel, natural gas, and refrigerant loss. This includes direct emissions from our operations (Scope 1), purchased electricity (Scope 2 for both our own operations and our customer IT equipment), and indirect emissions, including those from our energy supply chain, construction, and customer-operated data centers (Scope 3). Our Scope 1 emissions come from burning diesel in backup generators, natural gas in facility comfort heating, and refrigerants lost to atmosphere. We do not purchase any Scope 2 energy other than electricity (such as district heat or chilled water).

Our Scope 1 and 2 GHG inventory data covers all our global facilities where we exercise operational control. A few facilities fully operated by our customers are included in Scope 3 accounting as Downstream Leased Assets. We anticipate that all directly managed facilities built in the future will be included in our scope of operational control, and we will clearly state any exceptions to this rule.

Following the WRI Greenhouse Gas Protocol, our GHG Inventory evaluates the major greenhouse gases: carbon dioxide, methane, nitrous oxide, refrigerants, and sulfur hexafluoride. Sulfur hexafluoride was evaluated and does not apply to our operations. All emissions are reported in carbon dioxide equivalents – based on the global warming potential of each gas relative to carbon dioxide, as determined by the US EPA.

Our earliest year of available complete data is 2018, which also serves as our baseline year. Targets such as our Science-based targets may have other baseline years, which is stated in that section of the report.

### SCOPE 3 ESTIMATES

Our Scope 3 emissions are carbon emissions from CyrusOne's indirect sources such as upstream supply chain activities or downstream customer activities. Below are our Scope 3 sources and the methodology that we used to calculate the carbon emissions from each. All other categories were determined to be *de minimis* and are therefore not reported.

- **Construction Materials (Capital Goods):** Estimated from industry averages for concrete, steel, and other metals.
- **Fuel and Energy-Related Activities:** Estimated using industry averages for fuel extraction, refinement, and transport (Well To Tank or WTT factors), as well as electrical transmission and distribution (T&D factors).
- **Customer-Operated Facilities (Downstream Leased Assets):** Measured from customer-operated (indirectly managed) facilities that report energy data.

## WATER

### WATER RISK ASSESSMENT

Our Water Risk Assessment takes a three-step approach to understanding CyrusOne's specific risks and opportunities associated with water supplies. In our assessment, we evaluate three views into the relationship between water and CyrusOne's operations:

1. **Regional Water Stress:** The balance of regional supplies of water versus regional demand for water, both now and with projections for the future (2030 and 2040). This stress is shared by all companies that operate in the region.
2. **Facility Water Use:** How much water CyrusOne facilities use in a year.
3. **Facility Water Risk Exposure:** The combination of Regional Water Stress and Facility Water Use, indicating how much exposure each CyrusOne facility has to the regional risk.

Regional Water Stress helps us understand which regions are now or will soon be high risk, which is useful for both current facilities and site selection for new facilities. Understanding Facility Water Use can help us focus our attention on the current largest users of water and identify where improvements in water efficiency would be most beneficial. Finally, the Facility Water Risk Exposure identifies which facilities use significant amounts of water in highly water-stressed regions. Some CyrusOne facilities in high-stress regions do not use much water and thus are not exposed to that region's risk, while other sites might use significant amounts of water in regions where water is plentiful. Neither of these is of particular concern. Instead, it is important to identify high-use sites in high-stress regions.

### REGIONAL WATER STRESS

Because water stress varies greatly by location, it is important to understand both the current and projected future water stress at each site. The World Resources Institute (WRI), a global research organization focused on sustainable management of natural resources, provides the definitive tool for evaluating water risk in its Aqueduct Water Risk Atlas. In WRI's words, "The Atlas uses a robust, peer-reviewed methodology and the best available data to create high-resolution, customizable global maps of water risk." It is currently in version 4.0.

### FACILITY WATER USE

To perform a water risk assessment, we first needed to know how much water is consumed by CyrusOne sites. This was gathered from utility bills or reported by facility managers.

Due to a lack of submetering, we assume that all water used at our few facilities that use water-consuming cooling (*wet* facilities) was consumed, even though some of it is domestic and facility maintenance water that is discharged for local treatment. Similarly, at our *dry* facilities, we assume that all water is discharged for treatment, even though some portion of it is consumed through humidification and landscape irrigation.

### FACILITY WATER RISK EXPOSURE

The next step was to analyze the intersection between water stress and water consumption for each location (the water risk exposure). We brought these factors together to create a heat map of locations showing the intersection of regional water stress (current and future) and CyrusOne's facilities' water withdrawal in total gallons.

### SCOPING

Our Water Risk Assessment evaluates the current water stress for all facilities and the predicted water stress in 2030 and 2050. We also calculate total water use at the facilities for which we have data (>90% of capacity) to determine each site's exposure to regional water stress. For our leased facilities where water use data is not available (<10% of capacity), we can only monitor the regional stress, not the facility-specific risk. For this assessment, we consider all water withdrawal for our facilities regardless of the end use of the water (evaporation or discharge).

## BIODIVERSITY

### ENVIRONMENTAL IMPACT ASSESSMENTS

Environmental Impact Assessments are performed while evaluating a property for purchase. These are conducted to the standards of the countries in which CyrusOne operates, but all share similar components. In the United States, for example, we start with a Phase I Environmental Site Assessment (“Phase I ESA”). The intent of a Phase I ESA is to assess whether current or historical property uses have impacted the soil or groundwater beneath the property and could pose a threat to the environment and/or human health.

A Phase I ESA typically includes the following:

- A site visit to observe current and past conditions and uses of the property and adjacent properties.
- A review of federal, state, tribal, and local regulatory databases including, but not limited to, underground storage tanks (USTs), aboveground storage tanks (ASTs), known or suspected release cases, the storage of hazardous substances, and disposal of hazardous wastes including petroleum products and institutional and engineering controls.
- A review of historical records, such as historical aerial photographs, fire insurance maps (Sanborn maps), historical city directories, and historical topographic maps.
- A review of state and local agency records including, but not limited to, state environmental agencies, Building Departments, Fire Departments, and Health Departments.
- Interviews with current and past property owners, operators, occupants, or others familiar with the property.

If the Phase I ESA identifies a recognized environmental condition, we proceed to a Phase II Environmental Site Assessment to collect soil, groundwater, and soil vapor samples from the subsurface to analyze for the presence of contamination.

### PROTECTED AREAS ASSESSMENT

After a property has been purchased and is in operation, we monitor for changes to surrounding areas to check if any areas have become protected since purchase. This assessment is conducted annually using map searches for each facility. Changes in the designation of surrounding areas lead to deeper research as to the nature of the change, whether it represents a protected habitat of any sort, and whether we need to make any adjustments to our operations to protect that habitat.

## CIRCULAR ECONOMY

### AIR POLLUTION

Our assessment of air pollution is based on emissions from our emergency backup generators, which largely consume diesel to create backup electricity (though we are exploring alternative generation sources). In the United States, these generators require air pollution permits to operate and globally manufacturers are required to provide emission factors for their equipment per gallon of diesel consumed. For 2021, we used this information to create an inventory of air pollution emissions based on per-equipment diesel consumption that year. Since this case study demonstrated that these emissions are not material, we used it to create a more general global per-gallon emission factor, which we then use to estimate air pollution emissions in future years based on total diesel consumption (rather than perform the per-equipment calculations each year).

## APPENDIX 2: PRIMARY METRICS

As described in the [Introduction](#), throughout this report, we share the results of our primary metrics that we used to measure our progress against our goals. This appendix provides additional detail about exactly how we arrived at these metrics and our reasoning for them. We also clarify scoping so it is clear what is included in these measurements, what is not, and why. While the actual results are in the relevant chapters, we hope that this can become a resource for our industry and help our customers and other stakeholders compare apples to apples.

### CLIMATE METRICS

This section provides additional detail about the precise metrics and scoping for our primary metrics for energy efficiency, energy origination, and climate impact.

