

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT 2021

# Progress towards a sustainable future

# Contents

## 1 About this Report

## 2 Message from Executive Leadership

## 3 Overview: Business and Sustainability Context Update

## 4 About GDS

## 6 Our Progress on ESG Strategy and Management

## 7 2021 ESG Performance

## 8 Environmental Minimize Environmental Impact

### 9 Overview

### 10 Renewable Energy Reduce carbon footprint by increasing renewable energy usage

### 13 Green Design and Construction Make our data centers greener

### 15 Green Operation Reduce resource consumption by optimizing operational efficiency

## 18 Social Create Value for All Stakeholders

### 19 Overview

### 20 Customers Empower with a smart infrastructure platform

### 24 Employees Foster diversity, inclusion and personal development

### 31 Suppliers Engage our value chain to drive positive impact

### 33 Community Engage our communities to drive positive impact

## 34 Governance Engender Trust via Rigorous Governance

### 35 Overview

### 36 Corporate Governance Maintain high standards of corporate governance

### 38 Cyber Security Ensure strict protection of data security and privacy

### 40 Oversight of ESG Enhance sustainability through accountability

## 41 Appendix

### 42 Independent Statement of Assurance

### 44 Key Metrics

### 47 ESG Metrics Index

## About this Report

Welcome to our 2021 ESG report. The following content discloses our environmental, social and governance progress and performance in 2021.

### Reporting period

This report covers our activities from January 1, 2021 to December 31, 2021. It may include additional information beyond the stated reporting period for comprehensiveness.

### Reporting principles

This report is prepared in accordance with the Global Reporting Initiative Standards (GRI Standards) issued by the Global Sustainability Standards Board (GSSB), the ESG Reporting Guide 2.0 issued by Nasdaq, the Environmental, Social and Governance Reporting Guide issued by Hong Kong Exchanges and Clearing Limited (HKEX), and the recommendations issued by the Task Force on Climate-Related Financial Disclosures (TCFD).

### Compilation process

We undertook the following steps to compile this report: materials collection; compilation and revision; senior management review; Sustainability Committee review; Nominating and Corporate Governance Committee review; Board of Directors review; and disclosure.

### Data sources

The information contained in this report comes from our statistical reports and relevant documents.

### References

Unless otherwise indicated, references in this report to “GDS,” “company,” “our company,” “we,” “our,” or “us” are to GDS Holdings Limited, a company incorporated on December 1, 2006 in the Cayman Islands with limited liability, and, where the context requires, its consolidated subsidiaries and its consolidated affiliated entities, including its variable interest entities and their subsidiaries, from time-to-time.

### Reliability assurance

Bureau Veritas is entrusted to provide a third-party assessment of the report, and to issue an independent statement of assurance.

### Report access

To download the electronic version, please visit our website: <http://www.gds-services.com>.

In line with our ESG initiatives, this report is only available in an electronic version. If you require a printed copy, you may download and print an online version from the website address above.

If you have any comments or suggestions, please contact us via email: [esg@gds-services.com](mailto:esg@gds-services.com)

About this Report | [Message from Executive Leadership](#)

## Message from Executive Leadership

Environmental, Social and Governance (ESG) initiatives are a priority for our customers and to us. Last year, we released our inaugural ESG report, in which we shared our ESG vision of connecting our smart infrastructure platform to a sustainable future. With our 2021 ESG report, we are pleased to report solid progress across key metrics.

### 1. We are greener

We moved closer to our target of being carbon neutral by 2030, with renewable-energy usage reaching 34.3% and power usage effectiveness (PUE) improving to 1.32. Also, 68% of newly-in-service self-developed data centers since 2020 have received or are applying for green building certification.

### 2. We are better

We released our Smart DC solution, which is designed to elevate the level of service we offer our customers. We increased engagement with suppliers on sustainability initiatives. We aided communities in urgent need. We continued to build a diverse and inclusive workforce by focusing on personal development. Our annual training hours per employee rose from 31.3 to 38.2.

### 3. We are resolute

We upheld our robust corporate governance standards, ensuring that 100% of our employees received compliance and anti-corruption training. All of our employees attended cyber security courses, underscoring the importance we place on information security. We continue to make progress based on our ESG Management Framework to ensure full accountability for our commitments.

Despite a challenging operating environment, we remain focused on executing our business plan, improving our efficiency, and seizing key opportunities when they arise. While assuring our position in Mainland China in 2021, we took significant steps to build up our presence overseas. In Hong Kong, we now have a pipeline of four purpose-built data centers. We established our S-J-B (Singapore-Johor-Batam) Area strategy by launching third-party data center services in Singapore, along with self-developed data center campuses in Johor, Malaysia and Batam, Indonesia that will see us reach beyond our traditional markets to establish environmentally conscious data-center projects in Southeast Asia.

We recognize that our data centers benefit society only if we use resources efficiently. We intend to lead the green development of our industry and help China achieve its ambitious goal of carbon neutrality by 2060. With the support of our stakeholders, we will continue to make progress towards a sustainable future.



**William Wei Huang**  
Chairman and Chief  
Executive Officer



**Daniel Newman**  
Chief Financial Officer



**Jamie Khoo**  
Chief Operating Officer

## Overview

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# Business and sustainability context update

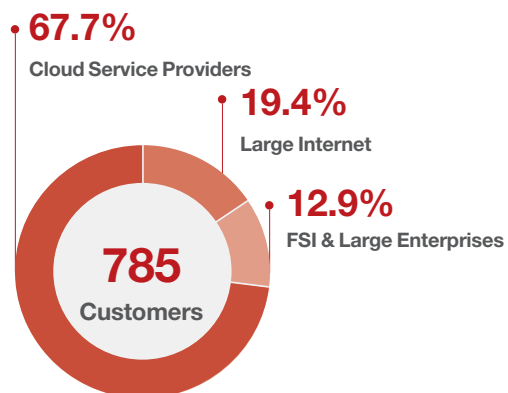


## About GDS

We introduced our history and corporate development in our inaugural ESG report released November 2021, which you may view on our website.

Despite a challenging operating environment in 2021, we remained focused on executing our business plan, improving our efficiency, and seizing key opportunities when they arise. We began to develop and operate data centers in areas designated by the Chinese government's "East Data and West Computation" policy to meet customer demand prior to the introduction of such policy. Our strategic market position is stronger than ever.

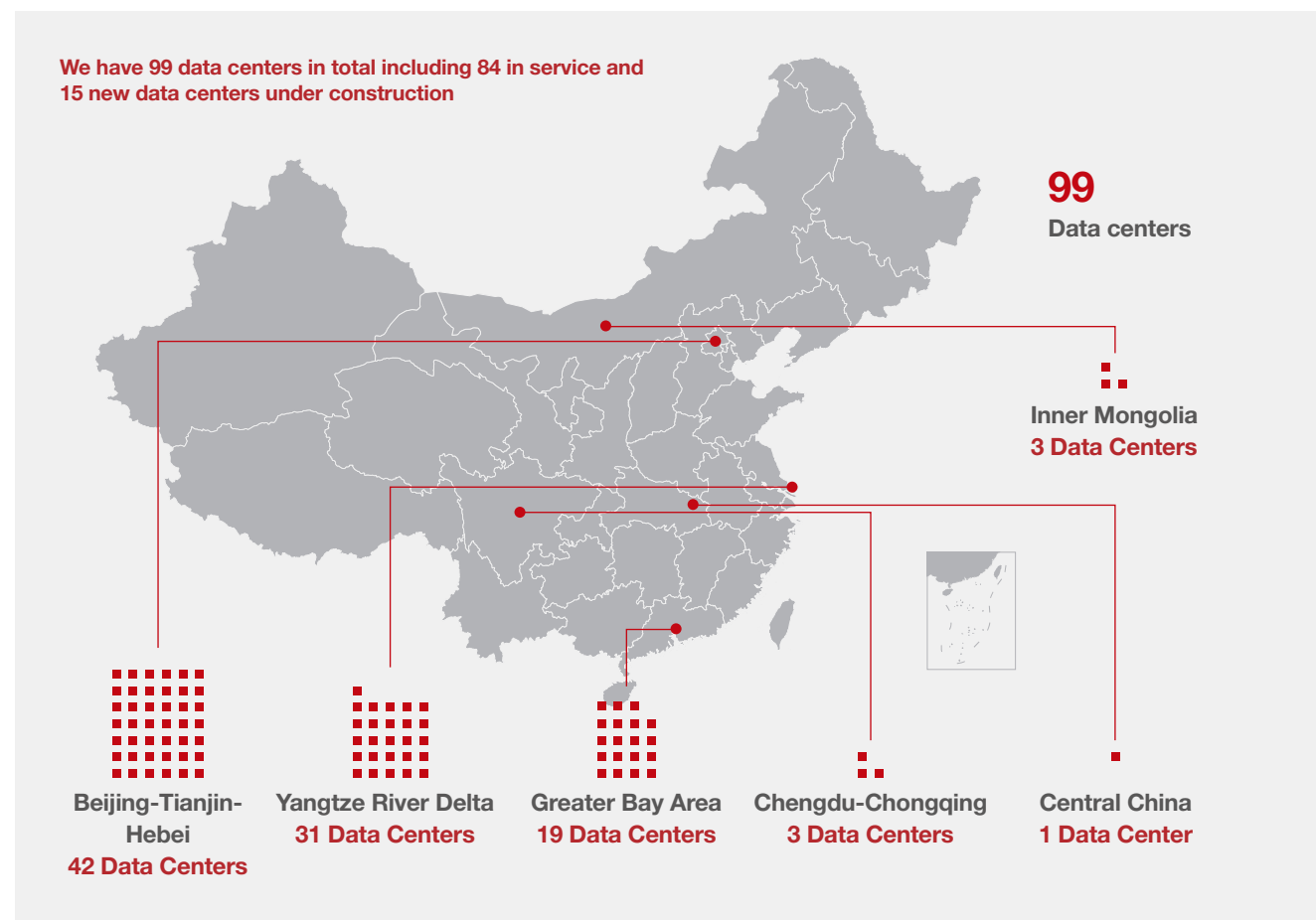
### Our Customer Franchise



Notes:

1. As of June 30, 2022.
2. Customer breakdown by total area committed.
3. Includes all self-developed data centers in service or under construction, including B-O-T data centers.

