Princeton Digital Group

Internet Infrastructure

ENVIRONMENTAL, SOCIAL & GOVERNANCE 2022 REPORT

Towards Digital Decarbonisation

Contents

About this report

This report details Princeton Digital Group's (PDG's) efforts to drive sustainability across its business and markets in FY2022 as the company strives to achieve its vision to be the most progressive data center operator in the region in terms of sustainability and sets a long-term target of Net Zero for Scope 1 and Scope 2 emissions by 2030.

This is PDG's second Sustainability Report. It contains full-year data for 1 January 2022 – 31 December 2022 (FY2022) and the reporting period aligns with the company's financial year. The Report is prepared with reference to Global Reporting Initiative (GRI) Standards 2021, the most established international sustainability reporting standard.

In 2022, we conducted materiality assessment to identify the issues that most affect our business and stakeholders from an environment, social and governance (ESG) perspective. This materiality assessment sought inputs from all relevant internal stakeholders including senior management, functional heads, and other relevant members of the team. Details of material areas of focus and our approach for each are included later in the report.

Our ESG framework is aligned to the United Nations Sustainable Development Goals (UN SDGs) focused on growth while balancing social, economic, and environmental sustainability. In this report, we detail our initiatives and how they are aligned to the SDGs in furthering the agenda pertaining to people, planet, prosperity, and partnership.

Our 2022 carbon emissions data has been calculated based on the Greenhouse Gas (GHG) Protocol – the world's most widely used greenhouse gas accounting standards. The Scope 1 and 2 carbon emission data have been verified through external assurance to enhance credibility of the emissions reported.

All information and data in this Report are disclosed voluntarily and in good faith. We will continue to publish our sustainability report annually, which will be accessible via our website.

We welcome feedback from our stakeholders as we continuously improve our performance and reporting in our sustainability journey. Please contact us/ drop us your inquiry at ***https://princetondg.com/contact***. For more information, you may visit us through our webpage: ***https://princetondg.com***.

Reporting scope

This report covers the group's ESG performance of owned and leased properties/ data centers across China, Singapore, India, Japan, and Indonesia. The report does not include three (3) data centers that are held in a JV with 21Vianet.

Facility	Country	Location	Capacity (MW)
SH1	China	Shanghai Fengxian	42.3
NJ1	China	Nanjing	43
LF1	China	Langfang Zhongshi	66
SG1	Singapore	Singapore	14
ID1 (Includes 5 operational data centers)	Indonesia	Jakarta Cibitung Jakarta Bintaro Bandung Pekanbaru Surabaya	11
JC2	Indonesia	Jakarta Cibitung	22
MU1	India	Mumbai	48
TY1	Japan	Tokyo Saitama	96

The scope for Scope 1 and Scope 2 emissions reporting are the 9 operating data centers as of December 2022.

The report includes an elaboration of how PDG is progressively expanding the scope of its reporting to include material topics, data points and targets for the company, and regional case studies.

External assurance

Deloitte has been engaged to independently assure Scope 1 and Scope 2 GHG emissions. The independent limited assurance report is included in this report.

Message from the CEO

The Internet is experiencing relentless growth, driven by cloud, content, commerce, AI and others. This growth is accompanied by an unprecedented expansion of digital infrastructure, resulting in significant investments. The global data center industry is a major contributor to this expansion, receiving a proportionate share of investment. All this new data center capacity being built presents a massive opportunity for the industry to prioritize environmental sustainability and we at PDG, are extremely excited by this opportunity.

As the economy has become increasingly digitized, there is a perception that carbon emissions are being transferred from traditional sources to digital infrastructure. However, the increase in productivity that the digital economy has brought in means that the increase in carbon emission is supporting a much higher level of economic activity. At the same time, the scale of individual data centers that support the infrastructure that cloud, commerce, and AI content run on is increasing significantly. This opens up another opportunity, to leverage the scale of data centers and make long term decisions that solve for sustainability.

I believe that we at PDG are uniquely positioned to maximize these opportunities. Our deep presence across Asia, a region where renewable energy markets continue to be in a state of transformation, coupled with our position as a partner of choice to hyperscalers, provides us

with a vantage point where we can lead the industry in driving digital decarbonization. Our vision is to be the most progressive data center operator in terms of sustainability and, as part of that, we have built an ESG framework that will guide our efforts in the years ahead.

In 2021, we made a commitment to use 100% renewable energy by 2030. We are now setting a target to achieve Net Zero for our Scope 1 and Scope 2 emissions by 2030. To get there, we have developed a clear Net Zero roadmap with annual reduction targets.

We also aim to lead the industry by protecting the health and safety of PDG employees, contractors, visitors, and clients, and build a work culture of diversity, inclusion, and equal opportunity.

In 2022, despite the challenges and headwinds faced by the entire industry, we have continued to deliver on our unmatched track record of execution as the Pan-Asia data center leader. We launched two hyperscale projects in Nanjing, China (43MW) and Mumbai, India (48MW) in record time and started construction on our 96MW hyperscale project in Saitama, Tokyo.

We also took meaningful steps on environmental stewardship. We procured renewable energy generated through geothermal sources and biomass sources in the form of Renewable Energy Certificates (RECs) to offset about 6% of our carbon footprint.

We entered several strategic partnerships with renewable energy providers in our regions of operation. In India and Singapore, we earned sustainability and energy-linked certifications such as IGBC Platinum. We were also recognized for our sustainability efforts in China.

We recently joined iMason's Climate Accord, a global initiative to reduce carbon in digital infrastructure. We continue to support the Open Compute Project (OCP) with an experience center in our data center in Singapore.

In this report, we share details of our ESG efforts and progress. We are grateful that our investors, customers, partners, and employees continue to show strong support as we place sustainability at the very heart of our growth plans.

Rangu Salgame

Chairman and CEO, Princeton Digital Group

About Princeton Digital Group

PDG develops and operates data center infrastructure in the dynamic digital economies of Asia including China, Singapore, India, Indonesia, Malaysia, and Japan.

We currently have a portfolio of 21 data centers in 15 cities across 6 countries, with several more in the pipeline.

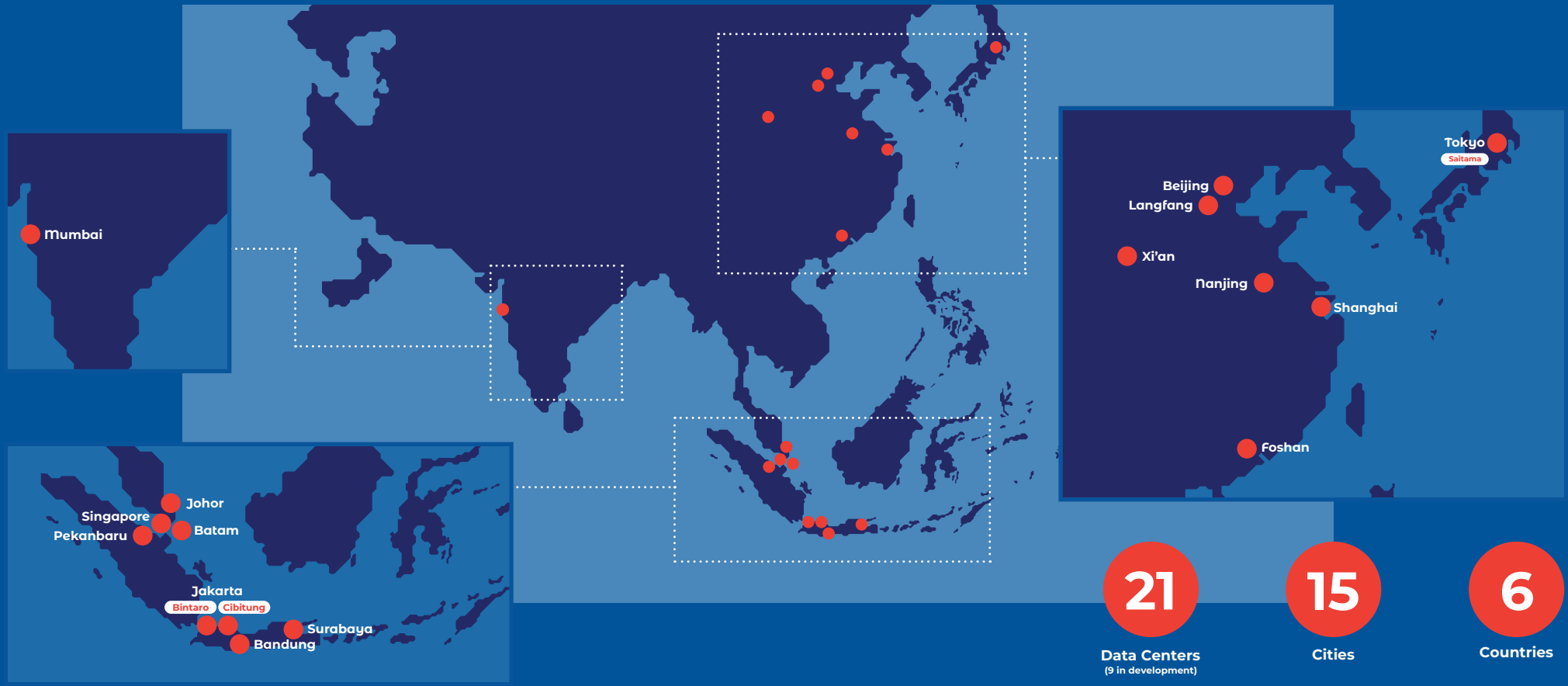
As a Pan-Asia Data Center leader, PDG operates scalable, sustainable, and standardized hyperscale-grade digital infrastructure in the region. PDG is uniquely positioned with its experienced leadership team, differentiated strategy and strong customer relationships, and is backed by some of the world's most reputed investors:

WARBURG PINCUS

ONTARIO TEACHERS' PENSION PLAN

MUBADALA

Unrivalled Pan-Asia Data Center Portfolio:



21 Data Centers (9 in development)

15 Cities

6 Countries

How we got here

2017-2018

- PDG formed with partnership of Rangu Salgame, Varoon Raghavan and Warburg Pincus
- PDG entered China through JV with 21Vianet and expanded in China with acquisitions of Shanghai Fengxian, Nanjing and Nantong projects
- Established headquarters of the pan-Asian platform in Singapore

2019-2020

- Entered Singapore through acquisition of DCSG in Singapore with fully functional team & expansion capacity
- Entered Indonesia with a carve-out and acquisition of 5 data centers from XL Axiata
- Assembled world-class team with established track record of execution in each market
- Raised US$360 million equity investment led by Ontario Teachers' Pension Plan Board

2021

- Entered India and Japan by securing Mumbai and Tokyo land parcels
- Continued expansion in China with Langfang project
- Announced investment for new data center in Indonesia

2022

- Raised US$500+ million with Mubadala as the lead investor
- Delivered flagship India data center campus in Mumbai. Commenced construction on 96 MW hyperscale project in Tokyo
- Delivered hyperscale project in Nanjing, China. Started construction on Langfang project
- Commenced construction on new Indonesia data center in Cibitung

2023

- Announced SG+ strategy expanding into Batam and Johor with initial investment of US$1 billion in Batam
- Announced entry into Malaysia with a 150 MW hyperscale campus in Sedenak Tech Park (STeP), Johor

2022 at a glance

2022 was a year of several key developments for PDG. From closing a new investment round for more than US$500 million, and launching two hyperscale projects to groundbreaking for one of the largest hyperscale facilities in Tokyo, we scaled several important company milestones.