### STANDARD VS. NONSTANDARD DATA CENTERS

We group our facilities into two categories: *standard* facilities, which we designed and built based on our design standards; and *nonstandard* facilities, which include acquisitions and built-to-suit facilities. We make this distinction because the energy and carbon use from our *standard* facilities in operation give a more accurate estimate of the future impact from facilities that are still in development and construction, since they are built to the same standard.

### WET VS. DRY DATA CENTERS

Among our data centers, some consume water for cooling (e.g., using water towers or evaporative coolers), which we term *wet* facilities; and others consume no water for cooling, called *dry* facilities. Because energy metrics (like PUE, below) treat water as “invisible,” we make the distinction between facilities that rely on increased water consumption to reduce their PUE and those that achieve it without water. All of our *standardized design* data centers (including *pre-built-out* and under-development sites) are capable of providing cooling without consuming water and thus are categorized as *dry*. We have a small number of facilities that use evaporative cooling (*wet*) and a few with hybrid systems that can operate without consuming water but currently supplement cooling with water consumption and are therefore also included in the *nonstandard wet* category.

## ENERGY EFFICIENCY METRICS

### METRIC: ABSOLUTE ENERGY CONSUMPTION

Our operational energy use calculations include four sources: (1) CyrusOne total non-IT electricity for the site, (2) customer electricity for their IT Equipment in our data halls, (3) natural gas for comfort heating (only used at some facilities), and (4) diesel for emergency backup generation at all facilities.

These data are combined into a common unit for aggregation (kWh). We use standard conversion factors for natural gas and diesel (from the European Framework Initiative for Energy & Environmental Efficiency in the ICT Sector). For more detail about the scope and methods, see Energy Inventory in [Appendix 1: Methodology](#).

### POWER USAGE EFFECTIVENESS (PUE)

Power Usage Effectiveness (PUE) is the ratio of a data center's total electricity usage to the electricity delivered to IT equipment. This extra, non-IT power is used to operate the cooling, electrical distribution, lighting, and other mechanical systems necessary for IT equipment operation. Since CyrusOne doesn't make any decisions about the efficiency of our customers' IT equipment, we focus on how efficiently we can support their cooling and power needs.

Using the standard calculations developed by [The Green Grid](#) and formalized by [ISO 30134](#), these measurements determine how efficiently we provide support services to our customers' IT equipment. PUE measures the total energy from a facility (total energy) divided by the energy used by customer IT equipment (IT energy). Thus, PUE has a theoretical minimum of 1.0 total kWh/IT kWh (indicating that no energy is used to provide cooling and energy distribution to the IT equipment). When taking an average of this metric, we only include *built-out* facilities that we manage directly to avoid the volatility of *pre-built-out* facilities and those out of our operational control.

PUE is recognized as one of the industry's main energy efficiency metrics and now forms part of compulsory regulatory reporting in Europe; in some regions PUE levels are stipulated as part of planning and permitting. PUE is a helpful metric because it scales with customer demand for power, which predicts the amount of heat generated by IT equipment. This heat is the primary driver of our power usage to provide cooling.

The challenge with this metric is that water is "invisible" because it can be used to lower PUE without recognizing the impact of water consumption. This is why we make a distinction between *wet* and *dry* data centers. PUE is also subject to volatility based on how much of a data center's capacity is being used.

### METRIC: DESIGN PUE

Design PUE represents the idealized PUE of a facility running at full capacity based on its design and assumptions about customer IT Equipment. In general, design PUE will be better (lower) than actual Operating PUE because, to maintain redundancy and flexible capacity, colocation data centers are almost never run at full capacity.

### METRIC: OPERATING PUE

Operating PUE represents the measured annualized PUE of our facilities in a given year based on actual conditions.

## ENERGY ORIENTATION METRICS

### METRIC: PERCENTAGE OF ELECTRICITY PROCURED AS RENEWABLE BY CYRUSONE

We measure the amount of energy that we procure as 100% renewable as a percentage of all the electricity that we purchase (including electricity delivered to customers). This includes mechanisms like retail green power offerings, Power Purchase Agreements (PPAs), Virtual Power Purchase Agreements (VPPAs), Nuclear EFECs, and the like.

### METRIC: PERCENTAGE OF ELECTRICITY PROCURED AS NUCLEAR BY CYRUSONE

We measure the amount of energy that we procure as 100% (carbon-free, nonrenewable) nuclear as a percentage of all the electricity that we purchase (including electricity delivered to customers). This includes mechanisms like nuclear Emission Free Energy Certificates (EFECs).

### METRIC: PERCENTAGE OF ELECTRICITY PROCURED AS RENEWABLE BY CUSTOMERS

We also measure the renewable electricity that we have confirmed has been procured by our customers to cover their IT equipment and cooling electricity in our facilities (which we include in our Scope 2 reporting) as a percentage of all the electricity that we purchase.

### METRIC: PERCENTAGE OF ELECTRICITY PAIRED WITH RENEWABLE CERTIFICATES

We also measure the amount of energy that we pair with unbundled Renewable Energy Certificates (RECs), Guarantees of Origin (GOs), or other certificate mechanisms as a percentage of all the electricity that we purchase (including electricity delivered to customers).

### METRIC: PERCENTAGE OF FACILITIES WITH RENEWABLE OPTION

This measures how many of our facilities can offer customers some form of renewable electricity through our power provider, as an upgraded service, as a percentage of our total number of facilities.



## CLIMATE IMPACT METRICS

### SCOPE 1, 2, AND 3 EMISSIONS

Scope 1 includes emissions from diesel, natural gas, and refrigerant loss, while Scope 2 includes both emissions from customer IT equipment electricity and electricity used to service common areas and data halls, including cooling. Scope 2 emissions are reported in both market-based (including the effect of both carbon-free electricity contracts and supplier-specific emission factors) and location-based methods (using subregional or national grid averages).

Our Scope 3 emissions are not directly emitted by CyrusOne. These emissions are from sources indirectly associated with CyrusOne, such as construction materials (capital goods), fuel and energy-related activities, and customer-operated facilities (downstream leased assets). Note that customer IT equipment inside facilities that we operate are counted as Scope 2 emissions.

### CARBON INTENSITY

We measure carbon intensity in two ways to give us different perspectives:

- Carbon Usage Effectiveness (CUE) (kg CO<sub>2</sub>e/IT kWh)
- Grid Carbon Intensity (MTCO<sub>2</sub>e/MWh)

#### METRIC: CARBON USAGE EFFECTIVENESS (CUE)

Carbon Usage Effectiveness is the ratio of total carbon (including electricity, fuels, and refrigerant loss) to the electricity delivered to IT Equipment. In the denominator, electricity delivered to IT Equipment is used as an indicator of activity. Since over 90% of our Scope 1 and Scope 2 carbon emissions are due to electricity consumption, CUE largely represents the combination of a facility's electricity efficiency (PUE) and energy origination (carbon-free electricity percent).

Using the standard calculations developed by The Green Grid, CUE is a measurement that determines how efficiently we provide support services to our customers' IT equipment. CUE measures the total carbon from a facility divided by the energy used by customer IT equipment. Thus, CUE has a theoretical minimum of 0 kg CO<sub>2</sub>e/IT kWh (indicating no carbon is generated by the facility's operations). When taking averages of this metric, we only include *built-out* facilities that we manage directly to avoid the volatility of *pre-built-out* facilities and those out of our operational control.

#### METRIC: GRID CARBON INTENSITY

We monitor grid carbon intensity as the carbon emitted per megawatt-hour (MWh) delivered to our facilities from the grid (as a subregional or national average). This is measured in metric tons of carbon dioxide-equivalent per MWh of electricity (MTCO<sub>2</sub>e/MWh). It gives us an indication of how carbon-intensive the grid is and helps us prioritize our renewable energy transition strategy. It also is used to calculate location-based Scope 2 carbon emissions.

