



HUAWEI DIGITAL POWER 2023 SUSTAINABILITY REPORT



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About Huawei Digital Power

Huawei Digital Power is a world leader in digital power products and solutions. We are committed to integrating digital and power electronics technologies, developing clean power, and enabling energy digitalization to drive the energy revolution for a better, greener future. At present, we have about 7,000 employees, conducting business in more than 170 countries and regions and serving over 3 billion people worldwide.

Smart PV

Huawei builds on its strengths in digital and power electronics, seamlessly integrating its proven digital technologies with solar energy, energy storage, cloud solutions, and smart technologies. We offer FusionSolar All-Scenario Smart PV & ESS Solutions for utility-scale, commercial and industrial (C&I), and residential markets to facilitate clean power generation, transmission, distribution, and consumption. The solutions offer benefits like lower levelized cost of energy (LCOE) and levelized cost of storage (LCOS), along with grid-forming capabilities and active safety. This helps position green solar energy as a primary power source.



Mobility Electrification

Smart Charging Network

Huawei is a Smart Charging Network solution provider, innovative solution enabler, and industry ecosystem builder. Its solutions integrate digital, power electronics, battery, and thermal management technologies — what we call "4T" — resulting in upgraded charging facilities. Huawei offers fully liquid-cooled ultra-fast chargers and high-quality charging modules for four major applications: intra-city, inter-city, fleet, and campus. We are also dedicated to cooperating with partners to build a next-generation sustainable smart charging network that achieves high-quality charging anywhere and enables greener mobility for new energy vehicle (NEV) owners.



DriveONE

As a power domain solution provider, DriveONE focuses on building the electric drive system, vehicle-mounted charging system, and device-cloud battery management system in the vehicle electrification field, and continuously builds advantages in key performance such as charging, range, power, and safety. The integrated, simple, reliable, and intelligent DriveONE all-scenario products and solutions bring excellent experience for users and help automakers build better vehicles, and accelerating the electrification of the automotive industry.

Green ICT Power Infrastructure

Data Center Facility & Critical Power

Traditional data centers face several challenges, including slow construction, high energy consumption, difficult operations and maintenance (O&M), and low reliability. In response, Huawei integrates digital and power electronics technologies to build green, simple, smart, and reliable data centers for the future, powering the digital world forward.

Site Power Facility

Huawei integrates digital and power electronics technologies, working with operators and tower companies to build full-scenario, full-lifecycle green networks. We participate in energy production and power scheduling, helping our partners evolve from energy consumers to energy prosumers as part of a global energy transition and green transformation.



About This Report

Time Range

Huawei Digital Power has released an annual sustainability report since 2021. The report covers the period from January 1, 2023, to December 31, 2023, though some sections extend beyond this timeframe.

Scope of the Report

The report covers all entities that have control over or major influence on Huawei Digital Power's financial and operations policies.

Description of Appellations

In the report, "We" refer to Huawei Digital Power; "Huawei" and "Group" refer to Huawei Investment & Holding Co., Ltd. and its directly or indirectly controlled subsidiaries as a whole.

Reporting Principles

The report was prepared with reference to the *Global Reporting Initiative Sustainability Reporting Standards* (GRI Standards). The report lists relevant GRI indexes in the appendix for your reference.

Huawei Digital Power supports and promotes the UN Sustainable Development Goals (SDGs) through practical actions, not least including SDGs 3, 5, 7, 8, 9, 10, 11, 12, and 13. Relevant chapters in this report refer to these SDGs with icons at the beginning.

Data Sources and Reliability Statement

All data and cases in the report all originate from Huawei Digital Power's statistical reports, relevant documents, and public materials. Huawei Digital Power hereby promises that the report does not contain any untrue statements or misleading representations and is responsible for the authenticity, correctness, and completeness of its contents. Unless otherwise stipulated, amounts in the report are denominated in RMB.

Access to the Report

The report will be published in both simplified Chinese and English on October 14, 2024, for your reference. In case of any minor discrepancy in the content, the Chinese version shall prevail. To browse the report online or download it, you are advised to access: <https://digitalpower.huawei.com/en/>

If you have any suggestions or opinions about the report, please contact Huawei Digital Power by scanning the QR code below:



Building a Low-Carbon Digital Ecosystem for a Sustainable Future



Mr. Hou Jinlong

**Director of the Board of Huawei
President of Huawei Digital Power**

In 2023, cutting-edge technologies such as artificial intelligence (AI) developed rapidly, injecting businesses with a new vitality. On the 28th United Nations Climate Change Conference, or Conference of the Parties (COP28), all Parties agreed on the transition away from fossil fuels for the first time, making carbon neutrality a global imperative. The rise of digital technologies and the push for carbon neutrality are driving trends toward low carbon, electrification, digitalization, and intelligence. This is fostering a deeper integration between the energy sector and the digital world. Technological innovation is becoming the key to ushering in a new era of digital power.

Huawei Digital Power is committed to innovative products and technologies by integrating the "4T" technologies: bit (digital technology), watt (power electronics technology), heat (thermal management technology), and batteries (energy storage technology). We create ongoing value for customers and the industry, driving its high-quality development. Huawei Digital Power specializes in clean power generation, the energy Internet, mobility electrification, green ICT energy infrastructure, and integrated smart energy. In clean power generation, we focus on utility-scale, C&I, and residential scenarios to build new energy systems that rely on solar and wind power as the primary energy sources while capitalizing on the potential of efficient energy storage. In mobility electrification, Huawei Digital Power is a power domain and charging network solution provider for excellent, safe, and enjoyable driving and charging experiences. In green ICT energy infrastructure, we work on "increasing bits, reducing watts, and cutting emissions." We build new energy infrastructure for the digital industry, such as data center facilities and site power facilities, helping our clients reduce energy consumption and carbon emissions per bit and creating greener computing and networking systems. By the end of 2023, we helped our customers generate 997.9 billion kWh of green power and save 46.1 billion kWh of electricity. These efforts have reduced CO₂ emissions by 495 million tons, equivalent to planting 680 million trees.

Huawei Digital Power promotes a greener energy industry while providing customers with diversified low-carbon solutions. We will keep enhancing our ecosystem strategy to build a more reliable, profitable, streamlined, and mature partner network. Our goal is to foster collaboration with our partners, create value for customers, support the healthy growth of the industry, and achieve win-win cooperation in the new era of digital power. In the future, Huawei Digital Power will continue to build new infrastructure for green energy, electric vehicles, and the digital industry. We will collaborate with customers and partners to capitalize on the opportunities presented by this new wave of technological evolution. Together, we will drive high-quality growth in the digital power industry and build a better, greener future.

Taking Steps Toward a Zero-Carbon Future and Embracing Sustainable Energy



Mr. Zhao Yue

**Director of Huawei Digital Power
CSD Committee**

The 2023 UN Climate Change Conference reaffirmed the importance and urgency of the 1.5°C climate threshold — referring to a global average temperature increase of 1.5 degrees Celsius above pre-industrial levels. The world must work together to cope with the increasingly severe climate change challenges. As a pioneer in the digital power domain, Huawei Digital Power is exploring and practicing key energy transformation methods in terms of low carbon, electrification, digitalization, and intelligence. Huawei Digital Power is committed to promoting sustainable enterprise development and contributing to global climate actions. Under the leadership of the CSD Committee and the Work Group, we will continue to implement our ZERO strategy in four key areas: Zero-Carbon Enablement, Empowering with Digitalization, Responsible Operations, and One-Mind Growth.

Zero-Carbon Enablement

Huawei Digital Power is committed to building a low-carbon governance system for the entire value chain and promoting zero-carbon actions from product to supply chain to operations. At the product level, we incorporate the concepts of low carbon and environmental protection into the product design from the very beginning. We explore innovative, clean, and energy-saving products and solutions throughout the product lifecycle to help customers achieve zero-carbon transformation. These concepts also apply at every step of our supply chain and are central to our strategies. We emphasize low-carbon performance for all supplier phases, assist them in building low-carbon capabilities such as carbon accounting, and promote a greener supply chain together. At the operational level, we reduce carbon emissions during manufacturing and daily operations through technology-driven energy conservation, energy management, and an increased use of clean energy.

Empowering with Digitalization

Huawei Digital Power integrates digital and power electronics technologies to promote clean energy and energy digitalization, helping society reach its zero-carbon goals. Huawei Smart PV has launched an all-scenario Smart PV + Energy Storage System (ESS) Solution and is always coming up with innovative solutions to bring solar to the forefront of energy sources. Huawei Smart Charging Network builds new-type electric vehicle (EV) energy infrastructure and has established a next-generation, highly productive smart charging network together with partners. Huawei DriveONE promotes innovation in key technical domains such as charging speed, range, power, and safety to accelerate the process of vehicle electrification. Huawei Data Center Facility & Critical Power develops new solutions by integrating power supply, cooling, management, and architecture. Last but not least, Huawei Site Power Facility helps site operators deploy PV power in energy production and transform themselves into "energy prosumers" — energy consumers and producers.

Responsible Operations

As a responsible transnational enterprise, Huawei Digital Power is committed to providing customers with steady, high-quality, safe, and reliable products and solutions. We strictly abide by business ethics, discipline ourselves, and comprehensively manage compliance in all business activities and processes. We focus on what our customers need to keep improving customer service standardization and customer satisfaction. We incorporate honest practices and sustainable development into our management processes, including our work with suppliers, to contribute to social progress and promote sustainable economic growth.

One-Mind Growth

Huawei Digital Power upholds the "Cooperative, Open, Co-developing, and Win-win" management philosophy. Through it, we have built a strong cooperative ecosystem with stakeholders, including customers, partners, industry institutions, and universities. Together, we create innovative products and technologies, develop and implement industry-wide standards, and help the industry embrace low-carbon practices. Our motto is "Safety First, Care for Employees." We prioritize our employees' health and safety and provide them with an equitable and inclusive workplace where everyone respects and helps one another. We also hold various activities to promote mutual understanding and trust among employees and strengthen teamwork. We stress talent cultivation, encourage employees to strive for excellence, and support their career development through unimpeded promotion channels.

Strengthening high-quality development is our fundamental task, and enriching sustainable development our unremitting pursuit. We are committed to laying a strong foundation for high-quality development and enhancing our sustainable practices. Moving forward, we will optimize our sustainability governance structure and policies to support ongoing development. We will closely consider stakeholder needs and ensure that the principles of sustainable development are reflected at every level of our operations. Huawei Digital Power will seize the opportunities of sustainable development, leverage our technical advantages, and work with global partners to build a green and prosperous future.

Sustainable Development Management

Huawei Digital Power believes that sustainable development is key to energizing corporate innovation and achieving long-term success. We integrate digital and power electronics technologies, develop clean energy, facilitate energy digitalization, and implement green management practices, all rooted in sustainable development principles to create value for our stakeholders. In a complex and rapidly changing market, we are committed to achieving sustainable development and building a competitive edge. We aim to collaborate with various sectors to create a better, greener future.

Key Awards and Honors

February 2023

At the 17th China IDC Industry Annual Ceremony, Huawei FusionPower6000 won the 2022 Excellent Data Center Solution for the China IDC Industry.



March 2023

Huawei's modular UPS5000-H series products — Huawei FusionModule2000 6.0, FusionPower6000 Solution, Huawei Cloud Data Center Phase-3 Project in Ulanqab, and Dongyuemiao Zero-Carbon Large Data Center Project by the Three Gorges Group — won the User Satisfaction Product, Innovative Product, Innovative Application Solution, O&M Showcase Project, and Implementation Showcase Project awards, respectively.



March 2023

Huawei DriveONE won the Lean Quality Award at the FAW Bestune Supply Chain Partner Conference.



April 2023

Huawei UPS5000-H series products won the 2022-2023 New-Generation Innovative Information Technology Product Award from CCID Consulting.



May 2023

Two of our projects were listed among the 2023 Zero-Carbon China Excellent Cases. These were the first phase of the Hydro-Solar Hybrid Project — Kela PV Plant at Lianghekou Dam on the Yalong River and the 300 MW PV Plant in Dalad Banner, Inner Mongolia, which was jointly developed by Huawei Digital Power and Yalong Hydro and China Power Investment Corporation (West Inner Mongolia).



May 2023

Huawei won the Terawatt Diamond Award and Energy Storage Innovation Enterprise Award at SNEC 2023 for our next-generation all-scenario Smart PV+ESS solution.



May 2023

Huawei Data Center Facility won four authoritative DCS Awards, including the Data Center Facilities Vendor of the Year, the New Design/Build Data Center Project of the Year, the Data Center Power Innovation of the Year, and the Data Center Cooling Innovation of the Year.



May 2023

China's Ministry of Industry and Information Technology (MIIT) announced the list of "National Green Data Centers in 2022." Two Huawei data centers made the list — the Gui'an Cloud Data Center and the Ulanqab Cloud Data Center — thanks to their high energy efficiency and ultra-low power usage effectiveness (PUE).

2022 年度国家绿色数据中心名单	
序号	数据中心名称
互联网领域	
11	乌兰察布华为云数据中心（华为基地 C01）
17	贵安华为云数据中心（云上屯 C2）

May 2023

The Zhoushan Zero-Carbon Base Station Pilot Project, jointly developed by China Mobile and Huawei, was listed among the "2023 Zero-Carbon China Excellent Cases."



June 2023

Huawei's new-generation SUN2000-330KTL 1,500 V Smart PV Controller won the Intersolar Award at Intersolar Europe 2023, thanks to its outstanding innovations in PV power generation technologies.



August 2023

Huawei Smart String ESS won the 2023 Best System Integration Solution Supplier Award and the 2023 Best C&I Energy Storage Solution Award.



August 2023

Huawei Digital Power won the industry's first Prefabricated Data Center Power Module Certification from TILVA Certification Technology (Shanghai) Co., Ltd. at the GDCT 13th Data Center Market Annual Conference.



September 2023

At the 7th Nanjing Electric Vehicle Charging Technology Expo, Huawei Digital Power was honored as a "Leading Enterprise of High-Power DC Charging Technology for Charging Facilities of China" and "Leading Enterprise of Liquid Cooling Technology for Charging Facilities of China," thanks to its industry-leading, professional, and innovative fully liquid-cooled ultra-fast charging solution.



September 2023

Huawei FusionModule2000 and FusionPower6000 3.0 won the Data Center Low-Carbon Product and Solution Award for the DC Tech "Zero Carbon Computing Co-development Plan" at the ODCC conference. The ODCC 10th Anniversary Outstanding Project Award was granted to the Next Generation Prefabricated Modular Data Center White Paper, which is the first white paper of its kind in China; Huawei was a major contributor.



September 2023

Huawei Digital Power won the Best Ultra Charging Technical Innovation Award 2023 for the Charging and Battery Swapping Industry thanks to its next-generation fully liquid-cooled ultra-fast charging solution.



October 2023

Huawei iManager-M won the 2023 Red Dot Product Design Award for its outstanding industrial design and innovative capabilities.



November 2023

The Fully Liquid-Cooled Ultra-fast and Fast Charging Integration Technology Project won the 2023 China Automotive Supply Chain Excellent Innovation Award.



November 2023

At the SNEC 8th (2023) International Energy Storage Technology, Equipment, and Application Exhibition in Shanghai, Huawei Digital Power won the Energy Storage Technology Excellence Award for its contribution to the world's largest 1.3 GWh PV+ESS microgrid for the Red Sea destination in Saudi Arabia.



December 2023

The "Comprehensive Energy Saving Technology for Communication Sites," which was built using Huawei's site power facility solutions, was listed in *China's Recommended Catalogue of Energy Saving Technologies and Equipment in the Industry and Information Fields (2022 Edition)*.



December 2023

Huawei DriveONE ranked #1 in the "Quality Performance of Mid-range and High-end New Energy Passenger Vehicle Powertrain Suppliers" by www.12365auto.com and Car Research Consulting.



December 2023

The first phase of the Hydro-Solar Hybrid Project at Lianghekou Dam on the Yalong River — Kela PV Plant, built by Huawei and Yalong Hydro, was listed in the "Top 10 Green Development Cases of 2023" and the "Top 10 Green Cases of the Year" by the Zero-Carbon Research Institute of the Beijing News.



December 2023

Six international standard entries, including the Smart Energy Solution for Communication Base Stations, contributed by Huawei Digital Power, won the 2023 Science and Technology Award (Second Prize) from the China Communications Standards Association (CCSA).



Sustainable Development Strategy

Huawei Digital Power's vision is to "integrate digital and power electronics technologies, develop clean energy, and enable energy digitization to drive an energy revolution for a better, greener future." We believe that the value of technology is to make people's lives better. In response to Huawei's corporate sustainable development (CSD) strategy (digital inclusiveness, security and credibility, and environmentally friendly and harmonious ecology), we have rolled out the Huawei Digital Power CSD strategy — "ZERO," which consists of four key areas: Zero-Carbon Enablement, Empowering with Digitalization, Responsible Operations, and One-Mind Growth. Under the guidance of its CSD committee, Huawei Digital Power will continue to do its part in helping achieve the United Nations' sustainable development goals (UN SDGs).

Zero-Carbon Enablement

Huawei Digital Power is committed to enabling global action to address climate change, promoting the adoption of clean energy across the globe with our leading products and solutions, and supporting society in building a zero-carbon ecosystem.

- Green operation
- Energy conservation & emission reduction/Coping with climate change
- Green supply chain
- Low-carbon products



Responsible Operations

Huawei Digital Power has ingrained corporate business ethics in our development, with integrity, responsibility, and compliance as our foundational principles. We strengthen sustainable development governance, create responsible supply chains, and provide customers with reliable products and high-quality services.