**We have 99 data centers in total including 84 in service and 15 new data centers under construction**

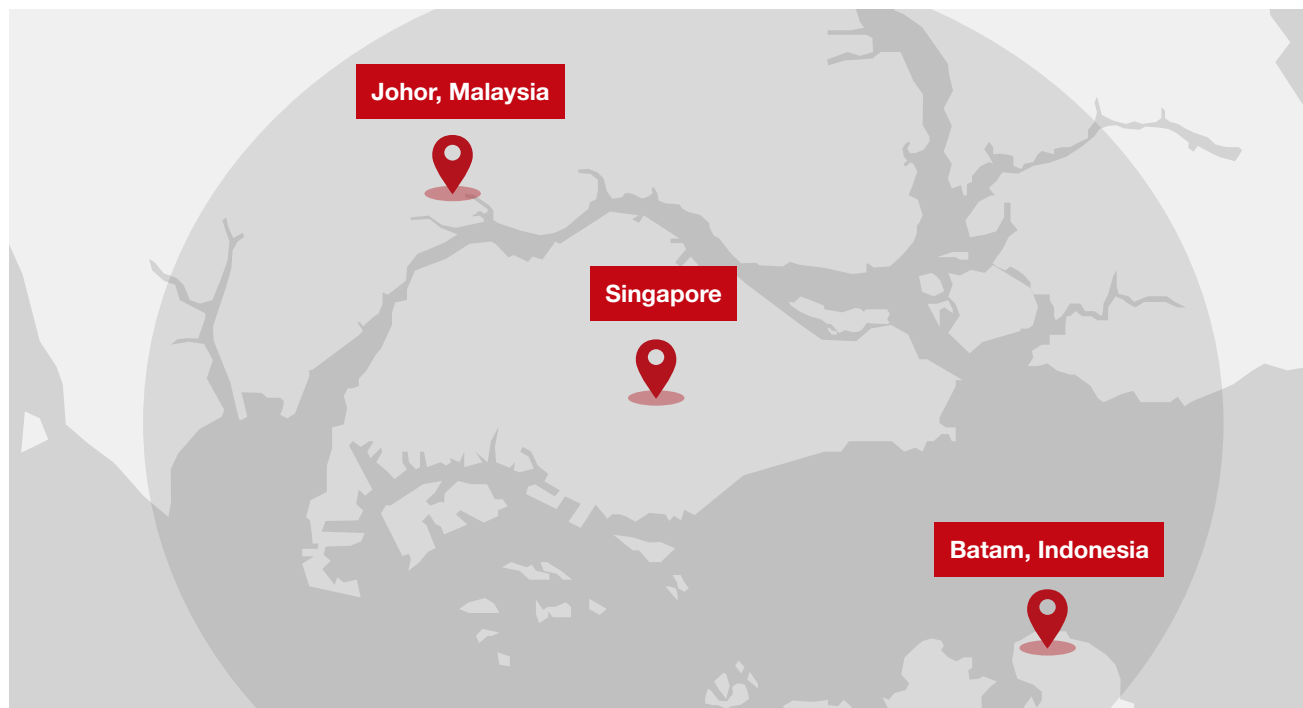


## Our S-J-B Area strategy

While assuring our position in mainland China, in 2021, we launched our Southeast Asia strategy to develop data centers in strategic locations in Singapore, Malaysia and Indonesia to better serve our customers' requirements in the region.

Through this S-J-B Area strategy, we seek to support customers who will benefit from a network of interconnected data centers in Singapore, Johor (Malaysia), and Batam (Indonesia). We have begun the first phase of construction of a 64 MW project at Nusajaya Tech Park, Johor. We acquired land for two data centers with up to 29 MW of IT capacity in Nongsa Digital Park on Batam Island, Indonesia. We began providing data center services at a third-party data center in Singapore. We entered a joint venture partnership with Conversant, a leading CDN provider in Southeast Asia. We are one of the first movers to establish hyperscale green data center projects in proximity to Singapore.

As we enter the Southeast Asian market, we are committed to providing data centers solutions in a responsible and transparent manner that drives sustainability and enhances value creation. We will find the most appropriate ways to adapt our ESG strategy to local conditions.



Nusajaya Tech Park Ground-Breaking Ceremony with YAB Datuk Onn Hafiz bin Ghazi, Chief Minister of Johor (C)



GDS Nongsa Digital Park Data Center ground breaking ceremony

## Our Progress on ESG Strategy and Management



In our 2020 ESG report, we described our ESG material topics, vision, targets, and management framework.

For more information, you may still view that report which is available on our website.

We are pleased to report progress across key environmental, social and governance metrics.

We have strengthened our ability to make further progress in the medium-term and long-term.

- We have improved our performance in most key ESG material topics.
- We have launched new ESG initiatives, including data center lifecycle carbon emission inventory under the ISO 14064 Greenhouse Gas (GHG) standard. This will enable us to extend the scope of our carbon management from operations phase (Scope 1 & 2 emissions mainly) to the construction phase (Scope 3 emission mainly).



## 2021 ESG Performance

We continue to execute our ESG management based on our comprehensive ESG strategy. As a result, our performance across most key metrics improved in 2021 and we are on track to achieve our 2030 ESG targets. For more information regarding the scope of these targets and how they are calculated, see **Appendix: Key Metrics**.

	MATERIAL TOPICS	KEY METRICS	2020 PERFORMANCE	2021 PERFORMANCE	2030 TARGETS
Environmental	Carbon emission	Carbon intensity	7.66 tCO <sub>2</sub> e/m <sup>2</sup>	5.60 tCO <sub>2</sub> e/m <sup>2</sup>	0.00 tCO <sub>2</sub> e/m <sup>2</sup>
	Renewable energy	Percentage of renewable energy	22.6%	34.3%	100%
	Energy management	Average PUE of data centers	1.34	1.32	1.20
	Energy management, water management, waste management, construction environmental impact	Green building percentage	25% of self-developed data centers newly in service since 2020 have received, or are applying for, green building certification	68% of self-developed data centers newly in service since 2020 have received, or are applying for, green building certification	100% of self-developed data centers newly in service since 2020 will apply for green building certifications
Social	Diversity & inclusion	Percentage of females in senior level management	34%	35%	≥35%
		Percentage of female	17%	15%	≥20%
	Occupational health & safety	TRIR/per 200,000 working hours	N/A	Employees & Contractors: 0.55	≤2.0
Governance	Business compliance	Compliance and anti-corruption training	100% of full-time employees, completed by 1H 2021	100% of full-time employees	100% of full-time employees
	Anti-corruption	Audit of implementation of FCPA (Foreign Corrupt Practices Act) and other anti-corruption related policies	Every two years	Every two years Last completed in 2021	Every two years
	Cyber security	Cyber security training	100% of full-time employees, completed by 1H 2021	100% of full-time employees	100% of full-time employees



Environmental

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# Minimize environmental impact

## Overview

We continue to implement a sustainable development strategy, increase use of renewable energy, improve energy efficiency and make our data centers greener.

### United Nations Sustainable Development Goals (UN SDGs) alignment



AREA OF FOCUS		2020 PERFORMANCE	2021 PERFORMANCE	2030 TARGETS
	<b>Renewable energy</b> Reduce carbon footprint by increasing proportion of renewable energy usage	<b>22.6%</b> renewable percentage	<b>34.3%</b> renewable percentage	<b>100%</b> renewable percentage & carbon neutrality
	<b>Green design &amp; construction</b> Make our data centers greener	<b>25%</b> of self-developed data centers newly in service since 2020 have received, or are applying for, green building certification	<b>68%</b> of self-developed data centers newly in service since 2020 have received, or are applying for, green building certification	<b>100%</b> of self-developed data centers newly in service since 2020 have received, or are applying for, green building certification
	<b>Green operations</b> Reduce resource consumption by optimizing operational efficiency	<b>1.34</b> average annual PUE	<b>1.32</b> average annual PUE	<b>1.20</b> average annual PUE

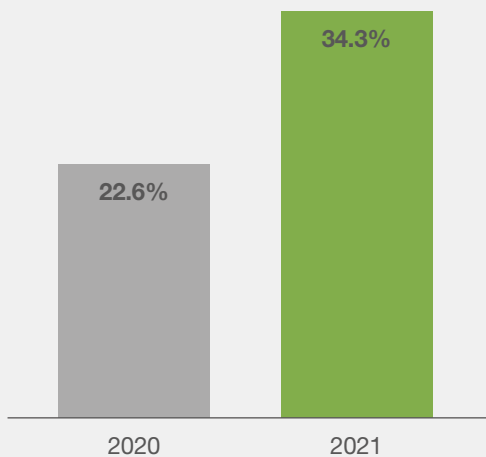
## Renewable Energy

Reduce carbon footprint by increasing renewable energy usage

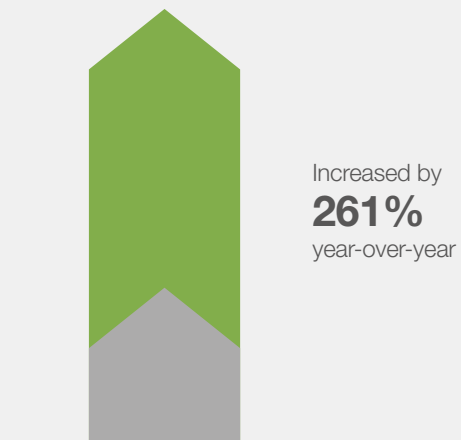
### Our Performance

We significantly increased our renewable energy percentage and strengthened our ability to be carbon neutral with 100% renewable energy by 2030.

