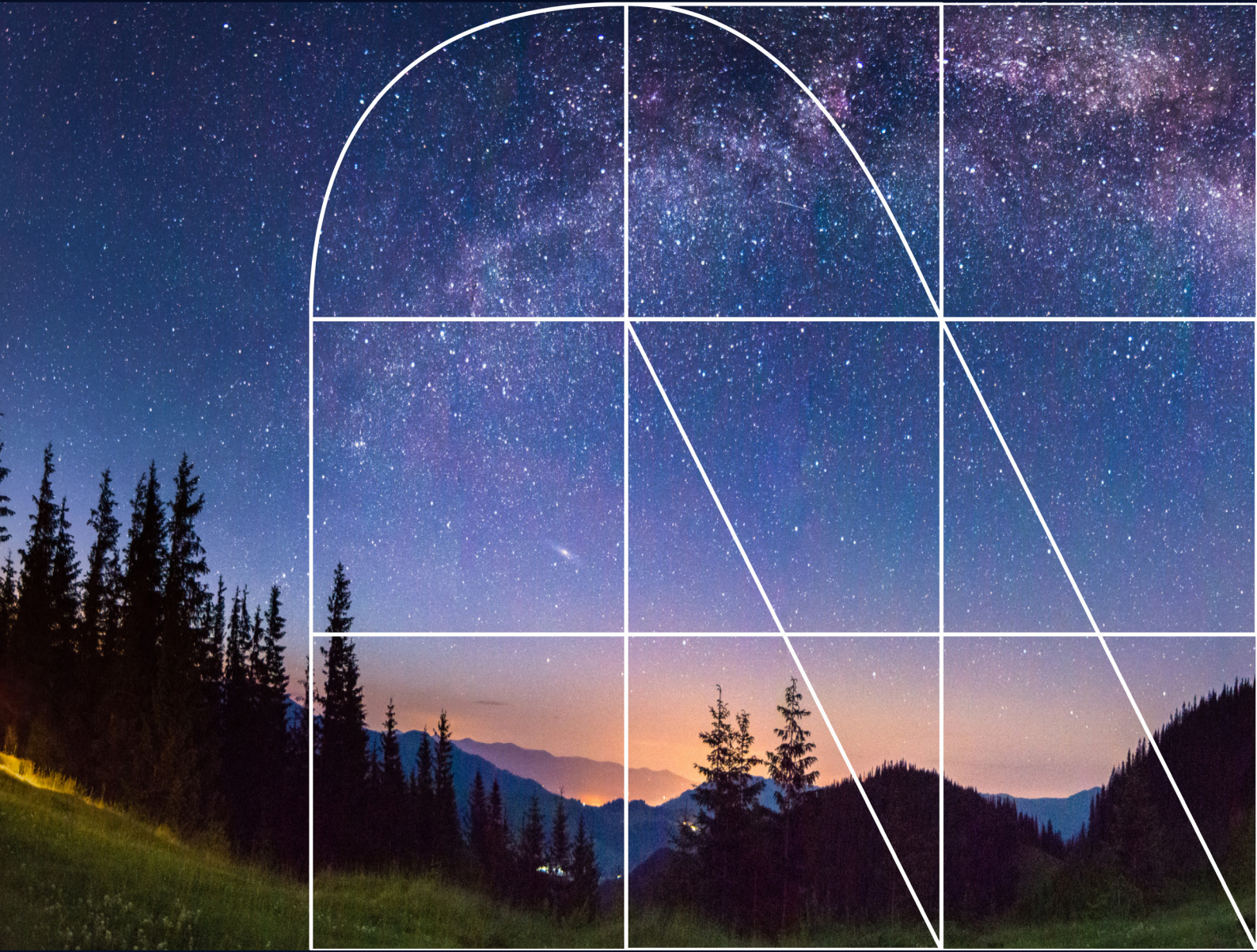


Global Data Centers | 2025 Global Sustainability Report

Shaping a Sustainable Future





A message from our CEO:

We're excited to unveil our new Sustainability Report, and I'm honored to highlight our steadfast dedication to sustainability in the data center sector. At NTT DATA Global Data Centers (NTT GDC), we prioritize sustainability not just because our clients demand it, but because it's the right thing to do.

Data is central to our digital age, and data centers have a substantial effect on the environment — an impact that could increase dramatically with the rapid rise of generative AI. By 2030, AI-driven power consumption is projected to surge to 13 times 2018 levels. The data center industry must align technological progress with conscientious environmental and social care, and NTT GDC is committed to ensuring the AI revolution is a sustainable one.

We envision being the world's premier data center provider in a digitally connected world that is both harmonious and sustainable. Consequently, we've adopted a comprehensive sustainability strategy that focuses on our material areas.

We're committed to achieving Net-Zero emissions across our operations by 2030, and across our value chain by 2040. Guided by the United Nations' Sustainable Development Goals (SDG) and Science Based Targets initiative (SBTi), we've crafted an approach whose goal is to foster a sustainable and inclusive future for everyone.

Thank you for your continued support and trust in NTT GDC. Together, we can build a sustainable future for generations to come.

“ Creating sustainable data centers involves more than just investing in low-carbon technologies and buying renewable power. It also requires developing strong policies, embracing diverse perspectives, and promoting equitable opportunities. A sustainable future is shaped by what we do today, ensuring a positive impact on our planet and people.

Doug Adams, Chief Executive Officer | Global Data Centers



Executive Summary

At NTT GDC, we're mindful that technological innovation and business growth must be balanced with care for the planet and everyone on it. We want all of our stakeholders — our employees, clients, partners, and communities, as well as the Earth itself — to benefit and thrive. Now, we've set a bold course: achieve Net-Zero emissions by 2040. We've compiled this Sustainability Report to share our goals, establish our baseline, highlight our planet- and people-first practices, and track our progress.

Net-Zero Goals

Adopting a dedicated decarbonization strategy that mitigates our environmental impact is central to our sustainability philosophy. Our goal is to reach Net-Zero emissions 10 years ahead of the timeline of the Paris Agreement:

By 2030: Reduce Scope 1 and 2 emissions in our data center operations by 90+ (vs. FY21 baseline)

By 2040: Reduce total Scope 1-3 emissions through the supply chain to Net-Zero

As part of our sustainability program, we've defined multiple task forces for FY24–FY25 to evaluate and implement the following emission reduction levers:

Scope ①

Direct Emissions – Fuel, Refrigerants

Minimize generator testing and evaluate alternative fuels, reduce refrigerant leakages, switch to refrigerants with lower global warming potential where technically and commercially feasible, and transition to electric vehicles.

Scope ②

Indirect Emissions – Purchased Energy (Non-IT Load), Operational Energy Use

Procure renewable energy for non-IT power, invest in power purchase agreements (PPAs), generate renewable energy onsite where feasible, improve power usage effectiveness (PUE) through energy efficiency measures and AI-driven cooling optimization, and deploy battery energy storage systems (BESS) to enhance grid resilience.