We were recognized for excellence in our industry and were selected as finalists by international awards forums such as DCD Awards and PTC and won several awards in Asia for operational excellence and technology leadership.

In 2022, we added certifications in various data centers across our portfolio pertaining to design, efficiency, and sustainability.

Corporate milestones

- **Closed a US$500+ million equity investment round with Mubadala Investment Company (Mubadala) as the lead investor for US$350 million.** Both existing investors of PDG, Warburg Pincus and Ontario Teachers' Pension Plan participated in this round.

- **Launched 43 MW NJ1 project in Nanjing Jiangning High-tech Zone** – The project provides 43MW of critical IT capacity across four buildings and is built over an area of 35,955m². It has access to convenient transportation and excellent connectivity options. The project is equipped with double 110KV external power supply. The first phase of the project was delivered in early 2022 in record time and subsequent phases are to be delivered progressively in 2023.

- **Launch of 48 MW MU1 project, PDG's flagship data center in Mumbai, India** – The project provides 48MW of critical IT capacity across two buildings and is located over approximately six acres within a larger IT campus in Airoli, Navi Mumbai.

  MU1 was delivered within 20 months of announcement – a record delivery time in the Indian context. The project has also achieved the rare feat of IGBC Platinum certification, Uptime Tier III certification and is also India's first OCP ready certified facility.

- **Groundbreaking for 96 MW TY1 project in Saitama city, Tokyo** – One of the largest hyperscale facilities in Tokyo, Japan, with a total investment value of US$1 billion. Located in Saitama City, 30 km north of central Tokyo, construction is well underway. The project is being built on approximately 33,000m² of land.

- **Announcement of SG+ Strategy** – In February 2023, PDG announced its comprehensive strategy for the Singapore region to enable customers to seamlessly expand their infrastructure from Singapore to highly scalable data center campuses in Singapore, Batam and Johor. The first part of the strategy is an investment of US$1 billion in developing a 96 MW data center project in Batam.

- **Announcement of JH1, a 150MW project in Johor, Malaysia** – In May 2023, PDG entered into a definitive agreement with JLand Group (JLG), Johor Corporation's real estate and infrastructure division, for the acquisition of 31 acres of land in Sedenak Tech Park (STeP), Johor, to build a 150 MW hyperscale campus. The project marks PDG's entry into Malaysia.

2022 at a glance

Certifications

EPI awarded TIA-942 Rated-3 design certifications to PDG JC1 and JC2 data centers in Cibitung, Jakarta.

SH1 was awarded several certifications including ISO 9001, 27001, 20000, and Network Security Protection-Level 3 (DJCP).

NJ1 was certified Class A by CQC, which is the highest authoritative certification for data centers in China.

MU1 was certified as OCP Ready™, an IGBC platinum site and Uptime Tier III Design. MU1 is first data center in India to receive the OCP ready facility certification and first data center in Mumbai to receive IGBC platinum certification.

SG1 was certified with ISO 50001 (energy management), SS564 (Singapore standard for green data centers) and Uptime M&O certification.

Awards and Recognition

Golden Key Awards

PDG's NJ1 project in Nanjing received Honorable mention for Double Carbon (Carbon peaking and carbon neutrality) Pioneer category in China.

DCD Global Awards

The MU1, Mumbai construction team featured as a Finalist for Data Center Construction Team of the Year.

Singapore Business Review Management Excellence Awards

The SG1 Operations team won the award for Data Center Team of the Year.

PTC Awards

PDG featured as a Finalist for Outstanding Data Center/Colo/ Interconnection Company category.

W.Media APAC Cloud & Data Center Awards

SG1 Operations team won the award for Data Center Operations Team of the Year, Southeast Asia, and Bert Ong, Director of Engineering won the award for Top Technology Leader, APAC category.

ROSPA Gold Award

The MU1 project won the prestigious The Royal Society for the Prevention of Accidents (RoSPA) Health and Safety Gold Award 2023. The ROSPA Gold Award is one of the most respected occupational health and safety awards in the world.

Progress on sustainability

In 2022, PDG took several meaningful steps in Sustainability. We prepared a detailed decarbonization roadmap for all our markets detailed down to individual data centers.

Building a Net Zero roadmap:

At the start of our decarbonization journey, we conducted a baseline assessment to understand our current greenhouse gas emissions profile for Scope 1 and 2 and determined the boundaries to cover emissions from the company's operations.

We built projections of carbon emissions from our portfolio data centers (existing and upcoming) till 2030 and built a scientific plan to achieve net zero by setting annual reduction targets.

Key initiatives that PDG has successfully completed in 2022 include:

Renewable Energy

- Procured renewable energy from geothermal sources for three data centers (JB1, BD1 and PE1) in the form of RECs in Indonesia.
- Procured first of its kind biomass powered energy in the form of RECs for JC1.
- Entered strategic partnerships with leading renewable energy players in our regions of operation.
- Scoped a long-term renewable energy contract by leveraging captive solar generation in Maharashtra, India, in a strategic partnership with Tata Power.
- Actively engaging with renewable energy providers in Singapore, Japan and Indonesia.
- Evaluated options for rooftop solar projects in China and Indonesia.

Operational Efficiency

- **Efficiency initiatives in China** - Maximized HVAC efficiencies, optimized air distribution, and utilized high temperature difference for cooling and other initiatives, leading to both SH1 and NJ1 operating at industry leading PUE<1.3
- **Ran proof of concept (PoC)**, completed design drawings and equipment procurement for Liquid Immersion Cooling in our portfolio data center
- We are also **enabling technologies** such as liquid immersion cooling in our data centers to improve energy efficiency

Certifications & Awards

- **IGBC Platinum certification**
  PDG's flagship data center in Mumbai MU1 received the certification and is the first data center to do so in Mumbai
- **SS564**
  (Singapore standard for green data centers) certifications - Achieved by SG1
- **Golden Key Awards**
  PDG's 43 MW NJ1 project won Honorable mention for Double Carbon (Carbon peaking and carbon neutrality) Pioneer category in China
- **ISO50001**
  SG1 achieved ISO 50001 (energy management) certification

Memberships and Associations

- **Open Compute Project (OCP):**
  PDG continued to support OCP in Singapore, where we host Asia's first OCP experience center at SG1, and participated in OCP China day in Beijing. MU1, PDG's 48 MW Mumbai data center became the first facility in India to be certified as OCP Ready.
- **Imasons Climate Accord:** In early 2023, PDG joined the Imasons Climate Accord – a coalition united on carbon reduction in digital infrastructure.

06 ESG framework

This report aligns PDG's sustainability disclosures with the latest practices recommended by the GRI Standards and enables PDG to communicate its sustainability performance and impact to all stakeholders comprehensively and holistically.

6.1 ESG framework

PDG's ESG framework is guided by:

The company's sustainability vision and strategy
Our vision is to be the most progressive data center operator in terms of sustainability in the region. We are committed to integrating sustainability into our operational processes and believe that maintaining high ESG standards is crucial to achieving our business goals and safeguarding the environment and communities.

United Nations Sustainable Development Goals (UN SDGs)
We take guidance from the United Nations SDG goals published in 2015. These goals include taking affirmative action towards reducing inequality, sustainable cities and communities, climate action and gender equality.

Sustainability governance
An important part of our ESG efforts is the enhancement of our sustainability governance. This involves the governance structure and responsibility matrix for assessing and managing ESG issues.

Materiality assessment
To focus our ESG efforts, PDG has taken guidance from an external consultant to identify material ESG topics through a materiality assessment stakeholder survey.

Stakeholder engagement
Engagement with our stakeholders is essential for us to fulfill our responsibilities as a reputed multinational company. We strive to build a cooperative relationship and enhance mutual understanding in sustainability topics with our stakeholders through various activities such as multi-stakeholder forums, surveys, and on-site visits.

6.2 Sustainability vision and strategy

As a fast-growing Pan-Asia data center provider, PDG has a unique opportunity to drive meaningful measurable impact on sustainability of the industry and be the most progressive in the region in our ESG efforts.

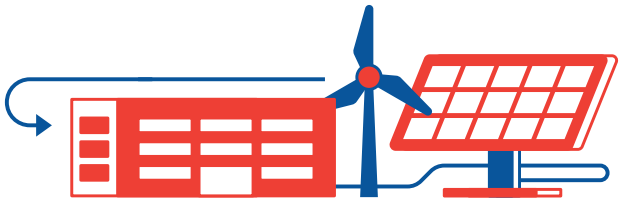
In conducting our business, we are integrating environmental, social and governance (ESG) consciousness within our processes. By adhering to high ESG standards we have set for ourselves, we believe we can achieve our business and financial goals while ensuring that the environment and local communities we are based in grow together in a sustainable manner.