- Cyber security and privacy protection
- Customer service
- Responsible procurement
- Business ethics
- Sustainable development governance
- Communication with stakeholders

Empowering with Digitalization

Huawei Digital Power uses our digital power products and solutions to enable all industries to use efficient, intelligent, safe, and accessible energy.

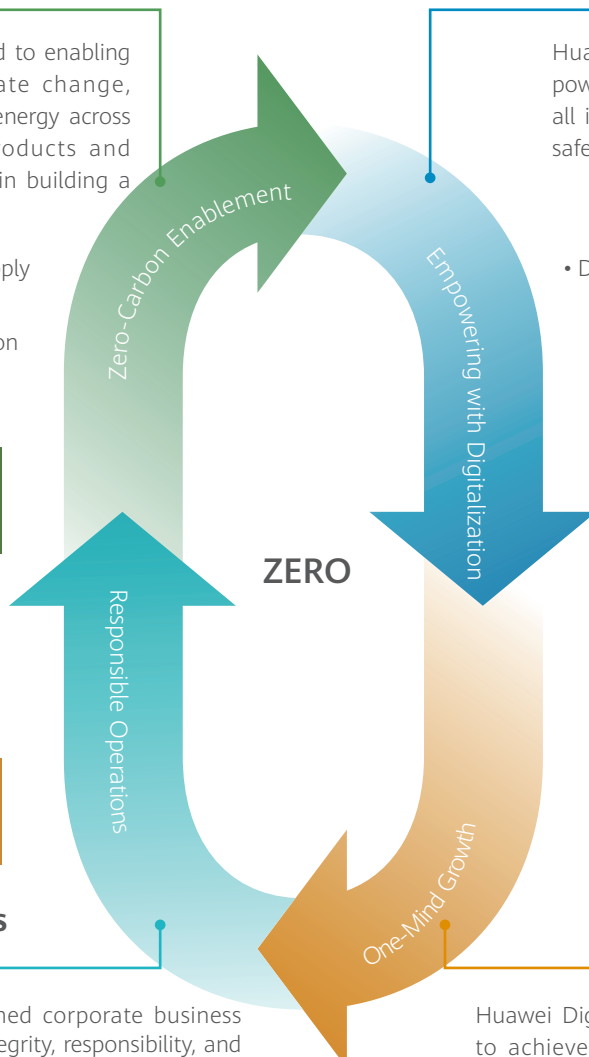
- Digital technology



One-Mind Growth

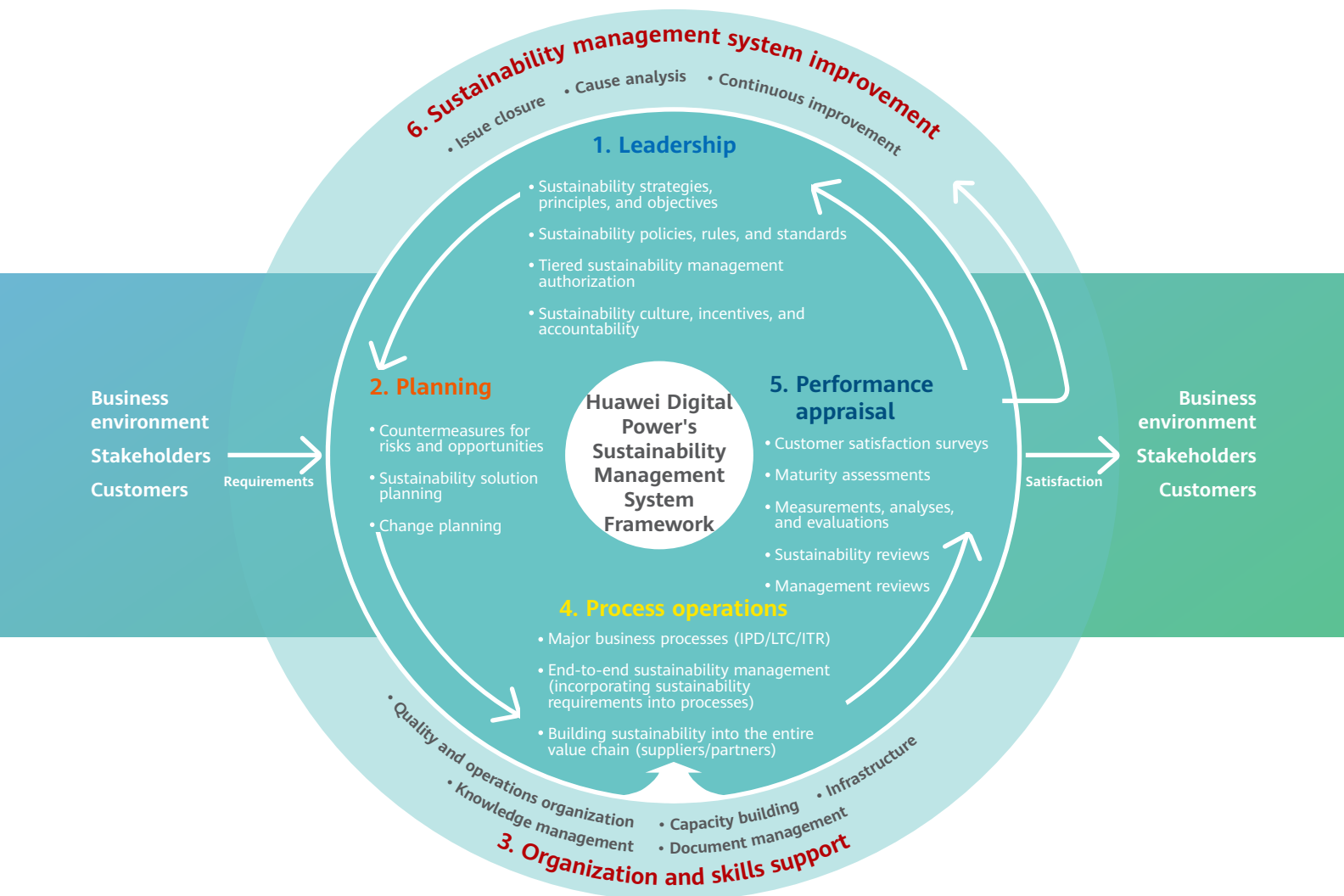
Huawei Digital Power works with our partners to achieve shared development, encourages employees to realize personal value, works with every stakeholder in the industry to create a business ecosystem of common prosperity, and actively contributes to social development.

- Employee rights and development
- Occupational health and safety
- Industry ecosystem construction
- Social contributions



Sustainable Development Management System



Taking into account the internal and external environments, Huawei Digital Power has established a CSD management system based on the ISO 26000 international standard and the Responsible Business Alliance (RBA) codes of conduct, following the PDCA (Plan-Do-Check-Act) cycle. This approach allows us to integrally manage our sustainable development strategy and objectives across six key areas: leadership, planning, organization and capability support, process operations, performance appraisal, and improvement. In addition, we will strengthen our digital operations and continually enhance stakeholder satisfaction.



Huawei Digital Power's sustainability management system framework

We have set up the Huawei Digital Power CSD Committee, which guides Huawei Digital Power's business organizations at all levels to formulate sustainable development objectives centering on the CSD's four strategies. The Committee also promotes the step-by-step implementation of these objectives. The CSD Committee serves as the top-level decision-making organ for Huawei Digital Power's CSD-related matters. The Head of the Quality Operation and Process IT Department is the CSD Committee Director; the rest of the members are made up of ten or more senior executives from several corporate departments, including human resources, R&D, procurement, manufacturing, supply, legal affairs, sales service, finance management, and strategy. The CSD Committee shall convene member meetings on a quarterly basis and organize special meetings when necessary in order to collectively discuss and make decisions on topics relating to sustainable development. The CSD Committee shall act under the supervision and guidance of the President of Huawei Digital Power and report to the President as needed.

Subordinate to the CSD Committee, there is the CSD Work Group, which is responsible for supporting the CSD Committee's operations, implementing strategic objectives, preparing and releasing the CSD annual report, etc. The CSD Work Group shall convene monthly member meetings to deliberate on the work progress in all areas.

Level	Management Responsibilities
 <p>Huawei Digital Power CSD Committee</p>	<ul style="list-style-type: none"> • Formulate CSD strategies, objectives, guidelines, policies, and rules, clarify their direction, and supervise their implementation. • Coordinate the establishment, implementation, and continuous improvement of the CSD management system, decide on relevant topics, and ensure that CSD management complies with relevant laws and regulations, international standards, and customer requirements. • For CSD-related matters, guide and conduct effective communication with key stakeholders such as customers, regulatory organs, and industry organizations. • Ensure that current CSD-related objectives and priorities are met while promoting cross-field collaboration and problem-solving; ensure comprehensive CSD operations and coordination. • Guide the construction, operation, and improvement of Huawei Digital Power's EHS management system, and handle major environmental, occupational health, and safety (EHS) issues.
 <p>Huawei Digital Power CSD Work Group</p>	<ul style="list-style-type: none"> • Carry out the CSD Committee's resolutions, promote the implementation and completion of CSD-related objectives in all domains, and report on the progress departments make in CSD. • Support Huawei Digital Power in preparing and releasing the CSD annual report. • Pursuant to international standards, take part in establishing, implementing, maintaining, and improving the CSD management system. Ensure that CSD management complies with relevant laws and regulations, international standards, and customer requirements. • Reply and address CSD concerns from internal and external stakeholders in a timely fashion.

Communication with Stakeholders

Huawei Digital Power prioritizes two-way communication with stakeholders. To foster open communication with stakeholders, we have established and continuously enhance various dialogue mechanisms. We actively seek feedback, respond to concerns, strengthen our self-management practices, and collaborate with stakeholders to build a more sustainable future.

Stakeholders refer to those individuals or groups whose interests are subject to or might be subject to the influence of Huawei Digital Power's activities. Huawei Digital Power's main stakeholders are customers, employees, suppliers and partners, governments, non-governmental organizations (NGOs), industry organizations, professional agencies, communities, and the general public.

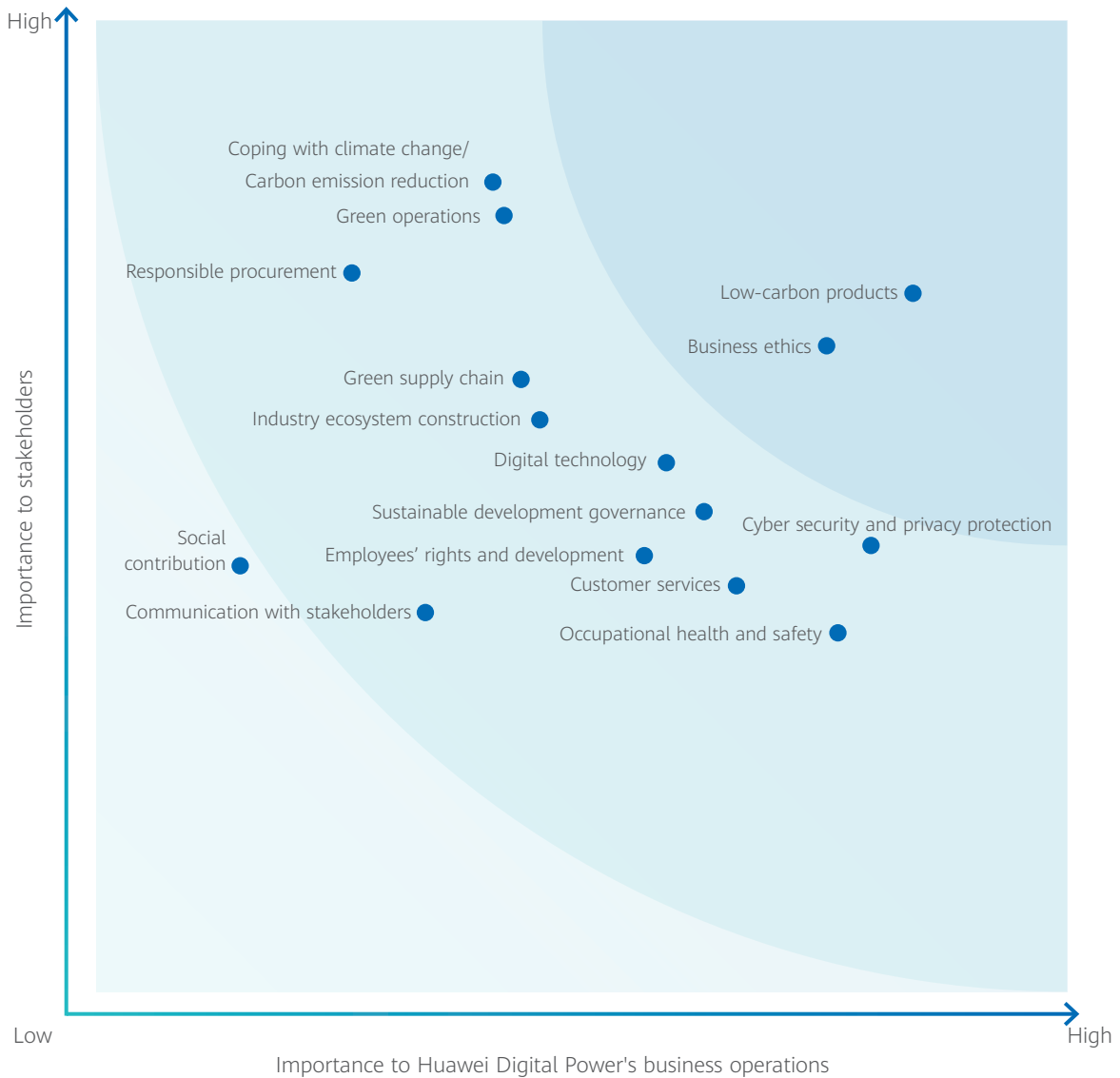
In 2023, for Huawei Digital Power's main stakeholders, the channels of communication and major concerns are as follows:

Stakeholder	Communication Channel	Primary Interests
 Customers	<ul style="list-style-type: none"> • Pre-sales communication • After-sales service • Regular communication (such as customer visits) • Satisfaction surveys • Marketing exhibitions 	<ul style="list-style-type: none"> • Premium products and services • Cyber security and privacy protection • Coping with climate change/Carbon emission reduction • Circular economy
 Employees	<ul style="list-style-type: none"> • Online communication platforms • Department communication and work meetings • Employee representative meetings • Employee surveys (such as the work environment survey) • Employee activities 	<ul style="list-style-type: none"> • Workplace health and safety • Employees' legal rights protection • Employee training • Career development
 Suppliers and partners	<ul style="list-style-type: none"> • Onsite review and communication • Supplier conferences • Supplier training 	<ul style="list-style-type: none"> • Fair competition • Win-win cooperation • Training and enablement • Sustainable partnerships
 Governments	<ul style="list-style-type: none"> • Government policy meetings • Public policy counseling • Regular reports and routine communication • Public sustainable development projects 	<ul style="list-style-type: none"> • Lawful and compliant operations • Safe and clean production • Leading technology innovation • Employment and economic growth
 NGOs/ Industry organizations/ Professional institutions	<ul style="list-style-type: none"> • Industry conferences, forums, and working groups • Standards workshops • Sustainable development cooperation projects • Academic research 	<ul style="list-style-type: none"> • Favorable cooperation • Open and transparent information exchange and sharing • Shared industry development
 Communities and the general public	<ul style="list-style-type: none"> • Participation in community projects • Community public welfare and charity activities • Interaction on the enterprise website and social media 	<ul style="list-style-type: none"> • Environmental protection • Public welfare • Community building and development

Key Topics

Key topics serve as essential inputs that help Huawei Digital Power clarify our direction for CSD improvement and determine where to focus our resources. By analyzing international and domestic sustainable development and social responsibility standards, government policies, and customer inquiries, we look to industry leaders in sustainability while considering our own development strategies and plans. Through discussions with our management team and assessments by experts, Huawei Digital Power identifies and prioritizes the key topics that matter to both our stakeholders and us.

Using the dimensions of "importance to our stakeholders" and "importance to our business operations," we thoroughly analyze and prioritize key topics to create a substantial topics matrix. For the critical topics identified, we implement management improvements and share information across different sections of this Report to address stakeholder concerns and enhance our sustainable development performance.



Zero-Carbon Enablement

In light of the global consensus to actively address climate change and strive for a zero-carbon future, Huawei Digital Power continues to make improvements and accelerates our zero-carbon initiatives across the value chain, focusing on operations, supply chain, and products. We practice what we advocate and take concrete actions to reduce energy consumption in manufacturing and operations, increase the proportion of renewable energy in our own energy consumption, and implement low-carbon operations. We fully integrate carbon emission reduction into our supply chain management strategy and collaborate with suppliers to accelerate decarbonization. We seek out cleaner, more energy-efficient products and solutions, partnering with customers and collaborators to contribute to the zero-carbon transition of society as a whole.

UN SDGs supported by Huawei Digital Power:



Concrete Actions in Green Operations

In strict accordance with all laws, regulations, and policies applicable to environmental protection, Huawei Digital Power has improved our environmental management systems, advocates for green offices, promotes clean production, and has strengthened how we manage waste gas, liquid, and residue. Huawei Digital Power strives to build resource-conserving and environmentally friendly green campuses, enhancing energy efficiency through technology and management-driven conservation. This approach ensures compliance with environmental protection standards while achieving highly efficient, high-quality, and low-carbon operations on our campuses. As a result, Huawei Digital Power has passed the ISO 14001 environmental management system certification.

Within the reporting period, Huawei Digital Power has not been found guilty of any violations with regard to environmental protection laws and regulations.