Percentage of renewable energy



Direct purchase of renewable energy scale (kWh)



Number of data centers participating in direct purchase of renewable energy



## Our Progress in 2021

### Renewable energy sourcing progress

We continue exploring different approaches to using renewable energy. This is due to exhaustive and focused efforts for procuring renewable energy through renewable energy direct purchase (RE DPP) and renewable energy certificates (RECs).

On this basis, we are also preparing for a steady increase in our renewable energy percentage. Other efforts to increase renewable energy percentage include exploring renewable energy investment projects and researching the application of new technologies such as hydrogen energy for our data center. These preparations are critical to increasing renewable energy use in the long term.

### Participating in Beijing's carbon trading market

Eight of our Beijing data centers were selected as key carbon emission entities, and invited to participate in the carbon trading pilot scheme organized by the Beijing Municipal Bureau of Ecology and Environment in 2021. Because the actual carbon emission of these Beijing data centers was lower than the government's baseline, these data centers have excess carbon emission rights to sell, totaling more than 40,000 tons. We are proud of our participation in carbon emission trading and view this as proof that our market leadership extends to carbon emission control.

### Our 2021 progress for different renewable energy sourcing

APPROACH	2021 PROGRESS
<b>Direct purchase of renewable energy</b>	<p>We increased our scale of RE DPP by 261% over 2020. The number of data centers participating in direct purchase of renewable energy has increased to 13 in 2021 from 6 in 2020.</p> <p>In September 2021, we participated in the first batch of national cross region market for direct purchase of renewable energy. We believe we are procuring the maximum extent possible in Beijing, Shanghai, Shenzhen and Chengdu, as well as for some remote sites. RE DPP is constrained by the availability of renewables in Tier 1 markets, but supply will increase significantly over the next few years.</p>
<b>Renewable energy investment</b>	<p>We proactively seek opportunities to invest in renewable energy projects, particularly projects that can supply power directly to our data centers, or from which we can directly purchase power.</p>
<b>RECs</b>	<p>We signed a multi-year agreement with CGN New Energy to procure approximately 30,000 GWh of GECs (Green Electricity Certificates, a type of RECs in China). We procured I-RECs (International Renewable Energy Certificates) from Sembcorp and Envision Energy.</p>
<b>Onsite installation of renewable energy systems</b>	<p>We installed onsite solar photovoltaic systems at our newly developed data centers, for example on the facade of our Pujiang data center campus. In addition, we are assessing the feasibility of installing similar photovoltaic systems on the roof of existing data centers in Beijing.</p>



Chengdu #1 data center

## CASE STUDY

### Zero carbon data centers in Chengdu and Shanghai

In 2021, our Chengdu #1 and Shanghai #3 data centers achieved 100% renewable energy use through direct purchase of hydro power and redemption of RECs. We have purchased additional RECs to offset remaining Scope 1 emissions.

Based on these efforts, the two data centers were awarded “Zero Carbon Data Center” designations by the Open Data Center Committee (ODCC).



▲ Four of our DCs have been awarded low or zero carbon DCs certification

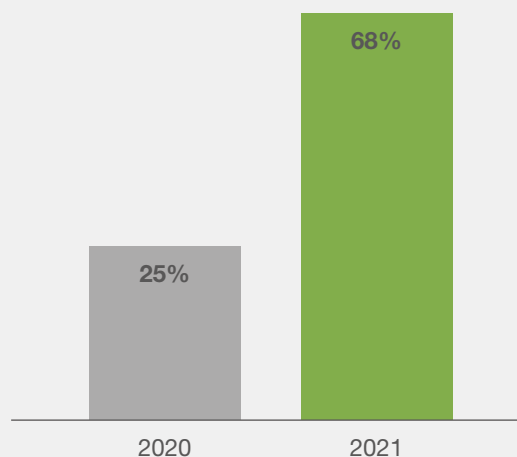
## Green Design and Construction

Make our data center greener

### Our Performance

#### Green Building Percentage

Data centers newly in service since 2020 have received or are applying for green building certification



For more information regarding the scope of these metrics, see **Appendix: Key Metrics**

GREEN BUILDING RATING SYSTEM	TOTAL	2021 NEW AWARDS
LEED	9 Gold, 1 Certified	7 Gold
ODCC Green Data Center	8 5A, 8 4A, 1 3A	4 5A
ODCC Low/Zero Carbon Data Center	4	4
MIIT Green Data Center	7	4
No. of green certifications	38	19
No. of DCs with green certifications	26	11

Note: 1. some DCs have multiple green certifications

2. This list includes DCs whose green certifications have expired. It is important that we maintain the same level of green operations regardless.



## Our Progress in 2021

### More standardized green data center design and construction procedures

We incorporate green development concepts into data centers design and construction.

To make green development procedures more standardized and repeatable, we have developed a GDS Green Data Center Design Guide, a GDS Construction Project Green Construction Management Guide, and other guidelines. These documents provide comprehensive green criteria and requirements for our design and construction teams. They institutionalize green design and green construction concepts as standard processes.

We have also established a green construction management team consist of external contractors members with clear responsibilities, and regularly check the implementation status of green construction practices in our projects.



Our Pujiang data center campus master plan

#### Energy efficiency, recovery and storage

- High energy efficiency system
- Heat recovery
- Energy storage

#### Low carbon & smart construction

- Green construction material
- Smart construction monitoring system
- Smart commissioning process

#### Smart management system

- Carbon management system
- Smart operation system
- Operation risk monitoring and emergency management system

## Green Operation

### Reduce resource consumption by optimizing operational efficiency

#### Our Performance

In 2021, our self-developed data centers achieved an average PUE of 1.32, compared with a global average for data centers of 1.57 (Uptime Institute 2021 Data Center Industry Survey Results). All DCs built after 2020 with utilization over 50% will achieve an average PUE of below 1.30. Apart from operation skills, PUE is also affected by climate conditions, customers' temperature requirements, and other factors. Considering the expanse of our footprint across China's Tier 1 markets, our PUE performance is industry-leading.

Our best performing data center achieved average a PUE of 1.17 from April 2021 to March 2022 (we launched energy conservation initiatives for this data center in March 2021, so we measure its PUE from April 2021 to March 2022 to verify the effort).

#### Notes:

1. In 2021, we use new carbon emission factors to calculate carbon emission, including the one published by the PRC Ministry of Ecology and Environment on March 15, 2022.

2. In 2021, our diesel consumption was significantly higher due to our use of diesel generators to maintain power supply. In the third quarter in particular, regional governments rationed grid power in order to meet their conservation targets, requiring us to use backup power.

INDICATOR - GHG EMISSIONS PERFORMANCE <sup>1</sup>		Unit	2020	2021
GHG emission (Scope 1)		tCO <sub>2</sub> e	3,638	49,622
GHG emission (Scope 2 – Market Based)		tCO <sub>2</sub> e	1,515,487	1,564,988
Carbon intensity (Scope 1+2)		tCO <sub>2</sub> e/m <sup>2</sup>	7.66	5.60
GHG emission (Scope 3)		tCO <sub>2</sub> e	N/A	852,690
INDICATOR - ENERGY AND WATER PERFORMANCE		Unit	2020	2021
Energy consumption	Diesel consumption	L	525,815	4,109,080 <sup>2</sup>
	Power consumption	GWh	2,758	4,158
	Renewable Energy	GWh	622	1,425
Water resource management	Water consumption	Tons	3,411,819	5,109,997
	Water usage effectiveness	-	1.64	1.72
Waste management	Hazard waste recycle percentage	%	N/A	100%
INDICATOR - MANAGEMENT SYSTEMS			2020	2021
ISO 14001 Environmental Management System			Yes	Yes
ISO 50001 Energy Management System			Yes	Yes
ISO 14064 Greenhouse Gas			No	Yes

## Our Progress in 2021

### Energy management

We continued to enhance our management and operations in 2021, while paying more attention to details. We developed a Data Center Precise Energy Management Operation Manual and an Energy Management Implementation Manual. Key improvements arising from these two manuals include:

- Increased use of smart operation tools to manage data center PUE and energy consumption. The tools are monitored by a dedicated cross region energy management team;
- Finer timing adjustments for free cooling and data center temperature adjustments per customers' directions;
- Converting annual PUE targets to weekly KPIs and enabling more precise optimization.



### CASE STUDY

#### Zhangbei data centers

Three of our Zhangbei data centers are using air cooled systems, a type of high efficiency cooling system for the Zhangbei climate zone.