## WATER CONSERVATION METRICS

This section provides additional detail about the precise metrics and scoping for our primary metrics for water conservation and restoration. The way we interpret the significance of these water metrics is that water withdrawal describes the potential impact of regional water scarcity on our facilities while water consumption describes the impact of our facilities on potential regional water scarcity.

### **METRIC: PERCENTAGE OF NEW DATA CENTERS WITH WATER-FREE COOLING**

To focus our efforts on water-free cooling at new data centers, we track the percentage of new data centers each year that can operate without consuming water for cooling. Some facilities may be hybrid facilities with the option of consuming water but can fully operate without it — these contribute toward improving this metric since they limit our risk exposure to increased regional water stress without costly retrofits.

### **METRIC: ABSOLUTE WATER WITHDRAWAL**

Withdrawn water is the total water taken in by our facilities, regardless of whether the water goes toward cooling, facility maintenance, or domestic water uses. Net withdrawn water is the total water taken in by our facilities, regardless of how it is used, minus the amount of water restored to the local region, such as by Water Restoration Certificates (WRCs). All sources of withdrawn water are municipal supply except for the geothermal cooling system at our Cincinnati (CIN4) facility in Hamilton, Ohio, which is described below.

### **METRIC: ABSOLUTE WATER CONSUMPTION AND DISCHARGE**

Once inside our facilities, water is either discharged to water treatment works (such as industrial or domestic wastewater treatment) and returned to the watershed, or it is consumed through evaporative cooling or irrigation. Since our consumption of water removes it from the watershed, this serves as an indication of our impact on potential regional water scarcity.

Due to a lack of submetering, we assume that all water used at our few facilities that use water-consuming cooling (*wet* facilities) was consumed, even though some of it is domestic and facility maintenance water that is discharged for local treatment. Similarly, at our *dry* facilities, we assume that all water is discharged for treatment, even though some portion of it is consumed through humidification and landscape irrigation.

### **METRIC: GEOTHERMAL COOLING THROUGHPUT (WITHDRAWAL AND DISCHARGE)**

At our Cincinnati (CIN4) facility in Hamilton, Ohio we use a geothermal cooling system that pumps groundwater through the facility, using its low ambient temperature for cooling. After cooling our facility, the water is then discharged to surface waters. This geothermal water is not evaporated (consumed) and does not need treatment, so its net impact on the watershed is minimal. Because the scale of the throughput of this system dwarfs our other water metrics, we report it separately so that other changes in our total portfolio are visible.

### **METRIC: ABSOLUTE WATER WITHDRAWAL, CONSUMPTION, AND DISCHARGE IN HIGH-STRESS REGIONS**

To focus our attention on areas where water is scarce, we track the total water withdrawal, consumption, and discharge from regions listed as currently in *high* or *extremely high* stress, according to the Aqueduct Water Risk Atlas. This is a helpful metric because it is a risk-based approach that focuses on where we are removing water from regions that have little of it. The limitation of this metric is that it does not take into account future water stress and how it is projected to change. We compensate for this limitation by using our water risk assessment to incorporate future water stress into our planning.

### **METRIC: NET POSITIVE WATER FACILITY**

We consider a facility to have reached *net positive water* if, after reducing water use onsite through efficiency, we are able to partner with environmental nonprofits to restore water flows in these regions in excess of the water that we use. To ensure that the positive portion is not just a token amount (such as 1 gallon), we consider a facility to be a *net positive water* facility if we can restore at least 20% more water than we use. For example, if a facility uses 5 million gallons of water and we restore at least 6 million gallons of water, we designate it as a *net positive water* facility.

## WATER USAGE EFFECTIVENESS (WUE)

### METRIC: ONSITE WATER USAGE EFFECTIVENESS (WUE SITE)

The standard metric for measuring water efficiency in data centers is Onsite Water Usage Effectiveness (WUE Site). This metric was created by The Green Grid specifically for data centers to understand and compare their water impact. WUE Site is a ratio of annual onsite water use to IT equipment energy and is measured in liters per kilowatt-hour (L/kWh). This metric allows us to understand how much water we are using in our facility operations relative to our customers' data operations. Since IT equipment energy use drives the need for cooling, water use in *wet* facilities is linked with energy use, as an increase in IT equipment energy leads to an increase in water consumption. By the Green Grid standard, WUE Site should only be calculated using water that is used for IT equipment support. Other water use, like facility maintenance (cleaning, irrigation, etc.) and domestic use (bathrooms, break rooms, etc.), can be excluded. However, because our facilities tend to use such little water, we do not submeter the different water uses. Thus, our calculations of WUE Site include all uses of water at the facility, a conservative overstatement compared to the ideal calculation.

### METRIC: TOTAL WATER USAGE EFFECTIVENESS (WUE SOURCE)

In contrast with WUE Site, which measures only the onsite water efficiency of a data center, WUE Source is used to estimate a facility's total regional water burden. If the electricity used by a data center comes from thermoelectric generation sources, large amounts of water will be consumed in the production of that electricity. We refer to this indirect water consumption as "energy supply chain water." WUE Source is a ratio of the total water consumed by the facility (onsite consumption plus estimated energy supply chain water consumption) to IT equipment energy, measured in liters per kilowatt-hour (L/kWh). Supply chain water estimates are based on the World Resource Institute's [Guidance for Calculating Water Use Embedded in Purchased Electricity](#).

## BIODIVERSITY METRICS

This section provides additional detail about the precise metrics and scoping for our primary metrics for biodiversity.

### **METRIC: FACILITIES WITH IMPROVED HABITAT**

To measure progress toward our target, we will track and report how many of our facilities have some improved habitat onsite that supports biodiversity in the area. Since, according to the Wildlife Habitat Council, small spaces can have big impacts, this metric counts a facility if it has at least 100 square feet of improved habitat, such as a pollinator garden or migratory waystation. We report this metric as a percentage of facilities that have landscaping we control, excluding some urban facilities without plantable land and some facilities in which the landlord controls the landscaping. This metric tells us how widespread our habitat network has become rather than the total land area improved.

## SUPPLY CHAIN DIVERSITY METRICS

This section provides additional detail about the precise metrics and scoping for our primary metrics for supply chain diversity.

### **METRIC: DIVERSE SUPPLY CHAIN PERCENTAGE**

We track the percentage of our US Tier 1 & 2 supply chain spend that goes to small businesses or businesses owned by minorities, women, veterans, disabled, or otherwise disadvantaged owners. For Tier 1 suppliers, we directly measure the type of underrepresented businesses, while for Tier 2 suppliers we rely on Tier 1 company metrics of their own diverse supply chain spend percentages to estimate our Tier 2 diverse spend.

## OCCUPATIONAL SAFETY METRICS

This section provides additional detail about the precise metrics and scoping for our primary metrics for health and safety.

### INJURY CATEGORIES

- **Fatalities:** A death resulting from a work-related incident or exposure.
- **Recordable Cases:** Any work-related injury or illness that results in a fatality, loss of consciousness, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, work-related diagnosed case of cancer, chronic irreversible diseases, fractured or cracked bones or teeth, and punctured eardrums.
- **Lost Workday Cases:** Any work-related injury or illness that results in one or more days away from work for recovery.
- **Restricted/Transfer of Duty Cases:** Any work-related injury or illness that results in one or more days of restricted work or a job transfer (the injured person returns to work but cannot perform their primary job function).
- **Other Recordable Cases:** Any recordable injury or illness where a worker received medical treatment beyond first aid, but that did not involve a fatality, one or more days away from work, or one or more days of restricted work or job transfer.
- **First Aid Cases:** Any injury or illness that can be treated with basic first aid treatment or over-the-counter medication.

- **Near Miss Incident:** A reported incident in which no personal injury or property damage was sustained, but which had the potential to do so. We believe finding and recording near miss incidents is an indication of a well-functioning safety management system and key to identifying hazards and preventing actual injuries.