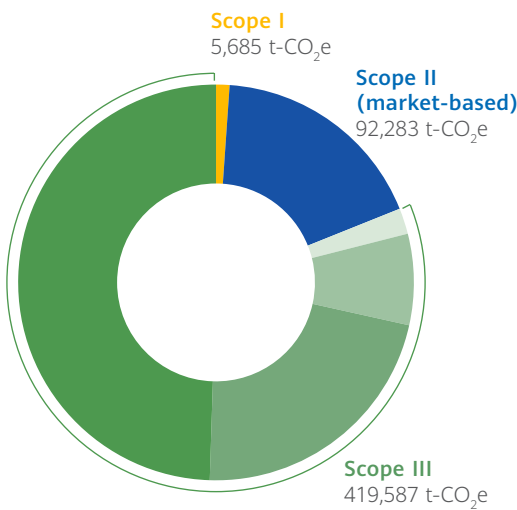
Greenhouse Gas (GHG) Emission Management

Huawei Digital Power set up a low-carbon capacity center in 2022 to enhance our operations and swiftly achieve carbon emission reduction goals across the industrial chain. This initiative includes a low-carbon governance system to support the implementation of our governance work plan and key objectives. Huawei Digital Power advocates for low-carbon operations, builds green campuses, and implements energy-saving technical transformation. This allows us to see ongoing improvements in energy efficiency, increase the use of renewable energy, and better manage our carbon emissions. Huawei Digital Power has built a green and intelligent near-zero-carbon campus for our Antuoshan Headquarters (HQ) by integrating the PV system, ESS, and chargers and

complying with near-zero-carbon campus construction standards. The campus contains multiple functional areas, such as offices, training facilities, and labs. We have used several innovative technologies, such as building integrated photovoltaics (BIPV), refined ESS, fully liquid-cooled ultra-fast charging infrastructure, and an AI-based collaborative scheduling algorithm, to manage energy more efficiently and optimize energy usage.

In 2023, Huawei Digital Power continued to participate in Huawei's research on the status of its GHG emissions, providing data to effectively formulate ways to further reduce carbon emissions and address climate-related risks.

GHG emissions of Huawei Digital Power in 2023



Category	GHG Emissions (t-CO ₂ e)	% of Total Emissions
Scope I ¹	5,685	1.10%
Scope II (market-based ²)	92,283	17.83%
Scope III: Purchased goods and services	256,189	49.50%
Scope III: Business travel	38,490	7.44%
Scope III: Downstream product transportation and distribution	113,994	22.03%
Scope III: Others ³	10,915	2.11%
Scope III (Total)	419,587	81.07%
Total emissions	517,555	100.00%

¹ Huawei Digital Power's scope I GHG emissions in 2023 were calculated based on the proportion of Huawei Digital Power's operating revenue to that of the Huawei Group. Huawei surveys GHG emission sources within its organizations according to the scope, category, and calculation method provided in the ISO 14064-1:2018 Standard, GHG Protocol, and IPCC Guidelines for National Greenhouse Gas Inventory, and based on the Law for Running Control.

² Huawei Digital Power's scope II GHG emissions in 2023 were calculated based on the proportion of Huawei Digital Power's operating revenue to that of the Huawei Group.

³ The "others" in Scope III include fuel- and energy-related emissions (not included in Scope I or II), upstream transportation and distribution, waste generated during operations, and employee commutes.

Energy Management

Energy management is a major component of the Green Environmental Protection Strategy in our CSD system. Huawei Digital Power has formulated and implemented various management rules, such as the *Energy Management Manual*, the *Procedure for the Control of Energy Review*, and the *Procedure for the Control of Running Energy*, establishing a solid energy management architecture. With a view to "integrate digital and power electronics technologies, develop clean power, and enable energy digitalization to drive the energy revolution for a better, greener future," we have established and implemented a data-driven, standardized, and technology-based energy management system, which we regularly improve. Our goal is to promote the fulfillment of energy performance objectives, raise energy utilization efficiency, and increase the proportion of renewable energy in our energy mix. Huawei Digital Power has passed the ISO 50001 energy management system certification.

We use electricity as its main energy source. During production and operations, Huawei Digital Power works to improve the energy efficiency of our equipment and optimize our electricity consumption policies. For example, we have adopted energy-saving

lamps and smart lighting systems, run high-power equipment during off-peak periods, turn off idle equipment, and properly set air conditioners in labs. During the reporting period, Huawei Digital Power Antuoshan HQ changed how it operates heating, ventilation, and air conditioning (HVAC) facilities and reconstructed the circulating coolant pumps of commercial air conditioners from industrial to variable frequency. By doing so, Antuoshan HQ has found new ways to save energy through policy adjustments and technical transformation, looking to save more than 60,000 kWh of electricity in 2024. Huawei Digital Power is committed to regularly increasing the proportion of clean energy in our own operations. By reviewing the operations strategy and status analysis of the HVAC facilities, the Antuoshan HQ explored more possibilities in energy saving through policy adjustment and technical transformation, and expected to save more than 60,000 kWh of electricity in 2024. Huawei Digital Power is committed to continuously increasing the proportion of clean energy in its own operations.

In 2023, Huawei Digital Power's proprietary campus¹ in China consumed a total of 29.71 million kWh of electricity.

29.71

million kWh

In 2023, Huawei Digital Power's proprietary campus¹ in China consumed a total of 29.71 million kWh of electricity

Water Resources and Sewage Management

Huawei Digital Power's water is supplied by the municipal water system and is used primarily for daily activities, such as office work, gardening, catering, and fire emergencies. We have set up a special team to manage, maintain, and operate our water supply and drainage system. We also invite qualified third-party suppliers to test the quality of the drinking water, water tanks, and domestic sewage every year.

Huawei Digital Power is committed to improving water efficiency use for our operations. We use water-saving appliances and post signs in the washrooms to encourage employees to save water. In 2023, Huawei Digital Power's proprietary campus² in China consumed 109,617 tons of water.

109,617

tons

In 2023, Huawei Digital Power's proprietary campus² in China consumed 109,617 tons of water

¹ The proprietary campus in the Report refers to the Antuoshan HQ. The quantitative data on Group's other campuses will be disclosed in the Group's general report. The statistical time range in 2022 only covers October to December 2022, when the campus was officially put into use. The statistical time range in 2023 covers January to December. In addition, offices in bonded areas are added to the statistical scope. These reporting changes result in higher energy and water consumption statistics reported in 2023.

² The proprietary campus in the Report refers to the Antuoshan HQ. The quantitative data on Group's other campuses will be disclosed in the Group's general report.

Waste Gas Management

Huawei Digital Power's waste gas pollutant is mainly volatile organic compound generated during industrial manufacturing and canteen cooking smoke. It is collected in waste gas processing facilities on roofs for centralized treatment and discharged as per standards. For canteen cooking smoke, we use standard purification units to process the smoke and then also discharge it as per standards. Huawei Digital Power entrusts qualified third-party environmental testing agencies

to perform testing at the waste gas exhaust ports to avoid excess emissions.

In 2023, waste gas produced from manufacturing¹ on Huawei Digital Power's proprietary campus in China was mainly composed of volatile organic compounds and the total emissions reached 871 kg.

871 kg

In 2023, waste gas produced from manufacturing¹ on Huawei Digital Power's proprietary campus in China was mainly composed of volatile organic compounds and the total emissions reached 871 kg

Solid Waste Management

Huawei Digital Power's solid waste mainly refers to domestic, canteen, and hazardous waste generated from manufacturing processes and laboratories. We cooperate with qualified professional agencies to classify and process waste as per regulations. We also strengthen waste management on our campuses, actively recycle packaging materials, and try our best to minimize the negative impact on the environment.

Category	Example	Processing Method
Non-recyclable waste	Domestic waste	Suppliers designated by the municipal government regularly sort, remove, and dispose of waste in a harmless way.
Canteen waste	Leftovers	Certified suppliers designated by the municipal government dispose of the waste in a harmless way.
Recyclable waste	Packaging cartons, plastics, and hardware scraps	Designated suppliers regularly sort and remove waste. A scrapping process applies to scrapped equipment.
Hazardous waste	Waste chemical containers	Stored at a designated place and recycled by a qualified company recognized by the Environmental Protection Bureau.
Engineering waste	Waste from remodeling, etc.	The waste is stored at a fixed point on the construction site. Construction companies transport it for disposal.

Table quantifies the volume of solid waste produced by Huawei Digital Power's campus² in China in 2023.

122 tons
Hazardous waste

8,386 tons
Non-hazardous waste

¹ Refers to manufacturing related to Huawei Digital Power in Huawei's Southern Factory.

² Includes Digital Power-related manufacturing services at the Antuoshan HQ, Huawei Southern Factory, and Huawei Digital Power R&D labs in China.

Packaging Material Management

Huawei Digital Power has a robust sustainable packaging strategy. We focus on protecting our products while minimizing the use of disposable packaging. We also work closely with our supply chain to enhance recycling efforts and promote eco-friendly transportation.

Solution for Package Recycling

Huawei Digital Power is always exploring new ways to recycle packages used for transportation. In 2023, we worked with the Electronics Manufacturing Service on a process for package recycling. We developed a solution for package recycling to replace the cartons and plastic we used previously, saving packaging waste and saving resources and reducing more than 600 tons of carbon emissions.



Before



After



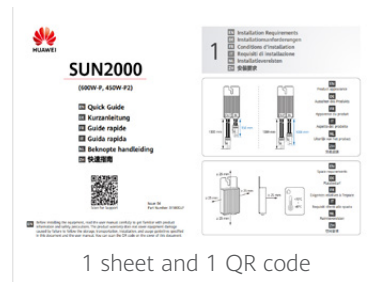
Simple Design for Quick Installation Guides

Previous quick installation guides were bulky, filled with multilingual information, and consumed a lot of paper each year. In 2023, we introduced a streamlined one-page quick installation guide. Now, customers can easily access key points and complete installations by scanning product-specific QR codes. This shift from a thick book to a single sheet significantly reduces paper use while enhancing the user experience and supporting environmental protection.



100+ pages

Before



1 sheet and 1 QR code

After

Lightweight Design

By using mechanical simulation and testing, we have optimized our packaging design. This leads to less material use and improved transportation efficiency. In 2023, we optimized the packaging for one of our inverter models, reducing the package size, increasing the transportation loading rate, and cutting more than 1,100 tons of carbon emissions.



Before



After

Biodiversity

Huawei Digital Power operates its manufacturing and business in industrial campuses in China without significantly harming the local biological environment or biodiversity. During the site selection, design, and construction of renewable power plants and green ICT power infrastructure, we carefully consider our impact on the local ecosystem and strictly adhere to relevant laws and regulations. Our goal is to support our customers' green and low-carbon initiatives while protecting the environment.



Building a Green Supply Chain

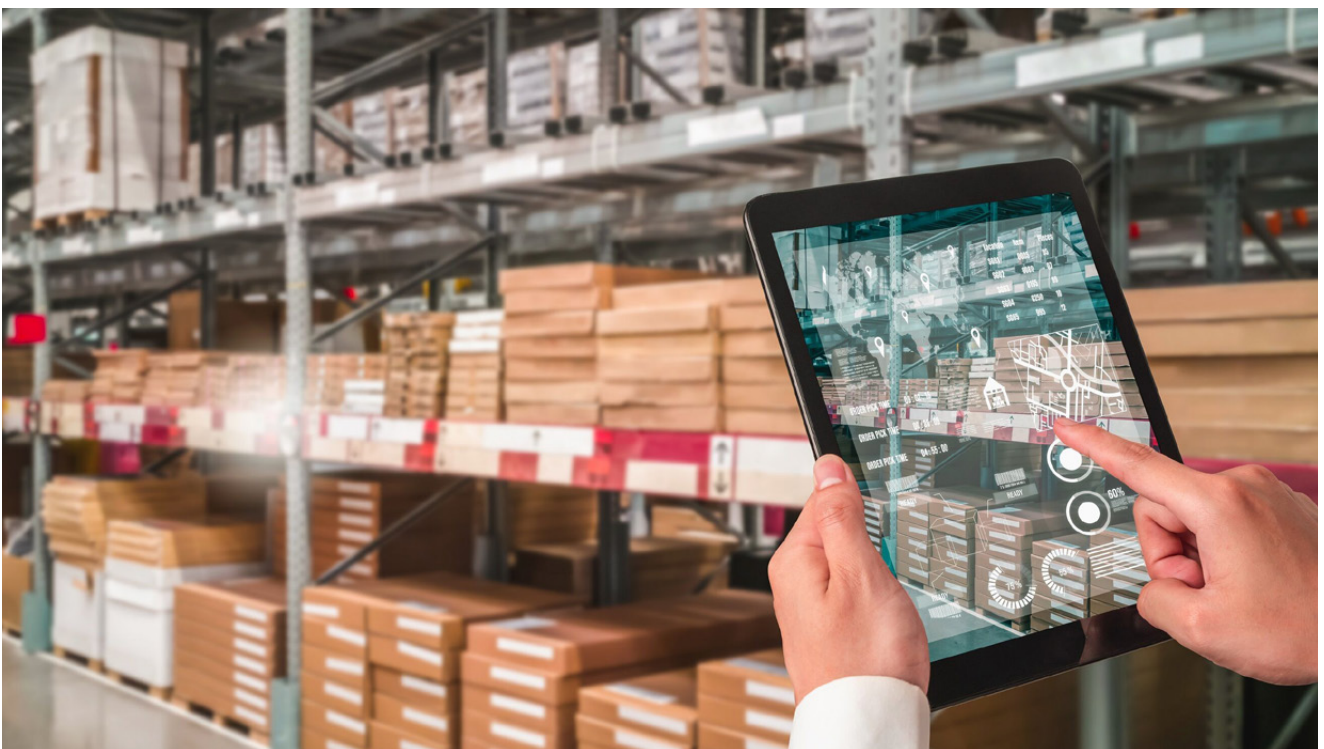
Huawei Digital Power recognizes its global responsibilities in supply chain carbon management. It remains committed to actively collaborating with suppliers worldwide to create a greener future, and continually reduce indirect carbon intensity throughout the value chain.

Huawei Digital Power has fully integrated low-carbon environmental protection requirements into its overall purchase strategy and business processes. We prioritize suppliers' performance in low-carbon environmental protection during authentication, selection, auditing, performance management, and material selection. We actively collaborate with suppliers, assisting them in calculating and assessing their current carbon emissions, and encouraging them to set and achieve carbon reduction goals. By the end of 2023, we had promoted organized-level carbon footprint verification among our top 71 suppliers, who contribute 90% of our total purchase amount. These suppliers have collected carbon emissions statistics, developed reduction plans, and implemented emission reduction projects. Additionally, we invited senior third-party organizations to provide energy saving management training.

Huawei Digital Power actively supports the Group's campaigns and has participated in the Green Choice initiative launched by the Institute of Public and Environmental Affairs (IPE). We have integrated the IPE's Blue Map environmental data search into our supplier self-checks and audits, encouraging suppliers to improve their management practices. We also require our suppliers to address and identify issues within

a specified timeframe to ensure environmental compliance. In 2023, Huawei Digital Power reviewed the environmental performance of key suppliers, identified issues in suppliers, and mandated their rectification within a designated timeframe.

Leveraging Huawei's global logistics system, Huawei Digital Power implements digital and green low-carbon management practices. We adhere to the ISO 14064 standard and utilize the calculation methods outlined in the GHG Protocol and the IPCC Guidelines for National Greenhouse Gas Inventories to measure carbon emissions from global transportation and warehousing. To reduce carbon emissions, we adopt low-carbon transportation methods, optimize our network layout and transportation routes, enhance the loading and reverse reuse rates of transportation tools, use recycled carriers and green packaging, and minimize landfill waste. Huawei's global logistics system spans over 170 countries and regions. It employs various transportation modes, including sea, air, railway, road, and multimodal transportation. We continuously enhance our logistics efficiency and reuse levels through informatization and streamlined operations, contributing to significant carbon emission reductions.



Innovative Low-Carbon Products

Huawei Digital Power consistently invests in R&D, allocating over 10% of its annual sales revenue for R&D. Our global R&D team and technology platform are supported by 12 R&D centers located in regions including China, Europe, and the Asia-pacific Region. These centers bolster our operations in more than 170 countries and regions, contributing to global sustainable development. By the end of 2023, Huawei Digital Power has registered more than 2,100 patents.

Huawei Digital Power embraces a "Green, Low-carbon, and Sustainable" development philosophy throughout the product life cycle. We actively assess and strive to reduce the carbon footprint of our main products. Leveraging decades of experience and technical expertise in low-carbon energy products and solutions, we collaborate with customers and partners to accelerate the global journey towards carbon neutrality.

2,100 patents

By the end of 2023, Huawei Digital Power has registered more than 2,100 patents

Huawei Data Center Facility Receives the First Carbon Footprint Certificate for UPS from TÜV SÜD

TÜV SÜD has awarded Huawei Data Center Facility the first carbon footprint certificate in the uninterruptible power supply (UPS) field. This certification confirms that Huawei's UPS meets global carbon footprint standards, offering reliable data for customers to develop green and low-carbon data centers in compliance with government regulations.

TÜV SÜD conducted a comprehensive verification and evaluation of the entire lifecycle of Huawei's UPS, adhering to the ISO 14064-3: 2019 standard. This assessment confirmed that the carbon footprint claimed by Huawei's UPS complies with international standards and achieves an excellent level of carbon emission data.



TÜV SÜD carbon footprint certificate for Huawei Data Center Facility

Huawei Digital Power is inherently green. We focus on clean power generation, mobility electrification, and green ICT power infrastructure, offering green, intelligent, innovative products and solutions. In clean power generation, we have advanced the construction of a new power system centered on renewable energy. For mobility electrification, we have redefined the EV driving experience and safety, accelerating the adoption of green travel. In green ICT power infrastructure, we have supported the development of green, low-carbon, and smart data centers and communications networks. Through continuous technological innovation, Huawei Digital Power collaborates with global partners to expand cooperation and achieve carbon neutrality sooner. By the end of 2023, we helped our customers generate 997.9 billion kWh of green power and save 46.1 billion kWh of electricity. These efforts have reduced CO₂ emissions by 495 million tons, equivalent to planting approximately 680 million trees.