PDG environment strategy

Across our operations, we recognize the importance of lowering carbon emissions and conserving natural resources. Our sustainability efforts prioritize operating environmentally responsible data centers, which are powered by renewable energy sources and designed to be highly energy-efficient, thereby minimizing our impact on the environment.

We rigorously track our carbon footprint (Scope 1 and Scope 2) at our data centers and office buildings. Reducing Scope 2 emissions is the most important element of our efforts since data centers are highly energy intensive.

Four main vectors for building low carbon energy efficient portfolio



Renewables

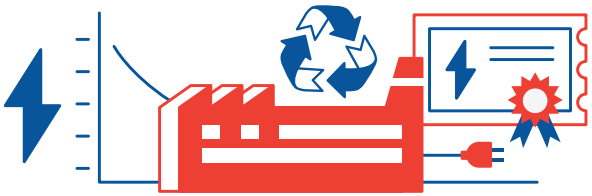
Increase renewable/ low carbon energy procurement

- Green-first: Renewable power availability as a key criteria in site selection
- Replacing conventional power with renewable at existing sites
- Sourcing RECs and carbon offsets

Green Design & Construction

Incorporate sustainability to all stages of DC life cycle starting with design and construction

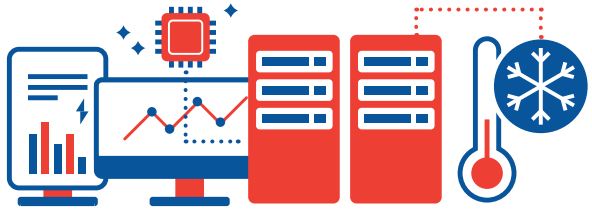
- New DCs to have design PUE between 1.2-1.4
- All greenfield DCs to apply for green certificates
- Focus on building facilities towards global standards of energy efficient building codes such as BREEAM and LEED



Energy & Resource Efficiency

Build and operate at low PUE & WUE and adopt leading standards for energy and resource efficiency

- Continuously upgrading operations to optimize PUE & WUE



Technology and Innovation

Adopt cutting edge tools and technologies in cooling, monitoring and operations

- Focus on technologies that can improve our operational performance
- Working with strategic vendors to design, implement and operate new technologies such as cooling, UPS, control systems

6.2 Sustainability vision and strategy

> "We strive to provide a platform for building successful and fulfilling careers for all employees."

PDG's social and governance approach

As our most important stakeholders, employees play a key role in ensuring PDG's success. We strive to provide a platform for building successful and fulfilling careers for all employees. At the same time, safety is a core value at PDG, and we seek to be an industry leader in health and safety.

We also strive to create positive impact on local communities where we operate. This means investing in upskilling local talent, education and supporting local climate initiatives.

PDG is backed by some of the world's most reputed investors and upholds the highest level of integrity in conducting our business. We promote transparent and ethical business practices in every part of our day-to-day operations.

How We Conduct Business

Focus areas for building a Responsible and Socially Conscious business

Health and Safety

Promote and ensure industry leading health and safety practices for all stakeholders

- Ensure health and safety of PDG's employees, contractors, visitors and clients by ensuring an environment free of hazards and providing appropriate instruction at work with least exposure to any risk

Empowering Talent

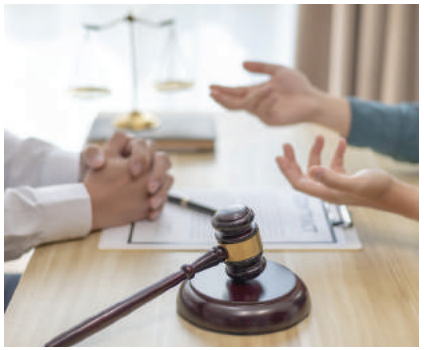
Provide a platform for building a compelling career that helps employees to achieve their aspirations

- Continue to attract and retain top talent
- Promote diverse workforce that boosts inclusivity and a sense of belonging within the company
- Create a caring workplace focused on employee wellness and work needs
- Build a culture of learning where all are encouraged to enhance knowledge and upskill

Grow with Suppliers

Work with our suppliers to build a sustainable value chain

- Work with suppliers to achieve PDG's sustainability goals together
- Work with strategic vendors to design, implement and operate new technologies such as cooling, UPS, control systems



Business Ethics and Integrity

Code of Conduct - We practice the highest standards of integrity and business ethics

- Maintain the highest corporate governance standards
- Continue alignment of business practices with international and regional regulatory guidelines and standards where applicable

6.3 Supporting the Sustainable Development Goals

" To create long-term value for stakeholders, we recognize the importance of sustainability as a core part of our business strategy. "

Our sustainability strategy has been developed keeping in focus the UN SDGs:

Environmental stewardship

Across our operations, we recognize the importance of lowering carbon emissions and conserving natural resources. We track the carbon footprint (Scope 1 and Scope 2) of our data centers and office buildings and run initiatives to lower emissions and operating eco-friendly data centers.

SDGs supported:

Disclosure on the Group's progress:

- Renewable energy (pg 23, 46-47)
- Energy efficiency (pg 48-51)
- GHG emissions (pg 45)
- Green building certification (pg 55)
- Green (sustainable) design and construction (pg 23, 52-53)
- Water management (pg 56-57)
- Waste management (pg 58)

Socially conscious business

As a people-first business, we strive to provide a safe and conducive environment in which our employees are empowered to take charge of their own success. We also seek positive impact for local communities where we operate and work with our suppliers to build a sustainable value chain.

SDGs supported:

Disclosure on the Group's progress:

- Health and safety (pg 25, 60, 61)
- Privacy and data security (pg 72)
- Employee well-being, engagement and development (pg 25, 64-67)
- Talent attraction and retention (pg 66-67)
- Diversity and inclusion (pg 67)
- Supplier ESG engagement (pg 25, 68)
- Community engagement (pg 69-70)

Ethical business conduct

As we grow our business, we maintain transparent and ethical practices throughout the entire value chain.

SDGs supported:

Disclosure on the Group's progress:

- Business ethics and integrity (pg 25, 72)
- Corporate governance and regulatory compliance (pg 25, 72)
- Business resilience and risk management (pg 25, 72)

6.4 Sustainability governance

Sustainability is incorporated into all aspects of our business, from planning and construction, operations and supply chain management to marketing and finance, to help reduce environmental impact, improve social outcomes, and enhance business performance.

We have strengthened our ESG governance structure to ensure that our sustainability efforts are on the right track. This includes assigning ownership of various initiatives to leaders from different parts of the business.

Roles and responsibilities

Board:

Supervises the company's sustainability direction and performance.

CEO:

Ensures a close collaboration between business and ESG and ensures ESG-related matters are on the agenda of senior management meetings each quarter and on ad-hoc basis when important ESG related issues arise.

Head of Sustainability:

Leads the ESG function at the company, develops the ESG strategy, encourages the prioritization of sustainability at senior management and board levels, also takes on responsibility for frequency of reviews, reporting lines and escalation processes. Holds quarterly meetings to discuss and formulate the company's ESG vision and strategies, collaborates with the ESG Network (see below) for implementation. Supervises sustainability initiatives across the organization and maintains the central ESG database.

ESG Network:

Includes representatives across functions and business groups who are responsible for operational implementation and driving sustainability programs and initiatives in their respective areas. They are responsible for participating in functional/regional action plans and achieving key sustainability goals.

Organisation

Sustainability governance structure for PDG

Board members

Board of Directors

Senior management

Chief Executive Officer

ESG Network

Environment

COO
CTO
Head - Sustainability

Governance

CFO
General Counsel

Social

Head - HR
Head - Marketing
Head - Safety

Regional ESG Representation

MDs
Regional ESG Leads

2 Business adaptation & operational implementation

Head of sustainability / ESG

E S G

1 Development of ESG strategy, policies, programs (including coordination/ monitoring of implementation)

6.5 Materiality assessment methodology

In FY2022, with the guidance of an external consultant, PDG conducted a materiality assessment workshop with the senior management at our global operating sites to identify the relevant material topics which have a high level of importance to PDG's business and our stakeholders.

PDG's materiality assessment process follows a four-step approach based on GRI Materiality Standards and Principles and is supported by background research on peers and industry trends. Senior management has validated the material topics for this year's reporting.

Step 1:
Identification

Research ESG issues, considering feedback from stakeholders

Step 2:
Prioritization

Evaluate all identified issues and prioritize them based on internal stakeholder feedback on the impact and importance to stakeholders

Step 3:
Validation

Senior Management endorse and validate the identified material issues

Step 4:
Review

These material issues will be reviewed annually and reassessed for its relevance to PDG

Material topics

Through this exercise, we identified the following seventeen (17) material ESG topics that are relevant to PDG's business and its stakeholders.

We intend to review these material topics regularly, especially when there are significant changes to the business or operational environment of the company.