In 2020, the average PUE of these three data centers was 1.22 which we believe is significantly below the average for data centers globally. In 2021, our team conducted further analysis. We summarized the most appropriate settings and operation sequences for cooling systems

based on the local climate. The systems are able to improve energy efficiency while still meeting customer requirements for temperature and humidity.

As a result, the average PUE of these three data centers improved to 1.19 from April 2021 to March 2022, with the best performing data center achieving an average PUE of 1.17.

## Data Center Lifecycle Carbon Emission Inventory and Management

Our carbon neutrality commitment announced in 2021 covers Scope 1 and Scope 2 emissions of the operations phase of our data center lifecycle.

We seek to build upon this commitment by exploring carbon reduction opportunities in the construction phase. Measuring existing emissions requires taking inventory through a carbon inventory process based on the ISO 14064 standard, with a special focus on our Scope 3 emissions in our construction and transportation processes, as well as emissions embedded in our construction materials.

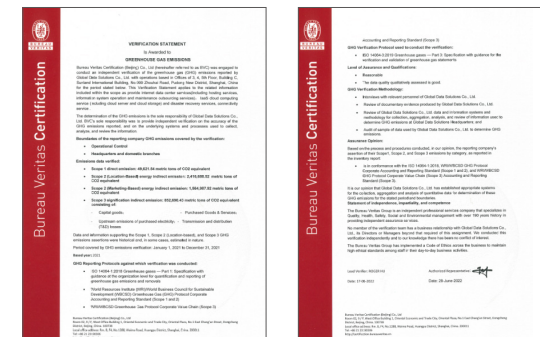
We are pleased to report that we completed our 2021 Scope 1, 2 and 3 carbon inventory and received ISO 14064 verification statement.

Based on the carbon inventory results, we plan to establish a construction carbon management policy and engage suppliers to reduce their carbon emissions, to further reduce data center lifecycle carbon emissions.

It is important to note that our existing carbon neutrality commitment covers only Scope 1 and Scope 2. For Scope 3 reductions, we will develop a separate management policy.

CONSTRUCTION		OPERATION			DEMOLITION	
Construction energy consumption	Construction material manufacturing and transportation	Electricity consumption	Fossil fuel consumption and refrigerant leakage	Purchased services	Waste management	Demolition energy consumption
Scope 3	Scope 3	Scope 2	Scope 1	Scope 3	Scope 3	Scope 3
		Main carbon emission source in operation				
Embodied carbon emissions						

Data center lifecycle carbon emissions



Our ISO14064 verification statement, which state our 2021 Scope 1, 2 and 3 carbon inventory result. for detail result, please refer to **Green Operation**.

## Social

# Create value for all stakeholders



## Overview

Our high-performance standards reflect our history and culture as an IT service provider and distinguish us among peers.

In 2021, we continued to prove smarter and better. We released our Smart DC solution, which we believe will create greater value for our customers. We continued our focus on employee diversity and development. We promoted sustainable development with our suppliers. We enhanced our community engagement through charitable activities.

### UN SDGs Alignment



AREA OF FOCUS		2020 PERFORMANCE	2021 PERFORMANCE
	<b>Customers</b> Empower with a smart infrastructure platform	<b>9.556</b> out of 10 customer satisfaction score	<b>9.585</b> out of 10 customer satisfaction score
	<b>Employees</b> Foster diversity, inclusion and personal development	<b>31.3</b> training hours per employee per year	<b>38.2</b> training hours per employee per year
	<b>Suppliers &amp; Community</b> Engage our value chain and communities to drive positive impact	<b>100%</b> of suppliers required to sign our sustainable development commitment letter	<b>100%</b> of suppliers required to sign our sustainable development commitment letter

## Customers

### Empower with a smart infrastructure platform

We continue to increase research and development efforts to deliver better solutions and services to customers. By drawing upon our in-house data center design, operation, supply chain, and product research and development capability, which we believe is unparalleled in the industry, we formalized our approach to approach to developing, commissioning, equipping and fitting out our data center facilities as a Smart DC solution for customers.

As of December 31, 2021, we had 20 data centers awarded with “Management and Operations (“M&O”) Stamp of Approval” by the Uptime Institute, an unbiased advisory organization focused on improving the performance, efficiency, and reliability of business-critical infrastructure.

We engaged third-party research firm NielsenIQ to conduct a customer satisfaction survey. Conducted from November 8 to December 27, 2021, NielsenIQ’s survey used quota sampling, computer-assisted telephone interviews, and in-depth interviews to determine our customers’ perception of our company’s business across an array of industries. The survey collected feedback from 282 business users. The average customer satisfaction score was 9.585 out of 10.

### Our Performance

INDICATOR	2020	2021
Customer satisfaction score	9.556 out of 10	9.585 out of 10
Service level fulfillment	20 years’ track record of reliability	
Uptime M&O Stamp of Approval	14 DCs	20 DCs
Uptime M&O Stamp of Approval of a region	4 regions	4 regions

For more information regarding the scope of these metrics, see **Appendix: Key Metrics**.

## Our Progress in 2021

### Our Smart DC Solution

Beginning in 2021, we assembled a team with various core expertises across design, construction, operation, system suppliers, hardware, and software to develop a standard framework for innovative data center solutions. The team succeeded in developing our first-generation Smart DC solution.

Our Smart DC solution is oriented to future data center development in China and overseas. We believe it will bring greater value for our customers.

We will continue to invest in research and development for Smart DCs and other innovative solutions, to fulfill our sustainability vision.

### Our Smart DC solution consists of three modules:

#### Turbo – Green and low carbon solution

- Liquid cooling – to improve data center PUE;
- Energy storage – as a component of renewable energy solutions.



#### D-Pre – Construction prefabrication solution

Building, mechanical and electrical system prefabrication – to reduce construction period and enhance construction quality.



#### X-BP – Smart operation system

- Self-developed BMS system – to incorporate GDS long term operation experience into control algorithms;
- AI-based tools and robots – for smart and automatic operation;
- Automatic diagnostic system – to ensure service level fulfillment.





## CASE STUDY

### Smart DC solution application at our Changshu data center campus

We applied our Smart DC solution to our Changshu hyperscale data center campus. As a result, we achieved smart design, construction and operation for Changshu #1 with a construction period, quality, energy efficiency, and smart operation capability that met or exceeded customer expectations.

Using prefabrication technology, we completed delivery of 1,000 data center racks in three months. We installed AI based tools with connectivity to our Regional Operation Command Center (ROCC) system. These tools will enable smart and high efficiency operation.



## Regionalized Operation Enable Reliability and Efficiency

As a result of our advanced data center design, high technical specifications, and robust operating procedures, we can make service level commitments related to service availability and other key metrics that we believe are best-in-class. In 2021, there were no cases of major service level breach.

We have a unified national platform for data center operations and customer service. This helps us ensure uniform standards among all data center campuses, and a consistent service experience for customers deploying data centers in multiple places.

Our operations and management organization has three levels: Global Operation Command Center (GOCC), Regional Operation Command Center (ROCC) and Data Center Unit (DCU). The organization draws upon more than 20 years of operation experience, best practices, and self-developed tools. It uses smart technology to monitor data center operation reliability, system malfunctions, and automatically assigns tasks to local data center teams. It also assembles regional data center operation tasks and monitors implementation. With this organization, we significantly improve our data center and people management efficiency.

Our ROCC platform was awarded “First prize of the 2021 Data Center Science and Technology Achievement Award” from the China Association for Engineering Construction Standardization (CECS).



## Transparent and Efficient Customer Service

We endeavor to provide high levels of customer service, support, and satisfaction. We interact regularly with our customers to receive their feedback and continuously improve. We adhere to a customer service concept of “transparency, efficiency and care”. We have established comprehensive service system and service processes and use apps to communicate with customers in a timely and efficient manner. We continue to apply new digital innovations across the customer interface, and enrich service scenarios. Our front-end and customer lifecycle management enable reliable, customized services to enhance customer engagement and experience.



## Support Customers to Fulfill Their Carbon Reduction Target

Many of our customers are leaders in their industries, and quite a few of them have committed to carbon reduction targets. Some of these targets include requirements for data center service providers. Our carbon reduction efforts can help these customers fulfill their carbon reduction commitments. We actively introduce GDS's carbon neutral strategy, detailed implementation roadmap, and related services that we can offer customers. To date, customer feedback has been positive. In 2021, we provided some customers with renewable energy consumption certificates to prove that their IT equipment deployed in our data centers and the corresponding auxiliary equipment such as cooling, power supply and distribution use renewable energy.

## Employees

### Foster diversity, inclusion and personal development

We believe that our employees' personal growth and our corporate growth are mutually reinforcing. We continue to implement our human capital management strategy with a commitment to building an inclusive workplace that fosters diversity, guarantees health and safety, and provides a platform for personal development.

#### Our Performance



EMPLOYEE TRAINING AND DEVELOPMENT		2020	2021
Employee	Number of employees	1,479	1,878
	Employee turnover rate	17.0%	20.7%
Career Development	Percentage of employees who receive regular performance and career development reviews		100%
	Average training hours per employee per year		31.3
	Average training hours per employee per year - by rank	Entry level	39.1
		Middle management	18.1
		Senior management	22.6
			13.0



## DIVERSITY AND INCLUSION

2020

2021

Gender pay ratio – female to male (median value)

Entry-level

N/A

114%

Middle management

105%

Senior management

112%

Diversity – by gender

Percentage of female employees

17%

15%

Percentage of female employees in mid- to senior-level management

22%

26%

Percentage of female employees in senior-level management

34%

35%

Diversity – by age

30 and below 30

33%

34%

31 - 49

64%

63%

50 and above 50

3%

2%

Diversity – by race

Han

92%

93%

Others as a group

8%

7%



## OCCUPATIONAL HEALTH AND SAFETY

2020

2021

ISO 45001 Occupational Health and Safety Management System

Yes

Yes

TRIR

N/A

Employees &amp; Contractors: 0.55

For more information regarding the scope of these targets and how they are calculated, see **Appendix: Key Metrics**.