997.9 billion kWh	46.1 billion kWh	495 million tons	680 million trees
We helped our customers generate 997.9 billion kWh of green power	save 46.1 billion kWh of electricity	These efforts have reduced CO ₂ emissions by 495 million tons	equivalent to planting approximately 680 million trees

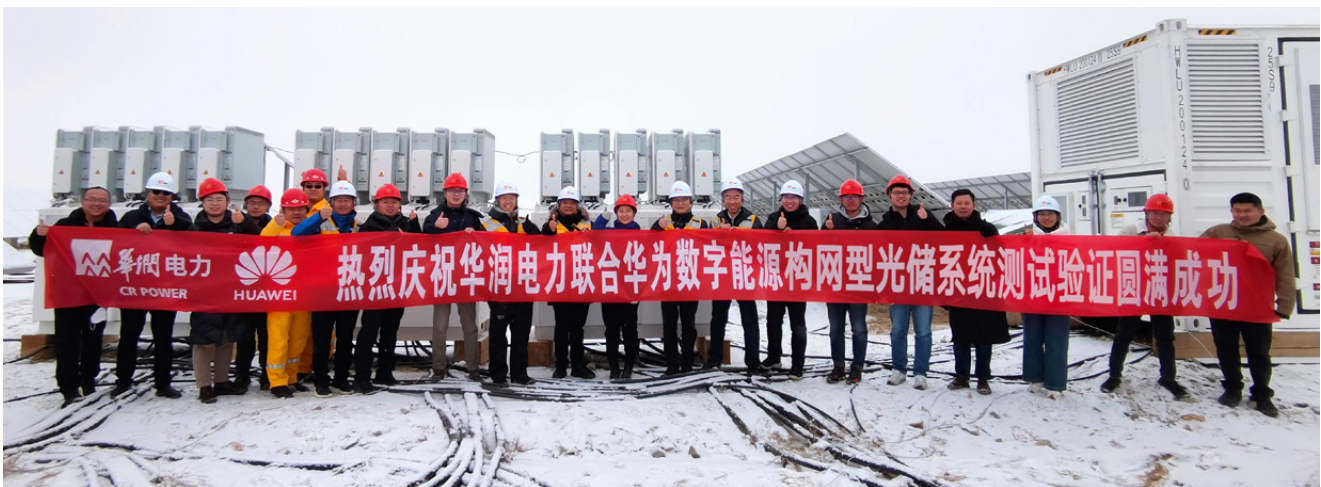
Huawei Cooperates with Customers to Complete the Proof of Concept (POC) Testing on the World's First 100 MWh String Grid-Forming Energy Storage Plant

In January 2023, Huawei collaborated with China Resources Power, China Electric Power Research Institute, and the Qinghai Electric Power Research Institute to test the world's first application of the smart string grid-forming ESS solution in Qinghai, China. This solution successfully passed over 180 grid connection tests, including severe frequency and voltage disturbances, demonstrating its resilience in strong power grids.

The testing aims to verify the critical role of the grid-forming ESS in enhancing the power grid operation characteristics and

integrating a high proportion of renewable energy. It marks a major milestone in the development of renewable energy technologies and the first successful application of the Smart Renewable Energy Generator in the industry.

The testing is a major achievement in integrating large-scale renewable energy sources, such as PV systems, into the power grid. It establishes a robust theoretical and practical foundation for developing a new power system centered on renewable energy. This technological breakthrough is crucial for advancing clean energy substitution and carbon neutrality.



Successful POC testing on the world's first 100 MWh string grid-forming energy storage plant

Huawei FusionPower6000 3.0 Is Awarded the Prefabricated Data Center Power Module Certificate

The reliability of the power supply and distribution system is crucial for the stable operation of a data center. Traditional systems often involve numerous devices from different vendors, leading to heavy onsite assembly workloads, large installation footprints, complex O&M, and high safety risks.

In contrast, Huawei FusionPower6000 3.0 integrates devices such as transformers, UPSs, and feeder cabinets through a hyper-converged design, reducing the installation footprint and simplifying onsite delivery. The Shanghai Electrical Apparatus Research Institute (SEARI) has comprehensively tested the product for circuit stability, voltage withstand and insulation performance, surge protection, and grounding design, verifying its safety and reliability under conditions such as overload and overcurrent. Product safety is a key consideration in the design of the FusionPower6000 3.0, and its reliability is ensured throughout the development, test, and production processes. As a result, the FusionPower6000 3.0 is a preferred power supply and distribution solution for building data centers that are safe, reliable, high-density, space-saving, energy efficient, and quick to deploy.

In August 2022, the China Electronics Energy Saving Technology Association (CEESTA) released the *Code for prefabricated power module of data centers*, the industry's first association standard in this area. The standard stipulates

technical regulations on the architecture, overall performance, and compliance testing of data center power modules.

Based on this standard, Huawei entrusted SEARI to test the prefabricated FusionPower6000 3.0 solution. The results show that FusionPower6000 3.0 complies with the *Code for prefabricated power module of data centers* in terms of structure, safety, and performance. Huawei became the first vendor in the industry to pass this testing and certification.



TÜV SÜD 2.5 MW system test report for Huawei FusionPower6000



Mexico Builds a Digital Airport with Huawei FusionModule2000 Solution

Mexico City, an ancient metropolis with a millennia-long history, is celebrated for its unique culture, cuisine, and hospitality. Felipe Ángeles International Airport (AIFA) stands as one of Mexico's most crucial transportation hubs, catering to the air travel needs of Mexico City and its surrounding areas. It offers passengers a safe, convenient, and efficient travel experience.

AIFA's data center construction is a vital component of its infrastructure. To meet growing passenger demands and stringent aviation safety standards, AIFA has implemented Huawei's smart modular data center solution, FusionModule2000. This solution enabled the construction of a secure and reliable data center in just three months, 30% faster than expected. Additionally, the data center's battery system footprint is 60% smaller, cutting OPEX by 30% and optimizing PUE by 25%.

The FusionModule2000 is a one-stop solution for small- and medium-sized data centers. The solution adopts a modular design and integrates the cooling system, racks, aisles, cabling system, and monitoring system into one module. The modular architecture simplifies installation, accelerates deployment, and reduces the installation footprint.

AIFA's data center utilizes Huawei's ultra-high-density modular UPSs, featuring redundancy designs for key components. This ensures that a single point of failure in any module does not impact the overall operation, guaranteeing high safety, reliability, and service continuity.

Huawei's smart modular data center solution is equipped with the NetEco intelligent management system. The system monitors critical data center parameters such as temperature, humidity, water leakage, and the operational status of UPSs, batteries, and air conditioners in real time. It offers 3D visualization of the data center's status, along with device fault alarms and fault impact analysis, enabling comprehensive real-time monitoring and significantly simplifying manual O&M.

Moving forward, in collaboration with AIFA, we aim to explore new possibilities for smart airports and jointly advance their development. Our goal is to set a new benchmark for the global aviation industry, driving progress in the digital era. We also aspire to see more airports worldwide embrace digital transformation, accelerating innovation and development in the aviation sector and pioneering a new path for digital aviation.



Huawei helps Mexico build a digital airport

Huawei DriveONE: Building an Optimal E-mobility Solution to Accelerate Vehicle Electrification

Huawei DriveONE leverages its technical expertise in the ICT field to create optimal e-mobility solutions featuring top-tier components, efficient and competitive powertrains, intelligent converged domain control, and cross-domain collaboration.

In 2023, Huawei DriveONE released an ultra-high-efficiency high-voltage SiC powertrain. This powertrain incorporates technologies such as flat wire motors, intelligent oil cooling, and advanced SiC power modules, achieving up to 92% efficiency according to the China light-duty vehicle test cycle (CLTC), setting an industry benchmark. Additionally, an asynchronous 5-in-1 powertrain was launched in the same year, offering an optimal solution for premium extended-range four-wheel drive vehicles. Huawei DriveONE also developed a 10-in-1 e-mobility solution that integrates domain control, chips, power, and functions, optimizing vehicle cost-effectiveness and facilitating efficient platform-based development.

To date, Huawei DriveONE has deepened its collaboration with multiple automobile enterprises to accelerate vehicle electrification and reduce carbon emissions in the transportation sector. By the end of 2023, Huawei DriveONE products and solutions were installed in over 780,000 EVs, contributing to a reduction of more than 2.7 million tons of CO₂ emissions.

780,000

EVs

Huawei DriveONE products and solutions were installed in over 780,000 EVs

2.7

 million tons

contributing to a reduction of more than 2.7 million tons of CO₂ emissions



Huawei launches DriveONE next-generation hyper-converged power platform

Empowering with Digitalization

Digital technologies like cloud computing and AI are ushering in a new era of rapid smart development. Recognizing the potential for renewable energy, especially solar power, to become the leading source in the global energy market, Huawei Digital Power remains committed to our core principle of "Bits Manage Watts." By seamlessly integrating digital technology with energy solutions, we aim to create "digital twins" for both the digital and energy sectors. This approach enables us to provide efficient, smart, and safe energy products and solutions for various industries. In 2023, we issued the top 10 trends and white papers for each business domain to guide industries through this transition.

UN SDGs supported by Huawei Digital Power:

7 AFFORDABLE AND CLEAN ENERGY



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



Promoting Increased Efficiency

Digital technology plays a key role in generating, transmitting, distributing, and using energy. We use digital technologies such as big data, cloud, and AI to enable each phase of the energy process, digitalize energy and resources, and make energy production and use more efficient.

More Efficient Charging

Electrified transportation is a key path toward global carbon neutrality. Today, the automotive industry is quickly evolving from using traditional fuels to EVs. It is crucial to build high-quality fast and ultra-fast charging infrastructure and improve user charging experience to accelerate EV market penetration. With a deep understanding of the industry's challenges, Huawei Digital Power is dedicated to enhancing core technologies that boost the efficiency of charging facilities, improve customer experience, and accelerate the electrification of transportation.

Huawei's Fully Liquid-Cooled Ultra-fast Charging Solution, Jointly Charging the Road Ahead

Huawei Digital Power offers a fully liquid-cooled ultra-fast charging solution designed to create a new EV energy infrastructure that delivers an exceptional experience, high quality, and optimal benefits. This solution helps develop a next-generation smart charging network, making high-quality charging accessible anywhere and promoting green travel.

In September 2023, Huawei Digital Power worked with partners to successfully deploy fully liquid-cooled ultra-fast charging stations at a high altitude along the G318 Highway in China. The innovative liquid cooling technology solves cooling problems in thin-air environments, ensures high-power ultra-fast charging in high-altitude areas, improves the reliability of long-term equipment, and enables ultra-fast charging when traveling on snowy plateaus.

In November 2023, Huawei celebrated the first anniversary of the launch of the world's first liquid-cooled ultra-fast charging station in the Waxi (Eastward) Service Area of the Shantou-Zhanjiang Expressway. The station has been running smoothly with no faults, and its O&M costs have dropped by 90% compared to last year. In 2023, it delivered 1.16 million kWh of charge to over 40,000 vehicles, more than doubling the turnover rate and achieving a 34% increase in capacity per charging connector compared to traditional equipment. This solution not only enhances the station's service capabilities but also supports the high-quality, sustainable development of charging infrastructure.

1.16 million kWh

In 2023, this charging station delivered 1.16 million kWh of charge

40,000 vehicles

In 2023, it provided charging services to over 40,000 vehicles

34%

The capacity per charging connector is increased by 34% compared to traditional equipment



Huawei's fully liquid-cooled ultra-fast charging solution

Higher Energy Efficiency

Data centers are at the heart of the digital economy. When designing large data centers, Huawei uses the air handling unit (AHU) cooling technology to maximize the use of natural cooling sources. It also adopts the AI-based iCooling solution to optimize energy efficiency, significantly reducing energy consumption and greenhouse gas emissions in our data centers.

Huawei Cloud Gui'an Data Center with Green, Low-Carbon, and Intelligent O&M

Huawei is building the world's largest cloud data center that can accommodate one million servers in Gui'an. It incorporates green and intelligent technologies into the overall design, reducing the PUE to an industry-leading 1.12. The data center adopts the following measures to achieve these results:

- Direct ventilation is used for natural cooling. Outdoor cold air is filtered and then sent to the equipment room. After heat exchange, the air is discharged from the rooftop through the hot aisle.
- The data center's facility and office areas use a medium-temperature chilled water system. Water cooling at the waterfall and lake is used to implement partial natural cooling. Additionally, waste heat is reused

to heat the swimming pool and office area in the winter using heat recovery technology, reducing carbon emissions.

- Liquid cooling technology is introduced to improve the power density and cooling efficiency, significantly reducing the PUE.
- AI technologies are used to schedule services, implement peak shaving, balance loads, and improve resource utilization.
- In terms of power supply, power loss is reduced by using power semiconductors instead of copper components.

Running at full load, the data center can save 1.01 billion kWh of electricity and reduce carbon emissions by more than 590,000 tons each year.

1.01 billion kWh

Running at full load, the data center can save 1.01 billion kWh of electricity

590,000 tons

This data center reduces carbon emissions by more than 590,000 tons each year



Huawei Cloud Gui'an data center

Supporting Intelligent Innovation

The integration of ICT energy infrastructure with digital technology not only eliminates the need for extensive manual calculations but also enhances the energy infrastructure's ability to predict and prevent issues using vast amounts of data. Huawei Digital Power has embraced big data and AI technologies to develop innovative digital solutions, driving digital construction and enabling automated and intelligent operations across all business scenarios.

Innovation in Green Energy

With the push for sustainable development and energy transformation, the construction of renewable energy is rapidly advancing. Huawei FusionSolar enhances the integration of solar power with next-generation information technologies, speeding up intelligent O&M, applications, and scheduling. Through technological convergence and strategic partnerships, we are driving the digital and intelligent transformation of the energy industry.

Huawei Digital Power and Yalong Hydro Establish a Joint Innovation Center

On September 12, 2023, Huawei Digital Power and Yalong Hydro established a joint innovation center to promote research and development in complex key technologies. This includes intelligent construction and operations of the world's largest hydro + wind + PV demonstration project, reducing project lifecycle costs and maximizing the comprehensive benefits of hydro, wind, and PV resources. Our goal is to design best practices that can be used for reference, replicated, and promoted globally.

The joint innovation center researches key technologies in PV plant construction and O&M and builds digital capabilities that integrate business management and

energy production, enabling intelligent PV plant operations. The center has developed a digital platform that uses digital twins and intelligent diagnostics to create a comprehensive sensing and holographic replication of solar plants. This enables multi-dimensional management of the entire facility, including work areas, arrays, devices, and their running status. These technologies help establish a large yet easily manageable, safe, and industry-leading smart power plant.

This demonstration project can generate about 300 billion kWh of green electricity each year, saving more than 90 million tons of coal, which is equivalent to reducing 250 million tons of carbon dioxide.

300 million kWh

This demonstration project can generate about 300 billion kWh of green electricity each year

90 million tons

It saves more than 90 million tons of coal each year

250 million tons

It reduces 250 million tons of carbon dioxide each year



Signing ceremony for the cooperation agreement of the Yalong Hydro joint innovation center

Smart Energy Conservation

In the era of intelligent computing, computing power is the key to productivity. Data centers serve as the core infrastructure that transforms electricity into computing power, maximizing the output of every watt. Huawei Digital Power effectively addresses users' challenges by employing a high-temperature chilled water fan wall solution and an intelligent energy efficiency optimization system to achieve smart energy conservation.

Huawei Data Center Facility Helps Guangzhou Unicom Reconstruct Energy-Saving Internet Data Centers (IDCs)

China Unicom's Internet application and innovation base is located at the China-Singapore Guangzhou Knowledge City (CSGKC) in Guangzhou, China. The project was initiated in 2015. The designed PUE of the first phase of the project is 1.44. As demand for computing power surges, the high energy consumption of data centers has become a significant issue. To address the growing need for energy efficiency, China Unicom is proactively aligning with China's dual-carbon goals by retrofitting existing data centers to enhance energy savings and improve overall efficiency. However, Guangzhou is in a subtropical area with high temperatures and precipitation. The highest wet bulb temperature in the past 20 years reached 29.5°C. As such, it is challenging to reduce the PUE.

The project uses Huawei's high-temperature chilled water fan wall solution, which supports a maximum inlet water temperature of about 20°C, reducing the overall energy consumption by more than 20%. The UPS5000-H features a unique "S-ECO" mode that ensures a conversion efficiency of 99.1%. With the Huawei iCooling@AI energy efficiency optimization solution, our AI platform conducts real-time analysis of factors like IT energy consumption and ambient temperature to adjust the cooling capacity needed by IT equipment. This minimizes cooling waste and allows data centers to save power intelligently. As a result, we've reduced the PUE to under 1.3. It's estimated that this will save 13.245 million kWh of electricity annually, cutting down carbon emissions by 7,695 tons each year.

< 1.3

We've reduced the PUE to under 1.3

13.245

million kWh

It's estimated that this will save 13.245 million kWh of electricity annually

7,695 tons

7,695 tons of carbon emissions are reduced each year



Huawei's Data Center Facility helps Guangzhou Unicom reconstruct energy-saving IDCs

Ensuring Safety and Reliability

As digitalization and intelligence progress, the advanced self-learning and analytical capabilities of technologies like big data, cloud computing, and AI are driving the intelligent evolution of energy systems and significantly enhancing their safety performance. Huawei Digital Power integrates digital technologies with energy products to boost equipment safety and reliability, implementing proactive risk intervention. This ensures that equipment operates stably, efficiently, and reliably, even in the most challenging environments.

