

Environmental, Social and Governance Report

Corporate Social Responsibility Report

By adhering to the core philosophy of “comprehensive innovation, pursuing truth and pragmatism, people-oriented approach and creating shared value”, China Telecom persists to incorporate corporate responsibilities into development strategy, daily operation and management activities. The Company also perseveres in the fulfillment of its responsibilities for the interests of stakeholders including the country, shareholders, customers, employees, suppliers, peers within the same industry and the community, while committing to step on a responsible development path and continuously enhancing corporate comprehensive values.



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Inherent corporate responsibilities:

As a national mainstream telecommunications operator, there are inherent corporate responsibilities towards the fundamental network, new style communication facilities, universal telecommunications services, network information security, emergency communications, technology innovation and value chain development. China Telecom unwaveringly exerts the backbone function to facilitate the establishment of "Cyberpower" and persistently contributes to the economic and community development.

Responsibilities towards shareholders:

Shareholders are investors of a corporation. China Telecom adheres to carry out robust operations, striving to honour its commitment to shareholders through achieving excellent operating results and continuously enhancing its corporate values.

Responsibilities towards customers:

Customers are the foundation for corporate sustainable development. China Telecom strives to provide heartfelt services to customers, protect their rights, gain in-depth understanding of customers' need, and unwaveringly innovate products and services to customers, all of which enabling our customers to fully enjoy their digital lives.

Responsibilities towards employees:

Employees are the most valuable assets of a corporation. China Telecom safeguards the interests of its employees in accordance with laws, promotes staff development, encourages employees to participate in management, takes care of its employees' well-being, and strives to enable employees and the Company to grow together.

Environmental responsibilities:

It is a mission of all mankind to develop a green and environmentally friendly environment. Through promoting green elements in management, procurement, operation, office administration and community welfare activities, China Telecom strives to achieve an environmentally friendly green development to assist the green development of economy and society.

Social welfare responsibilities:

Commitment to charitable social activities facilitates a better society. China Telecom takes the initiatives to reward the society by enthusiastically participating in community charity affairs.

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I. Operating with integrity and in compliance with the laws

China Telecom governs the corporate in accordance with laws and regulations, persists to operate in compliance with the laws and integrity through abidance by relevant laws and regulations and industry regulations. We established an all-rounded and seamless compliance system featuring internal control, audit supervision, anti-corruption and comprehensive risk management. In accordance with *Accounting Law of the PRC* and other laws and regulations and the regulatory requirements governing internal control of listed companies in capital markets such as USA and Hong Kong, the Company established its *Internal Control Manual* to ensure that the Company's operation management is in compliance with laws and regulations, assets are secured, and the financial reports and relevant information are valid and complete. The Company established an intellectual property management system and strengthened the protection of intellectual property rights. The Company strictly executed the laws and regulations on integrity governance and anti-corruption, established and improved five major mechanisms including anti-corruption

education, system monitoring, discipline and accountability, fault tolerance and correction, and inspection and check; opened and operated a public WeChat account called "China Telecom with Integrity"; set up whistleblowing postal mailbox, emails and hotline to address any report of whistleblowing allegations and relevant complaints on its employees and to provide relevant criticism, opinions and recommendations on integrity construction and anti-corruption work. The Company has set up an effective and standard communication mechanism in order to regulate the disclosure of corporate information, and open to government supervision and public scrutiny.

In 2017, according to the laws and regulations and the requirements of regulatory authorities, in line with the changes in business operations, the Company continuously strengthened its integrity governance and anti-corruption work, reinforced construction of supervised mechanisms, perfected the *Internal Control Manual* and other rules and regulations, continuously assessed the implementation of rules and regulations, and promptly rectified the problems once being identified.



Our installation and maintenance experts

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II. Fulfilling our inherent responsibilities as a telecommunications operator

China Telecom vigorously promoted the network speed upgrade in 2017, provided network assurance characterised with high-speed, safety and reliance, and strove to deliver network information security, universal network services and emergency service network.