## Our Progress in 2021

### Protect Employee Rights and Encourage Employee Engagement

We seek to develop professionals who are highly adaptable. To this end, we implement a human capital management strategy with four dimensions: attraction, training, utilization and retention.

#### Attraction

- Competitive compensation and benefits package
- Multi-dimensional career planning

#### Training

- Multiple forms of training
- Business-driven growth

#### Retention

- Medium-term retention plan & long-term Employee Stock Ownership Plan
- Retention of outstanding employees

#### Utilization

- Assessment of competence
- Management of performance

We have strictly abide by all applicable labor laws and labor-related regulations in which we operate. We abide by the human rights policies stated in the United Nations' Universal Declaration of Human Rights and the International Covenants on Human Rights and the core conventions of the International Labor Organization. We firmly prohibit child labor and forced labor. We adhere to a diversity and non-discriminatory employment policy, provide equal pay for men and women for equal work, and respect and protect the legitimate rights and interests of all employees. We are committed to freely allowing our employees lawful rights to associate with others, form, join or refrain from joining organizations of their choice, and bargain collectively, without interference, discrimination, retaliation, or harassment.

We are attentive to our employees' views and believe that providing channels for feedback are critical to their sense of ownership in the company. We conduct employee satisfaction surveys. In addition, we have comprehensive grievance reporting and escalation procedures in place. We offer employees the ability to raise work or life concerns to our HR department by multiple channels. If employees feel their interests are violated, they have different opinion on company business, or they want to make a complaint, they can express their opinion to our HR department through these dedicated communication channels. Our HR colleagues treat such information properly and confidentially.



We conducted a 2021 employee satisfaction survey for our employees. Over 90% employees responded the survey, and the overall satisfaction score was over 90 out of 100. In addition, we conducted two phases of employee satisfaction surveys for our operation team specifically in 2021. We analyzed employee satisfaction for each department, and then formulated a targeted improvement plan. We continue follow up actions based on the survey's feedback.

## Occupational Health and Safety

### Management system upgrade

We have established a closed loop environmental, health and safety (EHS) management system. Since 2020, the system has been certified per ISO 14001 and 45001 standards annually. In 2021, we upgraded the policies and manuals of the management system for construction, operation and administrative teams, while accounting for the latest Law of The People's Republic of China on Work Safety.



### Closed loop EHS incident management

We established an EHS incident tracking system in 2020 and began to track incidents from 2021 under this system. The incidents we track include near miss, medical treatment, loss time injury, and fatality. It covers all employees, contractors and visitors who work at or visit our data center sites. We have a comprehensive process to ensure that the injured are properly treated. We analyze the details of the incident to understand the root cause and to make remediation. We regularly share experiences from incidents with our employees and contractors. In 2021, there was no major incident reported.



### EHS culture development and awareness training

Different work scenarios have different EHS skills requirements. In 2021, we organized two construction and two operation EHS training sessions. We conducted a first-aid training for our operation team, and developed an EHS online training course, requiring all relevant personnel to participate in the training. In addition to these special trainings, we increased the frequency of EHS trainings, such as our weekly construction EHS online meeting (in which all engineering teams and contractor project managers participate), daily construction onsite EHS training, and 3-level safety training, etc. These special and regular trainings help employees and contractors to understand of the company's EHS requirements and policies more deeply.



### EHS Inspection and audit

In order to verify the implementation of the company's EHS management system, we invited third parties to conduct on-site EHS inspections and audits for some data centers in service or under construction, and make necessary rectifications for issues.



### First aid training for operation team

In 2021, we invited external professional organizations to provide international certified AHA (American Heart Association) first aid skills training for some members of the operation team.

## Diversity and Inclusion

We are committed to creating a diverse, harmonious, equitable and inclusive team culture. In 2021, as part of our ESG management, we began to set diversity and inclusion targets for our relevant senior management personnel. We regularly monitor, review, and develop improvement plans for this performance.

We invite outstanding female employee representatives to share their work experiences at GDS. All the sharing is made into videos and shared with everyone in the company. We provide material benefits for female employees. For example, we prepare special gifts for them on certain days, such as International Women's Day.

Our percentage of female employees in mid-to senior-level management increased by 4%. Furthermore, we are making progress to improve the diversity in all our data centers.



## Employee Benefits and Welfare

We emphasize our employees' welfare as much as their compensation, benefits and skills training.

We provide employees with a variety of benefits to enhance their sense of belonging and wellness. From 2021, we opened a 24-hour EAP (Employee Assistance Program) for employees. We held sports events and festival events to enhance our employee engagement.



### GDS east region basketball tournament

In 2021, we held our first ever GDS east region basketball tournament, around 100 of our colleagues across eight teams participated. The tournament provided an opportunity for employees from different departments to get better acquainted with one another and practice teamwork in a non-work setting.

## Career Development

We are committed to providing career development opportunities to all employees equally.

In 2021, we launched our “GDS knowledge sharing” program. This program aims to provide a platform for employees to understand their colleagues’ work content and learn about the data center industry from alternate perspectives. We invite our colleagues to share their knowledge and work experience. Employees can participate online or offline. During 2021, 15 knowledge sharing sessions were held and approximately 1,500 colleagues managed to attend the program. We constantly seek to improve our career growth and development system for employees through enhanced self-improvement resources and channels.



An employee discussed carbon neutrality concepts at a GDS Auditorium event

Among the operation team's offerings, we continued our Golden Eagle Program, Sunrise Program and other development programs. We established new collaborations with universities, continuing an initiative whereby our employees visit colleges to give lectures and strengthen the GDS brand on campus. We also established new teaching bases to help fresh graduates transition smoothly from the university environment to the workplace environment.



### Golden Eagle program

The program aims to develop data center managers and professional engineers.



### Sunrise program

2021 marked the fourth consecutive year of the Sunrise program, which aims to develop skilled data center technicians.

## Suppliers

### Engage our value chain to drive positive impact

The sustainable growth of our business is inseparable from the support of value chain partners. We continue to optimize closed-loop supply chain management and control, and incorporate supply chain risks into our risk management. At the same time, we have introduced a third-party "supply chain risk radar" to dynamically monitor suppliers, improve transparency. We work with suppliers to promote the sustainable development of the entire data center value chain.

### Our Performance

INDICATOR	2020	2021
Percentage of suppliers required to complete our Third-Party Due Diligence Questionnaire	100%	100%
Percentage of suppliers required to sign our Letter of Commitment for Sustainable Development	100%	100%
Percentage of suppliers required to undergo EHS review	100% of engineering and equipment suppliers	100% of engineering and equipment suppliers

EHS review applies to engineering and equipment suppliers only. Other suppliers have low EHS risk.



### Number of suppliers by region in 2021

REGION	NUMBER OF SUPPLIERS
Eastern China	516
Northern China	597
Southern China	307
Western China	69
Hong Kong SAR, Macau SAR, and Overseas Countries	48

## Our Progress in 2021



### Suppliers Carbon Management

We are extending our carbon management system from the operation phase to the entire lifecycle of the data center. By extending the breadth of our inventory management, we are able to measure and adjust carbon emissions generated during construction, production of building materials, and transportation of those materials. As of the date of this report, we have completed the overall carbon inventory work. We plan to develop a complete carbon management strategy for the full data center lifecycle in the future.

There are several measures to reduce construction phase carbon emission. It include using prefabrication technology, green construction material, regional construction material, reducing construction material usage by optimizing design, and recycling construction waste. Currently we are implementing all these measures in our construction site at a certain scale. Our latest initiatives such as our Smart DC solution, Green Data Center Design Guide, and Construction Project Green Construction Management Guide have incorporated construction phase carbon emission reduction elements. As we now have a more precise knowledge of construction carbon emissions, we will develop more detail strategy and policy to reduce construction phase carbon emissions, so as to reduce our data center lifecycle carbon emission.

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For more details about the carbon management, please refer to **Data Center Lifecycle Carbon Emission Inventory and Management**.

## Community

### Engage our communities to drive positive impact

We understand our role in society and believe our growth is inseparable from social prosperity. We devote ourselves to social services with enthusiasm. Services that we have provided in the past include assisting orphans and the disabled, promoting education equality and advancing rural revitalization, and scientific and technological talent training.

The below case studies describe two major social welfare activities in which we participated in 2021:



#### Love Kitchen Program

GDS and China Foundation for Poverty Alleviation jointly launched the "Love Kitchen" program for schools in rural areas. The project focuses on two schools with urgent needs for building kitchens with sanitation equipment and appliances to prepare and store foods. These facilities help ensure that students grow up in a healthy environment. Over 3,000 students have benefited from the upgraded kitchens.