Huawei Smart PV Controller Provides Three-level Safety Protection, Empowering the Zero-Carbon PV + ESS + Heating Demonstration Project in Ngari Prefecture, China

Ngari Prefecture is located about 4,500 meters above sea level, where the lowest temperature drops to -28°C . The region also sees prolonged sandstorms, creating extremely harsh natural environments. The power grid in the Ngari Prefecture is underdeveloped, facing challenges such as long transmission distances and limited supply capacity. Consequently, it is difficult for local power plants to connect to the grid, resulting in poor power quality. The CGN 170 MW zero-carbon PV + ESS + Heating demonstration project in Ngari Prefecture's snowy plateau is an important local power supply project that requires safe devices and stable operations.

Considering these challenges, CGN chose Huawei FusionSolar SUN2000-300KTL-H0 high-power Smart PV

Controller. As the industry's first inverter featuring Smart String-level Disconnection (SSLD), Smart Connector-level Detection (SCLD), and MPPT-level DC Insulation Diagnosis, the SUN2000-300KTL-H0 can run stably and efficiently in harsh environments to ensure comprehensive plant safety. Additionally, it is equipped with the industry's first intelligent fan dust removal function, significantly improving O&M efficiency, ensuring safe and stable operations, and implementing high-quality plant O&M.

Since it was connected to the grid at the end of 2022, the project has been providing a continuous and stable power supply for the Ngari Prefecture, improving the quality of life for local people.



Zero-carbon PV + ESS + Heating demonstration project in the Ngari Prefecture developed by CGN and Huawei

Huawei SmartLi UPS Safeguards Precision Manufacturing

A stable, high-quality, and efficient power supply is key to the safe production of high-precision devices. Based on more than 1,400 rigorous tests and extensive successful practices, Huawei has built a SmartLi UPS power supply and distribution solution that features high reliability, maintainability, efficiency, and density. It provides a high-quality and reliable power supply for key devices in precision manufacturing, ensuring micrometer-level precise processes.

HKC is one of the four largest companies in China that manufacture the large-sized liquid crystal display (LCD). Its subsidiary in Mianyang is equipped with the G8.6 thin-film-transistor LCD production line, which uses Huawei's modular UPS5000 to provide a safe and efficient power supply. Huawei UPS supports a wide voltage range from 138 V to

485 V, reducing the risk of power failures caused by transient mains voltage dips. The full redundancy design ensures no single point of failure. The AI-based predictive maintenance further improves the UPS availability. The UPS achieves high efficiency at low loads, saving CNY7.5 million in electricity fees per year. Additionally, the modular design supports hot-swap maintenance in just five minutes.

Looking ahead to a future full of opportunities, Huawei will continue innovating to deliver green and reliable power supply and distribution solutions. Our goal is to ensure the stable operations of mission-critical equipment in industries such as precision manufacturing, rail transportation, healthcare, and mining, while helping these industries go digital, intelligent, and low-carbon.



Huawei's UPS5000 empowers precision manufacturing

Huawei FusionSolar Protects Clean Power Generation in Golmud

Huawei deployed its first string inverter and Smart PV solution in Golmud, Qinghai, China. Golmud has witnessed rapid development of the PV industry and the high-quality development of Huawei Digital Power over the past decade.

The total installed capacity of the Golmud PV plant is 690 MW. The plant was constructed in six phases, and the

200 MW Phase 3 system has been running reliably since 2014. Inverters are core PV power generation devices that directly impact the plant's long-term reliability and profitability. As the first utility-scale plant in China that uses string inverters, the Golmud PV plant has maintained excellent performance for over a decade.

Reliability

The plant is very reliable thanks to the multi-MPPT function and highly precise MPPT management, which eliminate the interference that shading and voltage mismatch can cause to PV strings, significantly improving the energy yield. At the same time, system relies heavily on intelligent technologies that effectively reduce the LCOE throughout the plant's lifecycle.

Protection

The inverters are protected to IP65 with the string design for the first time, which means that the inverters are defended against harsh natural environments such as sand, dust, and rain. This significantly mitigates fault risks, extending the inverter service life and improving its stability.

Cooling

In terms of heat dissipation, carefully selected materials, thermal simulation, and a fan-free design ensure optimal cooling performance while the device runs stably.

O&M

In O&M, the Smart I-V Curve Diagnosis fully scans 100 MW PV plant in just 10 minutes and automatically generates detailed reports. Digital technologies help accurately locate faults, significantly improving O&M efficiency and making system maintenance faster and more accurate.



Huawei FusionSolar protects clean power generation in Golmud

Promoting Access to Clean Energy

In the future, clean and renewable energy, particularly from wind and solar power, will be central to the energy transition and essential for expanding electricity access due to its sustainable nature. In this context, Huawei Digital Power, as a global leader in digital power products and solutions, is dedicated to enhancing the availability of clean and affordable energy in off-grid areas while exploring a clean energy system that harmonizes technology with nature.

Promoting Clean Energy

As a renewable energy source, solar power is crucial for improving poor power quality in areas with weak grids. We are committed to leveraging our products, including Smart PV and ESS, to enhance grid flexibility and extend the benefits of clean energy to more regions.

Huawei Powers the Largest Energy Storage Plant in Henan, China

In October, 2023, the 100 MW/200 MWh energy storage plant developed by CR Power went online. This project is a part of the 300 MW wind + ESS demonstration project in Neihuang County. It is also the largest energy storage plant project in Henan Province, China.

Neihuang County has abundant wind resources due to its flat terrains located within the North Henan Plain. As Neihuang County continues to expand its wind power installations, ESS becomes essential for a stable and reliable power supply. The project combines wind power with ESS, effectively addressing the intermittent nature of wind generation and enhancing the operational flexibility of the power grid. This initiative sets a benchmark for developing grid-friendly renewable energy projects in flat terrains.

This project uses Huawei's cutting-edge Smart String Grid-Forming ESS, covering an area of about 15,333 m². It ensures stable operations at rated power in weak grids and offers excellent environment adaptability and grid-friendly performance. By working with the plant-level energy management system and wind power station, the ESS implements functions such as quick response to grid scheduling, wind power fluctuation suppression, and grid peak shaving. These features ensure higher discharge capacity, better investment, simplified O&M, and safety and reliability throughout the lifecycle. The project will further enhance the use of wind power and set a benchmark for peak shaving and flexibility improvements in the local grid.



Huawei helps the largest energy storage plant in Neihuang County generate power

Huawei FusionSolar Helps Businesses Address Load Shedding in Johannesburg, South Africa

South Africa is facing severe power shortages, leading to load shedding that poses significant challenges for businesses in a commercial building in Johannesburg. Daily power outages can last up to 4.5 hours, disrupting business operations and affecting the daily lives of local residents. As a result, businesses have seen a nearly 30% drop in net revenues.

Business owners are looking for more stable and reliable clean energy solutions, turning to solutions like Huawei FusionSolar LUNA2000-200KWH ESS. Mains power supply charges the ESS while it's available. Then, during a power

outage, the ESS can quickly switch to the discharge mode. This ensures normal operations for local businesses, such as restaurants that rely on round-the-clock refrigeration. This pioneering Smart String ESS is equipped with built-in energy optimizers, which ensure that battery packs are fully charged and discharged independently. The four-level active safety design provides end-to-end protection. Huawei's Smart String ESS helps build sustainable business operations for various industries, enabling green PV as a main energy source for every home and business.



Huawei's ESS helps a commercial building in South Africa generate clean power

Enabling Ecological Remediation

Human activities have a significant impact on the natural environment, exacerbating fluctuations in the ecological system. As public awareness of ecological issues grows, environmental protection and remediation have become increasingly important. Huawei Digital Power is actively exploring solutions that promote the harmony between technology and nature, integrating the construction of solar power plants with ecological research to achieve a win-win situation for clean energy supply and ecological remediation.

Kubuqi Desert PV Project

On December 29, 2023, the 1 million kW PV project — the first of its kind in China — developed by the Three Gorges Group in the Kubuqi Desert was connected to the grid. The whole project uses Huawei FusionSolar Smart PV Solution. Huawei's smart string inverter has a system availability of over 99.99% and an IP rating of IP66. It adopts a fully sealed design and has no vulnerable components, withstanding high temperatures, high humidity, and other harsh environments. According to TÜV's verification, the failure rate of Huawei's inverter is less than 0.5%, which ensures long-term stable and reliable operations of the PV plant.

The Kubuqi Desert has rich land and solar resources, making it an ideal location for combining solar power and sand

control for desert restoration. On the northern edge of the desert, and south of the Yellow River, a "PV Great Wall" has been built, showcasing a striking landscape of blue solar panels alongside lush green forests. This renewable energy project aids in desert restoration by planting vegetation and crops beneath and between the rows of solar panels, creating windbreaks, and promoting sand fixation and ecological recovery, all while generating electricity. This three-tiered approach includes bordering forests, windbreak forests, and vegetation within the solar plant, setting a new benchmark for integrated solar energy and desert restoration initiatives.



Huawei helps Three Gorges Group build a utility-scale renewable power plant in the Kubuqi Desert

Responsible Operations

With the increasing integration of the physical and digital realms, technologies such as cloud computing, AI, and Big Data present both opportunities and challenges for the transformation of Huawei Digital Power. As a responsible multinational enterprise, Huawei Digital Power is committed to providing safe and trustworthy products and solutions. We strive to create more value for our customers and establish better platforms for our partners. We strictly adhere to business ethics, and continuously improving our compliance and service levels by aligning with industry best practices and integrating honest operations and sustainable development into our management process, including supplier management. Overall, we aim to contribute to social progress and sustainable economic growth.

UN SDGs supported by Huawei Digital Power:



Providing Excellent Services

With the rapid development of the digital economy, enterprises are increasingly concerned about stable, high-quality products, cyber security, and privacy protection. Huawei Digital Power continuously enhances the quality of its products, solutions, and services. It also builds a comprehensive defense system to safeguard cyber security, protect user privacy, provide customers with a secure and trustworthy service experience, and help them strengthen their network resilience.

Quality Management

Huawei Digital Power places a high priority on quality management, following the principle of "Winning with Quality" and striving to make quality the core of our competitiveness. We have developed and implemented the quality policy, continuously enhanced its quality management system, and has rigorously applied all relevant standards. To support these efforts, we have established a quality competence team. This team is tasked with promoting the implementation of Huawei Digital Power's quality competence improvement activities and upholding the "Safety First, Quality Upmost, Winning with Quality" motto. Huawei Digital Power offers tailored training programs to different stakeholders. For instance, service partners and internal employees receive training on the ISO 9000 system, cybersecurity, privacy protection, and core quality management philosophies to boost quality awareness. Additionally, internal employees are trained in Failure Mode and Effects Analysis (FMEA), Theory of Inventive Problem Solving (TRIZ), Six Sigma, and Quality Control Circle (QCC). These programs aim to enhance employees' quality and business skills, ultimately improving customer service and satisfaction.

Huawei Digital Power's Management System Certifications

 <p>GB/T 19001-2016 / ISO 9001:2015 / TL9000-HSV R6.3/R5.7 Quality Management Systems</p> 	 <p>GB/T 24001-2016 / ISO 14001:2015 Environmental Management Systems</p> 
 <p>GB/T 23331-2020 / ISO 50001:2018; RB/T 107-2013 Energy Management Systems</p> 	 <p>GB/T 45001-2020 / ISO 45001:2018 Occupational Health and Safety Management Systems</p> 
 <p>IECQ QC 080000:2017 Hazardous Substance Process Management System</p> 	 <p>ISO 28000:2007 Supply Chain Security Management System</p> 
 <p>ISO 26262:2018 Functional Safety Management Process System</p> 	 <p>ANSI/ESD S20.20-2021 IEC 61340-5-1:2016 Electrostatic Protection of Electronic Parts and Equipment</p> 
 <p>IATF 16949:2016 Quality Management System for the Automotive Industry</p> 	 <p>ISO 22301:2019 Business Continuity Management System</p> 

Product Safety

At the inception phase of product design, Huawei Digital Power prioritizes product quality and safety. The design scheme incorporates the "Five Nos and Three-friendly" principles: No Injury, No Explosion, No Fire, No Spreading, No Breakdown, Grid-friendly, Environment-friendly, and Load-friendly. Using FMEA, we enhance the identification and mitigation of potential quality and safety risks from the outset. This approach ensures strict control over the quality of incoming materials, maintaining high standards from the very beginning. Before shipment, we rigorously test each product to ensure quality. For instance, every inverter undergoes a series of tests, including drop, dust-proof, wind-blowing and raining, icing, noise, EMC, and lightning tests, in the testing

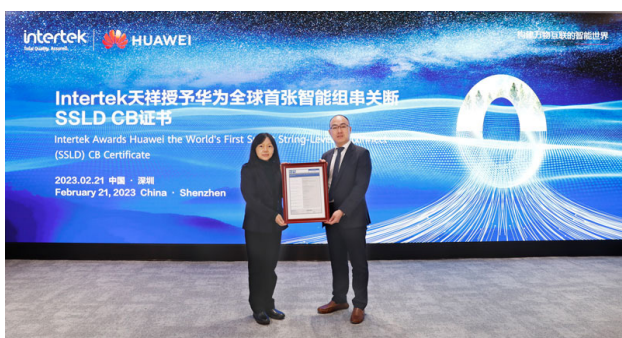
laboratories. Each inverter must meet the IP66 protection level before being shipped. All of Huawei Digital Power's products comply with the product standards mandated by the laws and regulations of target countries. Each product is accompanied by a Regulatory Compliance Statement, Safety Manual, Installation Guide, nameplate, certification mark, and Emergency Response Guide, ensuring operational safety.

Huawei Digital Power continuously assesses and analyzes potential product safety risks, driving innovation and exploration to further enhance product safety performance.

Huawei Receives the World's First Technical Certification for Smart String-Level Disconnection (SSLD)

In February 2023, Huawei Digital Power was awarded the world's first SSLD compliance certificate (CB) and the world's first SSLD certificate in compliance with circuit breaker standards by Intertek and DEKRA, respectively. The two organizations certified that Huawei's SSLD technology complies with IEC 60947-2 and can accurately identify common DC system faults to implement active and precise string-level protection on the DC side, improving the active safety capability of power plants and leading the development of smart and digital PV plants.

IEC 60947-2 is an international standard for low-voltage circuit breakers. Under this standard, Huawei products reduce component damage caused by DC faults such as short circuits, backfeed, and reverse connection through intelligent sensing, judgment, and rapid shutdown. The CB certificate indicates that the circuit breakers of Huawei's products comply with the basic requirements of the IEC standard. It also establishes a benchmark for SSLD technology in the industry for future PV plant device selection.



Cyber Security and Privacy Protection

By upholding the cyber security value "Right-minded, Trustworthy, Capable, Responsible, Open, and Transparent," observing local laws and regulations, and international standards, and referring to supervisory agency and customers' requirements and ICT industrial standards, Huawei Digital Power continuously builds up an effective, sustainable, and trustworthy cyber security and privacy protection management system. This system is established and implemented end-to-end, covering policies, process, tools, technologies, and specifications. Huawei Digital Power emphasizes third-party cyber security and data protection. It has developed a supply chain security management system and established an emergency response mechanism to address and mitigate suppliers' vulnerabilities, further ensuring data security. During the reporting period, Huawei Digital Power did not receive substantiated complaints regarding customer privacy infringement or data loss.



Set up a chief cyber security and privacy protection officer organization to report to Huawei Digital Power's executive management team (EMT) at regular intervals. The chief cyber security and privacy protection officer shall lead us in formulating cyber security and privacy protection strategies, unifying the plan and management, and supervising the cyber security organization architecture and business of relevant departments in charge of R&D and the supply chain, in order to ensure the cyber security implementation quality in all departments.



Huawei Digital Power has seamlessly integrated cybersecurity and privacy protection into its business processes, including product development and O&M. By incorporating the Integrated Product Development (IPD) process, we ensure all products adhere to cybersecurity and privacy protection baselines, and comply with the design specifications of various countries and industry standards. Utilizing the Enterprise Security Competence Framework (IPDRR), we have established a resilient network capable of full identification, protection, detection, response, and recovery against threats across the cloud, transmission lines, and local environments. During the reporting period, Huawei Digital Power's products, such as inverters, energy storage systems, SmartLoggers, transformer stations, and data center air conditioners, received IEC 62443-4-2 certification for industrial control systems. Additionally, our residential inverters were awarded the ETSI EN 303645 certification for IoT security.



For all employees, we routinely organize cyber security and privacy protection awareness training, education, and exams, and provide special training for managers and high-risk groups, making employees fully aware of the importance of cyber security and privacy protection.

Cyber Security and Privacy Protection Management System Certificates Obtained by Huawei Digital Power

 <p>ISO/IEC 29151:2017 Personal Information Protection Management System</p>	 <p>ISO/IEC 27001:2022 / GB/T 22080-2016 / ISO/IEC 27001:2013 Information Security Management Systems</p>	 <p>ISO/IEC 20000-1:2018 Information Technology - Service Security Management System</p>
 <p>IEC-62443-4-1:2018 Security for Industrial Automation and Control systems - Secure Product Development Lifecycle Requirements</p>	 <p>GB/T 29490-2013 Intellectual Property Management System</p>	 <p>BS 10012:2017 Personal Information Management System</p>
 <p>ISO/IEC 27701:2019 Privacy Information Management System</p>	 <p>ISO/IEC 27018:2019 Protection Management System for Personal Information in Public Clouds</p>	 <p>CSA STAR CERTIFICATION 2021 Cloud Security Management System</p>

Customer Service Quality

Focusing on customer demands, Huawei Digital Power is committed to ensuring high quality and efficiency in its products, solutions, and services, continuously enhancing service levels. We strive to standardize service processes and respond swiftly to customer needs. To improve customer satisfaction, we analyze the root causes of issues and implement targeted improvement measures, aiming to enhance services and prevent recurrence of issues.