Materiality Matrix

6.6 Materiality assessment: Environment

	SDGs supported:	PDG Metrics:	Goals:
Renewable Energy		• Total renewable energy usage including RECs and other instruments • Percent of renewable energy usage • Total solar and wind power under contract	• Replacing conventional power with renewable at existing sites • Green-first: Renewable power availability as a key criterion in site selection for upcoming sites • Sourcing RECs and carbon offsets • Follow roadmap to 100% Net Zero by 2030 • Initiate Scope 3 emission data collection
GHG Emissions		• Scope 1 emissions – fuel & gas • Scope 2 emissions – electricity consumption • Amount of carbon emissions offset due to initiatives such as investment in renewable energy or other instruments such as RECs	
Energy Efficiency		• Energy intensity/PUE	• Continuously upgrade operations to optimize PUE • Evaluate new technology and innovation for improving energy efficiency

	SDGs supported:	PDG Metrics:	Goals:
Green Building Certification		• Green certifications achieved in data centers	• Pursue leading sustainability certifications in the industry for operational and green field data centers
Green (sustainable) design and construction		• Design PUE of green field data centers • Number of projects under development designed to harvest renewable energy on-site (e.g. solar panels in terms of square feet)	• All greenfield DCs to have design PUE of 1.2-1.4 • New facilities to be aligned with global standards of energy efficient building codes such as BREEAM and LEED • Working with strategic vendors to design, implement and operate new technologies such as cooling, UPS, control systems
Water management		• All water and waste related data are internally collected and monitored, such as WUE, etc.	• Continuously upgrade operations to optimize water utilization, including recycling water • Implement 3R initiative (recycle, reuse and reduce) for waste management
Waste management			

6.7 Materiality assessment: Social

	SDGs supported:	PDG Metrics:	Goals:
Health and safety		• Number of safety inductions • Achievement of ISO 45001 certification • All health and safety related data are internally collected and monitored	• To be the leader within our industry by protecting the health and safety of PDG's employees, visitors and clients • Ensure an environment free of hazards and providing appropriate instruction at work with least exposure to any risk
Privacy and data security		• Number of substantiated complaints concerning breaches of customer privacy and losses of customer data • Achievement of ISO 27001 certification	• Maintain controls in data security to protect customer data
Employee well-being, engagement and development		• Percentage of employees receiving regular performance and career development reviews	• Provide a platform for building a compelling career that helps employees to attain their aspirations • Conduct annual employee engagement surveys and take feedback through other platforms

	SDGs supported:	PDG Metrics:	Goals:
Talent attraction and retention		• Number of total employees. • All talent attraction and retention related data are internally collected and monitored	• Be the workplace of choice for top talent in the industry in all the regions we operate
Diversity and inclusion		• Percentage of employees by gender • Availability of policies to promote diversity and inclusion (i.e. maternity/paternity leaves, flexible working hours)	• Practice non-discrimination and equal opportunity • Continue improvement and reporting of diversity metrics
Supplier ESG engagement		• Percentage of suppliers complying to the organization's supply chain code of conduct	• Work collaboratively with suppliers to achieve PDG's sustainability goals together
Community engagement		• Number of initiatives to engage local communities	• Engage regularly with local communities to drive long-term value together primarily in talent upskilling and environmental initiatives

6.8 Materiality assessment: Governance

	SDGs supported:	PDG Metrics:	Goals:
Business ethics and integrity		• Communication and training about anti-corruption policies and procedures to employees • Internal and external stakeholder reporting	• Uphold the highest level of integrity in conducting our business • Ensure and safeguard a consistent moral attitude within the company • Align business practices with international and regional regulatory guidelines and standards where applicable
Corporate governance and regulatory compliance			
Business resilience and risk management			

Note: All relevant metrics are tracked and monitored at PDG internally. However, some are excluded from the PDG metrics column in the table shown above due to confidentiality or other reasons. All metrics relevant to PDG's material topics are managed by relevant business functions and the central ESG team and reported periodically to senior management.

6.9 Stakeholder engagement

Effective stakeholder engagement is critical to our sustainability efforts. At PDG, we recognize the pivotal role played by our stakeholders in helping us achieve our goal of being a responsible blue-chip global company.

We prioritize building collaborative relationships with them, actively seeking to understand their sustainability goals through various means such as multi-stakeholder forums, surveys, and on-site visits. This approach allows us to work hand-in-hand with our stakeholders towards shared sustainability objectives, ultimately contributing to a more sustainable future for all.

6.9 Stakeholder engagement

Stakeholders	Topics Discussed	Mode of Engagement
Shareholders/investors	• Financial performance • Business performance and outlook • Growth strategy • ESG strategy	• Board meetings • Site visits • Regular management meetings • Strategy meetings
Employees	• Learning and development • Health and wellness • Employee engagement • Diversity and inclusion	• Internal communication • Wellness and recreational activities • Team building activities • Regular townhall meetings • Performance and career development reviews
Customers	• Health and safety • Sustainability • Expansion plans • Construction and operational best practices	• Customer satisfaction surveys • Website • Social media • Marketplaces (platforms for data centers) • Industry events • Regular customer meetings

Stakeholders	Topics Discussed	Mode of Engagement
Suppliers/vendors	• Expansion plans • Health and safety • Innovation in supply chain	• Supplier/vendor screening process (code of conduct as well as ESG) • Audit • Site visits • Regular meetings • Industry events
Industry bodies	• Market overview and trends • Sustainability • Operational efficiency	• Analyst meetings • Meetings at industry groups such as IMasons, OCP, etc.

07 Meeting environment goals

7.1 Decarbonization: The road to Net Zero

PDG environmental sustainability goal:

To achieve Net Zero for our Scope 1 and Scope 2 emissions by 2030

PUE Targets:

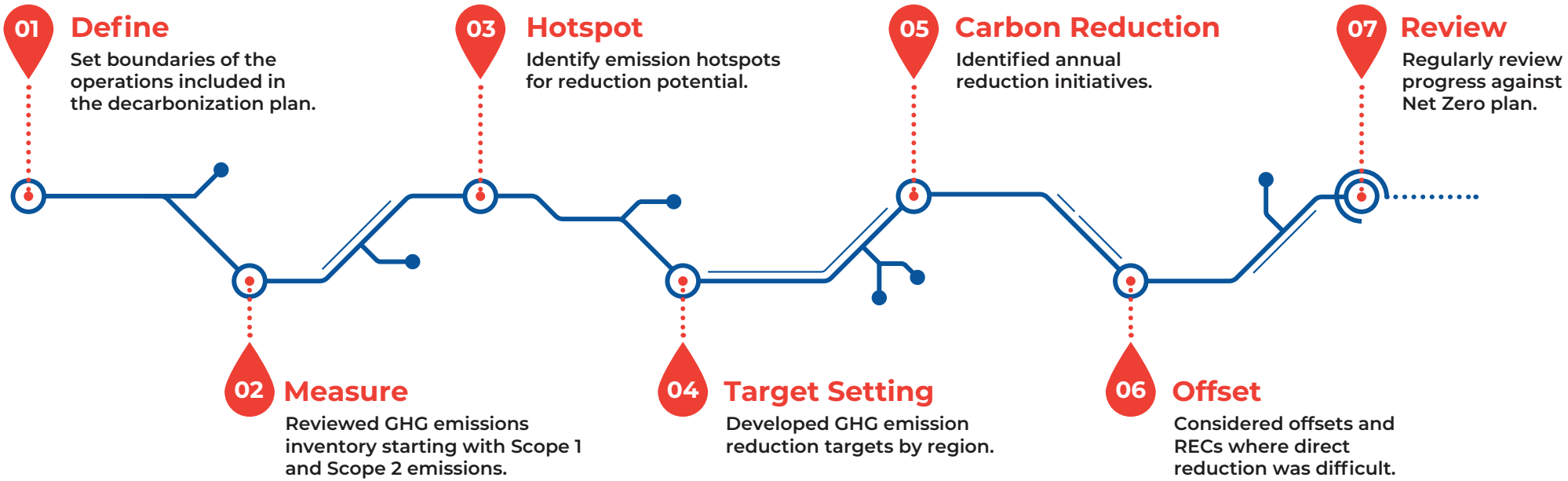
Design PUE of all greenfield data centers to be between 1.2 – 1.4

At PDG, we pledge to do our part in the fight against climate change by achieving net zero for our Scope 1 and Scope 2 emissions by 2030.

In 2022, at the start of our decarbonization journey, we conducted a baseline assessment to understand our current greenhouse gas emissions profile for Scope 1 and 2 and determined the boundaries to cover emissions from the company's operations.

The assessment included a review of our on-site fuel combustion, refrigerant use and purchased electricity use across all regional operations.

We then built a renewable energy transition plan and set targets to reduce emissions year on year.



7.1 Decarbonization: The road to Net Zero

Meeting demand, minimizing environmental impact

In 2022, the total purchased electricity usage increased substantially from the year before. This is due to newly opened data center sites, including NJ1 in Nanjing, China and MU1 in Mumbai, India, as well as increasing loads in our existing sites.

In the markets that PDG operates in, the availability of green energy sources depends on local regulators and energy providers. Each market has its unique challenges and opportunities. For PDG, the guiding principle is to procure renewable energy as close to the facility as possible. Often, this means procuring energy from the local energy grid provider, which is responsible for harnessing the renewable sources available in-country. This enables us to use a green electricity source from the grid while serving customers seamlessly.

PDG also seeks to reduce energy consumption and carbon footprint through energy efficiency improvements, such as upgrading cooling and ventilation systems, optimizing IT loads, and implementing advanced power management techniques.

We recognize that achieving net zero for Scope 1 and Scope 2 emissions by 2030 will require significant effort and investment. We will transparently report on our progress towards our Net Zero target every year.

GHG Emissions

In 2022, PDG conducted a baseline assessment to understand our current carbon emissions profile for Scope 1 and 2 and defined an organizational boundary in accordance with the global-standard GHG Protocol.

We calculated Scope 1 and Scope 2 CO_2 emissions of operating sites, based on site-specific energy consumption data and converted the consumption into carbon emission by using emission factors from reputed sources.

Scope 1 data comprises of on-site diesel and refrigerant usage and Scope 2 data includes on-site purchased electricity usage across 9 operating data centers where PDG has operational control.

Type	**Emissions** (tCO_2e)
Scope 1 emissions	1,535.35
Scope 2 emissions (location-based)	146,191.55
Scope 2 emissions (market-based)	137,343.45

Scope 1 emissions (Diesel and refrigerant) calculated basis Conversion Factors 2022 provided by DEFRA, Department for Environment, Food & Rural Affairs of the UK. Scope 2 Emissions calculated basis emission factors provided by International Energy Agency (IEA) for India, Indonesia and Singapore and Ministry of Ecology and Environment of the People's Republic of China for China.

In efforts to reduce the greenhouse gas emission and meet our target of transitioning to Net Zero for Scope 1 and Scope 2 emissions by 2030, we purchased renewable energy certificates (REC), which offset **~6%** of the total Scope 2 emissions.

7.2 Renewable energy

Among today's many efforts, procuring renewable energy through long-term contracts is the most substantive route to data center decarbonization.