Vigorous promotion of speed upgrade and tariff reduction

The Company continuously constructed and optimised 4G network and achieved “refarming” of 800MHz and built FDD 4G full coverage network, with coverage rate over 98% of the population while the network speed reached the industry-leading level. The Company devoted to improving network coverage quality, particularly in traffic-intensive and voice-intensive zones such as high-speed trains, expressways, colleges and universities, high-density residential areas, high-traffic commercial areas and subways, and thus continuously improved customer experience.

The Company continuously extended the promotion of “fibre-to-the-home” (FTTH) with fibre broadband coverage rates reaching 96% in urban cities and 85% in administrative villages. The Company took a lead in upgrading fibre broadband network from Hundred-Mbps to Thousand-Mbps, and provided Thousand-Mbps fibre broadband network as required in provincial capitals and developed cities.

The Company has further reduced data tariff for wireline broadband and handset. In 2017, the unit bandwidth price of wireline broadband reduced by 37% comparing to 2016, and the average tariff price of handset data traffic decreased by 53% compared with that of 2016. Domestic long-distance and roaming fees for handset users have been cancelled. The long-distance tariff for international,

Hong Kong, Macau and Taiwan calls and data roaming fee have been substantially reduced, in particular, the long-distance tariff for international calls connecting to 73 areas in Europe, America and countries along “the Belt and Road” has been reduced by 90% on average.

Establishment of wide coverage Narrow Band Internet of things (NB-IoT)

Following the international standards and the 800MHz LTE low-frequency network, the Company became the pioneer in completing its NB-IoT network construction with nearly 300,000 base stations, which is leading globally in terms of wide coverage and network scale. Leveraging on the network advantages of NB-IoT, the Company provided various IoT applications to proactively meet prosperous customer needs on the new generation of Internet of Things with big-connection and low-energy consumption and meanwhile to effectively reduce consumptions on resources and energy.

Maintaining network information security

The Company complies with the *Cybersecurity Law of the People’s Republic of China* and other laws and regulatory requirements in relation to network information security, conscientiously responds to the requirements of the Ministry of Industry and Information Technology, Ministry of Public Security and other authorities on prevention and combating communications frauds, and proactively takes preventative and corrective actions on network and information security risks of different kinds. In 2017, the Company took the initiatives in carrying out investigations and reforms on any potential security flaws in its internal network and system, and enhanced the network security protection capability. The Company continuously improved its administration on network information security, optimised the responding

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and processing procedures of network information security, introduced anti-fraud technologies and methods, and improved its overall risk management on network information security risks. The Company launched campaigns and interactive activities on communications frauds prevention via various new media channels to raise public awareness on fraud prevention. In accordance with the demands of customers, the Company kept promoting network information security products such as "Cloud Dam".

Promoting universal telecommunication services

The Company continuously promotes the construction of communication networks in rural areas and remote rural villages and strives to improve the broadband access coverage in rural areas. The Company actively participated in the pilot project of universal services initiated by the government in 2016 and proactively assisted in project planning and measures. By the end of 2017, China Telecom bid about 50,000 network construction projects for administrative villages and completed about 40,000 construction tasks of communications network of administrative villages. The Company has set up local service points for rural villages, promoted e-commerce in rural areas, endeavouring to improve informatisation level in rural villages and promote the development of villages.

Completed the
Network
Construction in about
40,000
Administrative Villages

Assuring emergency communications

The Company is truly committed to the mission of providing safe and smooth assurance communications. In 2017, the Company fought against a number of severe natural disasters such as earthquake, flood and typhoon; successfully provided assurance network services to major events including the Belt and Road Forum for International Cooperation, BRICS Xiamen Summit and the 19th CPC National Congress. In 2017, over 110,000 relief workers, over 25,000 rescue vehicles and over 19,000 emergency communication equipment were deployed.



Telecommunications assurance in the BRICS Xiamen Summit



China Telecom's representative assisted foreign journalists in the BRICS Xiamen Summit



Fully devoted to safeguard service assurance of the "Two Sessions"

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III. Fulfilling our responsibilities towards our customers

China Telecom improved the communication with its customers to have a deeper understanding of their needs and actively worked with industrial partners to develop five business ecosystems, namely, Intelligent Connection, Smart Family, New ICT Applications, IoT and Internet Finance. We dedicated to provide customers with high-quality fundamental business such as 4G and fibre broadband and industry information applications of emerging businesses such as HD IPTV, Cloud Computing, Big Data, Mobile Payments, Internet of Things and "Internet +". The Company met information consumption needs of various customers, facilitated the transformational upgrades of various industries and sectors, persisted in construction of service capability, innovated services methods, and endeavoured to improve its service level.