Scope ③

Value Chain Emissions – Supply Chain, Energy Used by Clients (IT Load)

Develop innovative data center design, engage suppliers in decarbonization initiatives, purchase lower-carbon materials and services, influence clients to adopt renewable energy and reduce energy consumption for IT loads, increase circularity by reusing and recycling waste, expand waste heat recovery for external use, and promote sustainable business travel to reduce emissions.



NTT GDC Decarbonization Framework



NTT GDC has defined a holistic framework for decarbonization to help us reduce emissions and improve our environmental footprint: Consume less. Do better. Do different.

Consume less

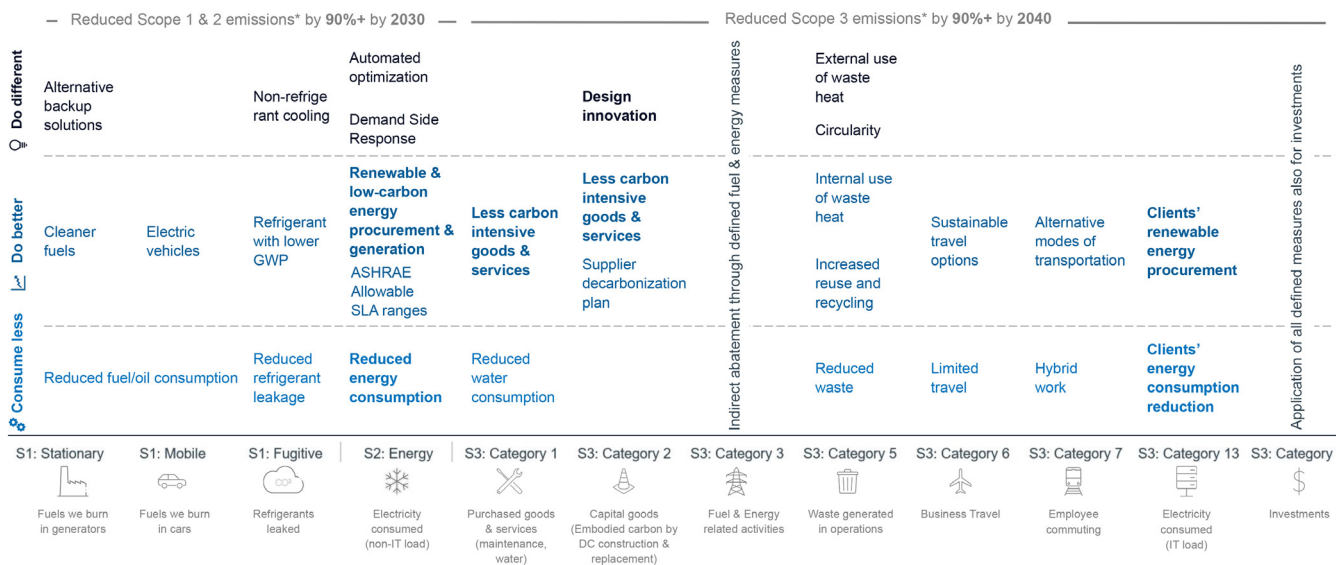
Consume less focuses on what we're doing today, reducing the use of resources like energy, water, and waste by optimizing existing processes.

Do better

Do better is about the day-to-day changes we can make. This involves switching to alternative resources like renewable energy, cleaner fuels, less carbon-intensive goods and services, and enhancing recycling efforts for waste.

Do different

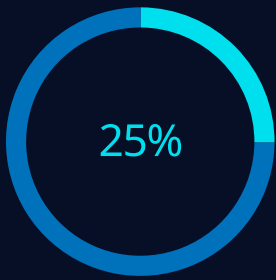
Do different includes long-term innovations like new data center design, external use of waste heat, non-refrigerant cooling, and alternative backup solutions.



What We're Doing

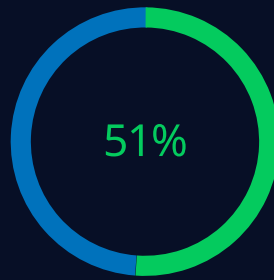
- In FY23, we achieved 51% renewable energy usage for non-IT load globally.
- In the Navi Mumbai data center, we improved our facility's energy efficiency by almost 30% by deploying liquid immersion cooling (LIC) and direct contact liquid cooling (DLC).
- In Germany, we will be providing heat and warm water to more than 1,000 buildings in the Marienpark Berlin commercial district by repurposing the equivalent of 2MW excess heat from our data center, with plans to expand this initiative and extract up to 37MW of thermal output of the campus in total in the future.

At a Glance: FY23 Accomplishments



25%
Emission Reduction

In operations (Scope 1 & 2) compared to FY21 baseline, 31% reduction vs. FY22



51%
Renewable Energy

In operations (Scope 2). 42% increase compared to FY22



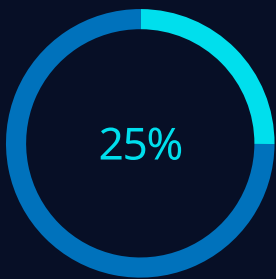
1.38
average annual PUE ⁽¹⁾

10GWh saved in FY23 through energy efficiency measures



3MW
External Heat Recovery Contracted

Ready to provide carbon-free heat to our communities



25%
Increased investment in renewable energy

All located in country for consumption in country



.65/2.77
Average annual WUE ⁽²⁾

25% reduction in water usage compared to FY22



290GWh
RE contracted via PPA

1.4TWh secured to come online in addition by 2026



USD 15.3m
equity investment for RE additionality

USD 8m+ equity planned to be invested into new power plants and BESS in India by 2026

1. Considering sites with 24 months of continuous electricity consumption and IT utilization >= 20%.
2. Entire DC portfolio / evaporative sites only (both in l/kWh)

As you read through this report, you'll learn more about the steps we're taking every day to support our sustainability pillars: *Consume less. Do better. Do different.*

Making Progress

We're an environmentally responsible company, committed to advancing renewable energy solutions, optimizing resource use, and championing energy-efficient practices. Our data centers are equipped with state-of-the-art cooling systems and energy-efficient technologies that minimize energy and water usage while maximizing performance.

To keep ourselves on track, we've established the following key metrics and results.