Currently, Scope 2 emissions are the most significant component of all emissions from a data center. Thus, replacing conventional power with renewable energy is a necessary requirement for a sustainable, long-term decarbonization plan.

Globally, renewables contributed to about 29% of the total electricity generated in 2022, according to the International Energy Agency (IEA). In the ***World Energy Outlook 2022***, IEA projects that by 2030, between 43% and 49% of global electricity production is expected to be from renewable sources and an additional 10% from nuclear and low-carbon sources.

In Asia-Pacific, majority of electricity generated (57%) was by coal in 2022, with low-carbon sources, such as nuclear and renewables, contributing to 32% of the mix (renewables contributed 26%). Due to the high reliance on coal, the carbon emission intensity of power generation remained high in 2022.

The outlook looks promising with most of the new capacity addition to come from renewable energy. As a result, its contribution to the overall energy mix is expected to increase substantially. However, the intermittent nature of solar power, which makes round-the-clock supply difficult, remains a challenge.

Besides the larger contribution of renewables to electricity generation, data centers still require the following conditions to decarbonize successfully:

- **Supply of renewable energy** in grids connected to areas of data and compute consumption.
- **Availability of contract structures** that enable off-taking of renewable power by a company directly from generators such as corporate Power Purchase Agreements (PPAs) or virtual PPAs.
- **Availability of carbon offset instruments** such as RECs and carbon offsets.

In the countries we operate in, the opportunity to decarbonize varies considerably. However, we are working closely with utility companies to tie up renewable power to the maximum extent possible.

In 2022, we procured renewable energy from geothermal sources for three data centers and biomass sources for one data center in the form of RECs in Indonesia and entered strategic partnerships with leading renewable energy players in our regions of operation.

We also scoped a long-term renewable energy contract by leveraging captive solar generation in Maharashtra, India, in strategic partnership with Tata Power.

In Singapore, we are working on options for meeting our data center demand through green electricity imports and various renewable sources including solar and green hydrogen.

As part of our efforts in procuring renewable energy, we continue to actively engage renewable energy providers in Singapore, Japan, and Indonesia.

7.3 Energy efficiency

By making better use of the energy we consume, PDG can do more with less, thus reducing the impact on the environment while hosting the same workloads.

Whether it is a greenfield project or an existing data center, PDG seeks to continuously improve the energy efficiency at each of the facilities we operate and manage.

By optimizing our cooling systems and reducing the energy needed to cool down racks of servers, we have managed to achieve more sustainable operations over time in our data centers.

Since 2010, data center energy use has grown only moderately despite the strong demand for digital infrastructure. This is due in part to efficiency improvements in IT hardware and cooling and a shift away from small, inefficient enterprise data centers towards more efficient cloud and hyperscale data centers.

Hyperscale data centers are highly efficient with low PUE values. In deploying hyperscale data centers across Asia, PDG leverages scale, technology and optimal energy management to ensure low PUEs. We are also testing technologies such as liquid immersion cooling in our data centers to improve energy efficiency.

Operating PUE is sensitive information in our industry and hence usually not shared in public. We are, however, sharing the values or indicative ranges for our data centers.

Power Usage Effectiveness (PUE)

PUE or Power Usage Effectiveness is a metric used to measure energy efficiency in data centers. To be precise, PUE is calculated by dividing the total amount of power used by the data center by the amount of power used by the IT equipment in the data center.

Climate can have a significant impact on the energy required for cooling, which in turn affects the PUE. Data centers located in cooler climates can take advantage of free cooling techniques.

These techniques allow data centers to use outside air to cool their IT equipment instead of relying on energy-intensive mechanical cooling systems. As a result, data centers located in cooler climates can achieve lower PUE values than those located in warmer climates.

On the other hand, data centers located in warmer climates, such as in Southeast Asia, may require more energy-intensive cooling systems due to the high ambient temperatures. As a result, these data centers may have higher PUE values.

Other factors, such as the IT workload, server utilization, and facility design, can also impact the energy efficiency of a data center.

7.3 Energy efficiency

Facility	Country	Location	Capacity	PUE
SH1	China	Shanghai Fengxian	42.3	<1.3
NJ1	China	Nanjing	43	<1.3
LF1	China	Langfang Zhongshi	66	<1.3*
SG1	Singapore	Singapore	14	1.56
ID1 (Includes 5 operational data centers)	Indonesia	Jakarta Cibitung Jakarta Bintaro Bandung Pekanbaru Surabaya	11	1.8
JC2	Indonesia	Jakarta Cibitung	22	<1.4*
MU1	India	Mumbai	48	<1.4*
TY1	Japan	Tokyo Saitama	96	<1.3*

*Design PUE based on hyperscale grade design

Case Study:
Lowering PUE in NJ1 and SH1 in China

China is a success story on energy efficiency, with the Nanjing (NJ1) and Shanghai (SH1) data centers now operating at an **industry-leading PUE of under 1.3**. This was achieved through two improvement areas – optimized cooling system efficiencies and energy reduction initiatives.

SH1 is in Fengxian district in the south of Shanghai. It is a single building with a gross floor area (GFA) of 84,000m² and IT capacity of 42MW.

NJ1 is one of the largest data center campuses in Nanjing. The project comprises of four buildings built on 35,955m² of land with a GFA of 59,840m² and IT capacity of 43MW. In 2022, Phase 1 of NJ1 was operational.

Optimized cooling system efficiency

- At the two sites, the best equipment with high energy efficiency ratings was selected and the chillers' operating frequency was adjusted based on average power density per rack in the site.
- Water quality and flow were continuously monitored to minimize power consumption and maximize efficiency.
- Free cooling was used whenever possible (including in data halls). Switched to pre-cooling mode or 100% use of equipment, depending on the ambient temperatures.
- The process and systems were designed to ensure equipment is not idling and adapts to the changing power load in data halls.

Energy usage reduction

- To improve energy efficiency, the consumption of lighting, shared infrastructure and backup equipment is rigorously monitored and managed. The operating mode for the backup Uninterruptible Power Supply (UPS) was optimized.
- To optimize energy consumption for the maintenance of the genset, upper and lower limits of temperature control were adjusted. The working time of the heating modules was reduced.
- Leveraged dynamic lighting using human sensing in data halls, passages and emergency equipment areas. The default lighting mode was set to "off" for warehouses.

7.4 Green design and construction

Laying the right foundation for a sustainable data center is very important to PDG's efforts to minimize the impact of our business activities on the environment.

By starting on the right foot with new data centers, from selecting the right site to designing for energy efficiency and water conservation, we can more readily build on our sustainability efforts for years to come.

Sustainable (green) design and construction of data centers involves the incorporation of environmentally responsible practices and technologies throughout the planning, design, construction, and operation of the data center.

For PDG, this involves:

1. **Green-first site selection:** At the planning stage, we prioritize sites that have access to renewable energy supply. We also try to develop opportunities for on-site renewable generation, for example, through rooftop solar panels.
2. **Low PUE design:** All our greenfield data centers are built with a design PUE of 1.2 – 1.4. Data centers generate heat which requires cooling systems that account for a significant portion of energy consumption. Our sustainable design strategies include the use of high-efficiency cooling technologies including liquid immersion cooling leading to lower PUEs.
3. **Water conservation:** Air-cooled or water-cooled systems are selected, designed, and operated in a way that helps reduce stress on the water supply in the regions we operate in. We use rainwater harvesting, low-flow fixtures and other techniques for water conservation.
4. **Sustainable building material:** At our greenfield projects, we try to use sustainable building materials, such as recycled content or locally sourced materials, to reduce the environmental impact of construction.

7.4 Green design and construction

Building Sustainable Data Center in Japan

One example of our efforts in green design and construction is the upcoming TY1 data center in Japan. The 96MW hyperscale site is located along the Shonan Shinjuku/Ueno Tokyo line and in a semi-residential area in Kita ward 8.5km from Saitama City and 32km from the Tokyo central business district. The location offers a unique combination of sizeable capacity on Day 1, and further scalability for space and power in Greater Tokyo area.

TY1 is at the forefront of several green design and construction endeavors:

- The building will be utilizing the industry's best air-cooled chiller system with a COP (Co-efficient of Performance) of 4.5. In addition, all systems will be metered to better monitor and manage energy use during operation.
- The building encourages alternative mass transit by providing bicycle and showering facilities, minimizing parking footprint, and being near numerous public transportation stations.
- To minimize potable water use, the building will incorporate a storm water reuse system, low-flow fixtures, and water metering for all major systems. The air-cooled chiller system will also considerably reduce water consumption.
- To improve the environment indoors, all outside air handling units are designed to exceed ASHRAE requirements. In addition, MERV-13 filters will be used to provide clean air to building occupants.

After completion, TY1 will be seeking LEED C&S (Core and Shell) and LEED CI (Commercial Interiors) certifications from the USGBC (US Green Building Council).

Case Study:

Japan success story

- Upcoming TY1 Japan data center will use the industry's best air-cooled system
- Well connected to a public transport system, the building will encourage greener modes of transportation, such as trains and bicycles
- Storm water reuse system will be incorporated to cut down water consumption in the building

Green building certification

Green building certifications provide guidelines for the use of water, energy and materials while reducing a building's impact on the environment through better design, construction, and operations.

At PDG, we build facilities aligned to global standards of energy efficient and green building codes, such as BREEAM and LEED.

In 2022, we added the following green certifications:

- **IGBC (Indian Green Building Council) Platinum (pre-certification):** PDG's MU1 facility successfully achieved Precertification Rating, which demonstrates intent to design and build a high-performance Green Building in accordance with IGBC Green data center rating system Pre-certified Platinum. MU1 is the first data center in Mumbai to achieve this highly respected and coveted certification. The IGBC certification follows a rigorous procedure with points for site selection and planning, energy efficiency, water conservation, building materials and resources, indoor environment quality amongst others.
- **PDG's SG1 data center in Singapore achieved two new certifications:** ISO 50001 : 2018 and SS564 : Part 1 : 2020. ISO 50001 is an international standard that provides a framework around energy management and energy use. SS564 is a Singapore standard that assesses the planning, building, operating, and maintenance of a sustainable data center.