Service and Technical Support

Huawei Digital Power is dedicated to enhancing user experience and continuously improving the standardization of service processes. For technical teams and partners, we establish system-based, standardized, and professional service and support requirements. By enhancing our training system, we provide targeted training for personnel involved in R&D, IT, sales, and service, covering areas such as product service and quality, and language skills.

Serving over 3 billion people in more than 170 countries and regions, Huawei Digital Power responds swiftly to diverse customer demands. We have established focused service organizations and platforms, and deploy technicians to address after-sales issues promptly and efficiently. Our technicians are required to respond quickly to various products and customer groups, ensuring timely fulfillment of customer needs.



Customer Satisfaction

Huawei Digital Power is committed to its core value of being "Customer-centric". To uphold this, we have established a customer satisfaction management and complaint handling mechanism in line with the *Regulations on Digital Power Customer and Partner Satisfaction Management*. Besides that, we have formed a business satisfaction representative team (BSRT) to oversee daily customer and partner satisfaction.

To better understand customers' demands for services and product quality, Huawei Digital Power regularly engages a third-party agency to conduct customer satisfaction surveys. These surveys are carried out through various methods, including online questionnaires, telephone interviews, and face-to-face meetings. This approach helps us gather comprehensive feedback on product quality and performance, partnerships, after-sales service support, and overall service satisfaction, providing valuable insights for improving our products and services. In 2023, we conducted satisfaction surveys with over 2,200 customers and partners across eight countries and regions, including China, Europe, and Latin America, achieving a feedback rate of 90%.

We have set up "400 Return Visit Hotline" and established a customer return visit mechanism for problem tracing and timely closed-loop treatment. In 2023, we handled approximately 600,000 inquiries, complaints, and issues brought forth by customers and partners through closed-loop treatment. In 2023, Huawei Digital Power focused on high-value customers to launch the "Warm Sunshine" special campaign, and convened a total of 120 special meetings, routine meetings, and workshops for exchanging ideas with customers. In the future, we will continue to hold opinion-soliciting meetings with high-value industry customers. By aligning these meetings with business schedules, we aim to better understand customer needs and improve overall satisfaction.

Customer Complaint Handling

Huawei Digital Power actively listens to customer feedback and ensures the timely, effective resolution of complaints through a closed-loop process. We have established comprehensive business processes to address technical and supply demands, issue-to-resolution, non-technical issues, major complaints, and customer and partner feedback. Dedicated teams are in place to record, review, analyze, and resolves issues, followed by return visits to ensure satisfaction.

We have created efficient communication channels to gather customer feedback and suggestions through various platforms, including our official website, 400 Service Hotline, email, direct sales team, and partnership system. This continuous feedback loop helps us refine our management model to better serve different customer groups and dealers. Our ongoing optimization of the complaint handling process ensures timely and efficient responses to customer concerns.

2,200

customers and partners

In 2023, we organized satisfaction survey among more than 2,200 customers and partners from eight regions such as China, Europe, and Latin America

90%

feedback rate

Implementing Responsible Procurement

Huawei Digital Power supports the UN's Guiding Principles on Business and Human Rights and is committed to the societal and environmental impact of our global supply chains. We collaborate with customers and suppliers to promote sustainable development. By integrating corporate social responsibility (CSR) into all value chain activities and continuously seeking innovative practices, we enhance our competitiveness and cost leadership. We adhere to the Group's supply chain management standards and incorporate CSR into our procurement process, from material and supplier qualification, selection, and appraisal to performance management and procurement fulfillment.

Procurement CSR Management System

Huawei Digital Power has developed a comprehensive procurement CSR management system, grounded in the OECD's Due Diligence Guidance for Responsible Business Conduct and the IPC-1401 Corporate Social Responsibility Management System Standard. We have integrated CSR requirements into our procurement strategy and business processes. We mandate that all our suppliers comply with applicable laws and regulations, and we encourage them to promote diversity and enhance their CSR management by adopting globally recognized industry standards. Our Supplier CSR Agreement, based on the Responsible Business Alliance (RBA) Code of Conduct and the Joint Audit Cooperation (JAC) Supply Chain Sustainability Guidelines, encompasses labor standards, health and safety, environmental protection, business ethics, and management systems. Huawei Digital Power insists that all suppliers adhere to this agreement and pass on these requirements to their own suppliers. We strictly prohibit the use of child labor or forced labor, maintaining zero tolerance for any violations of CSR red lines.

To support our sustainable procurement goals, we regularly provide CSR training to all procurement staff. This training includes details on supplier CSR agreements, red lines, processes, and audit practices related to CSR in procurement. CSR requirements are also embedded in the performance indicators for all teams within our procurement department. In 2023, Huawei Digital Power reported no violations of supplier CSR red lines and no fatal accidents involving subcontractor EHS.

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In 2023, Huawei Digital Power reported no violations of supplier CSR red lines

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no fatal accidents involving subcontractor EHS



Huawei Digital Power's red lines in procurement CSR include:

1. Use of child labor.
2. Use of prison labor (including using prisons as suppliers or subcontractors) or forced labor (including restricting personal freedom or detaining personal identity documents).
3. Violence, physical punishment, sexual harassment, illegal body searches, cross-gender body searches, and other similar behaviors.
4. Salary payments below the local minimum wage.
5. Negligence that leads to major fires or explosions.
6. Working conditions that seriously endanger personal health and safety or lead to fatal incidents at the working site.
7. Illegal emissions of any hazardous or toxic wastes, such as wastewater, gas, or residue.
8. Negligence that leads to media crises or serious mass disturbances, such as unnatural deaths, collective labor disputes, mass brawls, mass poisoning, or other incidents causing mass casualties.
9. Unsafe and unhealthy working environments that lack effective measures to prevent potential health and safety accidents, or diseases that may be caused due to exposure in the workplace (e.g., collective infections).
10. Corruption or dishonest acts that violate the requirements of "no bribery, no gifts, no conflicts of interest, no falsification, no cutting corners, no fraud, and keeping promises."

We place significant emphasis on the advantages of localized procurement for the local economy, society, and our business operations, and implement the strategy of promoting localized procurement. We establish functional departments in the countries and regions where we operate, ensuring that our purchasing practices comply with local laws and policies.

Supplier Risk Rating and Auditing

Huawei Digital Power works with the Group to implement risk-based supply chain due diligence management, identify and explain CSR risks and opportunities with suppliers, and take measures to prevent and mitigate CSR risks. During the reporting period, we further refined our supplier CSR risk rating methodology. We now evaluate each supplier's CSR performance and the effectiveness of their risk prevention and management systems by focusing on five criteria: CSR performance rating, health and safety risk, environmental risk, labor risk, and audit results. We pay special attention to the improvements made by suppliers posing medium and high risks. To better meet customer requirements, we have prepared and continued to update our Supplier CSR Audit Checklist in accordance with industry best practices. We conduct supplier CSR audits using internationally recognized methods such as onsite inspections, employee interviews, management interviews, documentation reviews, and online searches. In addition, we perform onsite assessments on all potential suppliers to examine their sustainability systems. No company that fails the assessment is eligible for consideration to become a Huawei Digital Power supplier.

In 2023, we assigned CSR risk ratings to more than 160 self-managed suppliers as well as those under the unified management of the Group, and conducted onsite audits on key suppliers, with audited objects including new suppliers, suppliers assessed as posing medium or high risk, and EHS risk suppliers. If an issue was identified during an onsite audit, we help the supplier resolve the issue through CRCPE methodology (check, root cause analysis, correct, prevent, and evaluate). This methodology helps suppliers identify common problems and develop targeted solutions.

160 suppliers

We assigned CSR risk ratings to more than 160 self-managed suppliers



Supplier Performance Management

Every year, Huawei Digital Power appraises suppliers' sustainability performance as part of their overall performance appraisals. During this process, we also consider how they manage the sustainability of their own suppliers. Suppliers are classified into four grades (A, B, C, or D) based on their sustainability performance. In 2023, we improved our supplier sustainability performance appraisal methodology, which focuses on five criteria: environmental protection, carbon emissions reduction, labor management, EHS accidents, and management systems. In the past year, we appraised the sustainability performance of more than 160 self-managed suppliers in addition to those under the unified management of the Group.

The volume of business we conduct with each supplier is partly determined by their sustainability performance. This criterion is also integral to our supplier selection, portfolio management, and other processes. Suppliers demonstrating strong sustainability performance are prioritized for increased purchase shares or business opportunities under equivalent conditions. Conversely, suppliers with poor performance must rectify issues within a specified timeframe, face reduced purchase shares, and may have their business cooperation restricted or terminated.

Supplier CSR Training

Huawei Digital Power attaches great importance to cultivating suppliers' CSR, and requires them to adopt industry best practices, incorporate sustainable development requirements into their business strategies, reduce operational risks, and improve corporate governance. We regularly offer training for all suppliers, including training on social and environmental issues such as human rights protection, compliance and integrity, energy conservation and emission reduction, and fire prevention, in order to develop the training scheme with emphasis on both contents and features.

- Popularization of new supplier training: provide basic training including auditing standards, procedures, and methods for newly introduced suppliers, and popularize basic business and compliance information.
- Special training: provide routine special training including fire safety, energy conservation and emission reduction, human rights protection, and building a sustainable supply chain.
- Correction and improvement training: offer targeted training for suppliers who fail the assessment, and provide ongoing support to help them continuously improve and enhance their sustainability management practices.

After years of exploration, we have devised an efficient "peer benchmarking" learning model. Through CSR topic collection, industry benchmark identification and analysis, supplier experience sharing, as well as template and checklist import, we have further improved the CSR training system for suppliers and improved supplier's risk response capability. Huawei invites leading suppliers from different industries to share their experience in dealing with risky items and scenarios such as printed circuit boards (PCBs), lithium batteries, and hazardous chemicals. In 2023, Huawei invited 15 industry-leading suppliers to share their best practices in EHS, more than 500 suppliers participated in the sharing, communication, and training, and over 600 safety management personnel from suppliers passed Huawei's online production safety and red line exams.

500 suppliers

More than 500 suppliers participated in the sharing, communication, and training

600 people

Over 600 safety management personnel from suppliers passed Huawei's online production safety and red line exams

Stakeholder Engagement and Cooperation

Building a sustainable industrial chain requires the participation of all stakeholders. Huawei Digital Power attaches great importance to our partnership with customers, suppliers, industry associations, and other stakeholders. We have incorporated CSR requirements into the management policies of partners, requiring suppliers to learn and sign the Integrity Agreement, hold supplier conferences, hold CSR seminars with customers and suppliers, nominate suppliers to participate in joint audits, carry out supplier capacity improvement projects, participate in industry exchanges and industry standards formulation, so as to improve the sustainable development governance capability of partners.

We actively listen to customer requirements and expectations regarding supply chain sustainability, and seek to understand new global trends in CSR, responsible business conduct (RBC), and environmental, social, and governance (ESG) trends, and the progress of supply chain due diligence legislation in European countries. We also conduct self-assessments based on the OECD's Due Diligence Guidance for Responsible Business Conduct and share the assessment results with customers. Within the reporting period, we communicated with customers on CSR requirements and measures such as supply chain traceability, forced labor, and responsible management.



Responsible Management of Minerals

As a member of the United Nations' Global Compact, Global e-Sustainability Initiative (GeSI), Responsible Business Alliance (RBA), and Responsible Minerals Initiative (RMI), Huawei is committed to global social responsibility and implements ethical procurement to promote the sustainable development of the supply chain.

Huawei is committed to the responsible procurement of mineral raw materials (tin, tantalum, tungsten, gold, cobalt, and mica, etc.) used in our products, in accordance with "OECD Due Diligence Guidance on Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas" and "Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains" (hereinafter referred to as "Guidelines"). We require our suppliers to ensure that they are not intentionally or accidentally encouraging human rights abuses in high-risk areas. Suppliers shall have a policy to reasonably prevent and reduce the risk that the mineral in the products they manufacture, does not directly or indirectly finance or benefit

groups that may contribute to or be perpetrators of serious human rights abuses, or serious environment, health and safety concerns, and serious corruption in affected countries and areas. Suppliers are required to conduct source tracing and responsible mineral due diligence for the mineral products used in their purchased products, and share due diligence information with customers to ensure consistency with the supply chain policy and guidance requirements and progressively improve supply chain transparency and supply chain governance capabilities.

The responsible mineral supply chain due diligence management is a process of continuous improvement. Resolution will require the commitment and cooperation of businesses, governments, and non-governmental organizations (NGOs). We will continue to engage with industry organizations to seek sustainable solutions with customers and suppliers to drive the sustainable development of the mineral supply chain.



Business Ethics

Huawei Digital Power is committed to conducting its business with integrity, adhering to business ethics standards, and complying with all applicable laws and regulations. This principle is upheld by our highest levels of management. Over the years, we have built a compliance management system that aligns with industry best practices and integrates compliance into every aspect of our business activities and processes. These efforts are ongoing. Huawei Digital Power emphasizes a culture of integrity and invests heavily to make it a reality. As such, every employee is required to strictly adhere to our Business Conduct Guidelines (BCG). In 2023, 100% of Huawei Digital Power employees signed the BCG. The BCG sets out the legal and ethical requirements that every employee must follow while conducting business activities. The BCG requires every employee to not only comply with all applicable laws and regulations, but act in a socially responsible manner. Anyone who violates the BCG is subject to disciplinary action, which can range from termination of employment to legal liability.

- Huawei Digital Power's compliance officer is fully responsible for Huawei Digital Power's compliance management and regular reporting to Huawei Digital Power's Board of Directors and President, and the Group's chief compliance officer. Each of our business departments and subsidiaries has established its own compliance team, responsible for managing its operational compliance.
- We identify and assess risks according to applicable laws and regulations and business scenarios. Additionally, we have formulated control measures that have been incorporated into our business activities and processes. We continuously optimize our management system through root cause analysis and targeted corrective actions.
- We attach great importance to and continuously enhance the compliance awareness of our managers and employees. Through publicity, training, exams, disciplinary action, and other related actions, we ensure that all our employees fully understand their own obligations as well as Huawei Digital Power's.
- With an open mind, we proactively engage and work with customers, partners, regulators, and other stakeholders on compliance, to constantly enhance mutual understanding and trust.

Huawei Digital Power is dedicated to ensuring better compliance across multiple domains, including but not limited to trade compliance, financial compliance, anti-bribery compliance, intellectual property (IP) and trade secret protection, cyber security and privacy protection, and fair competition. These compliance requirements are embedded into our policies, systems, and business processes.



Anti-Corruption and Anti-Bribery Compliance

Huawei Digital Power has a zero-tolerance policy towards corruption and bribery. In every country where we operate, we conduct all business under a legal framework that supports fair competition and opposes bribery and corruption. We place our obligation to fight bribery and corruption above our own commercial interests, and are working to ensure that our business is conducted in a fair and transparent manner.

- Our anti-bribery compliance (ABC) management is designed specifically for our diversified business portfolio, and we continuously develop the ABC management system and its capabilities. We constantly identify and monitor risks, drive the optimization of relevant business rules and processes, and monitor their implementation.
- Huawei Digital Power works diligently to create a culture of integrity and enhance its compliance capabilities. Internally, we embed compliance requirements into business processes, ensure all employee conduct is above board, and raise employees' compliance awareness by requiring them to study and comply with Huawei Digital Power's BCG and anti-corruption policies. On top of this, we provide general training for all employees and targeted training for staff in key process positions, and run campaigns that help the compliance team hone their expertise. The training content is distributed in numerous

ways to facilitate policy understanding, from videos and forums to dedicated online training channels. Externally, we carefully manage our relationships with third parties to ensure compliance. We continuously communicate with stakeholders, including industry peers, consultants, partners, and NGOs, to clarify our position and views on anti-bribery and anti-corruption. This communication ensures stakeholders understand our compliance management policies. All partners of Huawei Digital Power—whether directly providing services and fulfilling their contractual obligations to Huawei Digital Power, or doing so on behalf of our customers or other third parties—are required to comply with all applicable laws and regulations, industry ethical standards, and Huawei Digital Power's Anti-corruption Policy for Partners, Supplier Social Responsibility Code of Conduct, Code of Conduct for Partners, and Honesty and Integrity Commitment. These combined efforts allow us to control ABC risks across Huawei Digital Power.

- We have established complaint channels through which employees and other parties can report violations. When we receive a complaint, we launch an investigation and protect the person lodging the complaint from any form of threat or retaliation by concealing their identity.

We comply with Huawei's statements and policies on anticorruption and anti-bribery. More information can be found in the "Reports and Policies" section at: <https://www.huawei.com/en/sustainability/sustainability-report>



Intellectual Property Rights and Trade Secret Protection

Huawei Digital Power is committed to long-term investments in R&D and continuously enriching its intellectual property (IP) portfolio. It believes that respecting and protecting IP is the bedrock of innovation. As a follower, practitioner, and contributor of IP rules, as well as an innovator, Huawei Digital Power works tirelessly to improve the environment for protecting innovation and IP across industries and regions.