Safeguarding the interests of customers

The Company strictly conforms to the laws and regulations regarding consumer rights and interests such as *Law of the People's Republic of China on Protection of Consumer Rights and Interests*, dedicates to provide products and services in compliance with laws and regulations, performs compliance checks on advertisement campaigns and continuously standardises the business tariff management. The Company follows the *Provisions on Protection of Personal Information of Telecommunications and Internet Users* promulgated by the Ministry of Industry and Information Technology, implemented the *Regulations of China Telecom on Security Management of Information of Users* and any other requirements, standardises the process of collecting, storing, transmitting, using and destroying user information and strictly controls the authorisation permission

of sales staff on accessing and editing customer account information in order to pragmatically protect user information.



Provision of FTTH



Introduced new information services to villagers in remote area

The Company sincerely collects and listens to users' opinions via channels like "Hotline 10000" and online and physical stores, and continuously carries out events such as "Customer Rights Day", "General Manager's Service Day" and "Listen to hotline 10000". The Company timely responded to users' claims and complaints. In 2017, the Company responded to hot topics like 'canceling the long-distance and roaming tariff in a timely manner and improved relevant services. The Company actively cooperated with the industry authorities on junk messages management. In 2017, the Company continuously improved systems and procedures to effectively control the number of complaints on junk messages received from China Telecom.

The customer complaint rate of China Telecom for 2017 was lower than the target set by the Ministry of Industry and Information Technology, which remained at a relatively low level amongst its industry peers.

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Offering customers a better experience

The Company continuously enhances capabilities for core services. In 2017, according to the customer experience and perception, the Company further promoted the dynamic optimisation of 4G network and provided customers with services like 'web history tracking inquiry' and 'getting global roaming service with one click'. For the broadband service, the Company made a commitment of "installation within one day, repairs within one day, compensation in the event of delay", and organised a professional engineering team to provide intelligent Wifi networking service to further facilitate the convenience of customer self-service. The platform processing capability of BestPay was enhanced while the interface process of customer service was optimised, increasing the efficiency of business operation. e-Surfing HD service provided mobile self-troubleshooting service. A service system for Internet of Things was built, in which self-service function was provided to customers through WeChat public account and self-service portal systems. The Cloud Computing and Big Data businesses improved the customer service system so that the self-service capability at the customer end is improved.

The intelligent service capability has been substantially enhanced. In 2017, the Company created the "Smart 10000" and applied the artificial intelligence and Big Data technology to improve the quality and efficiency of "Hotline 10000" service. The "construction and operation of all-media intelligent customer service" was awarded the first prize at the first National Quality Service Competition held by China Association for Quality. The Company persisted in innovation of smart communication means by providing "quick, simple and beautiful" video live customer services. The Company embedded service robots at service points which served more than 50 million customers a month. The Company also continuously enhanced the new media services capability such as WeChat, of which users of new media customers services reached 300 million.

The Company consistently improved customer experience. In 2017, the Company formed a dedicated team focusing on new packages and new services, such as large data traffic packages, BestPay and family cloud to gain customers' experience; for problems identified during the progress, closed-loop system process was in place to implement feedback, rectification and tracking against the issues found, so as to improve the operation services continuously. In self-owned stores and community stores, the Company set up Smart Family demonstration area to enhance customer experience of Smart Family through the physical display of products like e-Surfing HD and intelligent Wifi networking. The user experience platform UE189 developed and operated by the Company worked effectively and won the prize at the China UX Innovation Awards organized by User Experience Alliance China and other organisations.

According to assessment conducted by the Ministry of Industry and Information Technology, in 2017, the customer satisfaction rate on Internet access from both mobile and wireline broadband of China Telecom continued to maintain leading position in the industry.



Customer First Service Foremost

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IV. Fulfilling our responsibility towards our employees

China Telecom safeguards the interests of its employees in accordance with the laws, attaches great importance to building harmonious labour relations, supports labour unions in carrying out their functions, encourages the employees to participate in the management and actively helps the employees to improve their capabilities, so that the Company and the employees can grow together.