PDG is also pursuing Greenmark and LEED certifications for other data centers in our portfolio.

7.5 Water management

To cool down servers in data halls, a significant amount of water is often used on-site in the form of cooling towers, chillers, pumps, piping, heat exchangers/condensers, and computer room air conditioner (CRAC) or computer room air handler (CRAH) units.

At the same time, data centers also need water for their humidification systems and facility maintenance which help maintain humidity levels in the facility's server rooms.

Cooling is the largest consumer of both power (non-IT) and water and different forms of cooling usually lead to a trade-off between the two resources. This guides how we manage water in our facilities across Asia, which often face different challenges. In water stressed regions, for example, the preference is to turn to air-cooled chillers to reduce water consumption.

PDG tracks Water Usage Effectiveness (WUE) at all our data centers. In all our sites, we optimize water usage by recirculating the same water through the cooling systems multiple times and running water saving initiatives such as rainwater harvesting, water recycling, etc.

Air-cooled chillers in MU1, Mumbai

As per data published by the Water Resources Institute, amongst the countries in which PDG has operations, India faces high overall water risk. This is why PDG decided to deploy an air-cooled chiller system at its MU1 data center. Such a system keeps the water completely enclosed within the chilled water pipe, which leads to water being reused constantly.

Both air-cooled and water-cooled chillers depend on an air stream to transfer heat. However, water-cooled chillers, or cooling towers, use a humid air stream (ambient air stream and water spray) while air-cooled chillers use only a current of ambient air.

At PDG's MU1 data center, rainwater is harvested on-site, where up to 100KL of water is stored. A sewage treatment plant of 30KL is available on site as well. The treated water will be reused for toilet flushing and watering gardens or put to other use.

Automated water management in Singapore

In Singapore, PDG's SG1 facility outperformed the WUE benchmark set by PUB, the country's water agency in 2022, after deploying a smart monitoring tool for monitoring leaks, water flow, overuse and contamination along with automated device management.

These steps helped to monitor water quality in the cooling tower, allowing the operations team to achieve the best cycle of concentration (COC), leading to water efficiency. The platform is being used for a single chiller plant for now and PDG will be rolling it out to other chiller plants at the site in 2023.

Improved water efficiency in Nanjing

At PDG's greenfield site NJ1 in Nanjing, WUE was significantly improved by implementing a number of initiatives, such as continuously monitoring water quality and testing it to ensure the correct pH and clarity.

Dosing device was set to dynamic adjustment mode, which helped keep electric conductivity of water within the required limit.

Water wastage was minimized by draining only low-quality unusable water, as determined using monitoring and analysis tools. What also helped were the optimizing of the cooling towers' sand filter parameters and conducting of periodic cooling tower maintenance.

Since everyone had a part to play, water-saving awareness was regularly promoted among the staff. Visual posters and training in water use reinforce the importance of water management at all levels of our operations.

7.6 Waste management

> "With PDG's business model, the production of e-waste is minimal."

As a leading digital infrastructure provider, PDG is committed to minimizing e-waste. With PDG's business model, the production of e-waste is minimal. The limited waste that is generated is managed by meeting relevant environmental and local guidelines.

In Singapore, PDG has taken a corporate pledge to minimize e-waste, as part of the eRevival Square effort with SGTech and Sustainable Living Lab in 2021. Continuing that initiative in 2022, PDG now has policies in place on how to deal with e-waste.

We have started working with vendors licensed by the National Environment Agency (NEA) to dispose of batteries as per Singapore's environmental public health regulations. Moving forward, we are looking at ways to better dispose e-waste and the team is also in talks with a few other relevant vendors to partner with.

At the MU1 data center in India, we follow a rigorous process for segregating waste. One important effort here is an organic waste converter that is installed on the premises.

The amount of waste generated is disclosed to the respective local authority on a periodic basis and disposal is through government nominated agencies with valid certifications. All procedures are implemented in line with the Environmental Management System (ISO14001).

08 Meeting social goals

8.1 Health and safety

Safety-first culture

The health and safety of PDG employees, contractors, partners, and customers is of paramount importance. Data centers are major infrastructure projects where construction and operations involve heavy equipment running 24/7 and risks including working at heights, electricity, hot work, and critical lifting so it is important that all stakeholders involved are aware of the risks involved and take proactive steps to manage them.

In this respect, PDG's vision is to be the leader within our industry by protecting the health and safety of our employees, visitors, and clients by ensuring an environment free of hazards and providing appropriate instruction at work with least exposure to any risk.

Our HSE policy and procedures are aligned with ISO 45001 and meet OSHA requirements.

Our engagement on safety by stakeholders is given below:

Employees/contractors

- Proactively engage in safety audits/checks and encourage feedback for incident prevention.
- Conduct safety induction training on PDG's HSE Vision and Policy, Safety practices, Personal Protective Equipment (PPE) and others.
- Provide safe and healthy working environment by conducting safe work procedure/ job safety analysis and risk assessment.
- Ensure and govern insurance/ workman compensation coverage for all workers.

Customers

- Provide a safe data center environment to our customers.
- Communicate PDG's HSE Vision and Policy.
- Proactively engage with customers for feedback on Safety.

Governance

- Adhere to corporate directives for compliance.
- Fulfil and meet all relevant legislative requirements.
- Transparent reporting of any major incident/accident.
- Collaborate for regulatory inspections.

Case Study:
Mumbai MU1

About the Project

- Project: MU1 - 2 buildings with 24MW IT capacity, G + 6 storeys each
- Construction activities started in Oct 2021 and the project was launched in Dec 2022 in record time of 14 months.

Safety Achievements:

- Achieved 3 million+ Safe manhours
- No loss time injury
- 8000+ safety training-related hours
- 1 safety steward for every 25 manpower

Leadership involvement

- Site walkthrough with senior management on a monthly basis
- Weekly project review with senior management on HSE dashboard
- Monthly Safety Committee meetings with all relevant stakeholders – vendor partners and internal team
- Participate and conduct specific events like National Safety Week, National Road Safety Week and other HSE campaigns.

Independent Safety Consultant engagement

- Appointed leading Independent third-party safety consultant to set up and holistically implement safety governance
- The consultant provided Awareness training and conducted site inspection/audits to prepare reports including each partner's HSE performance
- HSE officers from project management company were deployed to manage day-to-day safety activities on-site

HSE Proactive approaches

- HSE systems for project-specific tasks, including HSE plan, SOPs, checklists, permit to work processes, etc.
- Contractor Audit program that uses ISO 45001 guideline to audit contractors led to uplifting the safety standard and practices. This leads to contractors attaining the certification
- Risk assessment and job safety analysis for all relevant tasks
- Workplace inspection by work permit issuers prior to work start
- Covid-19 preventive measures, frequent medical health check-ups programs conducted for occupation well being.
- Proactive approaches for critical tasks - critical lifting, working at height, hot work and electric safety

HSE campaigns & awareness programs

- Celebrated National Safety week and Road Safety Week
- Conducted free eye check camp for workers
- Evacuation drill carried out once every six months
- Periodic scenario-based mock drills on electrical safety, working at height, and spillage were conducted at site
- Implementation of HSE posters and signages at strategic locations for safety awareness

HSE Training

- Entire Engineering and Project teams completed Critical Safety Basics Certificate training conducted by Data center Dynamics (DCD)
- Mandatory safety induction training conducted before deployment to site for all
- Daily Tool-Box talk to workers by safety officers of contractors
- Mass toolbox talks conducted fortnightly with all workers on HSE by project managers
- Stand-up meeting with contractor's safety officers on daily basis before start of work
- On-job training at regular intervals on work at height, electrical work, hot work, etc.
- Specific classroom training on permit to work, erecting of scaffoldings, and using of safety harnesses

Reward & recognition program

- Monthly motivational program for contractor workers/supervisors for recognizing safe workers for the month, safe supervisor for the month, etc.
- Quarterly R&R program for contractors based on contractor safety evaluation
- Competitions like quiz and others to motivate workers to practice safety
- Recognition for contractors on safe completion of the project

ROSPA

The MU1 project won the prestigious The Royal Society for the Prevention of Accidents (RoSPA) Health and Safety Gold Award 2023. The ROSPA Gold Award is one of the most respected occupational health and safety awards in the world.

8.2 PDG culture and values

Building a strong corporate culture and defining company values is foundational for a young company. PDG's positive and values-driven culture helps attract and retain top talent, fosters teamwork and collaboration, and drives overall success and growth.

Our core values include:

Pursuit of excellence:
Relentless in our pursuit of excellence in all areas of work.

Customer centricity:
Strive to understand customer needs and focus on delivering best solutions at every stage.

Integrity:
Uphold the highest level of integrity in the conduct of our business.

Diversity and Inclusion:
Respect everyone irrespective of age, gender, ethnicity, religion, disability, sexual orientation, education and national origin. Every opinion matters – individuals with different backgrounds are culturally and socially accepted and welcomed.

ESG is at the core of our business:
We take responsibility to our employees, environment and stakeholders seriously because they are central to our business and key to the sustainability of our endeavors as we continue to grow on a hypergrowth trajectory.