Huawei Digital Power is committed to protecting its own IP and trade secrets, while respecting those of others. We explicitly prohibit our employees from improperly acquiring, disclosing, using, or disposing trade secrets of others. The key measures Huawei Digital Power has taken to protect the trade secrets of others include:

- Issuing the Regulations on Respecting and Protecting Third Party Trade Secrets V1.0, which set out clear rules that employees must follow to respect and protect the trade secrets of others during business activities, ensuring that employees carry out business activities legally and in accordance with contracts.
- Embedding trade secret protection requirements into business processes such as R&D, sales, procurement, and HR, conducting regular reviews, and continuously improving management mechanisms by taking away lessons and case studies from day-to-day operations.
- Organizing publicity, training, and exams on trade secret protection for all employees, so that they are fully aware of their obligations and responsibilities regarding trade secret protection compliance.
- Conducting supervision, including checks and audits, to examine efforts aimed at protecting the trade secrets of others and thus ensure effective implementation of our policies, rules, and processes.
- Establishing an accountability system based on the Group's official policies, such as the Accountability Protocol for Infringements of Other Parties' Trade Secrets and the Accountability Rating Criteria for Information Security Violations, to hold violators accountable for any trade secret violations.



Trade Compliance

Huawei Digital Power has consistently endeavored to comply with the laws and regulations of the countries and regions in which it operates, including the export control and sanction laws of the UN, China, the US, and the EU. We are committed to fulfilling our responsibilities and obligations related to export controls. Leveraging the Group's years of continuous investment and construction, Huawei Digital Power has established a mature and sustainable internal system for trade compliance that aligns with industry standards and is continuously improved.

By actively aligning with industry best practices, Huawei Digital Power has established an integrated trade compliance management organization. This organization manages trade compliance across both group functions and field offices. Additionally, we have specialist teams in our global offices that

monitor changes to local laws and regulations, embed trade compliance requirements into rules and processes, and oversee compliance in every aspect of our business operations, from procurement and R&D to sales, supply, and services.

Huawei Digital Power continuously ensures employees further their own trade compliance awareness. Employees must sign Huawei's BCGs each year, which include commitments to observing applicable export control laws and regulations. Huawei Digital Power provides various training sessions on trade compliance to managers and employees across our organization. These efforts, combined with targeted training for specific business scenarios, ensure employees fully comprehend both their individual responsibilities and Huawei Digital Power's obligations concerning export controls.

We comply with Huawei's Statement of Compliance with Export Control Regulations. For further details, please visit the "Reports and Policies" section at: <https://www.huawei.com/en/sustainability/sustainability-report>



Fair Competition and Trade

Huawei Digital Power has long placed fair trade as a priority for operational compliance, and has established organizations, processes, regulations, and rules to ensure competition compliance.

- We have established dedicated compliance organizations, appointed compliance officers in each region where we operate, and put in place a range of supporting regulations and rules, including guidelines and implementation rules on compliance with competition laws, manager and employee statements on compliance, partner letters of commitment to compliance, and related training materials.
- We have embedded competition compliance rules and regulations into management systems and business processes. We customize policies for each country based on local competition laws. We update compliance objectives every year and oversee the achievement of

these objectives. We also provide dedicated training for compliance officers to ensure that related rules and guidelines are fully implemented.

- We optimize business processes and establish long-term mechanisms to ensure comprehensive competition compliance. These include managing independent sales consultants, due diligence on third-party suppliers, and optimizing competition law compliance baselines for sales contracts.

Huawei Digital Power is actively fostering a fair market environment by raising employee awareness and strictly adhering to fair competition principles in our business operations. During the reporting period, there were no instances of legal action against Huawei Digital Power for anti-competitive behavior or monopoly practices.



One-Mind Growth

Employees are the lifeblood of our enterprise, and our partners are our closest allies in our journey towards a more harmonious society. We prioritize employee growth and are committed to creating an equal and inclusive workplace. By offering diverse promotion paths and comprehensive training systems, we support personal development and foster mutual growth for both our enterprise and our employees. We collaborate with partners to build a low-carbon, digital society, promote local economic development, enhance health and well-being, and create sustainable industrial chains.



UN SDGs supported by Huawei Digital Power:



Employee Growth

Employees continuously inject vitality into enterprises and are invaluable assets for development. At Huawei Digital Power, we are committed to creating a diverse workplace characterized by equality, inclusiveness, respect, and mutual assistance. Upholding the principle of "Safety first and caring for employees", we have consistently enhanced our occupational health and safety management system. Additionally, we expand development and promotion channels for employees, encouraging them to strive for excellence and realize their potential. We aim to build a business platform that attracts outstanding talents to collaborate and share value.

Building a Harmonious Team

Huawei Digital Power complies with the Universal Declaration of Human Rights, and observes the Group's Caring for Employees Policy that lays out the principles and requirements we believe that a good employer must meet to ensure an adequate level of employee care. These principles and requirements cover child labor, forced or involuntary labor, health and safety, diversity, discrimination, humane treatment, working hours, compensation and benefits, freedom of association, privacy protection, and learning and development. We have put in place processes, systems, and baselines to ensure our employee care policies are effectively implemented. When it comes to recruitment, promotion, and compensation, we do not discriminate against anyone based on race, religion, gender, sexual orientation, nationality, age, pregnancy, or disability. We prohibit the use of child labor and forced labor (including bonded or indentured labor), and have effective measures in place to prevent such situations during recruitment, use, and dismissal of labor. Not a single instance of child or forced labor has been found at Huawei Digital Power and we hold all our suppliers to this same standard, regularly conducting audits to ensure their compliance.

Huawei Digital Power has also established effective mechanisms for employee communication, gathering opinions and suggestions through its Manager Feedback Program (MFP), organizational climate surveys, manager open days, and more. This ensures employees' voices are heard and we actively respond to their inquiries. Employees can report violations, file complaints, and seek assistance through multiple channels, including the dedicated complaint mailbox of the Committee of Ethics and Compliance (CEC) and internal service hotline. We maintain strict confidentiality for all reports and prohibit any attempts to threaten or retaliate against them.

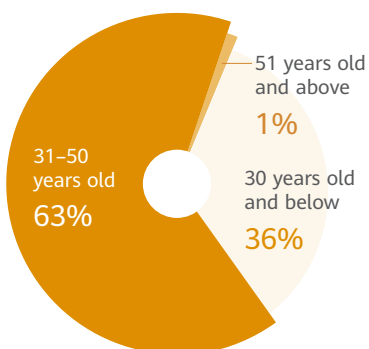
Huawei Digital Power is committed to fostering an impartial and inclusive workplace that encourages mutual respect and diversity. By the end of 2023, our global workforce reached approximately 7,000 people from over 70 countries and regions. We prioritize localization, employing more than 700 local staff members internationally.

7,000 people

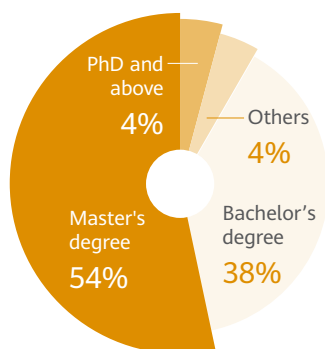
By the end of 2023, our global workforce reached approximately 7,000 people

700 people

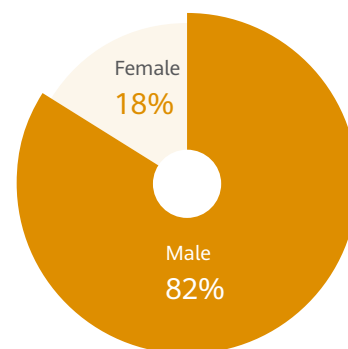
We prioritize localization, employing more than 700 local staff members internationally



Structure of employee age in 2023¹



Employee education level in 2023²



Employee gender in 2023³

^{1 2 3} As policies and regulations vary with countries and regions, the above data excludes local employees outside China.

Huawei Digital Power values the diversity of cultural backgrounds, beliefs, and lifestyles of its employees. We encourage communication across regions and departments to create an open, inclusive, and respectful work environment. Our campus facilities, including canteens, coffee bars, fitness centers, libraries, nursery rooms, and prayer rooms, cater to the diverse needs and customs of our staff. We organize various team activities, such as the 3+1 Activity Week, Tug Race, Family Day, and Engineers' Culture Day, to foster mutual understanding and trust among employees from different cultural backgrounds. Additionally, we support the formation of cultural and sports associations, including dance, basketball, running, badminton, and photography clubs, to enrich employees' leisure time.



Family Day



Engineers' Culture Day



Badminton Association event



Dance Association event

Huawei Digital Power's employees hail from diverse global backgrounds. To address cross-cultural differences, we have meticulously developed a series of courses and case studies, including Cross-cultural Team Management, Cross-cultural Adaptation, and Cross-cultural Phonograph. These programs focus on real work scenarios, providing training for local grassroots supervisors, key staff, and overseas Chinese managers. Our goal is to enhance cultural competence at all levels, fostering a diverse team built on mutual trust.

Protecting Employee Health and Safety

Huawei Digital Power places a high priority on employee health and safety. We actively care for our employees and continuously improve our occupational health and safety system. Our management practices comply with relevant laws and regulations, both internal and external environments, local laws and regulations, and stakeholder demands (including government, customer, and employee, etc.). We determine the scope of the EHS management system based on our actual businesses. We have established the EHS management system according to the PDCA cycle, achieved ISO 45001 certification for occupational health safety management, and implemented employee health monitoring. Through fostering a safety culture, conducting emergency drills, providing first-aid knowledge, and offering physical and mental health training and guidance, we ensure comprehensive health protection for our employees and partners. We have appointed EHS employee representatives to gather employee suggestions for improving management and technology. Additionally, we conduct monthly health and safety training for all among employees and organize level-3 safety training for all R&D laboratory personnel, covering basic laws & regulations, general safety, job safety, and occupational health and safety, etc. Each month, the chief of operations provides a list of new laboratory employees, and the laboratory administrator organizes relevant training for them. Every year, we hold a "Safety Month" series of activities, which has been held 11 times by 2023. This year's theme is "Everyone Talks About Safety, Everyone Understands Emergency Response." We organize activities such as safety knowledge contests and safety games to enhance safety awareness among all employees and integrate safety into our daily operations.

We continue to invest significantly into practical measures to safeguard employee health. Alongside comprehensive social insurance, we offer competitive commercial insurance plans, including accident insurance, life insurance, critical illness insurance, overseas business travel insurance, and family insurance. Additionally, we are working to simplify the insurance claims process and add a personal touch to our insurance services.

To encourage employees to consistently prioritize their physical and mental well-being, Huawei Digital Power has partnered with third-party health resources. These resources offer first aid training, health lectures, psychological salons, and counseling services. Additionally, we disseminate various types of health information to raise awareness and foster a positive organizational atmosphere.



First-aid training



Expert counseling on World Sight Day



Physical health lecture

In 2023, Huawei Digital Power encouraged employees to participate in medical checkups, achieving a 97% participation rate. To enhance Huawei's first-aid emergency response mechanism, we have established health centers, regularly conduct professional training and appraisals for security ERT members and medical personnel, and carry out extensive emergency drills involving all employees. These efforts continuously improve our emergency response mechanism and streamline our first aid processes.

**97%**

97% of employees received medical checkups

Promoting Career Development

Huawei Digital Power offers employees a broad career development channel with two distinct career paths: the manager path and the expert path. Employees can advance while switching between the two paths. All employees receive regular performance and career development reviews, and are given adequate training and mobility opportunities during career development. We have implemented a mechanism for department-initiated talent transfers and an internal talent market for free mobility. Both are intended to drive employee mobility and help our employees become more versatile in multiple disciplines. Talented people are not confined to one domain and are instead given the opportunity to work in a variety of different professions and domains. This helps them reskill and upskill, giving more room for growth. At Huawei Digital Power, we offer employees a global platform, exposing them to many new experiences and new insights that will help them grow quickly.

To support career development, Huawei Digital Power has created diversified, comprehensive, and systematic learning resources and platforms. These resources empower employees at various stages of their growth. For instance, we offer new employee orientation training and professional job training to help newcomers learn about Huawei Digital Power and acquire essential skills. We have established a tutorial system to assist promising young employees in transitioning roles and adapting to growth. Additionally, we provide professionalism improvement programs tailored to different career stages, as well as manager development programs to enhance management skills.

We believe in learning through practice and practicing what we learn. Huawei Digital Power has established skills conversion learning bases, hardware installation and debugging training bases, and intelligent photovoltaic training bases in Dongguan, Guizhou, and Qinghai. These facilities drive our training and practice sessions, fostering individual growth.

Convene Innovation Competition and Stimulate the Innovation Potential of Internal Talent

In 2023, Huawei Digital Power hosted the Innovation Gold Idea Event and the 5th Innovation Competition, themed "Aggregating Innovations for a Low-Carbon Future." In December 2023, we also held the Maker Conference and Award Ceremony. Various awards were established to encourage employee innovation, set

benchmarks, share concepts, and stimulate enthusiasm for continuous innovation. Additionally, we aimed to address key technical challenges in Digital Power. By releasing 52 challenging topics, we received 1,026 creative ideas and over 6,500 views, fostering a favorable climate for innovation among employees.

52
challenging topics

1,026
creative ideas

6,500+
views



Huawei Digital Power holds the Innovation Contest 2023

Promoting Win-Win Cooperation

Huawei Digital Power embraces the concept of open cooperation and win-win symbiosis. We actively cooperate with customers, partners, industry associations, higher education institutions, and more to leverage the strength of all parties. This approach fosters continuous innovation and contributes to the ecological prosperity and development of the industry.

Active Involvement in Drafting and Formulation of Important Standards Globally

Huawei Digital Power actively participates in numerous important standardization organizations both within and outside China, including the International Electrotechnical Commission (IEC), China Electricity Council Standardization Management Center, China Communications Standards Association, China Electronics Standardization Institute, National Technical Committee of Auto Standardization, National Committee on Electric Energy Storage of Standardization Administration of China, and Open Data Center Committee, etc.

Each year, Huawei Digital Power is involved in planning, formulation, and revision of over 100 significant standards at international, national, industrial, local, and association levels. Additionally, Huawei Digital Power hosts or organizes multiple important standardization meetings in areas such as smart PV, energy storage, smart EV, charging network, data center facility, and site power facility, etc., contributing significantly to the industry's healthy development.

In 2023, Huawei Digital Power participated in the formulation or revision of the following standards (partial):

International standards

- IEC 62548-1 Photovoltaic arrays - Part 1: Design requirements
- IEC 63027 Photovoltaic power systems - DC arc detection and interruption

Industry standards

- YD/T 1436 Outdoor power system for telecommunications
- YD/T 2344.1 Lithium iron phosphate battery pack for communications - Part 1: Integrated battery pack
- YD/T 4524.4 5G power supply and environmental infrastructure - Part 4: Rack temperature control system
- YD/T 4625 Technical requirements for data center energy management systems

Association standards

- T/CABEE 056 Standard for design of lithium-ion battery room in data center
- T/CRAAS 1015 Code for design of indirect evaporative cooling systems for data centers
- T/GAEP A 002 Communication protocols between super charger and electric vehicle

National standards

- GB/T 18487.1 Electric vehicle conductive charging system - Part 1: General requirements
- GB/T 18488 Drive motor system for electric vehicles
- GB/T 20234.1 Connection set for conductive charging of electric vehicles -- Part 1: General requirements
- GB/T 20234.4 Connection set of conductive charging for electric vehicles - Part 4: High power DC charging coupler
- GB/T 34120 Technical requirements for energy storage converters in electrochemical energy storage systems
- GB/T 34133 Testing code for power conversion system of energy storage system
- GB/T 36276 Lithium ion battery for electrical energy storage
- GB/T 43254 Functional safety requirements and testing methods for the drive motor system of electric vehicles
- GB/T 44026 Technical specification for prefabricated cabin type lithium ion battery energy storage system

Local standards

- DB4403/T 342 Technical specification for coordinated charging and V2G of electric vehicle charging/battery swap infrastructure

Convene the College Student Innovation Contest and Encourage the Youths to Innovate Bravely

On August 24, 2023, the 3rd S Power Electronics Innovation Contest Final was successfully concluded. Themed on the design of small-scale high-efficiency DC-AC converters, this event encouraged algorithm innovation to maximize efficiency. The contest lasted for nine months and culminated in a final competition at the Huawei Songshan Lake Campus in Dongguan, featuring 17 teams and 142 higher learning institutions globally.

Huawei Digital Power organizes this annual event to foster integrated innovation in digital and power electronics technologies among college students. Having successfully held this event for three sessions, we sincerely invite elites from higher learning institutions worldwide to jointly explore the integrated innovation in digital and power electronics technologies, creating a better and greener future.



Huawei holds the S Power Electronics Innovation Contest

Kick Off Strategic Cooperation with the China Electricity Council to Jointly Promote the High-Quality Development of the Industry

In June 2023, the China Electricity Council and Huawei Digital Power signed a strategic cooperation agreement in Shenzhen. Based on their respective strengths, the two parties will expand cooperation in multiple fields through diverse approaches to deeply integrate power electronics technologies with digital technologies such as AI, cloud computing, big data, and IoT, accelerating the planning and construction of new energy systems.

According to the strategic cooperation agreement, the China Electricity Council and Huawei Digital Power will leverage their resource advantages in areas such as renewable energy industry development planning and policy research, technological innovation and pilot demonstration, standards system construction, and international exchange and cooperation. This collaboration aims to jointly promote the high-quality development of the electric power industry.



China Electricity Council and Huawei Digital Power sign a strategic cooperation agreement in Shenzhen

Social Contributions

While developing its own businesses, Huawei Digital Power strives to benefit society through its technological achievements. It promotes sustainable development in the regions where it operates, leveraging its resources and expertise to support rural revitalization and bridge the digital divide. As a responsible corporate citizen, Huawei Digital Power remains attentive to local sustainability issues, using technological innovation and operation activities to advance the local digital economy and transform education and teaching.