#### Henan Flood Relief

In 2021, extreme rainfall descended upon Henan resulting in severe flooding. GDS donated RMB 5 million through the "Henan Heavy Rain Emergency Rescue" project of the China Foundation for Poverty Alleviation, and employees donated an additional around RMB 250,000 to support the rescue and post-disaster reconstruction of the disaster-stricken areas in Henan Province. The donations benefitted eight townships and thirty three villages across two cities, and helped 45 schools in the disaster area in Henan with their post-disaster reconstruction work.

## Governance

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# Engender trust via rigorous governance



## Overview

We adhere to strict corporate governance. We continue to engender trust by maintaining high standards of corporate governance, improving data security and privacy protection, and enhancing ESG monitoring.

### UN SDGs Alignment



AREA OF FOCUS		HIGHLIGHTS
	<b>Corporate Governance</b> Maintain high standards of corporate governance	<b>100%</b> of employees received anti-corruption and compliance training
	<b>Cyber Security</b> Ensure strict protection of data security and privacy	<b>100%</b> of employees received cyber security training
	<b>Oversight of ESG</b> Enhance sustainability through accountability	<b>Established ESG Management Framework and Sustainability Committee</b>

## Corporate Governance

### Maintain high standards of corporate governance

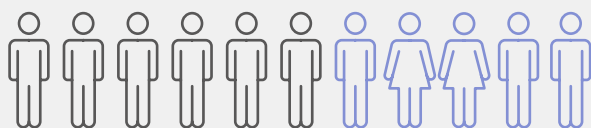
We believe that a robust and efficient corporate governance system is the foundation for corporate development. We maintain high standards of corporate governance and pursue industry best practices. We adhere to applicable laws, regulations and business ethics, and require all employees to comply with high standards of integrity. We apply high standards to our suppliers as well, to promote a transparent and compliant business environment.

### Our Performance

INDICATOR	2020	2021
Directors	11	11
Independent directors	5 out of 11, 45%	5 out of 11, 45%
Female directors	2 out of 11, 18%	2 out of 11, 18%
Independent audit committee	Yes	Yes
Board meetings	13	8
Audit the implementation of FCPA and other anti-corruption related policies	Once every two years	Once every two years
Compliance and anti-corruption training	100% of employees, completed in 1H 2021	100% of employees

For more information regarding the scope of these targets, see **Appendix: Key Metrics**.

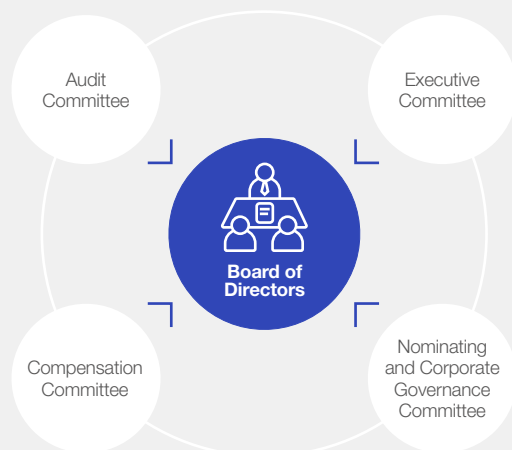
## Board of directors



11      2      5

Board members   Female directors   Independent directors

## Our committees



## Our Progress in 2021

### Board Governance

Our board of directors remained unchanged at year-end 2021 as compared with 2020. We continue to regulate information disclosure and ensure its timeliness, integrity, accuracy and transparency. We maintain good communication with our investors and shareholders to effectively safeguard their interests.

We have a diverse board of directors. As of December 31, 2021, our board had 11 directors, including five independent directors and two female directors. Our five independent directors are an important part of our corporate governance system and serve to protect the interests of minority shareholders and stakeholders, thereby enhancing our long-term sustainable development.

In 2021, our board of directors increased their oversights over ESG-related work. Our board of directors formally added ESG-related responsibilities, including approval of our ESG strategy and annual ESG report. The Board of Directors, its Executive Committee and Nominating and Corporate Governance Committee reviewed and discussed ESG-related strategies and recommendations proposed by the management and the Sustainability Committee. Our ESG team also conducted ESG-related interviews with some directors individually to understand their thoughts on ESG and integrate them into the development of our ESG strategy. The board of directors approved our ESG strategy and the release of our inaugural ESG report.

We will continue to implement ESG management activities. The Compensation Committee has begun to incorporate ESG-related indicators into the annual performance

assessment of senior executives.

### Compliance and Anti-corruption

We adhere to applicable laws and regulations and business ethics, and require all employees to comply with high standards of integrity.

We have a zero-tolerance policy for corruption. We operate our business in the PRC, the Hong Kong Special Administrative Region of the PRC, the Macau Special Administrative Region of the PRC, Singapore, Malaysia and Indonesia and are thus subject to the laws and regulations of these jurisdictions related to anti-corruption, which prohibit bribery to government agencies, state or government owned or controlled enterprises or entities, to government officials or officials that work for state or government owned enterprises or entities, as well as bribery to non-government entities or individuals. We are also subject to the FCPA, which generally prohibits companies and any individuals or entities acting on their behalf from offering or making improper payments or providing benefits to foreign officials for the purpose of obtaining or keeping business, along with various other anti-corruption laws.

We launched a new online compliance and anti-corruption course in 2021, and requested all employees to take the course and pass the relevant test. The course ensured that employees have attained a required level of compliance and anti-corruption awareness. For new employees and high-risk employees, we also organize offline trainings to enhance their awareness.

To verify the implementation of our FCPA and other anti-corruption related policies, we engaged an external third-party agency to audit the GDS's implementation of FCPA and other anti-corruption-related policies in 2021.

## Cyber Security

Ensure strict protection of data security and privacy

### Our Performance

INDICATOR	2020	2021
Major cyber security incidents	0	0
China Classified Protection (a system to classify importance of the information, and the level of the information security protection)	Level 3	Level 3
ISO 22301 Business Continuity Management System	Yes	Yes
ISO 27001 Information Security Management System	Yes	Yes
Cyber security training	100% of employees, completed in 1H 2021	100% of employees

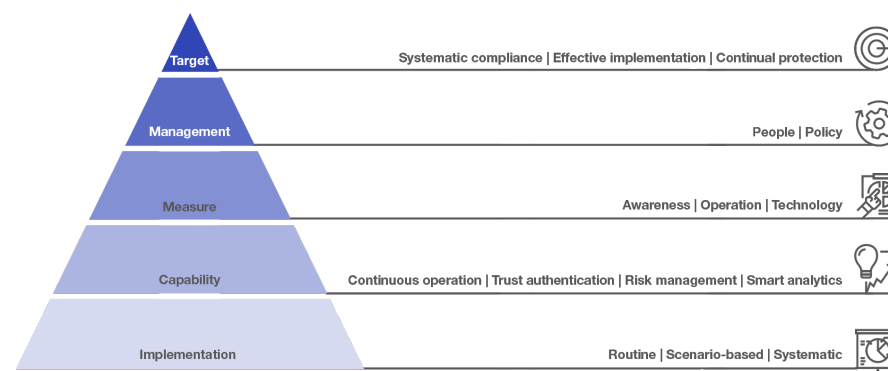
For more information regarding the scope of these targets, see **Appendix: Key Metrics**.

### Our Progress in 2021

#### Cyber Security Management

Our audit committee (board level committee) provides executive oversight of cyber security and data privacy topics. We have established a corporate information security committee to oversee our information security, and under the committee we have established several sub-committees to manage relevant topics. In 2021, we further strengthened our cyber security management system at both the corporate level and data center operation level. We improved our cyber security compliance system, technical monitoring and protection system, and systematically implemented of cyber security management measures. We further standardized data center operation and cyber security management processes. From a technical perspective, we applied adaptive and smart cyber security technologies to enable automatic and highly efficient management.

#### Cyber Security Management Framework



## Data Privacy & Intellectual Property Rights Protection

We highly value the protection of intellectual property rights and data privacy. After the central government published the Data Security Law and the Personal Information Protection Law in 2021, we updated the GDS Privacy Policy according to the new law. The policy is published on our website to ensure that users are informed about personal privacy data. We also published internally a Data Protection and Privacy Security Management Policy. The policy specifies security protection requirements and measures in the data lifecycle that ensure the security of corporate data, and users and employees' data privacy. We have established our privacy information management system based on ISO27701 standard.

## Cyber Security Culture and Awareness

We attach great importance to cyber security culture and employee awareness. GDS understands that our employees' awareness plays an important role in cyber security. To this end, we provide regular information security training for all employees. In 2021, we conducted multiple cyber security trainings, and 100% of our employees participated in relevant training at least once during the year.

At the same time, we shares our experience with customers in the fields of data security and application security. We plan to release a white paper on data and information security technology to solidify best practices for GDS information security, and improve our network security defense system together with customers.



### CASE STUDY

#### Anti-fraud and anti-phishing drill

Anti-fraud and anti-phishing have always been an important part of our cyber security system. We have an email security defense system to identify phishing and virus emails and warn about abnormal email behavior. In 2021, we conducted anti-phishing tests for all employees and carried out three rounds of special anti-phishing training for employees who failed to pass the tests, so as to enhance their awareness.



## Oversight of ESG

### Enhance sustainability through accountability



In 2021, we built a multi-level ESG management framework with clearly defined responsibilities for ESG strategy, ESG management, and ESG implementation.

We also established a sustainability committee to be responsible for developing and implementing ESG strategies. Our Board of Directors also increased their oversight of ESG-related work. For details, see **Board Governance**.



For more details on our ESG management framework, Sustainability Committee, ESG material topics and strategies, please see our inaugural ESG report.