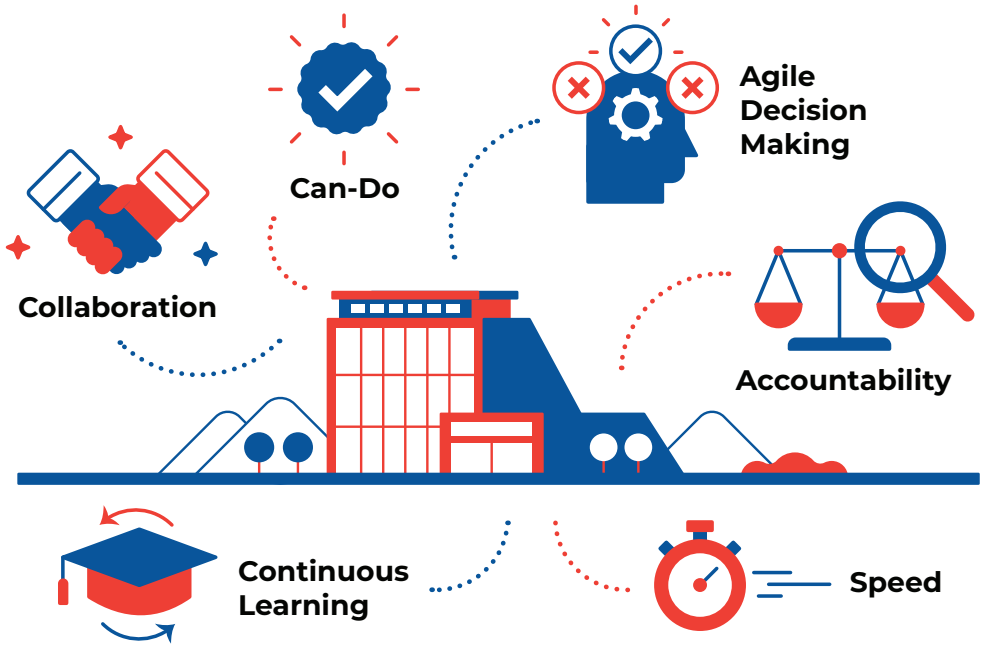
8.2 PDG culture and values

Working at PDG

At PDG, we seek to create an environment that is safe, enriching and rewarding for all. PDG aims to be a platform to build an exciting career, with rapid growth in all regions and provides opportunities to advance into new roles vertically and horizontally.

"We seek to create an environment that is safe, enriching and rewarding for all."

In PDG, the **work culture** involves:



8.3 Employee well-being, engagement and development

Talent plays a key role in ensuring PDG's success. We attract top industry talent in each of the regions we operate by providing a platform for building an exciting career that help employees to attain their aspirations.

Employee health and well-being

PDG is committed to provide a work environment where employees can work productively and achieve their highest potential. For this, PDG has existing and newly adopted wellness initiatives:

A Local Wellness Committee is instituted in each country to implement customized wellness activities that boost well-being in a suitable setting. At the same time, various social activities such as team bonding activities are carried out regularly.

During PDG Family Day each year, employees and their families also get to participate in learning about PDG's role in enabling the Internet. Staff often bond over beyond just work matters.

Employee Engagement

Each year, PDG conducts an employee engagement survey to understand employees' needs, opinions, and alignment with company culture and values. From this feedback, the company continually works to improve the work environment.

Communication is a key element of engagement in a young company. The PDG management ensures regular communication with employees and provides an opportunity for all to share ideas, suggestions and concerns. This is carried out through various platforms such as townhalls and CEO dialogue sessions.

PDG also has a culture of recognition where employees are regularly recognized for their contribution.

Diversity and Inclusion

PDG practices non-discrimination and equal opportunity, irrespective of age, gender, ethnicity, religion, disability, sexual orientation, education, and national origin. Every opinion matters - Individuals having different backgrounds are culturally and socially accepted and welcome.

As of 31 December 2022, PDG's workforce consists of 245 employees, of which 22% are women. It is our aim to increase this percentage as the company grows. The company also has competitive maternity- and paternity-related policies and benefits.

Learning & Development

Employees at PDG are encouraged to constantly improve skills and abilities. Our goal is to develop our employees and focus on creating a Learning Culture where employees are empowered to take charge of their own learning and development.

We invest in training, learning initiatives, and development programs to enhance the team's competencies. We have established guidelines for training identification, monitoring, and review. Besides technical skills, we also organize business and leadership knowledge sharing and technical training modules by our expert teams.

We focus on helping employees develop professionally and personally to advance their careers. During the pandemic, the company sponsored training and book purchases for personal development of employees and their families as well.

PDG's L&D framework focuses on experiential and collaborative learning and classroom training typically targeted at a skill/ knowledge gap. There are several training programs implemented at PDG, including but not limited to:

- Technical/ safety training in each country
- Compliance training attended by all employees
- Professional training pertaining to data center development and operations
- PDG knowledge sharing sessions

8.4 Supplier ESG engagement

PDG is committed to conducting business in a legal, ethical, sustainable, and socially responsible manner. Crucial to this commitment are our suppliers and partners who work with us closely to enable our business to operate smoothly.

All suppliers are required to comply with the PDG Responsible Supply Chain Standard, which incorporates standards on human rights, labor rights and environmental, and anti-corruption principles as set out in the UN Global Compact.

These are derived from the Universal Declaration on Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention against Corruption and the UN Guiding Principles on Business and Human Rights.

For more details, please refer to the PDG Supplier Code of Conduct online at ***https://princetondg.com/pdg-supplier-code-of-conduct***.

As part of our ongoing sustainability efforts, we plan to engage more closely with our suppliers when we initiate measurement of our Scope 3 emissions.

8.5 Community engagement

At PDG we recognize the importance of incorporating community engagement into our strategy from the early stages of growth. By doing so, we seek to build strong relationships with our stakeholders and make a positive impact on local communities, while growing our business.

In all our markets in Asia, we are dedicated to being a responsible corporate citizen whose business is closely integrated with sustainable value creation within the communities we operate in. Our community engagement programs are structured around Education and Environment. In the past, we have engaged with various local universities such as NTU in Singapore.

8.5 Community engagement

GET Program

To groom young engineering talent to be the leaders of tomorrow, PDG India initiated a structured Graduate Engineer Trainees (GETs) Program in partnership with the country's leading engineering institutes in 2021.

PDG is amongst the rare few companies to have a structured GET Program at a very early stage of its growth. The first batch of GET's from Veermata Jijabai Technological Institute (VJTI), affiliated with Mumbai University, will be completing two years and have immensely contributed to the team efforts, initially as curious trainees and now as talented engineers.

In 2022, PDG extended its training platform further through a Master's degree program at the Indian Institute of Technology Bombay (IITB). These young engineering talents from VJTI and IIT Bombay are expected to further enhance PDG's industry leading engineering platform and solve challenges in new markets and for the industry in the years ahead.

Tree Plantation Initiative

In 2022, PDG India planted 250 trees in Maharashtra with the help of the Sankalp Taru foundation.

Having planted and grown close to a million trees across 21 states and in some of the severely polluted cities of India, the SankalpTaru Foundation is maximizing socio-environmental impact and helping to fight against pollution, while strengthening the livelihood of poor farmers to create a rich biodiverse ecosystem.

The trees will provide an important habitat for fauna and offer livelihood opportunities for local communities. They are also estimated to absorb 137 tons of CO_2 and produce 100 tons of oxygen over the next 20 years.

Student Internship program

PDG runs student internship programs in Singapore, China, Indonesia, and India. We provide students with hands-on experience in their chosen field and an opportunity to join PDG to eligible candidates. In doing so, we are encouraging skill sharing, building stronger ties with educational institutes and local communities, supporting career development and thereby creating positive social impact.

In 2022, we trained 39 interns and converted 6 of them to full-time employees.

09 Meeting governance goals

9.1 Meeting governance goals

At PDG, we are fully committed to maintaining the highest standards of governance as part of our ESG strategy. We prioritize compliance with local laws and regulations across the jurisdictions in which we operate and ensure that our data centers maintain strict adherence to environmental, health, safety, and labor laws.

Ethics and compliance

Ethical conduct forms the cornerstone of our corporate culture. We believe that strong ethics contribute to our long-term business success and sustainability.

We have implemented various internal policies which set out clear guidelines for ethical behavior, including an Anti-Bribery and Corruption policy, Conflict of Interest policy, and guidelines for travel, gifts and hospitality.

We also provide periodic training to all employees on ethics and compliance, to educate them on the principles and procedures of our internal policies and to reinforce the importance of ethics in the workplace. In addition, our whistle-blower policy gives comfort to employees and other personnel who come forward to report any suspected misconduct.

Furthermore, we have developed a comprehensive Supplier Code of Conduct, which is readily accessible on ***our website***. By mandating that our suppliers commit to adhering to this policy before engaging in any business with us, we cultivate an atmosphere of integrity and accountability that aligns with our core ethical principles.

Data protection and cybersecurity

Data protection and cybersecurity are key areas of focus for PDG. Our Privacy Policy sets out clear guidelines on how we collect, use, store, and share personal data, with detailed provisions on reporting and escalation protocol in the unlikely event of a data breach.

We do not control, manage, or access data stored on customer servers in any of our data centers – nonetheless, we remain dedicated to upholding and safeguarding the privacy rights of all individuals we engage with. We also conduct data privacy training for employees to keep them apprised of the laws and regulations governing data protection.

With the increasing frequency and sophistication of cyber threats, our IT team remains vigilant in monitoring and analyzing the threat landscape, taking pre-emptive measures to prevent and respond to potential security incidents to ensure the ongoing effectiveness of our cybersecurity framework.

In FY2022, there were no incidents of data breach or loss of customer data reported across our group.

9.2 Towards Net Zero

9.2 Towards Net Zero

The past year has been an important one for PDG in terms of sustainability, as we continue on our quest to be Net Zero for our Scope 1 and Scope 2 emissions by 2030.

We have developed a roadmap for decarbonization that will guide our efforts towards that goal. We have also ramped up efforts in securing renewable energy, improving efficiency and ensuring we minimize impact to the environment to the best of our ability.

At the same time, we continue to uphold the social and governance aspects of our business to ensure we remain a sustainable enterprise in the long run.

Though we are a relatively young company, we recognize the important role that we can play as our footprint expands across Asia. As an operator of data centers that powers everything from cloud, e-commerce, remote education to AI, we are in a unique and valuable position to help secure a safe, livable future.

Undoubtedly, there will be many challenges ahead of us. In some countries we operate in, such as in Southeast Asia, the tropical climate will be a big challenge when it comes to lowering the energy used to cool down computer servers in the data centers.

Similarly, in areas where water is scarce, we have to find new ways to reuse and recycle, thus minimizing wastage and ensuring that the valuable resource continues to be available to the community we operate alongside.