Safeguarding the rights of employees

The Company strictly complies with and implements the relevant laws and regulations regarding labour and protection of the employees' rights and interests including the *Labour Law of the People's Republic of China*, the *Labour Contract Law of the People's Republic of China* and the *Trade Union Law of the People's Republic of China*, and protects the rights and interests of employees with respect to labour rights, democracy rights and spiritual culture in accordance with the laws. The Company strictly implements the *Notice on Standardisation of Labour Management in Strict Compliance with the Labour Contract Law of the People's Republic of China*, improves the staff management system, strengthens the labour contract management and employee relationships and conducts workforce employment in accordance with laws and regulations. The Company also ensures that all contract employees have their labour contracts signed and their social insurances paid. The Company strictly implements the *Notice on Issues concerning Labour Dispatch Management*, improves the business operation models and job role classification, determines the employment form of each role, standardises the agreements signed with contract or agency workers and urges these dispatch units and dispatch works to sign employment contracts, pay social insurance and to protect the rights and

interests of contract or agency workers. The Company adheres to principles of gender equality, ethnic equality and equal pay for equal work, protects the privacy of employees in accordance with laws and implements the paid annual leave system. The Company prohibits child labour and forced labour in accordance with laws. In 2017, no child labour or forced labour were found. The Company supports the labour unions in carrying out their functions in accordance with the laws, encourages the employee participation in management and continuously establish a stable and harmonious relations with the employees.

Actively promoting employee growth

The Company strengthens the construction of high-level professional talents team. In 2017, the Company implemented *China Telecom high-level professional talent management measures* and continuously optimised various systems and procedures for talent "selection, cultivation, utilisation and retention"; supported by the group professional workstation, the Company experimentally implemented the talent cultivating and sharing plan which



"Young cadre e-Surfing training camp" for the growth of thousands of young employee

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combined research, education and production, established professional workstations in two key areas namely, industry applications and network operation. According to the needs of major projects, a professional talent pool for these projects was created. The Company fully leveraged on the functions of professional talents and enhanced their capabilities via on-the-job training.

In line with the needs of corporate transformation and development and employees' needs, the Company implemented the tailored training program. The Company continuously built up the training capabilities of China Telecom College and China Telecom Online College and developed courses focusing on various job levels and skill needs of each role, initiating differentiated training courses. In 2017, the Company allocated resources tilted towards training for frontline employees, strengthened the on-the-job practical training for "Unit CEO", including frontline employees like frontline sales personnel, backed-end maintenance personnel and network system support staff, which was much appreciated by the frontline staff. The Company was awarded the "Excellence in Practice Awards" by the Association for Talent Development (ATD) and the "Award of Excellence" by International Society for Performance Improvement (ISPI) for the "Unit CEO" training.

The Company actively urges the employees to develop and improve their skills and enhance their values concurrently. In 2017, the Company consistently held various staff skill competitions and knowledge contests, fully mobilised the function of innovation workshops, guided the staff to improve their capabilities and quality and encouraged them to strive for innovations in their daily job, enabling employees to attain value enhancement and pursue personal development.

Enhancing production safety and health and safety management

The Company sincerely implements the *Work Safety Law of the People's Republic of China*, effectively fulfills the core responsibilities for corporate safety production, continuously perfected safety production management system, clearly defined safety production duties, and strengthened performance evaluation. The Company establishes and improves its 'dual preventive mechanism' of risk management, including identified risk matrix and early elimination of hidden dangers, continuously checks safety production, strengthens supervision on the construction units and on-site inspection, and timely eliminate hazards; conducts safety production spot checks at the branches in 20 provinces (autonomous regions, municipalities) during the year, issues the assessment reports and list of questions identified, and promptly pushes forward the rectification. The Company carries out the activity of "safety production month", widely

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promotes relevant laws and regulations as well as internal policies and rules on production safety, persistently increases the employee awareness on safety, sense of self-protection and self-check, and enhances the training of special operation employees, ensuring all of them obtain licences to operate. By the end of 2017, there was no occurrence of severe casualties and accidents.