Area	Metric	Unit	FY21 (baseline) ^{1,3)}	FY22 ²⁾	FY23 ^{2,3)}
Scope 1	GHG emissions (direct)	ktCO2e	9	23	16
Scope 2	GHG emissions (indirect, market-based)	ktCO2e	288	302	209
Scope 2	GHG emissions (indirect, location-based)	ktCO2e	428	466	463
Scope 3 ⁴⁾	GHG emissions (indirect)	ktCO2e	1,576	1,783	1,817
Scope 1-3	Total GHG emissions (market-based)	ktCO2e	1,873	2,108	2,042
Energy	Total Energy consumption	GWh	-	3,260	3,500
Energy	Non-IT load consumption	GWh	-	980	1,000
Energy	Total Renewable Energy consumption	GWh	-	1,130	1,400
Energy	Total Renewable Energy consumption	%	-	35%	40%
Energy	Non-IT load Renewable Energy consumption	GWh	-	350	510
Energy	Non-IT load Renewable Energy consumption	%	-	36%	51%
Energy	Non-IT load Power carbon intensity (market-based)	kgCO2e/kWh	-	0.31	0.21
Energy	PUE ⁵⁾ (12-month rolling)	Quotient	-	1.40	1.38
Water	WUE (12-month rolling, entire DC portfolio)	l/kWh	-	1.01	0.65
Water	WUE (12-month rolling, evaporate sites only)	l/kWh	-	2.93	2.77
Waste	Total waste recycled	t	-	1082	814
Waste	Total waste incinerated	t	-	459	278
Waste	Total waste to landfill	t	-	347	725

1 FY21 NTT Ltd. re-baselined according to SBTi criteria. Carbon emissions are reported in units of carbon dioxide equivalent (CO2e) and include all greenhouse gases, as required by the GHG Protocol (FY21 [basis of reporting](#) | FY22 [basis of reporting](#))

2 Limited external assurance by Lloyd's Register Quality Assurance (LRQA) (qualified opinion) using the assurance standard ISAE 3000 and based on NTT Ltd. using the Corporate Greenhouse Gas Protocol for FY22 and FY23 data as indicated.

3 For FY21 and FY22, data was reported under the operational control approach. In FY23, NTT Ltd. changed to financial control approach.

4 Non-relevant categories (4, 8 - 12, 14) were omitted, location-based EFs applied to Category 13

5 Considering sites with 24 months of continuous electricity consumption and IT utilization >= 20%

“ The best kWh is the one that we don't use. The second-best kWh is the one we procure from renewable sources. With this approach, we're driving the reduction of our operational emissions to Net-Zero by 2030.

Florian Winkler, Chief Operating Officer | Global Data Centers

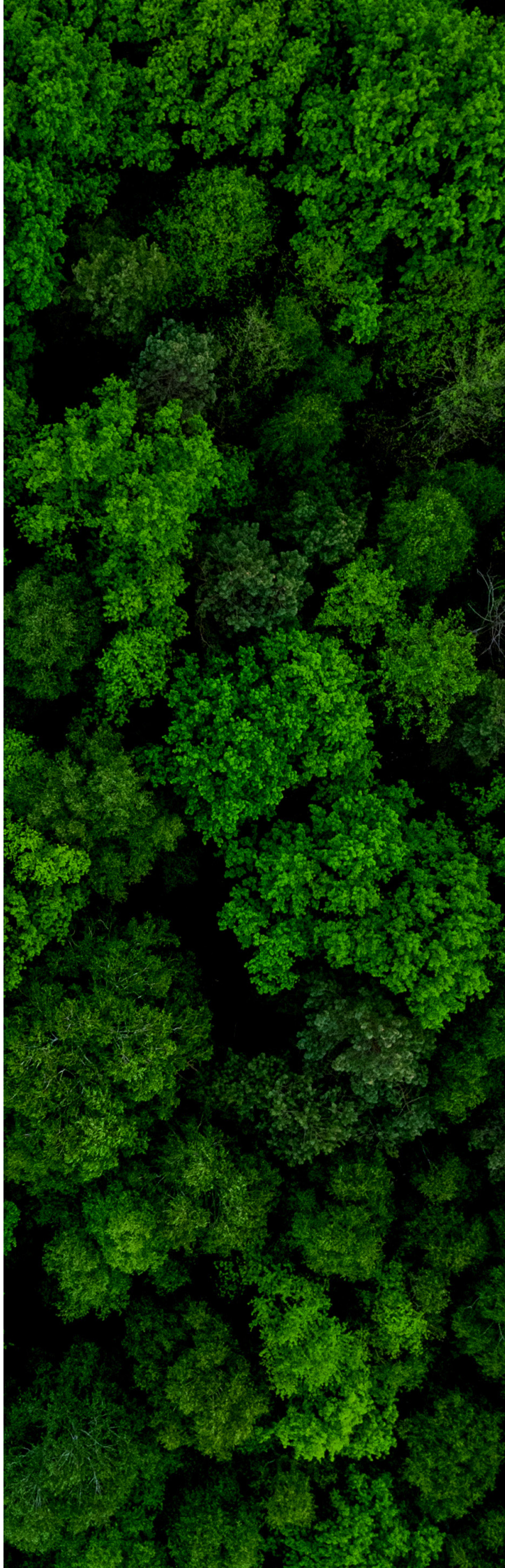




Our Sustainability Strategy

We believe in doing the right thing for our planet and future generations. We want our data centers to contribute positively to the health of the world around us, and we've developed a sustainability vision and mission to help us enhance and embrace the environmentally and socially responsible business practices we need to make good on that goal.

At NTT GDC, sustainability is part of our DNA. It's something we commit to with every act, however large or small, every day. Energy and water efficiency are built into our day-to-day business practices, and we regularly examine our sites and optimize operating conditions for continuous improvement.



Shaping a Better World for All

NTT DATA transforms organizations for success, disrupts industries for good, and shapes a better world for all. As part of NTT DATA, NTT GDC understands that we must design our sustainability practices to ensure that NTT DATA also meets their commitments. We view our combined journey toward sustainability as an opportunity to improve the environment, the economy, and society in both the short and long term. NTT DATA's sustainability framework is guided by the United Nations Sustainable Development Goals (SDGs) and includes the following three focus areas:

Prosperity Positive

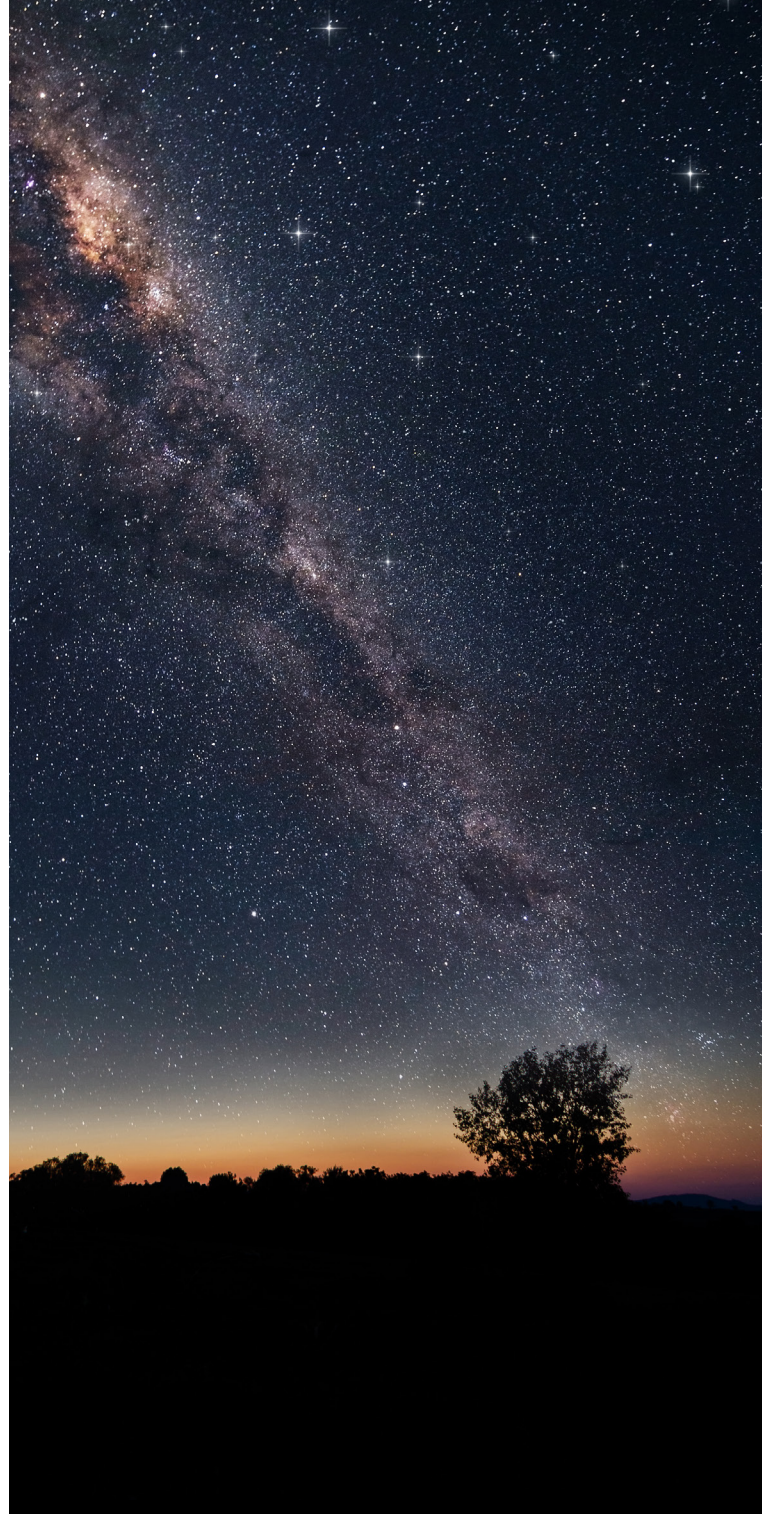
Prosperity positive is about creating a brighter future for everyone. It means considering development in a way that looks beyond economic factors to also focus on people and the planet. We're all connected, and we believe that when we work together and take care of each other, we can build a world where everyone can thrive.

Planet Positive

Planet positive recognizes our interconnectedness with the natural world. It's about taking proactive steps to disrupt industries for good by creating innovative services and solutions that help regenerate our planet. It asks us to embrace a mindset of responsibility, stewardship, and respect for the Earth that ensures its health and vitality for generations to come.

People Positive

People positive underscores the transformative potential of digital capabilities to shape a better world for all. We share a responsibility to address societal challenges, improve livelihoods, and promote diversity, equity, and inclusion so that future generations can enjoy a more just, prosperous, and sustainable future. Through collective action and collaboration among sectors and stakeholders, we can harness the power of technology for the greater good and build a more inclusive and equitable society.



Our Vision and Mission



Sustainability Vision

As part of NTT DATA, we are committed to providing an infrastructure to deliver a positive impact on the **planet, people, and prosperity**. We seek to achieve that impact by:

- Transforming businesses and society for successful growth with 100% sustainable services and solutions involving our end-to-end value chain.
- Leading by example to disrupt industries for good, innovating services and solutions to regenerate our planet.
- Shaping a better world for all, applying our digital capabilities to improve livelihoods and contribute to a diverse, equitable, and inclusive society.

Sustainability Mission

We are shaping our business to accelerate our clients' sustainability transition, being climate resilient, creating a sustainability culture, and reducing our sector's environmental impact.

To live out this mission, we are prioritizing initiatives targeting the decarbonization of energy usage, through a strategy influenced by our commitments, regulatory obligations, and international standards. We are working to:

- Develop a Net-Zero strategy and implement related decarbonization (and other) measures to reduce our environmental impact
- Ensure our results are externally validated and communicated to demonstrate our credible impact on relevant stakeholders and in the market
- Improve internal awareness and capabilities to create a sustainability culture in the organization
- Make our products future-proof and ensure regulatory compliance to accelerate our clients' ongoing sustainability transition
- Be climate resilient to ensure business continuity and investor interest.



| Consume Less

Reducing Our Energy Consumption

To reduce energy consumption, we apply several key principles. We align NTT GDC's standard temperature SLA with clients wherever it's technically possible to reflect ASHRAE Allowable temperatures, increasing chilled water operating temperatures to maximize free cooling potential and minimize compressor load. We ensure well-managed hot and cold aisles in the white space to prevent heat recirculation that would adversely affect heat loads. We adopt advanced cooling techniques, including direct contact liquid cooling (DLC), liquid immersion cooling (LIC), and cold-plate liquid cooling when feasible. We also plan to use automated real-time optimization to predict and optimize energy and water consumption.

Consume Less: Efficiency & Reduction of Resource Use

Scope ①

- Minimize generator testing and fuel usage.
- Reduce refrigerant leaks in cooling systems.

Scope ②

- Improve energy efficiency by upgrading cooling systems and deploying advanced techniques like liquid immersion cooling (LIC) and direct contact liquid cooling (DLC).
- Optimize power usage effectiveness (PUE) to reduce non-IT power consumption.
- Implement AI-driven cooling solutions to optimize energy efficiency.

Scope ③

- Reduce water consumption in evaporative cooling sites by optimizing bleed cycles of concentration and water pre-treatment systems.
- Encourage clients to optimize IT workloads to reduce their energy consumption.

Success story:

From setpoints to savings: fine-tuning our data centers

NTT GDC kicked off an EMEA-wide initiative to identify deviations in pressure, temperature, and general performance at the cooling and data hall equipment level. In one of our Hemel Hempstead Data Centers in the U.K., the team identified multiple parameters for which operational setpoints could be adjusted to align with the operational load based on the DC design and equipment specification. After conducting a risk and impact analysis, we adjusted the following setpoints to improve efficiency and reduce the building's PUE:

- a. Increased SCU supply air temperature from 24°C to 25°C in occupied data halls
- b. Increased chilled water supply temperature setpoint from 20°C to 21°C
- c. Reduced differential pressure setpoint from 20Pa to 10Pa in occupied data halls

As a result, we netted an overall average energy reduction of 37% in the occupied data halls and an 8% average reduction in fan speed, leading to expected savings of 840MWh every year.