### INJURY SEVERITY INDICATORS

- **Days Away from Work:** Total number of days that a worker was unable to work due to work-related injury or illness.
- **Days Restricted/Transfer of Duty:** Total number of days that a worker was on restricted work duty or job transfer due to work-related injury or illness.

### INJURY INTENSITY RATES

- **Total Hours Worked:** Total number of hours worked by CyrusOne employees or contractors for each given year. This is typically normalized as rates per 200,000 hours worked (the typical number of hours worked by a full-time employee in one year).
- **Lost Time Injury Rate:** Number of Lost Workday Cases per 200,000 Total Hours Worked.
- **Days Away Restricted or Transferred (DART) Rate:** Number of Lost Workday and Restricted/Transfer of Duty Cases per 200,000 Total Hours Worked.
- **Total Recordable Incident Rate (TRIR):** Number of Total Recordable Cases per 200,000 Total Hours Worked.

## CHEMICAL SPILL REPORTING METRICS

- **Reportable Spills with Environmental Impact:** Spills significant enough to require reporting to local environmental agencies that were determined to have impacted local soil or water (i.e. spills not contained on pavement or retention).
- **Reportable Spills without Environmental Impact:** Spills significant enough to require reporting to local environmental agencies that did *not* impact local soil or water (i.e. spills contained on pavement or retention and cleaned up).

## APPENDIX 3: STANDARDIZED METRICS

GRI METRICS SUMMARY TABLE		
GRI Index	Metrics	Response
<b>GRI 2: General Disclosures 2021</b>		
<b>2-1</b>	Organizational details <ul style="list-style-type: none"> <li>a. Legal name</li> <li>b. Nature of ownership and legal form</li> <li>c. Location of headquarters</li> <li>d. Countries of operation</li> </ul>	<ul style="list-style-type: none"> <li>a. CyrusOne LP</li> <li>b. Privately-held company</li> <li>c. 2850 N Harwood St., Suite 2200 Dallas, Texas 75201</li> <li>d. <a href="#">Data Center Locations</a></li> </ul>
<b>2-2</b>	Entities included in the organization's sustainability reporting	<a href="#">Where We Operate</a> . Data shared includes activities by all subsidiaries of CyrusOne Inc., except where explicitly noted
<b>2-3</b>	Reporting period, frequency and contact point: <ul style="list-style-type: none"> <li>a. reporting period and frequency of sustainability reporting</li> <li>b. reporting period for financial reporting</li> <li>c. publication date of report</li> <li>d. point of contact</li> </ul>	<ul style="list-style-type: none"> <li>a. Calendar year 2023, annual</li> <li>b. As a private company, we do not publish a financial report</li> <li>c. June 2024</li> <li>d. Kyle Myers: kmyers@cyrusone.com</li> </ul>
<b>2-4</b>	Restatements of information	<a href="#">Changes in Scope</a>
<b>2-5</b>	External assurance	<a href="#">Assurance Statement</a>
<b>2-6</b>	Activities, value chain, and other business relationships	<a href="#">What We Do</a>
<b>2-7</b>	Employees: <ul style="list-style-type: none"> <li>a. total # of employees by gender</li> <li>c. methodologies and assumptions</li> </ul>	<ul style="list-style-type: none"> <li>a. Total: 598, Male: 463, Female: 123, Decline to State: 12 (see also <a href="#">Workforce Metrics Disclosure</a>)</li> <li>c. Employee information database populated by new-hire process. The data is a snapshot from September 31, 2023.</li> </ul>
<b>2-9</b>	Governance structure and composition <ul style="list-style-type: none"> <li>a. governance structure</li> <li>b. committees</li> <li>c. composition</li> </ul>	<ul style="list-style-type: none"> <li>a. <a href="#">ESG Governance, Board Oversight</a></li> <li>b. <a href="#">Committee Descriptions</a></li> <li>c. <a href="#">Board Diversity</a></li> </ul>
<b>2-11</b>	Chair of the highest governance body	a. <a href="#">Board Oversight</a>
<b>2-12</b>	Role of the highest governance body in overseeing the management of impacts <ul style="list-style-type: none"> <li>a. role in developing statements, strategies, policies, and goals</li> <li>b. role in due diligence</li> </ul>	<ul style="list-style-type: none"> <li>a. <a href="#">Committee Descriptions</a></li> <li>b. <a href="#">ESG Governance</a></li> </ul>

<b>GRI METRICS SUMMARY TABLE</b>		
<b>GRI Index</b>	<b>Metrics</b>	<b>Response</b>
<b>2-13</b>	Delegation of responsibility for managing impacts a. delegating responsibility b. process and frequency of reports	a. <a href="#">Board Infographic</a> , <a href="#">Senior Management Direction</a> , <a href="#">Cross-functional Integration and Coordination</a> b. <a href="#">Cross-Functional Integration and Coordination</a>
<b>2-14</b>	Role of the highest governance body in sustainability reporting	The Board of Managers review this report and give feedback prior to publication
<b>2-19</b>	Remuneration policies a. policies b. relation to sustainability objectives	a. <a href="#">Executive Compensation</a> b. <a href="#">Sustainability-linked Executive Compensation</a>
<b>2-23</b>	Policy commitments a. Policy commitments for responsible business conduct c. links	a. <a href="#">Code of Business Conduct &amp; Ethics (discussion)</a> c. <a href="#">Code of Business Conduct &amp; Ethics (link)</a>
<b>2-24</b>	Embedding policy commitment	<a href="#">Code of Business Conduct &amp; Ethics</a>
<b>2-26</b>	Mechanisms for seeking advice and raising concerns	<a href="#">Code of Business Conduct &amp; Ethics</a>
<b>2-28</b>	Membership associations	<a href="#">Industry Group Memberships</a>
<b>2-29</b>	Approach to stakeholder engagement	The stakeholder groups we engage with are: Customers, Teammembers, Community. We engage with stakeholders that contact us and that we have identified as most closely affected by our business: Customers and Employees. We do not have any group-wide stakeholder engagement governance structure in place.
<b>2-30</b>	Collective bargaining agreements	As of 2023, no CyrusOne employees are represented by an independent trade union or covered by collective bargaining agreements.
<b>GRI 3: Material Topics 2021</b>		
<b>3-1</b>	Process to determine material topics	<a href="#">Priorities and Materiality</a>
<b>3-2</b>	List of material topics a. material topics b. changes from previous reporting period	a. <a href="#">Materiality Chart</a> b. We performed a new Double Materiality Assessment in 2023. We consolidated some topics to streamline the process. The only significant change in materiality is that Waste became material because our customers have recently begun requesting waste disclosure.
<b>GRI 206: Anti-competitive Behavior 2016</b>		
<b>206-1</b>	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	CyrusOne was not involved in any antitrust actions in 2023.

