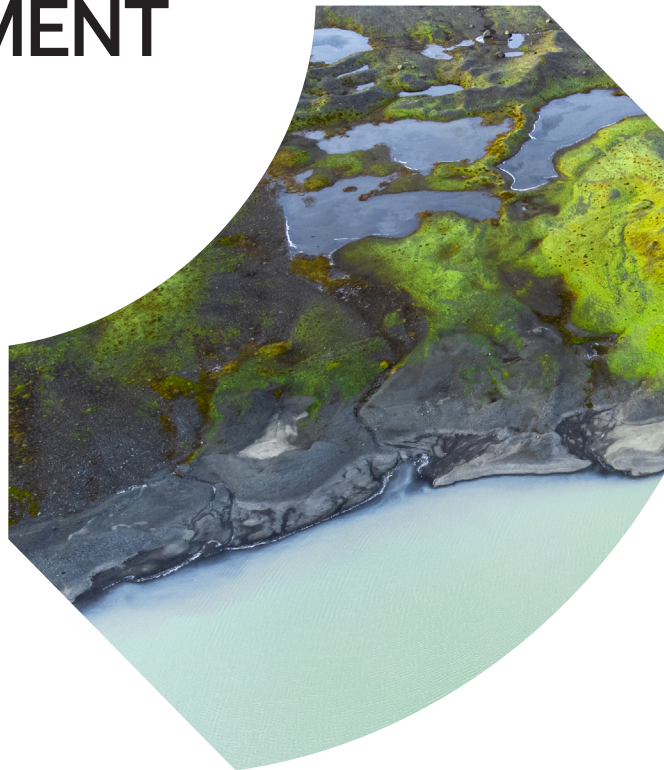




TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) ALIGNMENT



Task force on climate-related financial disclosures (TCFD) alignment

Governance

Board oversight of climate-related risks and opportunities

Digital Realty has robust internal processes and an effective internal control environment that facilitate the identification and management of risks. These include an enterprise risk management program, regular internal management Disclosure Committee meetings, a code of business conduct and ethics, and a comprehensive internal and external audit process. Management regularly communicates with and updates the Board of Directors, committees and individual directors on the significant risks identified and how they are being managed.

The Nominating and Corporate Governance Committee has direct oversight of the strategy and performance of, and Digital Realty's procedures for identifying, assessing, monitoring and managing risks and opportunities related to our ESG programs, including corporate responsibility, sustainability, climate change, and diversity, equity and inclusion activities.

Management role in assessing and managing climate-related risks and opportunities

Due to the nature of Digital Realty's business and the variety of climate-related risks and opportunities, climate-related risk is managed through multiple verticals. Market risks, such as increasing energy prices and renewable energy opportunities, are managed by our Vice President of Sustainability and Vice President of Supply Chain and Procurement. Policy and legal risks are managed through our Operations team, Legal team, and Portfolio Management Group. Physical risks are managed through our Vice President of Risk Management in conjunction with our Vice President of Sustainability. Our Management is responsible for managing risk through our Enterprise Risk Management Program, with oversight by our Board of Directors.

Strategy

Physical climate-related risks

Acute risks

- Short-term weather events exacerbated by climate change such as hurricanes, floods, and extreme temperatures may lead to increased risk of property damage and operational impacts. Increased severity of acute weather-related events could impact the operational resilience of our sites, result in insured and uninsured losses, lead to higher operational and recovery costs, and necessitate future mitigation efforts. This could happen in the medium-term (2-4 years). To mitigate these risks, we consider exposure to weather events, flooding, and climate change at all stages of the property's lifecycle.
- We evaluate portfolio concentration and related geographic risks as part of our enterprise risk management program. We manage potential risks first via our siting and design standards, then by implementing recommendations to proactively mitigate losses related to short-term acute weather events. We maintain appropriate levels of insurance for our portfolio of assets. Our Risk Management team receives reports from insurance providers that identify opportunities to enhance protection for each facility and improve loss expectancy values. We annually measure the reductions in value-at-risk achieved through the implementation of these measures. We ensure each site has mitigation plans in place specific to its location and exposure to climate risk.
- Our global Operations team actively implements and refines operating procedures to ensure our data centers are safe and resilient. This includes regular emergency response plan updates and other measures that result from property-specific risk reports. Fuel delivery agreements for backup power systems are on par with those held by the Federal Emergency Management Agency (FEMA) and allow for power to be maintained in the event of an extended power outage.