[Watch Video →](#)

Success story:

Saving water through reverse osmosis

In FY22, at the Hemel Hempstead 3 Data Center 1 in the U.K., NTT GDC used over 80,000m³ of water in indirect evaporative cooling units (IDECs). High alkalinity and dissolved solids in the water supply led to excessive drainage and salt deposition on heat exchangers, and increased water and chemical costs. After implementing a reverse osmosis (RO) system to remove over 95% of dissolved salts, and blending 15% of raw water back in to maintain hardness, we reduced the WUE from 1.8l/kWh to 1.2l/kWh from June 2023 to July 2024.

This saved 35,000m³ in annual water usage with a corresponding annual financial savings of USD 100,000, and we eliminated 30 tons of salt used for water softening, saving us another USD 20,000 a year on chemicals.

[Watch Video →](#)

Do Better



Investing in Renewable Energy

Data centers use a lot of energy, and as a result, adopting sustainable energy solutions is essential for us to simultaneously meet our operational needs and fulfill our environmental responsibilities. Our strategy reflects this commitment to renewable and low-carbon energy, with diverse renewable energy installations, strategic long-term partnerships, and significant investments in sustainable infrastructure. Transitioning to 100% renewable and low-carbon energy is crucial for achieving our operational Net-Zero target by 2030.

In FY23, we achieved 51% renewable energy usage for non-IT load globally. By investing in solar, wind, and other renewable energy sources, we've already secured 1.7TWh via power purchase agreements (PPAs) that will come online by FY26.

We're accelerating the procurement of PPAs with bundled EACs for a major part of our energy consumption, with plans to cover the shortfall via unbundled EACs. PPAs ensure a high quality of renewable energy, provide mid- to long-term certainty for power availability and price, and lead to less dependency/energy required from the grid. By focusing on additional PPAs, and thus investing in new power plants, we're also adding more renewable energy to the market. We've already invested \$15.3 million in equity into building new power plants in India, with a further investment of \$8+ million planned by 2026.

Our goal is to significantly reduce our reliance on fossil fuels and invest heavily in renewable and low-carbon energy. We've actively pursued and invested in decarbonization initiatives, such as hydrotreated vegetable oil (HVO), which replaces conventional fuel with a more sustainable alternative.

“ Our ambitious PPA strategy is not just about powering our data centers; it's about powering change in the energy landscape. By securing large-scale agreements, we're meeting operational needs and driving the creation of new renewable energy sources. This allows us to simultaneously reduce our carbon footprint, enhance grid resilience, and contribute to the global transition toward sustainable energy.

Neal Kalita, Senior Director Power Management | Global Data Centers EMEA



Do Better: Switch to Sustainable Alternatives

Scope ①

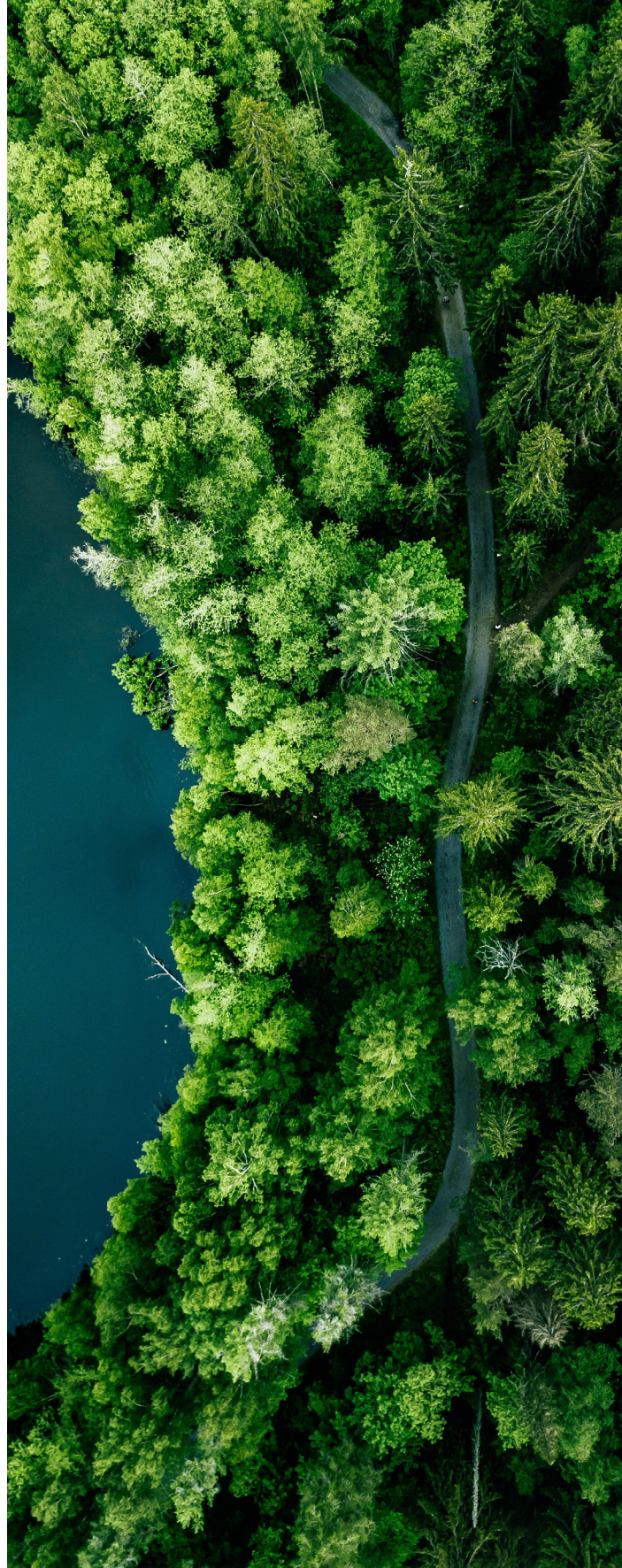
- Replace conventional fuel with alternative fuels like Hydrotreated Vegetable Oil (HVO).
- Introduce low Global Warming Potential (GWP) refrigerants to minimize emissions.
- Transition to electric vehicles for company operations.

Scope ②

- Procure renewable and low-carbon energy sources through power purchase agreements (PPAs).
- Invest in onsite renewable energy generation and battery energy storage systems (BESS).
- Procure unbundled Energy Attribute Certificates (EACs) to cover renewable energy shortfalls.

Scope ③

- Work with suppliers to develop decarbonization plans and adopt sustainable design standards.
- Increase reuse and recycling rates for waste.
- Enhance sustainable travel options, including hybrid work policies and reduced business travel.
- Optimize procurement processes to purchase less carbon-intensive goods and services.
- Encourage clients to switch to renewable energy sources for their IT loads.



To ensure a sustainable future for generations to come, we must adopt a comprehensive decarbonization framework that reduces emissions through energy-efficient technologies and renewable and low-carbon energy. Implementing the framework requires robust monitoring, continuous improvement, and a commitment to think outside the box.