Huawei FusionModule800 Empowers Digital Transformation for Smart Transportation in Gansu

The Wujiu Expressway project incorporates cutting-edge technologies such as 5G, BIM, and GIS to develop a digital and intelligent system for real-time traffic monitoring. This system generates massive amounts of data, necessitating the rapid deployment of simplified and reliable small data centers at each site. However, the widespread distribution of these sites along the expressway poses a challenge for unified management and service collaboration.

To meet the go-live deadline and realize streamlined O&M management, Huawei's FusionModule800 smart modular data center solution was implemented at 11 sites, including toll stations, service areas, and tunnel management stations. Additionally, Huawei's FusionModule2000 smart modular data center solution was deployed at the monitoring subcenters. The entire expressway was equipped with Huawei solutions

within a month. The FusionModule800 integrates components such as power distribution, UPS, cooling, monitoring, racks, and fire extinguishing modules to create a simplified data center, significantly shortening the construction period. The integrated equipment rooms at each site are monitored and managed in a unified manner, ensuring optimal power and environmental conditions. The running status of each equipment room can be accessed remotely at any time, enabling centralized management from the monitoring center without the need for on-site personnel. This reduces the need for site visits, streamlines operations, and facilitates the smart construction and operation of the Wujiu Expressway. Not only does the project alleviate local traffic conditions, but also contributes to local rural revitalization and economic development.



Huawei FusionModule800 empowers smart transportation

Huawei iSolar Helps REDtone Build Green Sites in Malaysia

The Jalinan Digital Negara (JENDELA) plan aims to enhance communications network coverage in remote areas of Malaysia. As a participant, REDtone needs to build telecom sites in numerous locations without utility power. These sites rely on gensets, requiring an average of two refueling visits per month. Additionally, Malaysia's equatorial climate is hot and rainy year-round, causing dirt roads in remote areas to become waterlogged and prone to collapse after rains. Consequently, refueling and maintenance are more challenging.

REDtone has adopted Huawei's iSolar PV+battery solution to create 100% PV-powered rural sites. Previously reliant on gensets, these sites now benefit from clean and reliable solar energy. The new solution improves the efficiency and reliability of site power supply, reducing energy OPEX by over 90% on average. The uptime of site power systems reaches 99.5% of the total runtime, and manual site visits are replaced by remote O&M, significantly improving the project operation. By building green sites, Huawei and REDtone help bridge the digital divide in the local areas.

90%

The energy OPEX is reduced by over 90% on average

99.5%

The uptime of site power systems reaches 99.5% of the total runtime



Huawei helps REDtone build green sites in Malaysia

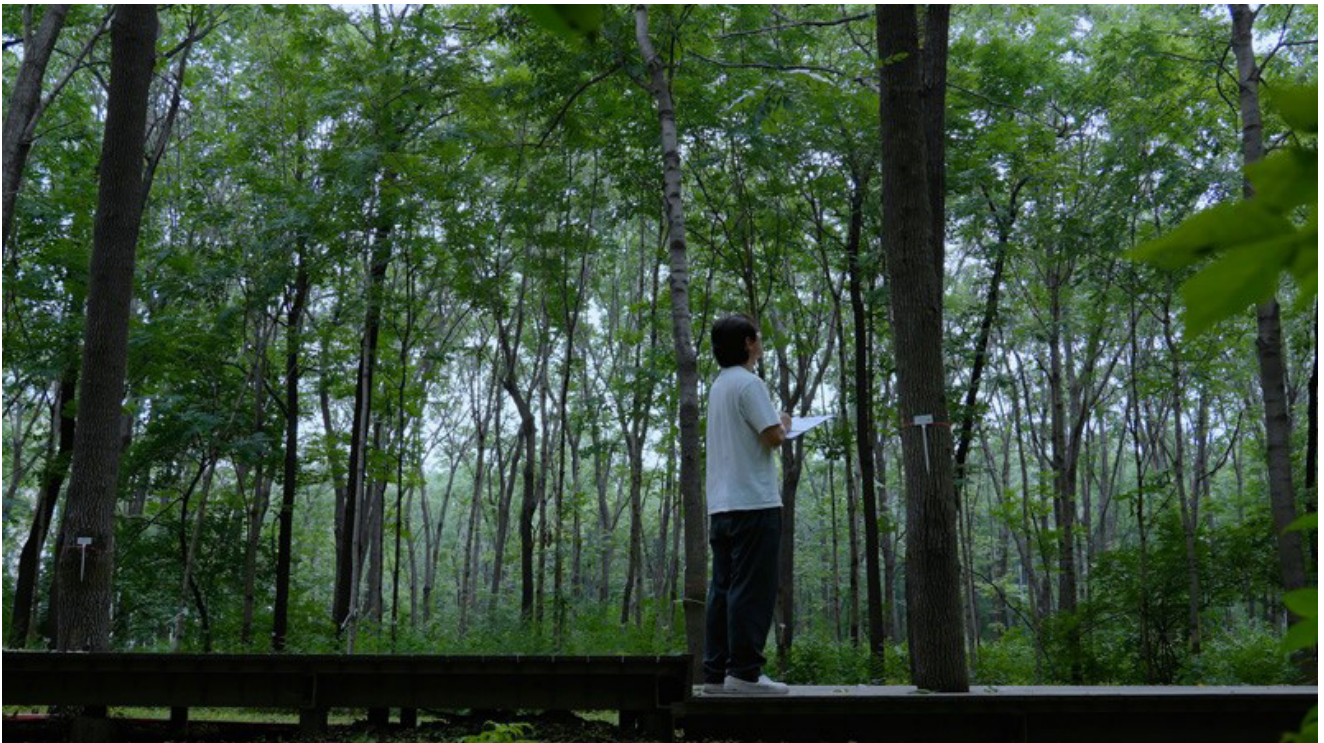
Northeast Forestry University Builds a Green Data Center to Drive Digital Transformation

The Big Data R&D Center for Ecosystem, a key initiative of Northeast Forestry University, leverages carbon sink big data to address significant scientific challenges in carbon sink measurement and assessment, aligned with the carbon neutrality goal. The center aims to enhance carbon sinks by boosting the carbon sequestration capacity. To effectively tackle related technical challenges, there is an urgent need to develop the software and hardware infrastructure for the center's basic data service platform.

Therefore, the customer collaborates with Huawei Digital Power to establish a green and intelligent modular data center using Huawei's FusionModule 6.0. This one-stop solution, designed for small- and medium-sized data centers, integrates power supply, cooling, cabinet, aisle, cabling, and intelligent management systems. Its fully modular

design simplifies installation and facilitates deployment, taking only seven days from arrival to complete installation and commissioning. The solution's one-link dual-purpose architecture ensures continuous cooling, maintaining the stable operation of the cooling system, and preventing partial hot spots due to abnormal power supply. Additionally, the iManager-M function, leveraging Huawei's full-stack cloud data center capabilities, reduces the workload on data center management. By scanning codes, users can achieve 24/7 mobile O&M through the i-Manager platform, thereby simplifying data center O&M comprehensively.

Huawei Digital Power will maintain its leadership in the energy sector through technological innovation and actively participate in digital transformation to shape the future of smart education.



Huawei helps Northeast Forestry University build a green data center

Huawei Digital Power Strengthens Cooperation with Masdar to Promote Global Technological Innovation in Renewable Energy

Huawei Digital Power and Masdar, a world-leading renewable energy company, held a meeting in Beijing to review their successful cooperation history, including projects in Uzbekistan, and to explore future trends and opportunities in the global renewable energy market.

Huawei Digital Power is dedicated to integrating digital and power electronics technologies to build a new energy system based on PV and energy storage. It has achieved significant milestones in grid-forming energy storage technology, supporting the integration of renewable energy into power grids worldwide. Huawei has successfully delivered dozens of 100 MWh-scale projects globally. Moving forward, Huawei

will deepen its cooperation with Masdar to conduct technical research and innovation.

This meeting strengthens the long-term strategic partnership between the two parties and lays a solid foundation for future collaboration in the global renewable energy sector. It also opens new avenues for the innovation and application of renewable energy technologies. In the future, both parties will engage in in-depth cooperation on major global renewable energy and energy storage projects, as well as key technologies, to promote the healthy and high-quality development of global renewable energy.



Huawei Digital Power and Masdar hold a meeting in Beijing

Appendix 1: GRI Content Index

Statement of usage

Huawei Digital Power has reported the information cited in this GRI content index for the period from January 1, 2023 to December 31, 2023 with reference to the GRI Standards.

GRI 1 used

GRI 1: Basic 2021

GRI Standard	Disclosure	Page(s)
GRI 2: General disclosure 2021	2-1 Organizational details	1
	2-2 Entities included in the organization's sustainability reporting	3
	2-3 Reporting period, frequency and contact person	3
	2-4 Restatements of information	/
	2-5 External assurance	/
	2-6 Activities, value chain and other business relationships	1
	2-7 Employees	59-63
	2-8 Workers who are not employees	/
	2-9 Governance structure and composition	14-15
	2-10 Nomination and selection of the highest governance body	14-15
	2-11 Chair of the highest governance body	14-15
	2-12 Role of the highest governance body in overseeing the management of impacts	14-15
	2-13 Delegation of responsibility for managing impacts	14-15
	2-14 Role of the highest governance body in sustainability reporting	14-15
	2-15 Conflicts of interest	/
	2-16 Communication of critical concerns	16-17
	2-17 Collective knowledge of the highest governance body	14-15
	2-18 Evaluation of the performance of the highest governance body	14-15
	2-19 Remuneration policies	59
	2-20 Process to determine remuneration	59
	2-21 Annual total compensation ratio	/
	2-22 Statement on sustainable development strategy	13
	2-23 Policy commitments	47-48, 59
	2-24 Embedding policy commitments	14-15
	2-25 Processes to remediate negative impacts	15
	2-26 Mechanisms for seeking advice and raising concerns	15

GRI Standard	Disclosure	Page(s)
GRI 2: General disclosure 2021	2-27 Compliance with laws and regulations	53-57
	2-28 Membership associations	/
	2-29 Approach to stakeholder engagement	16
	2-30 Collective bargaining agreements	59
GRI 3: Material topics 2021	3-1 Process to determine material topics	17
	3-2 List of material topics	17
	3-3 Management of material topics	17
GRI 201: Economic performance 2016	201-1 Direct economic value generated and distributed	/
	201-2 Financial implications and other risks and opportunities due to climate change	4-6, 19-40
	201-3 Defined benefit plan obligations and other retirement plans	/
	201-4 Financial assistance received from government	/
GRI 202: Market presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	/
	202-2 Proportion of senior management hired from the local community	/
GRI 203: Market presence 2016	203-1 Infrastructure investments and services supported	66-69
	203-2 Significant indirect economic impacts	66-69
GRI 204: Procurement practices 2016	204-1 Proportion of spending on local suppliers	/
GRI 205: Anti-corruption 2016	205-1: Operations assessed for risks related to corruption	53-54
	205-2: Communication and training about anti-corruption policies and procedures	53-54
	205-3: Confirmed incidents of corruption and actions taken	/
GRI 206: Anti-competitive Behavior 2016	206-1: Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	57
GRI 207: Tax 2019	207-1 Approach to tax	42
	207-2 Tax governance, control, and risk management	42
	207-3 Stakeholder engagement and management of concerns related to tax	16
	207-4 Country-by-country reporting	3
GRI 301: Materials 2016	301-1 Materials used by weight or volume	/
	301-2 Recycled input materials used	21-23
	301-3 Reclaimed products and their packaging materials	21-23
GRI 302: Energy 2016	302-1 Energy consumption within the organization	20
	302-2 Energy consumption outside of the organization	20
	302-3 Energy intensity	/
	302-4 Reduction of energy consumption	20
	302-5 Reductions in energy requirements of products and services	19-40

GRI Standard	Disclosure	Page(s)
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	20
	303-2 Management of water discharge-related impacts	20
	303-3 Water withdrawal	/
	303-4 Water discharge	/
	303-5 Water consumption	20
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	23
	304-2 Significant impacts of activities, products, and services on biodiversity	23
	304-3 Habitats protected or restored	/
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	/
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	19
	305-2 Energy indirect (Scope 2) GHG emissions	19
	305-3 Other indirect (Scope 3) GHG emissions	/
	305-4 GHG emissions intensity	/
	305-5 Reduction of GHG emissions	20
	305-6 Emissions of ozone-depleting substances (ODS)	/
	305-7 Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	20
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	21
	306-2 Management of significant waste-related impacts	21
	306-3 Waste generated	21
	306-4 Waste diverted from disposal	21
	306-5 Waste diverted to disposal	21
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	47-51
	308-2 Negative environmental impacts in the supply chain and actions taken	47-51
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	/
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	59-63
	401-3 Parental leave	/
GRI 402: Labor/Management Relations 2016	402-1 Minimum notice periods regarding operational changes	/
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	59-62
	403-2 Hazard identification, risk assessment, and incident investigation	59-62
	403-3 Occupational health services	59-62
	403-4 Worker participation, consultation, and communication on occupational health and safety	59-62
	403-5 Worker training on occupational health and safety	59-62
	403-6 Promotion of worker health	59-62

GRI Standard	Disclosure	Page(s)
GRI 403: Occupational Health and Safety 2018	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	59-62
	403-8 Workers covered by an occupational health and safety management system	59-62
	403-9 Work-related injuries	/
	403-10 Work-related ill health	/
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	53
	404-2 Programs for upgrading employee skills and transition assistance programs	62-63
	404-3 Percentage of employees receiving regular performance and career development reviews	63
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	59
	405-2 Ratio of basic salary and remuneration of women to men	/
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	59
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	/
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	47-49, 59
GRI 409: Forced or Compulsory Labor 2016	409-2 Operations and suppliers at significant risk for incidents of forced or compulsory labor	47-49, 59
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	47-49
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	/
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	38-39, 66-69
	413-2 Operations with significant actual and potential negative impacts on local communities	/
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	24, 47-52
	414-2 Negative social impacts in the supply chain and actions taken	24, 47-52
GRI 415: Public Policy 2016	415-1 Political contributions	/
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	42-44
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	/
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	43
	417-2 Incidents of non-compliance concerning product and service information and labeling	/
	417-3 Incidents of non-compliance concerning marketing communications	/
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	44

Appendix 2: Table of Abbreviations

Acronym/ Abbreviation	Full Name in English	Full Name in Chinese
5G	The 5th Generation Mobile Communication Technology	第五代移动通信技术
AI	Artificial Intelligence	人工智能
BCG	Business Conduct Guidelines	商业行为准则
BSRT	Business Satisfaction Representative Team	客户满意度管理团队
CB	Certification Bodies' Scheme	CB 认证
CEC	Committee of Ethics and Compliance	道德遵从委员会
CEESTA	China Electronic Energy Saving Technology Association	中国电子节能技术协会
CRCPE	Check, Root Cause Analysis, Correct, Prevent and Evaluate	检查、根因分析、改进、预防和评估五步法
CSD	Corporate Sustainable Development	企业可持续发展
CSR	Corporate Social Responsibility	企业社会责任
DEKRA	Deutscher Kraftfahrzeug Überwachungsverein	德国机动车监督协会
EHS	Environment, Health and Safety	环境、职业健康和安全
EMC	Electromagnetic Compatibility	电磁兼容性
EMS	Electronics Manufacturing Service	电子制造服务商
EMT	Executive Management Team	经营管理团队
ESG	Environmental, Social and Governance	环境、社会及治理
FMEA	Failure Mode and Effects Analysis	失效模式及后果分析
GDCT	Green Data Center Technology Committee	数据中心节能技术分会
GRI	Global Reporting Initiative	全球报告倡议组织
ICT	Information and Communications Technology	信息通信技术
IDC	Internet Data Center	互联网数据中心
IEC	International Electrotechnical Commission	国际电工委员会
IP66	Ingress Protection 66	IP66 防护等级
IPD	Integrated Product Development	集成产品开发

Acronym/ Abbreviation	Full Name in English	Full Name in Chinese
IPDRR	Identify, Protect, Detect, Respond, Recover	企业安全能力框架
IPE	Institute of Public and Environmental Affairs	公众环境研究中心
ISO	International Organization for Standardization	国际标准化组织
IT	Information Technology	信息技术
ITR	Issue To Resolution	问题到解决
JAC	Joint Audit Cooperation	全球电信企业社会责任联盟
LCOE	Levelized Cost of Energy	平准化能源成本
LCOS	Levelized Cost of Storage	光储度电成本
LTA	Land Transport Authority	新加坡陆路交通管理局
LTC	Lead To Cash	线索到回款
MFP	Manager Feedback Program	经理人反馈计划
MPPT	Maximum Power Point Tracking	最大功率点跟踪
NGO	Non-Governmental Organization	非政府组织
ODCC	Open Data Center Committee	开放数据中心委员会
OECD	Organization for Economic Co-operation and Development	经济合作与发展组织
OPEX	Operating Expense	运营成本
PUE	Power Usage Effectiveness	能源利用效率
QCC	Quality Control Circle	质量控制圈
RBA	Responsible Business Alliance	责任商业联盟
RBC	Responsible Business Conduct	责任商业行为
RMI	Responsible Minerals Initiative	责任矿产倡议
SaaS	Software-as-a-Service	软件即服务
SNEC	Shanghai New Energy Exhibition and Conference	国际储能技术和装备及应用（上海）展览会
SSLD	Smart String-Level Disconnection	智能组串分断
UNGP	United Nations Guiding Principles on Business and Human Rights	联合国工商企业与人权指导原则
UPS	Uninterruptible Power Supply	不间断电源

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