Task force on climate-related financial disclosures (TCFD) alignment

Strategy (continued)

Chronic risks

- Long-term climate impacts may pose several risks to our portfolio. More extreme weather events and extreme temperatures may lead to higher and more volatile energy costs; severe droughts may lead to higher water costs; air quality impacts related to forest fires could affect operational resilience; extreme rainfall events could exacerbate the risk of localized flooding and water ingress at buildings; sea level rise could increase the risk of flooding for a small number of assets. These impacts may contribute to increased insurance premiums, incremental planning and prevention costs, and costs to limit or further ‘harden’ assets to resist these impacts. These effects are expected to occur in the long-term (5-10 years) and the mitigation measures mentioned for acute physical risks are also applicable to chronic risks.
- In addition to sensitivity analyses and climate change scenarios, we continue to implement sustainability projects to minimize our environmental impacts and reduce our contribution to global carbon emissions that contribute to climate-related risks. These efforts include, but are not limited to, supporting the development of new renewable energy supplies, designing and constructing sustainable data centers that use less water and energy to operate, and improving energy and water efficiency for operational sites.

Transition climate-related risks

Policy and legal risks

- We see the potential for increased regulatory compliance costs associated with tracking, reporting, reducing or offsetting carbon emissions from our data center operations. This may occur in the short-term (0-1 years) and would have a low impact to our direct operations. To mitigate this risk, we seek to operate properties that are efficient in order to reduce compliance cost and burden. We currently comply with many state, city and country benchmarking and disclosure regulations. We have developed in-house reporting capabilities to lower annual reporting expenses, and we incorporate efficiency upgrades into capital planning, in part, to contribute to minimizing incremental future costs related to compliance. We also have a dedicated Government Relations team which helps to address the political landscape and educate leadership.
- Carbon pricing mechanisms may increase capital expenditures and operating costs. Adoption of more aggressive climate-change regulations could lead to higher costs for our portfolio, either through direct fees and compliance and reporting costs, or indirectly through higher energy and raw material prices. This may increase the cost or affect our ability to develop in certain areas. This could occur in the medium-term and would increase our indirect operating costs. To mitigate this risk, we monitor political and regulatory changes in the markets where we operate.
- Building codes are expected to become more stringent over time, potentially increasing development costs and requiring the adoption of new and different technologies. This may also influence the selection of locations where we develop as well as the technologies and building infrastructure we install. This could occur in the medium-term and increase our direct costs. To mitigate this risk, our Design and Construction teams build our data centers to high standards, above code where applicable. As such, we hope to reduce or mitigate the impact of any emerging building code regulations.

Task force on climate-related financial disclosures (TCFD) alignment

Strategy (continued)

Technology risks

- Current products and materials may become obsolete more quickly than anticipated or may be replaced with lower carbon technologies, which could result in increased construction costs. This may happen in the medium-term and would increase direct costs within our operations, primarily in equipment used in new construction and in end-of-life upgrades of equipment in operational facilities. Our Design and Construction teams build our data centers to high standards, pursuing low-carbon technologies where available. This, as well as our global size and scale, is expected to help us reduce or mitigate the impact of lower-carbon technology costs.