Claudia Unterkircher, Senior Director Sustainability | Global Data Centers

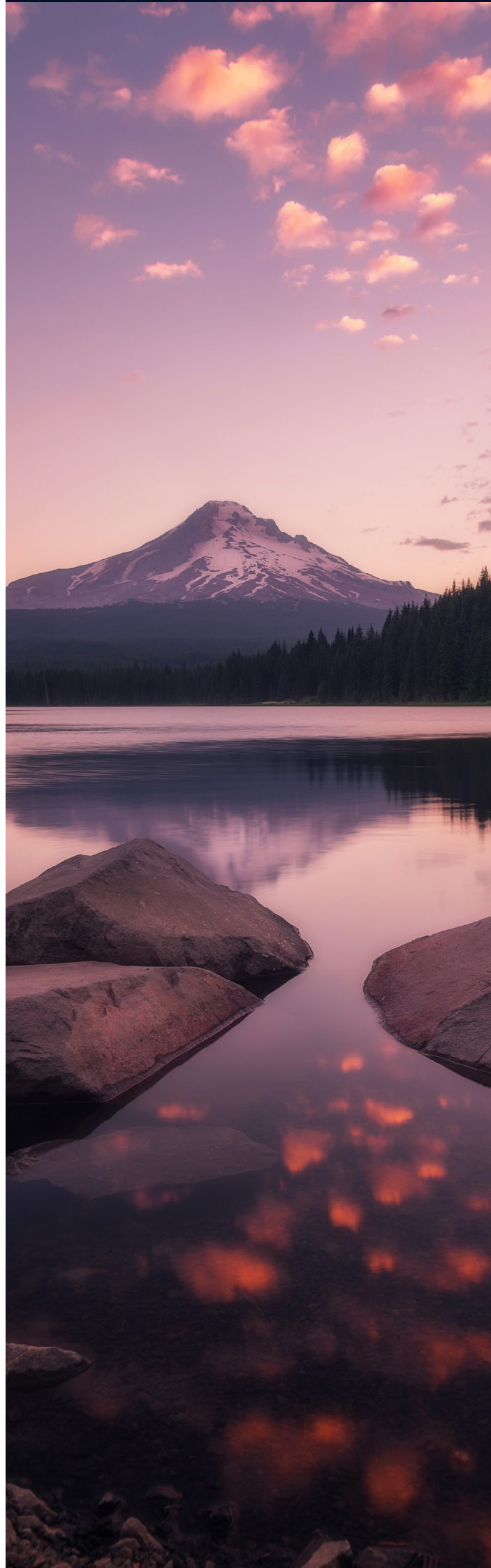




Ratings, Assessments, Awards, and Certifications

Our strategy is influenced by our commitments, regulatory obligations, and international standards. NTT DATA has set high standards for our sustainability progress. We view our participation in prestigious sustainability rating platforms as proof of this dedication. Here are some of our top ratings, assessments, and awards.

We operate data centers in more than 20 countries, and each location comes with its own set of governmental regulations and environmental conditions; as a result, local climate targets and delivery dates will vary. We count on internationally recognized certifications, ratings, and assessments, as well as externally validated reporting, to ensure that our products are compliant.





Science Based Targets initiative

The Science Based Targets initiative (SBTi), founded in 2015, helps companies set Net-Zero targets aligned with climate science and the Paris Agreement. It validates companies' baseline and implementation plans.

NTT GDC reports under NTT DATA's SBTi-validated Net-Zero commitment, using FY21 as the baseline. This milestone enables us to map targets and track progress effectively.



Carbon Disclosure Project

The Carbon Disclosure Project (CDP) runs a global system for organizations to disclose and manage their environmental impact, driving worldwide engagement on sustainability.

As the most comprehensive dataset, CDP tracks global progress toward a sustainable economy. Reporting our GHG emissions through NTT DATA enhances our reputation, competitiveness, and risk management.

NTT DATA Group was named to the 2024 CDP Climate Change "A List" for the third consecutive year, recognizing top transparency in climate, deforestation, and water security. This distinction supports ongoing environmental improvement.



CDP Supplier Engagement Leader

CDP named NTT DATA Group a Supplier Engagement Leader for the second year, recognizing top performance in its Supplier Engagement Rating (SER). This honor reflects our collaboration with global suppliers to visualize and reduce GHG emissions.



EcoVadis

EcoVadis, a leading global sustainability ratings provider, assesses corporate social responsibility (CSR) across key areas.

In 2024, NTT DATA improved its EcoVadis score by 11 points, reaching 73 and earning a Gold Medal for the first time—placing us in the top 5% of rated organizations. Notable gains include a 10-point increase in Environment and a 20-point rise in Labor & Human Rights, while Ethics and Sustainable Procurement remain strong at 60 points. We remain committed to continuous improvement in sustainability and ethical practices.



Dow Jones Sustainability™ World Index

The S&P Dow Jones Indices, launched in 1999, are the first global sustainability benchmarks, with the DJSI tracking the top 10% of companies based on ESG performance.

NTT DATA's inclusion in the DJSI World for the seventh consecutive year recognizes its industry leadership, commitment to Net-Zero, and transparent data practices. We were selected in the "IT Services & Internet Software Services" category.



S&P Sustainability Yearbook 2024

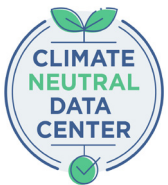
NTT DATA Group was included in the S&P Sustainability Yearbook 2024, recognizing excellence across all ESG areas through the Corporate Sustainability Assessment (CSA).

Among 9,400 companies across 62 industries, NTT DATA ranked in the top 1% of CSA participants in Information Technology Services and Internet Software Services—one of only two companies recognized as superior.



United Nations Global Compact

The United Nations Global Compact (UNGP) is a voluntary initiative driven by CEO commitments to sustainability and UN goals. NTT DATA Group has officially declared its support for the UNGP.



Climate Neutral Data Centre Pact

NTT GDC is a founding member of the Climate Neutral Data Centre Pact (CNDCP), uniting over 100 data center operators and trade associations to support the European Green Deal. This initiative drives greenhouse gas reductions and leverages technology to help achieve a climate-neutral Europe by 2050.



Task Force on Climate-related Financial Disclosures

The Task Force on Climate-related Financial Disclosures (TCFD), established by the Financial Stability Board in 2015, provides guidelines for transparent, consistent climate-related financial reporting.

Focusing on governance, strategy, risk management, and metrics, TCFD helps organizations assess and disclose climate risks and opportunities. NTT GDC is included in NTT DATA's TCFD disclosure report.



NTT Group Sustainability Conference 2023

The NTT Group Sustainability Conference 2023 awarded NTT GDC a Grand Prize for its Decarbonizing Our Data Centers initiative, supporting its Net-Zero commitment.

As NTT's platform for promoting sustainability, the conference recognized six Grand Prize winners and eight Awards for Excellence from 149 submissions.

For more information, please visit the [conference website](#).