GRI METRICS SUMMARY TABLE		
GRI Index	Metrics	Response
<b>GRI 302: Energy 2016</b>		
<b>302-1</b>	Energy consumption within the organization <ul style="list-style-type: none"> <li>a. Non-renewable fuel consumption</li> <li>b. Renewable fuel consumption</li> <li>c. i. Electricity consumption</li> <li>c.ii - iv. Heating, cooling, steam consumption</li> <li>d. Energy sold</li> <li>e. Total energy consumption</li> <li>f. Methodology</li> <li>g. Sources</li> </ul>	(See <a href="#">Total Energy Consumption</a> ) <ul style="list-style-type: none"> <li>a. 119,468 GJ</li> <li>b. None</li> <li>c. i. 15,118,304 GJ</li> <li>c.ii - iv. None</li> <li>d. None</li> <li>e. 15,237,774 GJ</li> <li>f. Calculation based on purchased electricity and fuels. The energy consumption data covers 100% of directly managed data center capacity.</li> <li>g. Conversion factors from ICT Footprint (European Framework Initiative for Energy &amp; Environmental Efficiency in the ICT Sector) for diesel energy content, NREL: <a href="https://openei.org/wiki/Definition:Therm">https://openei.org/wiki/Definition:Therm</a>.</li> </ul>
<b>302-3</b>	Energy intensity	<a href="#">Metric: Power Usage Effectiveness (PUE)</a>
<b>302-4</b>	Reduction of energy consumption <ul style="list-style-type: none"> <li>a. Reductions due to conservation and efficiency initiatives</li> <li>b. Types of energy included</li> <li>c. Basis for calculations</li> <li>d. Methodology</li> </ul>	See <a href="#">Energy Efficiency</a> <ul style="list-style-type: none"> <li>a. 23,760 GJ/year ongoing</li> <li>b. Electricity</li> <li>c. Annualization of decreased power draw due to energy efficiency projects including tile optimization, humidification system upgrades, UPS upgrades, and LED retrofits. Reductions in energy consumption are calculated on a project basis per facility. This is done because our quickly growing portfolio would mask reductions if we tracked total energy from a base year.</li> <li>d. We used ASHRAE standards and manufacturer specifications to calculate project energy savings.</li> </ul>
<b>302-5</b>	Reductions in energy requirements of products and services	Same as <b>302-4</b> , since the service we provide (colocation) is the source of our energy usage.
<b>GRI 303: Water and Effluents 2018</b>		
<b>303-1</b>	Interactions with water as a shared resource <ul style="list-style-type: none"> <li>a. Description of organization's interaction with water</li> <li>b. Approach to identify water-related impacts</li> <li>c. How water-related impacts are addressed</li> <li>d. Process for setting water-related goals</li> </ul>	<ul style="list-style-type: none"> <li>a. <a href="#">Water, Plan for Sustainable Future</a></li> <li>b. <a href="#">Water Risk Assessment</a></li> <li>c. <a href="#">Target: Net Positive Water in High-Stress Regions</a></li> <li>d. <a href="#">Water Risk Assessment</a></li> </ul>
<b>303-2</b>	Management of water discharge-related impacts	All facilities have local discharge requirements. All discharged water goes to publicly-owned treatment works, which set the standards for local discharge requirements.



**GRI METRICS SUMMARY TABLE**

GRI Index	Metrics	Response
303-3	Water withdrawal <ul style="list-style-type: none"> <li>a. Total water withdrawal by source</li> <li>b. Total water withdrawal from areas of water stress, by source</li> <li>c. Freshwater vs. Other water</li> <li>d. Context</li> </ul>	<ul style="list-style-type: none"> <li>a. <a href="#">Water Usage table</a>. All withdrawal is from third-party (municipal) sources except for CIN4 Geothermal Water Withdrawal, which is groundwater.</li> <li>b. <a href="#">Water Usage in High-Stress Regions table</a>. All withdrawal is from third-party (municipal) sources.</li> <li>c. All water withdrawn is freshwater.</li> <li>d. Third-party water comes from municipal supplies, with data sourced from utility billing. Groundwater describes a geothermal cooling system at one facility which pumps groundwater for non-evaporative cooling and returns it to the watershed. The geothermal data is calculated using a constant pumping rate.</li> </ul>
303-4	Water discharge <ul style="list-style-type: none"> <li>a. Total water discharge by destination</li> <li>c. Total water discharge in areas of water stress</li> <li>d. Treatment of discharge</li> <li>e. Context</li> </ul>	<ul style="list-style-type: none"> <li>a. <a href="#">Water Usage table</a>. All water is discharged to publicly-owned treatment works except for CIN4 Geothermal water, which is discharged to surface water.</li> <li>c. <a href="#">Water Usage in High-Stress Regions table</a>. All water is discharged to publicly-owned treatment works</li> <li>d. Wastewater is not required to be treated by CyrusOne prior to discharge to publicly-owned treatment works.</li> <li>e. Surface water discharge comes from geothermal cooling system described in 303-3d. All other water is discharged to municipal wastewater systems. Due to lack of submetering, we assume that 100% of the water metered at facilities that do not use evaporation for cooling is discharged, (though some water is consumed through irrigation and humidification).</li> </ul>
303-5	Water consumption <ul style="list-style-type: none"> <li>a. Total water consumption</li> <li>b. Total water consumption from areas of water stress</li> <li>c. change in water storage</li> <li>d. Context</li> </ul>	<ul style="list-style-type: none"> <li>a. <a href="#">Water Usage table</a></li> <li>b. <a href="#">Water Usage in High-Stress Regions table</a></li> <li>c. No significant water storage</li> <li>d. Due to lack of submetering, we assume that 100% of the water metered at facilities that use evaporation for cooling is consumed, (though some water is used for domestic and facility maintenance purposes and then discharged).</li> </ul>
<b>GRI 304: Biodiversity 2016</b>		
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	None identified, as verified by a Protected Areas Assessment
304-2	Significant impacts of activities, products and services on biodiversity <ul style="list-style-type: none"> <li>a. Nature of impacts on biodiversity</li> <li>b. Significant positive and negative impacts</li> </ul>	<ul style="list-style-type: none"> <li>a. No negative impacts identified, as verified by our Environmental Impact Assessments. Positive impacts are realized by our facilities with improved native habitat installations. See <a href="#">Onsite Habitat Improvement</a>.</li> <li>b. <a href="#">Metric: Facilities with Improved Habitat</a></li> </ul>
304-3	Habitats protected or restored <ul style="list-style-type: none"> <li>a. Areas protected or restored</li> <li>b. Partnerships</li> <li>d. Methodology</li> </ul>	<ul style="list-style-type: none"> <li>a. <a href="#">Metric: Facilities with Improved Habitat, Offsite Habitat Improvement</a></li> <li>b. We partner with Bonneville Environmental Foundation, The Nature Conservancy, and Natural Resource Conservation Service to restore water flows to Texas and Arizona rivers. We participate in NWF's Certified Wildlife Habitat program and Host in Ireland's DCs for Bees program.</li> <li>d. Bonneville Environmental Foundation Water Restoration Certificates® methodology, DCs for Bees methodology, NWF Certified Wildlife Habitat methodology</li> </ul>