Market risks

- Higher costs of utilities where we operate could influence the attractiveness of our properties for customers. This outcome would affect our downstream operations and may occur in the short-term. To mitigate this risk, we seek opportunities to utilize suppliers that are less likely to be impacted by climate change-related effects. For example, we switched utility suppliers in Northern California to a utility that has lower exposure to wildfire-related risks and low risk related to fossil fuel supply concerns.
- There is a potential for higher material costs for energy intensive products used to construct our properties. Steel, aluminum, copper, cement, and other inputs could incrementally increase in cost if the cost of carbon or other environmental impacts increases. This could occur in the long-term and would increase the cost of raw materials. To mitigate this risk, we expect to evaluate and test material and product substitutions.
- Shifts in consumer preferences may reduce demand for certain goods and services. We evaluate the risk and opportunity of changing customer demand for our product based on changing customer demand for low carbon and renewable power supplies for data center space that customers lease from Digital Realty. Over time the demand has grown, but it is possible that customers will self-perform and procure their own renewable energy. This may happen in the medium-term and affect our downstream operations. To manage this risk, we actively track customer opportunities via direct dialogue, surveys, other formal and informal feedback mechanisms. We have an inhouse team paired with consultants focused on addressing low and zero carbon solutions.

Reputational risks

- Data centers consume significant amounts of energy and the associated emissions contribute to climate change. Customers and investors may increase their scrutiny of data centers, encouraging increased investment in cleaner renewable energy solutions and low-carbon technologies and diversifying away from more carbon-intensive properties and portfolios. This may occur in the short-term and would affect our downstream operations. To manage reputational risks we have continued our commitment to developing green buildings that seek to minimize impacts on the communities where we operate expanding our supply chain engagement efforts to address upstream carbon emissions in order to reduce environmental impacts, manage costs, and enhance supply chain resilience. We also actively evaluate investments in renewable energy solutions in response to customer demand, including vPPAs, green tariffs and REC purchases.

Task force on climate-related financial disclosures (TCFD) alignment

Strategy (continued)

Climate-related opportunities

Resource efficiency

- Improving energy efficiency can reduce operating costs at our facilities. This is likely to occur in the short-term and affect our direct operations. To realize this opportunity, we have a dedicated team focused on identifying, implementing, and monitoring energy efficiency projects. They work with business units to budget for and implement attractive projects and track the resulting performance and cost improvements.
- Finding ways to support customer efforts to become more energy and water efficient and lower operating costs can support customer retention. This is likely to occur in the medium-term and would affect our direct and downstream operations. In addition to our energy efficiency identification efforts, we incorporate “green leasing” standards into our contracts with customers. Among other things, this aligns the interests of Digital Realty and customers to identify, prioritize, and implement cost-reducing energy and water efficiency projects.

Energy source

- Transitioning to low and zero emission sources of energy and investing in new renewable solutions have the potential to lower our operating expenses and may reduce our data centers’ exposure to potential future carbon regulations, fees, or taxes. Additionally, we have the opportunity to generate incremental revenues by developing renewable products and solutions for customers. This is likely to occur in the medium-term and would affect our indirect operating costs. To realize this opportunity, we have an in-house team and consultants focused on sourcing cost-effective renewable projects. We continue to expand our supplies of renewable energy, pursuing market-based solutions to cost-effectively make progress towards our renewable energy targets. We assess the carbon reduction impact our projects will have on the regional grid and seek to maximize carbon reductions whenever possible by supporting projects in more carbon-intensive grids.

Products and services

- Developing sustainable data centers and supplying them with zero-carbon energy is a mechanism we can use to attract and retain customers, reflecting customer preferences for lower-carbon buildings. Additionally, we have the opportunity to provide renewable energy and sustainability solutions to our customers to support their specific sustainability goals, which could also increase customer demand and retention. This is likely to occur in the short-term and would place Digital Realty in a better competitive position to reflect shifting consumer preferences, resulting in increased revenues. To realize this opportunity, our Sustainability, Design and Construction, Energy Operations, and Sales teams are aligned in delivering products that address the sustainable and carbon-free demands of our customers. These groups collaborate on multi-disciplinary working groups, deal teams, and customer success functions to ensure these priorities are being achieved.