Data Center Dynamics 2023 Award

NTT GDC won the Asia Pacific Data Center Project of the Year 2023 for its Liquid Immersion Cooling Project in Mumbai, India.

This award recognizes innovative data center design across the region. The project introduced advanced cooling technology in a multi-tenant facility without disruption, enhancing scalability and sustainability while reducing power usage effectiveness (PUE) from over 1.5 to below 1.2.



The Associated Chambers of Commerce & Industry of India Award

The Associated Chambers of Commerce & Industry of India (ASSOCHAM) has given NTT GDC the prestigious Award for Innovation in Energy Efficiency.



Confederation of Indian-Industry Indian Green Building Council Green Champion Award

NTT GDC received the CII-IGBC Green Champion Award for leadership in building performance within its sector.

All awarded projects, certified as green buildings by CII-IGBC, demonstrated sustained energy savings.



ISO 50001 Certified

VIE1 (Austria)

BER1, BER2, FRA1, FRA2, FRA3, FRA4, HAM1, MUC1, MUC2, RHR1 (Germany)

BLR2, BLR3, BLR3X, BOM2, BOM3, BOM4 & 4A, BOM5, BOM6, BOM7, CNN1, CNN2, DEL1, NAV1 (India)

AMS1 (Netherlands)

JOH1 (South Africa)

MAD1 (Spain)

ZRH1 (Switzerland)

BKK2 (Thailand)

LON1, HH2, HH3, HH4, SL2, SL3 (U.K.)

CH1, PH1 (U.S.)



ISO 14001 Certified

BLR2, BLR3, BLR3X, BOM2, BOM3, BOM4 & 4A, BOM5, BOM6, BOM7, CNN1, CNN2, DEL1, NAV1 (India)
LON1, HH2, HH3, HH4, SL2, SL3 (U.K.)



Environmental Design

LEED Platinum Certified (Leadership in Energy and Environmental Design)

VIE1 (Austria)
FRA3, MUC2, RHR1 (Germany)

LEED Gold Certified

SGN (Singapore)

LEED Silver Certified

JKT3 (Indonesia)
CBJ3 (Myanmar)

LEED Certified

PH1, TX1 (U.S.)

BREEM (Building Research Establishment Environmental Assessment Method) Excellent Certified

LON1 (U.K.)

IGBC (Indian Green Building Council) Platinum Certified

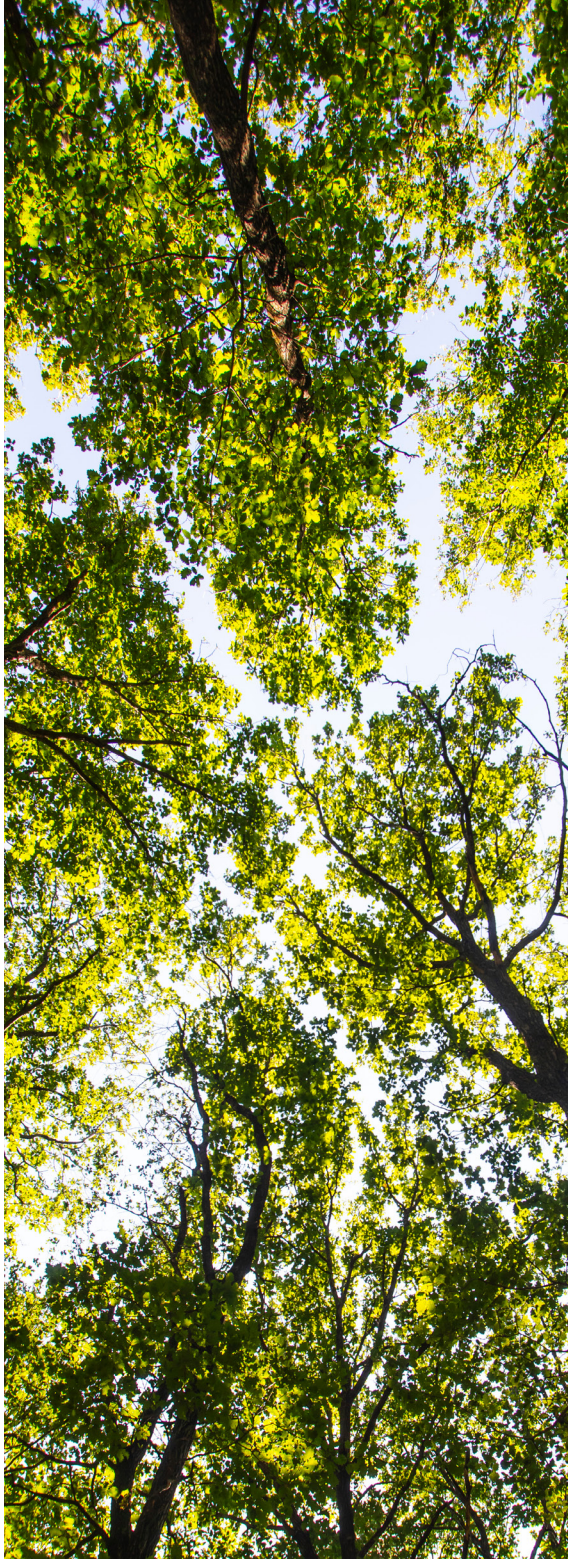
BLR3, NAV1, CNN2 (India)



Energy Star Certified

VA1, VA2, VA3, VA4, VA5, CA1, CA2, SV1 (U.S.)

Do Different



Setting Ourselves Up to Succeed

Achieving true sustainability requires more than just efficiency improvements and alternative solutions—it demands bold innovation and a willingness to rethink the status quo. Through our Do Different approach, we are pioneering transformational strategies that redefine how data centers operate, integrating next-generation technologies, circular economy principles, and breakthrough decarbonization solutions. By redesigning infrastructure, exploring non-traditional energy sources, and leveraging emerging innovations, we are setting a new industry standard for sustainable operations and long-term resilience.

Looking ahead, we are committed to embedding sustainability even deeper into our business strategy. This means setting ambitious goals, continuously refining our approach, and innovating to reduce our environmental footprint while creating meaningful benefits for our people, communities, clients, and stakeholders.

We are proud of our achievements so far, but this is just the beginning. The road ahead presents complex challenges, but also immense opportunities. How we navigate these will not only shape our own future but also determine our broader impact on the world.

Real change demands clarity, responsibility, and transparency. We are committed to openly sharing our sustainability efforts—both successes and setbacks—because tackling climate challenges requires accountability. Our aggressive targets will put us ahead of the Paris Agreement, not for recognition, but because it's what's necessary to drive real, industry-wide change.

At NTT GDC, we're not just envisioning a more sustainable tomorrow—we're building it. We're rolling up our sleeves, taking action, and rallying our clients, partners, and communities to join us in shaping a more sustainable future.