After formulating our ESG strategy, we began to include relevant ESG metrics in the KPI assessment of management team members, such as data center PUE, renewable energy usage percentage, etc. We began linking ESG performance with their bonus, equity incentives and promotion opportunities. This motivates management to pay attention to ESG management and improves our ESG performance.

# Appendix

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# Independent Statement of Assurance



## Introduction and objectives of work

BUREAU VERITAS CERTIFICATION (BEIJING) CO. LTD ("Bureau Veritas") has been engaged by GDS Holdings Limited ("GDS") to conduct an independent assurance of its 2021 Environmental, Social and Governance Report (the "Report"). This assurance statement applies to the related information included within the scope of work described below.

This information and its presentation in the Report are the sole responsibility of the management of GDS. Bureau Veritas was not involved in the drafting of the Report. Our sole responsibility was to provide independent assurance on the accuracy and reliability of information included, and on the underlying systems and processes used to collect, analyse and review it.

## Scope of work

GDS requested Bureau Veritas to verify the accuracy and reliability of the following:

- Data and information included in the Report for the reporting period from 2021.1.1 to 2021.12.31 regarding GDS's environmental, social and corporate governance activities;
- Appropriateness and robustness of underlying reporting systems and processes, used to collect, analyse and review the information reported.
- In view of the requirements for the prevention and control of novel coronavirus disease, this verification adopted remote verification methods, the remote verification site was GDS (Shanghai) Investment Co., LTD., address: F4/F5, Building C, Sunland International, No. 999 Zhouhai Road, Pudong, Shanghai 200137 People's Republic of China (headquarters); GDS SH16 and SH17 Data Center, address: No. 699 Puxing Road, Shanghai (sub-site). Bureau Veritas obtained the information related to GDS required for the verification.

Excluded from the scope of our work is any assurance of information relating to:

- Activities outside the defined assurance period;
- Positional statements (expressions of opinion, belief, aim or future intention by GDS) and statements of future commitment;

- Operating financial data in the Report, which were separately audited by an external auditor and therefore excluded from the scope of work.

## Methodology

Bureau Veritas undertook the following activities:

- Remote visit to GDS (Shanghai) Investment Co., LTD., address: F4/F5, Building C, Sunland International, No. 999 Zhouhai Road, Pudong, Shanghai 200137 People's Republic of China (headquarters); GDS SH16 and SH17 Data Centers, address: No. 699 Puxing Road, Shanghai (sub-site);
- Interviews with relevant personnel of GDS;
- Review of documentary evidence produced by GDS;
- Evaluation of information against GRI standard principles i.e. Accuracy, Accessibility, Balance, Clarity, Comparability, Reliability and Timeliness;
- Verify sampled performance data;
- Review of GDS systems for data and information collection, aggregation, analysis and review.

Our work was conducted against Bureau Veritas' standard procedures and guidelines for external assurance of ESG reports,

based on current best practice in independent assurance. For this assignment, we have used the International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements other than Audits or Reviews of Historical Financial Information of the International Auditing and Assurance Standards Board and the Global Reporting Initiative Standards (GRI Standards) issued by the Global Sustainability Standards Board.

The work was planned and carried out to provide reasonable, rather than absolute assurance and we believe it provides a reasonable basis for our conclusion.

## Our findings

On the basis of our methodology and the activities described above, it is our opinion that:

- The information and data included in the scope of our assurance are accurate, reliable and free from material mistake or misstatement;
- The information is presented in a clear, understandable and accessible manner;
- The Report provides a fair and balanced representation of activities during the assurance period described in the scope of work;
- GDS has established appropriate systems for the collection, aggregation and analysis of relevant information.

## Additional commentary

### Objectivity

GDS uses information systems to collect operation, HR, safety and environmental data. Through on-site verification, the evidence provided by GDS is reliable and traceable.

### Materiality

GDS identified and disclosed key ESG issues and relative information according to the GRI Standards, the ESG Reporting Guide 2.0 issued by NASDAQ, the Environmental, Social and Governance Reporting Guide issued by Hong Kong Exchanges and Clearing Limited, and the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations issued by the TCFD.

### Completeness

The Report covered GDS Holdings Limited and its wholly owned and holding subsidiaries. It focuses on "Overview – Business and Sustainability Context Update", "Environmental: Minimize Environmental Impact", "Social: Create Value for All Stakeholders", "Governance: Engender trust via rigorous governance" and also disclosure corporate social responsibility management, environmental responsibility, economic responsibility, and community responsibility which stakeholders concerned issues.

## Statement of independence, impartiality and competence

Bureau Veritas is an independent professional services company that specialises in Quality, Health, Safety, Society responsibility and Environmental management with more than 190 years history in providing independent assurance services. No member of the assurance team has a business relationship with GDS. We have conducted this verification independently, and there has been no conflict of interest. Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day to day business activities.



**General manager, Certification, I&F China**  
Bureau Veritas I&F China  
2022-6-29

**Jack Hu**  
Assurance Team Leader  
Bureau Veritas I&F China  
2022-6-29

## Key Metrics

This section provides additional details about the metrics and scoping for our key metrics.

### Environmental

#### Renewable Energy

Our renewable energy scope includes, but is not limited to, wind, solar, and hydroelectric power consumed by our leased, owned, and B-O-T data centers and offices. It excludes our operations at third-party data centers because we do not exercise operational control at those sites. All the environmental attributes are trackable and to our knowledge, do not include double counting.

- **Renewable energy**

We determine our renewable energy by aggregating the amount of energy that we procure that is 100% renewable. This includes mechanisms such as RECs and direct purchases of green power. It excludes any renewables that are embedded in the grid.

- **Renewable percentage**

This is our renewable energy as a percentage of all the electricity that we procure, including electricity delivered to customers.

#### Green Design and Construction

Green buildings are our data centers which have received international or domestic green building certification, such as Leadership in Energy and Environmental Design (LEED), Open Data Center Committee (ODCC) Green Data Center Certification, Ministry of Industry and Information Technology (MIIT) Green Data Center Certification, or other equivalent green building rating systems certification.

- **Green buildings**

The number of data centers that have received green building certification.

- **Green building percentage**

The number of green buildings as a percentage of all data centers in service or newly in service since 2020. In 2021, it excludes B-O-T data centers and acquired data centers which are already in service.

#### Green Operations

Our self-developed data centers are designed to achieve high power efficiency, which is expressed conversely by a low power usage effectiveness ratio.

- **Power usage effectiveness (PUE)**

The total amount of power consumed by the data center divided by the total amount of power consumed directly by customers to operate their IT systems housed in the data center.

PUE is of particular importance to hyperscale cloud service provider and large internet customers who have the most demanding performance targets. It includes leased, owned, and B-O-T data centers with a utilization rate of 30% or more. It excludes third-party data centers.

The 2030 PUE target 1.20 is based on the assumption that around 30% data centers by 2030 will apply new architecture and new technology.

## Energy Consumption and Green House Gas Emission

Our greenhouse gas (GHG) inventory accounts for greenhouse gas emissions from electricity, diesel, and natural gas at our leased, owned and B-O-T data centers and offices. It excludes third-party data centers.

- **Scope 1 carbon emissions**

Direct GHG emissions that involve the consumption of gasoline and diesel oil, whose emission factors are taken from Guidelines for Accounting and Reporting Greenhouse Gas Emissions China Electronic Equipment Manufacturing Enterprises (Trial) and GB/T 2589-2020 General Rules for Calculation of the Comprehensive Energy Consumption; consumption of refrigerant and fire extinguishing agent, whose emission factors are taken from 2006 IPCC Guidelines for National Greenhouse Gas Inventories and Fifth Assessment Report of IPCC.

- **Scope 2 carbon emissions**

Indirect GHG emissions associated with the purchase of electricity. In 2021, we use new carbon emission factors, including the one, published by the PRC Ministry of Ecology and Environment on March 15, 2022.

- **Carbon intensity**

Total carbon emissions (Scope 1 + Scope 2) divided by average quarterly data center utilized net floor area.

- **Scope 3 carbon emissions**

Indirect GHG emissions. we include fuel and energy related activities, capital goods which is mainly our construction material and equipment embedded and transportation carbon emission, and waste treatment. We exclude certain minor emissions source such as employee travel, which still complies with the ISO 14064 standard.

## Energy and Water Performance Metrics

- **Diesel**

The amount of diesel consumed by our leased, owned and B-O-T data center operations, and offices and cars.

- **Gasoline**

The amount of gasoline consumed by our leased, owned and B-O-T data centers, and offices and cars.

- **Power consumption**

The amount of electricity consumed by our leased, owned, B-O-T data centers, and offices. Electricity includes grid supply and excludes self-generated supply.

We track the total water withdrawn by our facilities, regardless of whether the water goes towards cooling, facility maintenance, or domestic water uses. This is a helpful metric because it indicates the total impact we have on potable water supplies in the regions

where we operate. The limitation of this metric is that it does not distinguish between withdrawal, where we return water to the local treatment works and consumption (such as evaporating water for cooling or landscaping) where the water is put beyond use of the watershed (such as industrial wastewater or sewage).

- **Water consumption**

The amount of water that our data centers operations consume. We include only the water consumption of operations at our leased, owned and B-O-T data centers. We exclude third-party data centers as we do not exercise full operational control at those sites. We exclude water consumption at individual offices where water is charged through fixed rental costs and not billed separately. We believe our office water consumption is minimal as compared to our data centers.