Markets

- Our globally diversified portfolio enables us to take advantage of a broad range of utility incentives and renewable and low-carbon energy products that become available. This is currently occurring and provides returns on investment in low-emission technology, further diversifies our pool of investors and expands our ability to access capital to cost-effectively fund the growth of our business. Our Finance team actively evaluates financially viable green bonds to pursue and our Design and Construction, Energy Operations and Sustainability teams implement sustainable projects that can be allocated to these green bonds.

Task force on climate-related financial disclosures (TCFD) alignment

Strategy (continued)

Resilience

- Our customers rely on us to provide resilient data centers to ensure data privacy, security and business continuity. Continuing to provide resilient data centers through physical adaptation measures such as site selection and climate prevention measures, appropriate levels of insurance, green building designs, efficiency measures, as well as data privacy, cybersecurity and physical security practices may increase stronger customer demand and retention. This is likely to occur in the short-term and would increase revenues resulting from increased demand for products and services. To realize this opportunity, we evaluate our assets for resilience-related opportunities annually as part of each asset's risk management and capital plan, and have strong data privacy and physical security programs.

Impact of climate-related risks and opportunities

- We see demand from customers for low carbon products and services and have executed on this customer demand where appropriate through our Sales, Asset, and Design and Construction teams, helping us win and retain business. If certain locations become less attractive due to climate-related effects (e.g., water scarcity, or higher power prices), we may see less customer demand, even for properties that offer certain low carbon or water-efficient solutions. While this has not become a critical issue thus far, we are aware of potential portfolio impacts due to physical climate change impacts.
- Our suppliers may be subject to incremental costs related to carbon taxes, tariffs, environmental regulations, production costs related to the cost of energy and the availability of raw materials, as well as other factors. This could affect our cost to construct, operate, and maintain our properties. We also see opportunities - for example, more suppliers are offering low-carbon products, and some utilities are offering green tariff and carbon-free power supply options that are cost-effective with traditional power products. In the solutions we've pursued there have generally been savings or negligible costs, while we have benefited from carbon-free and/or renewable power supply to attract customers.
- We incorporate research into low carbon products and technologies into our R&D program, including construction materials, and water and energy-conserving design alternatives when evaluating current and future design solutions. For example, we studied and are now deploying lithium-ion UPS battery solutions that have a lower lifecycle carbon footprint than traditional VRLA (lead acid) battery solutions. Our R&D efforts have called for limited additional incremental investment, with a goal that over the long term, additional costs will be recouped through lower lifecycle costs and other value streams.
- We manage liability obligations related to our green bond commitments by allocating capital to eligible projects, tracking performance, and monitoring allocation compared to bond proceeds.
- We see regular increases in energy and water costs, particularly in areas with potential concerns about scarcity or resilience. We continue to evaluate and invest in measures to improve efficiency and reduce water use at our properties to prepare for possible future constraints on supplies.

Task force on climate-related financial disclosures (TCFD) alignment

Strategy (continued)

Resilience of the organization's strategy

The resilience of our strategy is assessed through various methods. For example, our insurance providers have developed a "Resilience Index" to evaluate risk across our data centers, inclusive of environmental risks such as exposure to natural hazards and fire risk as a result of climate change. The platform utilizes live maps of our global portfolio to identify data centers that may be at risk from a range of natural hazards. We have also utilized several platforms to view climate scenarios for a portion of our buildings. These include the GRESB Climate Risk platform which shows scenarios under the RCP 2.6, RCP 4.5 and RCP 8.5 concentration pathways in present day, 2050 and 2100 timeframes, and the Measurabl Climate Risk platform, which projects future states in 2030-2040 under the "Business as Usual" scenario (RCP 8.5 concentration pathway). In 2022, we performed scenario analyses to assess the change in water stress across our global data center portfolio in 2030 and 2040 under RCP 4.5 and RCP 8.5 concentration pathways utilizing the World Resource Institute's (WRI) Aqueduct Tool.