**GRI METRICS SUMMARY TABLE**

GRI Index	Metrics	Response
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	No listed species have been identified in areas affected by operations, as confirmed by our Environment Impact Assessments and Protected Area Assessments.
<b>GRI 305: Emissions 2016</b>		
305-1	Direct (Scope 1) GHG emissions <ul style="list-style-type: none"> <li>a. Gross Scope 1 emissions</li> <li>b. Gases included</li> <li>c. Biogenic CO<sub>2</sub> emissions</li> <li>d. Base year</li> <li>e. Source of emission factors</li> <li>f. Consolidation approach</li> <li>g. Methodology</li> </ul>	<ul style="list-style-type: none"> <li>a. <a href="#">Absolute Greenhouse Gas Totals table</a></li> <li>b. Includes carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and refrigerants (HFCs). We do not have material emissions of PFCs, SF<sub>6</sub> or NF<sub>3</sub>.</li> <li>c. Not applicable</li> <li>d. Base year is 2018, the first year for which data is available. Base year emissions can be found in the <a href="#">Absolute Greenhouse Gas Totals table</a>. See <a href="#">Changes in Scope</a>, for context on recalculations.</li> <li>e. Emission factors from: US EPA Emission Factors Hub, UK DEFRA GHG Conversion Factors.</li> <li>f. Emissions consolidated based on operational control.</li> <li>g. <a href="#">Appendix 1: Methodology</a></li> </ul>
305-2	Energy indirect (Scope 2) GHG emissions <ul style="list-style-type: none"> <li>a. Gross location-based Scope 2 emissions</li> <li>b. Gross market-based Scope 2 emissions</li> <li>c. Gases included</li> <li>d. Base year</li> <li>e. Source of emission factors</li> <li>f. Consolidation approach</li> <li>g. Methodology</li> </ul>	<ul style="list-style-type: none"> <li>a. <a href="#">Absolute Greenhouse Gas Totals: Location-based Table</a></li> <li>b. <a href="#">Absolute Greenhouse Gas Totals: Market-based Table</a></li> <li>c. Our scope 2 emission factors include CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O.</li> <li>d. Base year is 2018, the first year for which data is available. Base year emissions can be found in the <a href="#">Absolute Greenhouse Gas Totals tables</a>. See <a href="#">Changes in Scope</a>, for context on recalculations.</li> <li>e. Emission factors from: US EPA Emission Factors Hub, UK DEFRA GHG Conversion Factors, IEA Emission Factors.</li> <li>f. Emissions consolidated based on operational control.</li> <li>g. <a href="#">Appendix 1: Methodology</a></li> </ul>
305-3	Other indirect (Scope 3) GHG emissions <ul style="list-style-type: none"> <li>a. Gross Scope 3 GHG emissions</li> <li>b. Gases included</li> <li>c. Biogenic CO<sub>2</sub> emissions</li> <li>d. Categories and activities included</li> <li>e. Base year</li> <li>f. Source of emission factors</li> <li>g. Consolidation approach</li> <li>h. Methodology</li> </ul>	<ul style="list-style-type: none"> <li>a. <a href="#">Scope 3 Emissions table</a></li> <li>b. Our scope 3 emission factors include CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O for fuel and energy related activities and CO<sub>2</sub> for construction materials.</li> <li>c. None</li> <li>d. <a href="#">Scope 3 Emissions table</a></li> <li>e. Base year is 2018, the first year for which data is available. Base year emissions can be found in the <a href="#">Scope 3 Emissions table</a>. See <a href="#">Changes in Scope</a>, for context on recalculations.</li> <li>f. Emission factors from: UK DEFRA GHG Conversion Factors, IEA Emission Factors.</li> <li>g. Consolidation based on most material Scope 3 categories.</li> <li>h. <a href="#">Appendix 1: Methodology</a></li> </ul>
305-4	GHG emissions intensity <ul style="list-style-type: none"> <li>a. GHG emissions intensity</li> <li>b. Metric (denominator)</li> <li>c. Scopes included in intensity ratio</li> <li>d. Gases included</li> </ul>	<ul style="list-style-type: none"> <li>a. <a href="#">Carbon Usage Effectiveness (CUE)</a></li> <li>b. IT Equipment electricity</li> <li>c. Scope 1 &amp; 2</li> <li>d. Our GHG emissions intensity includes CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs. We do not have material emissions of PFCs, SF<sub>6</sub> or NF<sub>3</sub>.</li> </ul>
305-6	Emissions of ozone-depleting substances (ODS)	Not material

<b>GRI METRICS SUMMARY TABLE</b>		
<b>GRI Index</b>	<b>Metrics</b>	<b>Response</b>
<b>305-7</b>	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	No significant emissions, see <a href="#">Air Pollution</a>
<b>GRI 306: Waste 2020</b>		
<b>306-1</b>	Waste generation and significant waste-related impacts	<a href="#">Circular Economy</a>
<b>306-2</b>	Management of significant waste-related impacts a. Actions taken to prevent and manage waste b. Processes for third party management of waste c. Waste data collection process	a. <a href="#">Circular Economy Strategy</a> , <a href="#">Construction Circularity</a> , <a href="#">Operations Circularity</a> b. <a href="#">Construction Recycling</a> , <a href="#">General Recycling</a> , <a href="#">Battery Recycling and Waste Reduction</a> , <a href="#">Electronic Waste</a> c. <a href="#">Circular Economy Metrics and Targets</a>
<b>306-3</b>	Waste Generated	<a href="#">Waste and Recycling table</a>
<b>306-4</b>	Waste diverted from disposal	<a href="#">Waste and Recycling table</a>
<b>306-5</b>	Waste directed to disposal	<a href="#">Waste and Recycling table</a>
<b>GRI 403: Occupational Health and Safety 2018</b>		
<b>403-1</b>	Occupational health and safety management system a. Implementation of OHS management system b. Scope of OHS management system	a. <a href="#">Employee Occupational Safety, Certifications</a> (ISO 45001) b. <a href="#">Employee Occupational Safety</a> , <a href="#">Contractor Occupational Safety</a> , <a href="#">Customer Safety</a>
<b>403-2</b>	Hazard identification, risk assessment, and incident investigation a. Identifying hazards and assessing risks d. Investigating incidents and determining corrective actions	a. <a href="#">Hazard Recognition, Evaluation, and Control</a> d. <a href="#">Incident Management</a>
<b>403-5</b>	Worker training on occupational health and safety	<a href="#">Employee Occupational Safety - Training</a>
<b>403-6</b>	Promotion of worker health	<a href="#">Teammate Compensation and Benefits</a>
<b>403-9</b>	Work-related injuries a. Employees b. Non-employees e. Basis for rates f. Exclusions g. Context	a. <a href="#">Employee Safety Metrics tables</a> b. <a href="#">Contractor Safety Metrics tables</a> e. See "Scope" statements in the footer of each table f. See "Scope" statements in the footer of each table g. Appendix 2: Primary Metrics - <a href="#">Occupational Safety Metrics</a>
<b>GRI 405: Diversity and Equal Opportunity 2016</b>		
<b>405-1</b>	Diversity of governance bodies and employees a. Diversity of governance body b. Diversity of employees	a. <a href="#">Board Diversity</a> b. <a href="#">Workforce Metrics Disclosure</a>

**SASB METRICS SUMMARY TABLE**

SASB Index	Metric	Response
<b>General</b>		
IF-RE-000.A	Number of operations	57 data centers
IF-RE-000.B-D	Quantity of products/services provided	1,676 MW of Critical Load Capacity in 57 data centers
IF-RE-130a.4	Percentage of eligible portfolio that has an energy/sustainability rating by property subsector	31% of Critical Load Capacity in Real Estate subsector (See <a href="#">Certifications</a> )
IF-RE-130a.4	Percentage of eligible portfolio that (2) is certified to ENERGY STAR, by property subsector	None in 2023
TC-IM-130a.3	Discussion of the integration of environmental considerations into strategic planning for data center needs	<a href="#">ESG Strategy</a> , <a href="#">The "Big Four" Climate - Strategy</a> , <a href="#">Energy Origination - Strategy</a> , <a href="#">Plan for Sustainable Future</a> , <a href="#">Energy/Water Tradeoffs</a> , <a href="#">Biodiversity - Strategy</a> , <a href="#">Circular Economy - Strategy</a>
<b>Energy</b>		
IF-RE-130a.2.1-3	Total energy consumption within the organization, including methods and assumptions in the calculations	<a href="#">Total Energy Consumption</a> table Calculations are based on purchased electricity and fuels. Conversion factors are from ICT Footprint (European Framework Initiative for Energy & Environmental Efficiency in the ICT Sector) for diesel energy content, NREL: <a href="https://openei.org/wiki/Definition:Therm">https://openei.org/wiki/Definition:Therm</a> . The energy consumption data covers 100% of directly managed Critical Load Capacity.
IF-RE-130a.3	Like-for-like percentage change in energy consumption for the portfolio area with data coverage, by property subsector	From 2022 to 2023 there was a 25% increase in total energy in Real Estate subsector.
IF-RE-130a.5	Description of how building energy management considerations are integrated into property investment analysis and operational strategy	See <a href="#">Climate</a> section of <a href="#">Environmental Impact</a> chapter, particularly <a href="#">Energy Efficiency</a> .
IF-RE-410a.2	Percentage of tenants that are separately metered or submetered for grid electricity consumption, by property subsector	100% of tenants' servers are submetered for electricity
<b>Climate Risk</b>		
IF-RE-450a.1	Area of properties located in 100-year flood zones (flood hazard zones), by property subsector	51,490 ft <sup>2</sup> in Real Estate subsector (covered by Building Elevation Certificate to show mitigation measures)
IF-RE-450a.2	Description of climate change risk exposure analysis, degree of systematic portfolio exposure, and strategies for mitigating risks	<a href="#">Climate Risk</a>