We are thankful that we are not alone in this ambitious effort. Governments now encourage the use of renewable energy, for example, thus opening new opportunities for us to tap on to boost our sustainability efforts.

Our customers also play a critical role by setting standards for the industry that improve sustainability. Higher allowed operating temperatures, for example, will reduce the energy needed for cooling.

In a similar way, our vendors play an important part. By incorporating the latest technologies and enhancing the design of our facilities, they can help us use less energy for the same workload.

These collective efforts and partnerships give us confidence that we can get the job done. More importantly, they power us with the necessary momentum as we strive to achieve our goal of being the most progressive in our sustainability efforts in Asia.

10 Appendix

10.1 GRI content index

Statement of use	PDG has reported the information cited in this GRI content index for the period 01-01-2022 - 31-12-2022 with reference to the GRI Standards.
GRI 1 used	GRI 1: Foundation 2021

GRI STANDARD	DISCLOSURE		LOCATION
GRI 2: General Disclosures 2021	2-1	Organizational details	8-9
	2-2	Entities included in the organization's sustainability reporting	4-5
	2-3	Reporting period, frequency and contact point	4-5
	2-4	Restatements of information	No restatement for FY22
	2-5	External assurance	4-5
	2-6	Activities, value chain and other business relationships	12-15
	2-9	Governance structure and composition	28-29
	2-12	Role of the highest governance body in overseeing the management of impacts	28-29
	2-13	Delegation of responsibility for managing impacts	28-29
	2-14	Role of the highest governance body in sustainability reporting	28-29
	2-16	Communication of critical concerns	28-29
	2-22	Statement on sustainable development strategy	6-7, 20-21

GRI STANDARD	DISCLOSURE		LOCATION
(continued) **GRI 2: General Disclosures 2021**	2-23	Policy commitments	Disclosed throughout the FY22 Sustainability Report
	2-24	Embedding policy commitments	Disclosed throughout the FY22 Sustainability Report
	2-25	Processes to remediate negative impacts	Disclosed throughout the FY22 Sustainability Report
	2-26	Mechanisms for seeking advice and raising concerns	PDG has a Whistleblowing Policy in place.
	2-27	Compliance with laws and regulations	In FY22, there were no instances of non-compliance with laws in any material respect.
	2-28	Membership associations	17
	2-29	Approach to stakeholder engagement	28-29
	2-30	Collective bargaining agreements	As of 31 December, 2022, no PDG employees are covered by collective bargaining agreements.

10.1 GRI content index

GRI STANDARD		DISCLOSURE	LOCATION
GRI 3: Material Topics 2021	3-1	Process to determine material topics	30-31
	3-2	List of material topics	30-31
	3-3	Management of material topics	30-31
GRI 203: Indirect Economic Impacts 2021	203-2	Significant indirect economic impacts	69-70
GRI 205: Anti-Corruption 2016	205-2	Communication and training about anti-corruption policies and procedures	In FY22, 100% of employees received Anti-Bribery and Corruption policy training.
	205-3	Confirmed incidents of corruption and actions taken	Zero confirmed incidents of corruption in FY22.
GRI 302: Energy 2016	302-3	Energy intensity	48-51
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	45
	305-2	Energy indirect (Scope 2) GHG emissions	45
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	PDG aims to develop supplier screening framework and processes using environmental and social criteria.

GRI STANDARD		DISCLOSURE	LOCATION
GRI 401: Employment 2016	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	66-67
	401-3	Parental leave	PDG has parental leave policy available for all full-time employees. In FY22, there were zero instances wherein employees submitted requests for parental leave. Refer to pg 67 for more detail.
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	60-61
	403-4	Worker participation, consultation, and communication on occupational health and safety	60-61
	403-5	Worker training on occupational health and safety	60-61
	403-6	Promotion of worker health	60-61
GRI 404: Training and Education 2016	404-2	Programs for upgrading employee skills and transition assistance programs	66-67
	404-3	Percentage of employees receiving regular performance and career development reviews	At PDG, 100% of employees receive regular performance and career development review. (Refer to pg 43-44 for percent total by gender)
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	PDG aims to develop supplier screening framework and processes using environmental and social criteria.
GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Zero confirmed incidents of customer privacy and losses of customer data in FY22.

10.2 ESG assurance

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INDEPENDENT LIMITED ASSURANCE REPORT IN CONNECTION WITH SCOPE 1 AND SCOPE 2 GHG EMISSIONS IN THE PRINCETON DIGITAL GROUP LIMITED ("PDG" or "GROUP") SUSTAINABILITY REPORT FOR THE YEAR ENDED 31 DECEMBER 2022

We have performed a limited assurance engagement on Princeton Digital Group (Singapore) Management Private Limited ("PDG" or "Group")'s Green House Gas (GHG) Scope 1 and Scope 2 emissions in the Sustainability Report for the year ended 31 December 2022 ("Sustainability Report 2022") and selected Global Reporting Initiative ("GRI") Sustainability Reporting Standards disclosures ("Disclosures") as identified below (collectively, the "Sustainability Information").

Our assurance engagement does not extend to information in respect of earlier periods included in or linked to the Sustainability Report 2022, including any images, audio files or embedded videos.

Limited Assurance Conclusion

Based on the procedures we have performed as described under the "Summary of the work we performed as the basis of our assurance conclusion" and the evidence we have obtained, nothing has come to our attention that causes us to believe that:

(a) the selected GRI Disclosures as identified in the table below, are not calculated, in all material respects, in accordance with the relevant topic-specific disclosures requirements in the *GRI Sustainability Reporting Standards 2021*.

Material Topic	GRI Standards - Topic-Specific Disclosure Requirements		Selected GRI Disclosures
GHG Emissions	GRI 305-1	Energy direct (Scope 1) greenhouse gas (GHG) emissions	1,535.35 tCO_2e
	GRI 305-2	Energy indirect (Scope 2) greenhouse gas (GHG) emissions (Location-based)	146,191.55 tCO_2e
		Energy indirect (Scope 2) greenhouse gas (GHG) emissions (Market-based)	137,343.45 tCO_2e

We do not express an assurance conclusion on information in respect of earlier periods included in, linked to, or from the Sustainability Report 2022, including any images, audio files or embedded videos.

PDG's Responsibilities

Management of PDG is responsible for:

- Selecting or establishing suitable criteria for preparing the Sustainability Information;
- Preparing the Sustainability Report 2022 including the GHG Scope 1 and Scope 2 emissions and selected GRI Disclosures in accordance with GRI Standards respectively (collectively known as "Reporting Criteria"), and
- Designing, implementing and maintaining internal control over information relevant to the preparation of the Sustainability Information that is free from material misstatement, whether due to fraud or error.

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Understanding how PDG has prepared the Sustainability Information

The Sustainability Information needs to be read and understood together with the Reporting Criteria and the Introduction section set out in the "About This Report" of the Sustainability Report 2022, which PDG has used to prepare the Sustainability Information.

The absence of a commonly used generally accepted reporting framework or a significant body of established practice on which to draw to evaluate and measure sustainability information allows for different, but acceptable, measurement techniques that can affect comparability between entities and over time.

Practitioner's Responsibilities

We are responsible for:

- Planning and performing the engagement to obtain limited assurance about whether the Sustainability Information is free from material misstatement, whether due to fraud or error;
- Forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- Reporting our conclusion to the Senior Management of PDG.

As we are engaged to form an independent conclusion on the Sustainability Information as prepared by management, we are not permitted to be involved in the preparation of the Sustainability Information as doing so may compromise our independence. Our responsibility is to form a conclusion on the Group's preparation and presentation of the Report in accordance with the Standards, based on our work.

Professional Standards Applied

We performed a limited assurance engagement in accordance with Singapore Standard on Assurance Engagements 3000 (Revised) – Assurance Engagements other than Audits or Reviews of Historical Financial Information ("Standard"). This Standard requires that we comply with ethical requirements and plan and perform our work to form the conclusion. The extent of the work performed depends on our professional judgement and our assessment of the engagement risk.

Practitioner's Independence and Quality Management

We have complied with the independence and other ethical requirements of the *Accounting and Corporate Regulatory Authority (ACRA) Code of Professional Conduct and Ethics for Public Accountants and Accounting Entities* ("ACRA Code"), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Singapore Standard on Quality Management 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements*, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Summary of the work we performed as the basis of our assurance conclusion

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the Sustainability Information is likely to arise. The procedures we performed were based on our professional judgement. In carrying out our limited assurance engagement on the Sustainability Information, our procedures included the following:

- Evaluated the suitability in the circumstances of PDG's use of the Reporting Criteria, as the basis for preparing the Sustainability Information.
- Through inquiries, obtained an understanding of PDG's control environment, processes and information systems relevant to the preparation of the Sustainability Information, but we did not evaluate the design of particular control activities, did not obtain evidence about their implementation and did not test their operating effectiveness;

10.2 ESG assurance

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- Evaluated whether PDG's methods for developing estimates are appropriate and had been consistently applied, but our procedures did not include testing the data on which the estimates were based and we did not separately develop our own estimates against which to evaluate PDG's estimates;
- Sample tested a number of items to or from supporting records, as appropriate;
- Performed analytical procedures by comparing the expected targets to actual emissions or consumption, and by comparing current period to prior period, and made inquiries of management to obtain explanations for any significant differences we identified;
- Considered the presentation and disclosure of the Sustainability Information.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. We believe our work provides a reasonable basis for our conclusion.

Purpose and Restriction on Distribution and Use

This report is made solely to the Senior Management of Princeton Digital Group (Singapore) Management Private Limited in accordance with our engagement letter dated 6 April 2023 for the purpose of providing a limited assurance conclusion on the Sustainability Information. As a result, this report may not be suitable for another purpose.

We disclaim any assumption of responsibility for any reliance on this report to any person other than the Senior Management of Princeton Digital Group (Singapore) Management Private Limited, or for any purpose other than that for which it was prepared.

Deloitte & Touche LLP

Public Accountants and
Chartered Accountants
Singapore

June 6, 2023

10.3 Contact

PDG strives to improve through feedback from our stakeholders. Please send suggestions to us at **info@princetondg.com**.

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