A truly digital future with AI

As AI adoption accelerates, so do the demands on data centers. By scaling our advanced cooling technologies, accelerating renewable energy procurement, and deepening partnerships across the sustainability ecosystem, we're enabling high-density AI workloads while maintaining our commitment to responsible, low-emission operations. The digital future must be sustainable, and we are leading the charge to ensure that innovation and environmental responsibility go hand in hand.

Do Different - Innovative & Transformational Changes

Scope ①

- Research and deploy non-refrigerant cooling solutions for data centers.
- Research and implement alternative backup solutions.

Scope ②

- Expand deployment of direct liquid cooling technologies to minimize cooling-related emissions.
- Enhance AI-driven monitoring systems for predictive energy and water optimization.

Scope ③

- Utilize waste heat from data centers to provide heating solutions for local communities.
- Develop Net-Zero data center designs for future facilities.



Success story:

Waste heat recovery in Berlin

Technically, heat generated at our data centers is being removed continuously through a closed-loop water circuit. The heated air is first fed through a heat exchanger to transfer the heat from air to water. The heated water then transmits the energy to an external closed-loop water circuit via another heat exchanger. Within the external system, the temperature of the water will be increased, typically via a heat pump. The water is then delivered to the end customer, either for local heating or as warm water.

In this project implemented in FY22 together with our partner GASAG and the City of Berlin in Germany, the carbon-free excess heat provided by the Berlin 2 Data Center will heat more than 1,000 buildings in the neighboring 385,000m² Marienpark Berlin commercial district and supply them also with hot water in the future. This is currently the largest heat utilization project in Germany and can serve up to 2MW of heat continuously per year. In the future, we plan to extract up to 37MW of thermal output of the campus in total.

[Watch Video →](#)

Success story:

Keeping cool with AI

The rapid adoption of artificial intelligence, and the enormous amount of computing power that AI requires, are pushing the boundaries for data centers when it comes to power density and the need to develop new cooling technologies.

In our Navi Mumbai Data Center in India, we've begun deploying liquid immersion cooling (LIC) and direct contact liquid cooling (DLC) in collaboration with our clients and partners. The servers are immersed in a dielectric synthetic oil that is non-conductive, letting us manage heat loads higher than 20kW per rack. Switching to LIC and DLC has improved the facility's energy efficiency by almost 30%, resulting in a PUE of 1.27 (hybrid).

[Watch Video →](#)

Our Sustainability Structure

Where the head goes, the tail follows. That's why we've created a new Sustainability function within NTT GDC to lead our efforts with clarity and vision. Alongside NTT DATA's Sustainability committee, and with support from global task forces, Sustainability will ensure that our planet- and people-first practices are woven throughout our organization so that we achieve our Net-Zero goals.

We've already taken significant steps to manage sustainability risks better. (You can read more about this in the [2023 TCFD report](#) from NTT Ltd.). In light of the recent integration of NTT Ltd. into NTT DATA, we've implemented a new governance structure that will be reflected in the next TCFD report.

Our new Sustainability function

To meet the goals of our ambitious sustainability strategy, we established a new global Sustainability function within NTT GDC. Sustainability is responsible for driving compliance, setting strategy, and communicating with all of our relevant stakeholders (regulators, investors, clients, market participants, and employees) as well as monitoring performance and managing the sustainability program.

We've created a series of task forces within our global sustainability program whose purpose is to drive the reduction of Scope 1, 2, and 3 emissions and manage other ESG responsibilities. They'll focus on the following topics in FY24–FY25:

- Renewable energy
- Energy efficiency
- Water efficiency
- Fuel management
- F-Gas management
- Waste management
- Heat management
- Supply chain
- Innovation

Each task force appoints a team member to lead its initiatives globally with support from regional SMEs. The Sustainability function and the task force leaders jointly determine annual global emission reduction targets for NTT GDC. These targets, along with each task force charter, constitute the annual scope of work for each task force.

Measurement practices

NTT GDC gauges our performance by measuring environmental data monthly. We create a data visualization of energy consumption, renewable energy, water, waste, fuel, fluorinated gases (F-Gases), and other activity data, and map their corresponding emissions to Scope 1, 2, and 3. We also track KPIs like power usage effectiveness (PUE), water usage effectiveness (WUE), and renewable energy. We identify trends and document or resolve anomalies as part of our robust monthly governance performance process.

The following documents are also relevant to our new Sustainability function:

[Sustainability Policy](#)

[Code of Conduct and Business Ethics](#)

[Supplier Code of Conduct](#)

[Modern Slavery Statement](#)

NTT GDC also recognizes the importance of the following principles and guidelines and has incorporated relevant aspects into its Employee and Supplier Codes of Conduct:

The UN Guiding Principles on Business and Human Rights

The OECD Guidelines for Multinational Enterprises

The International Labour Organisation's Core Conventions

The International Bill of Human Rights



Giving Back

We're proud of our achievements in both Corporate Social Responsibility (CSR) and Diversity, Equity and Inclusion (DEI). We're an engaged member of the communities where we operate, and we give back through a combination of environmental and educational projects and donations. Our people are our most important asset, and we invest heavily in programs that support mental and physical well-being and foster inclusion. We want all employees to feel a sense of belonging, to know they're valued for their differences, and to be empowered to participate and contribute freely.

Corporate social responsibility and diversity, equity, and inclusion

Our People Positive approach is simple: we treat people fairly, and we recognize, honor, and celebrate individual differences. Here's how:

- We collaborate with community members, schools, nonprofit organizations, and local authorities; hiring locally; and adhering to high standards in all of the ways we do business.
- We want everyone at NTT GDC to make meaningful contributions, and that means ensuring they feel valued and respected and have equal opportunities for advancement and success.
- NTT GDC has established a Diversity, Equity, and Inclusion (DEI) program to build an inclusive corporate culture, empower employees, foster innovative thinking, and help our people and our business succeed.

Building our talent pipeline

Our employees are involved in a variety of projects that foster diversity, equity, and inclusion, and help our communities by giving students access to job opportunities through tech training and apprenticeships.



Success story: Hands-on learning

In Dagenham, in East London, England, we provide hands-on experience and employment opportunities for students at the Brook Sixth Form Academy. In 2023, NTT GDC engaged students in active learning projects that gave them insights into data center operations with an opportunity to apply to the NTT DATA apprenticeship program. In 2024 the collaboration was expanded to include T-level placements, helping students gain vocational skills and qualify for our apprenticeship program.

To learn more about this project, please see our [case study](#).

Success story: Our new apprenticeship program

NTT GDC launched its first apprenticeship programs in London and Frankfurt in August 2023. These programs combine practical on-the-job training and studying to prepare participants for entry-level technical roles within 2-3 years. Partnering with local colleges has enhanced the diversity of our existing teams, improved in-house talent development, and boosted application success rates.

To learn more about this project, please see our [case study](#).

NTT GDC volunteers at work

Watch Our Miyawaki Forest Project Success Story →

Watch Our Water Conservation Project Success Story →





GLOBAL DATA CENTERS