## SASB METRICS SUMMARY TABLE

SASB Index	Metric	Response
<b>Water</b>		
IF-RE-140a.1.1, 1.2	Water withdrawal data coverage	Includes open facilities for which water data is available, covering 92% of colocation capacity. Data is not available for some smaller leased facilities.
IF-RE-140a.2.2, TC-IM-130a.2.	Total water withdrawal, consumption, and discharge	<a href="#">Water Usage table</a>
IF-RE-140a.3	Like-for-like percentage change in water withdrawn for portfolio area with data coverage, by property subsector	From 2018 to 2023, total water withdrawal increased by 103% across all buildings in the portfolio with data coverage. From 2022 to 2023, total withdrawal increased by 4% (Real Estate subsector).
IF-RE-140a.4	Description of water management risks and discussion of strategies and practices to mitigate those risks	<a href="#">Water - Strategy</a> , <a href="#">Water Risk Assessment</a>
IF-RE-410a.2	Percentage of tenants that are separately metered or submetered for water withdrawals, by property subsector	Not applicable (customer servers do not directly use water).

## TCFD METRICS SUMMARY TABLE

Metric	Response
<b>General</b>	
A breakdown of reserves and an indication of associated emissions factors to provide insight into potential future emissions	Not applicable
Percentage of eligible portfolio that has an energy/sustainability rating by property subsector	31% of Critical Load Capacity in Real Estate subsector (See <a href="#">Certifications</a> )
<b>Climate Risk</b>	
Area of properties located in 100-year flood zones (flood hazard zones), by property subsector	51,490 ft <sup>2</sup> in Real Estate subsector (covered by Building Elevation Certificate to show mitigation measures)
<b>Emissions</b>	
GHG emissions intensity, including organization specific metric and gases included in the calculation	<a href="#">Carbon Usage Effectiveness (CUE)</a> Calculations include carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), and refrigerants (HFCs). We do not have material emissions of PFCs, SF <sub>6</sub> or NF <sub>3</sub> .
<b>Energy</b>	
Total fuel consumption within the organization from non-renewable sources, in joules or multiples, and including fuel types used	Diesel: 98,378 GJ Natural Gas: 21,090 GJ Total Fuels: 119,468 GJ (See <a href="#">Total Energy Consumption</a> table)
Total energy consumption within the organization, including methods and assumptions in the calculations	<a href="#">Total Energy Consumption</a> table Calculations are based on purchased electricity and fuels. Conversion factors are from ICT Footprint (European Framework Initiative for Energy & Environmental Efficiency in the ICT Sector) for diesel energy content, NREL: <a href="https://openei.org/wiki/Definition:Therm">https://openei.org/wiki/Definition:Therm</a> . The energy consumption data covers 100% of directly managed Critical Load Capacity.
Expenditures (OpEx) for low-carbon alternatives (e.g., R&D, technology, products, or services)	Not Available
Investment (CapEx) in low-carbon alternatives (e.g., capital equipment or assets)	Not Available
Building energy intensity (by organization specific metric); intensity ratio for the organization	<a href="#">Average Operating PUE</a> (Power Usage Effectiveness)

TCFD METRICS SUMMARY TABLE	
Metric	Response
<b>Water</b>	
Total water withdrawal, consumption, and discharge	<a href="#">Water Usage</a> table
Building water intensity (by occupants or square area)	<a href="#">Water Usage Effectiveness (WUE)</a> tables

## APPENDIX 4: ASSURANCE STATEMENT



**Independent Assurance Statement**  
 Provided by ISOS Group, Inc.

### To the Management Team of CyrusOne:

ISOS Group, Inc. [“ISOS” or “we”] were engaged by CyrusOne [“Client”] to conduct moderate level type 2 assurance of environmental and social data [“Reported Information”], covering the period beginning January 1, 2023 and ending December 31, 2023.

We have performed our moderate assurance engagement in accordance with the AccountAbility 1000 Assurance Standard v3 (“AA1000AS”). Our review was limited to the data comprising of:

- Energy,
- Greenhouse gas emissions,
- Water,
- Waste,
- Occupational safety metrics,
- Workforce DEI metrics,
- Diverse supply chain spend.

We have not performed any procedures with respect to other sustainability-related information and, therefore, no conclusion on information outside of this scope of work is expressed.

### CyrusOne’s responsibilities

The Company’s management are responsible for:

- Preparing the data in accordance with generally accepted reporting practices,
- The accuracy and completeness of the information reported,
- The design, implementation and maintenance of internal controls relevant to the preparation of the report to provide reasonable assurance that the report is free from material misstatement, whether due to fraud or error,
- Ensuring the data performance is fairly stated in accordance with the applicable criteria and for the content and statements contained therein.

### Criteria

The assurance process was intended to provide an independent opinion confirming that the Client has complied with procedures for data management at the company and minimized degrees of error by adequately:

1. Sourcing utility, waste hauler, vendor and internal data to populate relevant data management systems,
2. Enforcing management and quality controls across the reporting period,
3. Aggregating and converting metrics into the correct unit of measure,
4. Calculating greenhouse gas emissions, and
5. Disclosing all totals correctly.

### Boundary

Organizational Boundary	CyrusOne owns and operates carrier-neutral data centers in North America and Europe, where it provides colocation and peering services.
Assurance Boundary	The assurance boundary was limited to the Client’s sixty (60) operational assets (excluding single data cabinet sites and towers) and included facilities under development for construction contractor safety. Downstream leased assets (customer-managed facilities) were included within the for Scope 3 emissions inventory.
GHG Emissions Consolidation Approach	The GHG emissions boundary followed the operational control methodology specified in the GHG Protocol. The same boundary was applied for energy, water and waste metrics.

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### Limitations and Exclusions

Greenhouse gas quantification is unavoidably subject to inherent uncertainty because of both scientific and estimation uncertainty and for other non-financial performance information the precision of different measurement techniques may also vary. Furthermore, the nature and methods used to determine such information, as well as the measurement criteria and the precision thereof, may change over time. Reviews pertaining to the completeness and capture of all utility meters at properties, particularly those attributed to tenant spaces, is limited to what is disclosed in data management systems. No visit to the Client’s headquarters or facilities was conducted throughout this engagement. However, a sample set of properties were reviewed in more granularity and tested for data accuracy. It was determined that these limitations and exclusions do not materially impact the performance criteria or assurance engagement.

### Methodology

The assurance procedures undertaken were to determine the strength of the systems in place. ISOS Group:

- Engaged a sample of individuals responsible for performance measurement,
- Evaluated current management systems for performance data collection, compilation, calculation, reporting, and validation,
- Determined consistency of assessing materiality, management approach, and application of quality control procedures,
- Reviewed sustainability disclosures, supporting data, and justification for rectifying discrepancies,
- Validated alignment to standard reporting protocols to ensure accurate claims to the quantitative methodology and approach and assurance claims,
- To verify quantitative claims, both at the aggregate level and on a sample basis, and test accuracy, consistency, completeness, and reliability, ISOS Group:
  1. Conducted a portfolio assessment analyzing performance results to uncover any errors, misstatements, gaps, or performance anomalies,
  2. Brought all findings to the Client’s attention to address and confirmed resolution,
  3. Selected the following properties for testing and analysis, including cross-reference to primary source data to uncover variances and address any exclusions and other limitations:
    - a. FRA3 (Frankfurt, HE, Germany)
    - b. CHI2 (Aurora, IL, USA)
    - c. SAT3 (San Antonio, TX, USA)

### Findings

Based on the process and procedures conducted, there is no evidence that the metrics reported by the Client are not materially correct and provide a fair representation of the Client’s environmental impacts to stakeholders for the stated period and reporting boundary.