Risk management

Process for identifying, assessing and managing climate-related risks

Due to the nature of Digital Realty's business and the variety of climate-related risks and opportunities, climate-related risk is managed through multiple verticals. Market risks, such as increasing energy prices and renewable energy opportunities, are managed by our Vice President of Sustainability and Vice President of Supply Chain and Procurement. Policy and legal risks are managed through our Operations team, Legal team, and Portfolio Management Group. Physical risks are managed by risk owners throughout the company, in consultation with our Vice President of Risk Management. Our Management is responsible for managing risk through our Enterprise Risk Management Program, with oversight by our Board of Directors.

Metrics & targets

Metrics used to assess climate-related risks and opportunities

In addition to carbon emissions and emission intensities, we currently track and monitor a number of risk metrics through our insurers and other service providers. These metrics include total insured value (TIV), loss expectancy (LE), and composite risk indicators. In 2022, 76% of our portfolio insured by FM Global placed in the top 25% of all FM Global insureds based on a proprietary risk quality score. Also in 2022, 69% of our portfolio insured by FM Global were identified as Highly Protected Risk (HPR) sites.

Scope 1, 2 and 3 GHG emissions

2022 GHG Emissions (MtCO₂e)

Scope 1 ¹	Scope 2 (location-based)	Scope 2 (market-based)	Scope 3 ²
39,030	3,426,701	1,567,223	2,059,753












¹ Scope 1 emissions were a net value of 35,874 mT CO₂e after factoring in 3,156 mT of carbon offsets retired for the reporting year.

² Additional details about our Scope 3 emissions can be found in our ESG report.

Targets and performance against targets

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Sustainability Objectives

Category	Objective	2022 Highlights	UN SDG
Carbon emissions	Reduce Scope 1 and 2 emissions 68% per square foot and Scope 3 emissions from purchased goods and services and fuel- and energy-related activities 24% per square foot by 2030 (against 2018 baseline)	Reduced Scope 1 and 2 emission intensity 43% from baseline and Scope 3 emissions 1% from baseline	
Carbon emissions	Achieve carbon neutrality (Scope 1 and 2 emissions) for France data center portfolio through 2030	Achieved carbon neutrality for 2022	
Carbon emissions	Achieve carbon neutrality for EU data center portfolio in 2030 (EU Climate Neutral Data Centre Pact)	In progress; net zero for Scope 2 emissions for Europe and U.K. properties	
Renewable energy	Long-term goal of making 100% renewable energy available to customers	126 data centers matched with 100% renewable energy	
Sustainable buildings	Expand adoption of sustainably-aligned (green) lease provisions in new customer contracts	39% of net-new eligible contracts by square feet adopted green lease provisions since 2017	
Sustainable buildings	Achieve LEED Silver or country-specific equivalent certification for major new construction and redevelopment projects	New certification in Korea; 12 million sq. ft. certified since 2007	
Energy efficiency	Benchmark 100% of properties in Energy Star Portfolio Manager; pursue certification for eligible properties	100% of properties benchmarked in 2022; certified 26 U.S. properties in 2022	
Energy efficiency	Colocation PUE reduction goal of 10% by 2022 (against 2017 baseline)	Exceeded target; achieved a 16% reduction	
Energy efficiency	Expand number of NABERS-rated data centers in Australia	Achieved NABERS ratings of 4-stars or higher for three Australian data centers	
Management	Increase number of properties aligned with the EU Code of Conduct for Energy Efficiency in Data Centers	Increased number of properties aligned by 18% in 2022 compared to 2021	
Resilience	Place in the top 25% of all FM Global insureds based on risk quality score	76% of our sites insured by FM Global placed in the top 25%	
Resilience	Receive Highly Protected Risk (HPR) status for all sites insured by FM Global	69% of our sites insured by FM Global received HPR status	