- **Water usage effectiveness (WUE)**

This is the amount of water that our data centers consume in liters (L) as a percentage of total IT equipment electricity consumption.

## Social

### Customer Service Metrics

- **Customer satisfaction score**  
Every year we engage a third party to conduct customer satisfaction survey and the score is the overall result of the survey. The higher the better.
- **Uptime Stamp of Approval**  
The number of data centers that have obtained Uptime M&O Stamp of Approval.
- **Uptime M&O Stamp of Approval of a Region**  
The number of regions that have been awarded Uptime Stamp of Approval of a Region.

### Employees Metrics

- **Number of employees**  
The total number of full-time employees at year-end.
- **Employee turnover**  
The number of full-time employees who have left the company (including voluntary resignations, dismissals, retirements, etc.), divided by monthly average number of full-time employees.

- **Total recordable incident rate**  
The number of recordable incident (medical treatment and above) divided by total working hour and multiplied by 200,000 hours.
- **Average training hours**  
The number of total training hour received by full-time employee divided by monthly average number of full-time employees.
- **Percentage of female employees**  
The number of total full-time female employees divided by the number of total full-time employees in the year end.
- **Percentage of suppliers who participate in GDS ESG initiatives**  
The percentage of suppliers who have signed contracts with GDS and are involved in our ESG initiatives since the initiatives were launched.

## Governance

### Corporate Governance Metrics

- **Independent audit committee**  
Whether all members of the audit committee are independent.
- **Audit of implementation of the FCPA and other anti-corruption related policies**  
The frequency of audits to verify compliance with our FCPA and other anti-corruption related policies. It is currently is conducted by external third party.

### Cyber Security Metrics

- **Major cyber security incidents**  
The number of cyber security incidents that will significantly affect company business operation.

GRI STANDARDS	HKEX ESG REPORTING GUIDE	NASDAQ ESG REPORTING GUIDE 2.0	DISCLOSURE TITLE	ANSWER/ LOCATION
STATEMENT OF USE:		GDS HAS REPORTED THE INFORMATION CITED IN THIS GRI CONTENT INDEX FOR THE PERIOD 2021.1.1 -2021.12.31 WITH REFERENCE TO THE GRI STANDARDS.		
GRI 1 USED		GRI 1: FOUNDATION 2021		
GRI 2: GENERAL DISCLOSURES				
2-1			Organizational details	GDS Holdings Limited
2-2		G8 G9 G10	Entities included in the organization's sustainability reporting	P1
2-3			Reporting period, frequency and contact point	P1
2-4			Restatements of information	N/A
2-5			External assurance	P42-43
2-6	B5	G5	Activities, value chain and other business relationships	P4-5 and refer to our 20-F for the year ending December 31, 2021 (2021 20-F)
2-7	B1 B4	S2 S3 S4 S5	Employees	P24-25
2-8			Workers who are not employees	P25
2-9			Governance structure and composition	Refer to our 2021 20-F
2-10			Nomination and selection of the highest governance body	Refer to our 2021 20-F
2-11			Chair of the highest governance body	Refer to our 2021 20-F

GRI STANDARDS	HKEX ESG REPORTING GUIDE	NASDAQ ESG REPORTING GUIDE 2.0	DISCLOSURE TITLE	ANSWER/ LOCATION
2-12		E8 E9 G1 G2	Role of the highest governance body in overseeing the management of impacts	P37
2-13			Delegation of responsibility for managing impacts	P40
2-14			Role of the highest governance body in sustainability reporting	P37
2-15			Conflicts of interest	Refer to our 2021 20-F
2-16			Communication of critical concerns	Refer to our 2021 20-F
2-17			Collective knowledge of the highest governance body	Refer to our 2021 20-F
2-18			Evaluation of the performance of the highest governance body	P40
2-19			Remuneration policies	Refer to our 2021 20-F
2-20			Process to determine remuneration	
2-21			Annual total compensation ratio	
2-22			Statement on sustainable development strategy	P2, P7
2-23			Policy commitments	P26
2-24			Embedding policy commitments	Refer to our 2021 20-F
2-25			Processes to remediate negative impacts	Refer to our 2021 20-F
2-26			Mechanisms for seeking advice and raising concerns	Refer to our 2021 20-F
2-27			Compliance with laws and regulations	P37
2-28			Membership associations	Refer to our 2021 20-F
2-29			Approach to stakeholder engagement	
2-30			Collective bargaining agreements	

GRI STANDARDS	HKEX ESG REPORTING GUIDE	NASDAQ ESG REPORTING GUIDE 2.0	DISCLOSURE TITLE	ANSWER/ LOCATION
GRI 3: MATERIAL TOPICS				
3-1			Process to determine material topics	Refer to our 2020 ESG report.
3-2			List of material topics	
3-3			Management of material topics	
GRI 201 ECONOMIC PERFORMANCE				
201-1			Direct economic value generated and distributed	Refer to our 2021 20-F
201-2	A4.1	E10	Financial implications and other risks and opportunities due to climate change	
GRI 202 MARKET PRESENCE				
202-2			Proportion of senior management hired from local community	Refer to our 2021 20-F
GRI 203 INDIRECT ECONOMIC IMPACTS				
203-1			Infrastructure investments and services supported	Refer to our 2021 20-F
GRI 204 PROCUREMENT PRACTICES				
	B5 B5.2 B5.3 B5.4	G5	Management approach	P31-32
204-1	B5.1		Proportion of local suppliers	N/A
GRI 205 ANTI-CORRUPTION				
	B7 B7.2	G6	Management Approach	P37
205-2	B7.3		Communication and training about anti-corruption policies and procedures	P37
205-3	B7.1		Confirmed incidents of corruption and actions taken	N/A

GRI STANDARDS	HKEX ESG REPORTING GUIDE	NASDAQ ESG REPORTING GUIDE 2.0	DISCLOSURE TITLE	ANSWER/ LOCATION
<b>GRI 302 ENERGY</b>				
302-1	A2.1	E3 E5	Energy consumption within the organization	P15
302-3	A2.1	E4	Energy intensity	P15
302-4	A2.3		Reduction of energy consumption	P15-16
<b>GRI 303 WATER AND EFFLUENTS</b>				
303-3	A2 A2.2 A2.4	E6	Water consumption	P15
<b>GRI 305 EMISSIONS</b>				
305-1	A1 A1.2 A4 A4.1	E1 E9	Direct (Scope 1) GHG emissions	P15
305-2	A1.2	E1	Energy indirect (Scope 2) GHG emissions	P15
305-4	A1.2	E2	GHG emissions intensity	P15
<b>GRI 306 WASTE</b>				
306 - 4	A1 A1.1 A1.3 A1.4 A1.5 A1.6	E7	Waste diverted from disposal	P15
<b>GRI 401 EMPLOYMENT</b>				
	B1	S3 S5	Management approach	P26

GRI STANDARDS	HKEX ESG REPORTING GUIDE	NASDAQ ESG REPORTING GUIDE 2.0	DISCLOSURE TITLE	ANSWER/ LOCATION
<b>GRI 401 EMPLOYMENT</b>				
401-1	B1.1 B1.2	S3	New employee hires and employee turnover	P24
401-2			Benefits provided to full-time employees that are not provided to temporary or part-time employees	P29
<b>GRI 402 LABOR/ MANAGEMENT RELATIONS</b>				
			Management approach	P26
<b>GRI 403 OCCUPATIONAL HEALTH AND SAFETY</b>				
	B2 B2.3	S8	Management approach	P27
403-1	B2 B2.3		Occupational health and safety management system	P27
403-2	B2.3		Hazard identification, risk assessment, and incident investigation	P27
403-5	B2.3		Worker training on occupational health and safety	P27
403-6	B2.3		Promotion of worker health	P29
403-7	B2.3		Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	P27
403-8			Workers covered by an occupational health and safety management system	P27
403-9	B2.1 B2.2	S7	Work-related injuries	P25
<b>GRI 404 TRAINING AND EDUCATION</b>				
	B3		Management approach	P26
404-1	B3.2		Average hours of training per year per employee	P24

GRI STANDARDS	HKEX ESG REPORTING GUIDE	NASDAQ ESG REPORTING GUIDE 2.0	DISCLOSURE TITLE	ANSWER/ LOCATION
<b>GRI 405 DIVERSITY AND EQUAL OPPORTUNITY</b>				
404-2	B3		Programs for upgrading employee skills and transition assistance programs	P28
404-3	B3.1		Percentage of employees receiving regular performance and career development reviews	P24
<b>GRI 405 DIVERSITY AND EQUAL OPPORTUNITY</b>				
			Management Approach	P28
405-1	B7.3	S2	Diversity of governance bodies and employees	P25, P28,P36
405-2		S2	Ratio of basic salary and remuneration of women to men	P26
<b>GRI 406 NONDISCRIMINATION</b>				
		S6	Management approach	P26
406-1			Incidents of discrimination and corrective actions taken	P26
<b>GRI 413 LOCAL COMMUNITIES</b>				
	B8		Management approach	P33
413-1	B8.1 B8.2		Operations with local community engagement, impact assessments, and development programs	P33
<b>GRI 417 MARKET AND LABELING</b>				
	B6 B6.2		Management approach	P19-23
417-1			Requirements for product and service information and labeling	P19-23
<b>GRI 418 CUSTOMER PRIVACY</b>				
	B6.5	G7	Management approach	P38-39
418-1			Substantiated complaints concerning breaches of customer privacy and losses of customer data	P38

## DISCLAIMER

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