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**Application of the AA1000AP**

Findings and conclusions concerning adherence to the AA1000 AccountAbility Principles:

Inclusivity	Cyrus One has identified five key stakeholder groups with whom it engages: Customers, Investors, Suppliers, Community, and Employees. Feedback is collected from customers via Quarterly Business Review meetings, from employees via engagement surveys, from communities via direct contact, and from investors via the ESG Board Committee. Stakeholder identification and engagement is done as part of the materiality process. CyrusOne could consider the development of a stakeholder map outlining engagement methods, expectations and results of engagement.
Materiality	After its assessment in preparation for 2020 reporting, CyrusOne conducted its first double materiality assessment in Q4 of 2023, the results of which will be published in its 2024 Sustainability Report. They intend to revisit the comprehensiveness of the assessment in 2024.
Responsiveness	CyrusOne publishes an annual Public Sustainability Report outlining timely progress on key sustainability issues. The report is aligned to leading reporting standards and is both clear and extensive in its content. Customer sustainability reports are customized to each customer and property.
Impact	CyrusOne outlines performance measurement within its sustainability report, including the criteria for and progress on its sustainability goals. CyrusOne has a validated GHG emissions reductions target by the Science-Based Target Initiative.

**Observations and Recommendations**

Observations and recommendations include:

- To ensure timely reporting, CyrusOne’s energy, emissions, waste and water reporting is based upon nine months of actual data and three months of projected data. In the case of occupational safety metrics, CyrusOne’s safety data is based upon nine months of actual data and the assumption that no incidents occur in Q4. ISOS Group reviewed estimation methodologies and deemed this approach to not have a material impact on the final reported figure.
- CyrusOne’s Inventory Management Plan documents the general approach to the inclusion of each category of Scope 3 emissions and notes regarding the exclusion of emissions for other categories. CyrusOne should consider compiling formal analyses on the exclusion of the relevant Scope 3 categories (e.g. Purchased Goods and Services) to document the irrelevancy/immateriality of each category.
- Due to availability, some data is not included in final reporting, including: some downstream leased assets not reported by customers and some waste and water data not reported by property management contacts. ISOS Group reviewed the facilities where data was excluded and deemed this approach to not have a material impact on the final reported figures.
- CyrusOne is transitioning their diesel data records from purchasing records to actual consumption records. Due to inconsistencies in reporting correct consumption figures, the Client reverted back to purchasing data with more accurate reporting. In the case where purchase records were not available, the client assumed a conservative overestimate of purchased diesel amounts. ISOS Group deemed this approach to not have a material impact on the final reported figures.
- CyrusOne’s inventory workbooks are complex due to their detailed nature of reporting. ISOS Group suggests simplifying its reporting workbooks to minimize potential for error.
- CyrusOne’s Scope 3 Category 3 (Fuel & Energy Related Activities) calculation approach to determining the electricity generation emissions excludes energy totals where CyrusOne or the customer procured renewable energy for energy generation impacts (i.e. well-to-tank) but includes upstream impacts from electricity transmission and distribution loss of renewable power. Additionally, CyrusOne includes emissions from two downstream leased assets within this category.
- Supply chain spend data is based on actual data from the period 4Q22 – 3Q23. Additionally, Tier 2 spend (per vendor) is determined by applying CyrusOne’s spend against each vendor’s 2022 percent of diverse spend. This does not appear to have a material impact on final figures.
- Diverse supply chain spend is aggregated per each diversity category for which a supplier qualifies.

**Restriction of use**

This assurance report is made solely to the Client in accordance with the terms of our engagement, which include agreed arrangements for disclosure. Our work has been undertaken so that we might state to the Client those matters we have been engaged to state in this moderate assurance report and for no other purpose. Our moderate assurance report should not be regarded as suitable to be used or relied on by any party wishing to acquire rights against us other than the Client for any purpose or in any context. Any party other than the Client who obtains access to our moderate assurance report or a copy thereof and chooses to rely on our moderate assurance report (or any part thereof) will do so at its own risk. To the fullest extent permitted by law, we accept or assume no responsibility and deny any liability to any party other than the Client for our work, for this independent moderate assurance report, or for the conclusions we have reached.

**Statement of Competency and Independence**

ISOS Group is an independent professional services firm that specializes in sustainability reporting under the Global Resources Initiative (GRI), CDP, and GRESB and is a provider of external assurance services. ISOS Group is a Global Reporting Initiative Certified Training Partner for the United States and a CDP Silver Education and Training Partner in the United States. Our team of experts have the technical expertise and competency to conduct assurance to the AA1000 assurance standard, which meets the criteria for assurance of environmental data.

No member of the assurance team has a business relationship with the Client, its Directors, or Managers beyond that required of this assignment. We conducted this assurance independently and, to our knowledge, there has been no conflict of interest. ISOS Group has a strong code of ethics and maintains high ethical standards among its staff in their day-to-day business activities. The assurance team has extensive experience in conducting assurance engagements over environmental, social, ethical, and health and safety information systems and processes.

Further information, including a statement of competencies, can be found at [www.isosgroup.com](http://www.isosgroup.com).

Signed on behalf of ISOS Group: San Diego, California – USA, April 22, 2024.



Brian Noveck  
CSAP Practitioner



Lauren Anderson  
Sustainability Analyst, ACSAP



**AA1000**  
Licensed Assurance Provider  
000-284

Appendix – Final Data Parameters

Parameter	2023 (Absolute)
Total Non-renewable fuels purchased and consumed (MWh)	33,186
Total Non-renewable electricity purchased (MWh)	1,636,596
Total renewable energy purchased or generated (MWh)	2,649,398
Total Scope 1 GHG Emissions (MT CO <sub>2</sub> e) <sup>1</sup>	28,937
Total Scope 2 GHG Emissions (MT CO <sub>2</sub> e) – Location Based	1,484,062
Total Scope 2 GHG Emissions (MT CO <sub>2</sub> e) – Market Based	593,004
Total Scope 3, Category 2 GHG Emissions (MT CO <sub>2</sub> e) – Capital Goods (Construction Materials)	154,214
Total Scope 3, Category 3 GHG Emissions (MT CO <sub>2</sub> e) – Fuel-and-Energy-Related Activities	215,031
Total Scope 3, Category 13 GHG Emissions (MT CO <sub>2</sub> e) – Downstream Leased Assets (Customer-operated Facilities) <sup>2</sup>	11,081
Total Water Withdrawal (kgal)	345,321
Total Water Consumption (kgal)	301,990
Total Water Discharge (kgal)	43,331
Total Water Restoration (kgal)	-25,930
Total Water Withdrawal in High-Stress Regions (kgal)	268,699
Total Water Consumption in High-Stress Regions (kgal)	238,023
Total Water Discharge in High-Stress Regions (kgal)	30,671
Total Water Restoration in High-Stress Regions (kgal)	-25,930
Total Waste Production (MT) – Landfilled/Incinerated	1,467
Total Waste Production (MT) - Recycled	1,794
Contractor (Construction) Injury Rate: Total Recordable Incident Rate	1.01
Contractor (Construction) Injury Rate: Lost Time Injury Rate	0.31
Contractor (Operations) Injury Rate: Total Recordable Incident Rate	0.32
Contractor (Operations) Injury Rate: Lost Time Injury Rate	0.16
Employee Injury Rate: Total Recordable Incident Rate	0.47
Employee Injury Rate: Days Away Restricted or Transferred (DART) Rate	0.23

<sup>1</sup> Total Scope 1 emissions reflect carbon offset purchases of 2151 MT CO<sub>2</sub>e.

<sup>2</sup> Total Scope 3, Category 13 emissions reflect carbon offset purchases of 70 MT CO<sub>2</sub>e.