The Company attaches great attention to occupational health and safety by regularly organising the employee medical examination and continuously improving workplace environment, thus effectively eliminating the occurrences of occupational diseases. The Company continuously conducts employees assessment programs (“EAP”) and other counselling activities concerning mental health of the employees, and proactively helps the employees reduce their physical stress.

Caring employees' lives

The Company perfects the closed-loop management mechanism from gathering, analysis, processing and feedback to understand employee grievances and establishes communication channels with combination of traditional approaches like seminars, enquiries and interview, face-to-face activity, employee forum and online platform, striving to enhance the communication. The Company proactively responds to staff requests, promotes normal sympathy, express cares to employees such as special help for vulnerable employees, medical care consultation service and the provision of medicine cabinet, to offer practical solutions to the employees with needs. In 2017, the Company insisted to offer employees routine care and visits frontline employees with needs, proactively built and promoted ‘Four-Small’s namely small canteens, small bathrooms, small

washroom and small activity rooms, continuously built ‘Mummy Cabins’ responding to the special needs of female employees, organised cultural and sports activities in which the employees were interested, to assist the employees in achieving work-life-balance and to increase the sense of blessings.

V. Fulfilling the responsibility for environment

China Telecom complies with the *Environmental Protection Law of the People’s Republic of China*, the *Energy Conservation Law of the People’s Republic of China* and other laws and regulations related to environmental protection, practises the concept of green development, endeavours to build a green network, pushes forward green operation to effectively protect the environment. The Company sets up environmental indicators, releases collected performance data on a regular basis, proactively communicates with the society of its environmental protection actions and effectiveness and willingly opens to public scrutiny. There was no violation of environmental protection laws and regulations as well as no material impact on the environment caused by the Company in 2017.

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Promoting energy conservation and emission reduction

The Company implements rules on energy conservation and emission reduction, through means like rules and regulations, work plans, assessment evaluation etc., applies energy conservation and emission reduction requirement to link through various operation activities such as procurement, construction, operation and office administration. China Telecom endeavours to reduce energy consumption of all kinds as well as greenhouse gas emission.

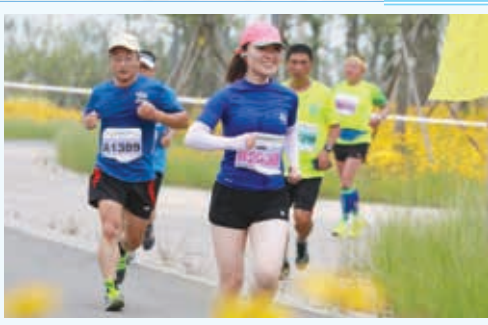
The Company consistently reduces energy consumption in network operation. The Company prefers low energy and environmentally friendly products when purchasing new equipments and proactively brings in new technologies to build the fibre network which is enabled to be more energy savings. In 2017,

the Company persistently replaced the obsolete equipment with high energy consumption, and completed the exiting of traditional TDM program-controlled exchange end office from the network; constantly promoted the integration of our business platforms with 'cloud resource pool', actively applied energy-saving technologies in the construction of machine rooms and base stations, further extended the coverage of the energy-saving technological application coverage for fundamental ancillary facilities and actively promoted the optimisation and redundancy reduction of such facilities, further advanced energy consumption in sub-divisions evaluation, to further enhance precision management of energy conservation and emission reduction. In 2017, the unit energy consumption per information flow was 7.1 kgce/TB.

The Company proactively promotes energy efficiency approaches in the fields of operations, office administration and trainings. The Company accelerates the development of e-channel and constantly promotes the usage of e-channel in order to expand the proportion of e-channel amongst all channels. The Company advocates and encourages conferences or trainings by video, standardise and establishes the KPIs on the proportion of video conferences and trainings applied throughout the year as an assessment tool. The Company actively induces employees to learn and attend trainings via online channel by online college.



"Love with e-Surfing" volunteer service team participated in the tree planting day



China Telecom employees took part in social welfare activity



Energy saving and go green

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Conservation of natural resources

The Company promotes water conservation. The Company strengthens the management on water usage, actively carries out sewage disposal and treatment work, and promotes reuse of waste water, popularises water-saving appliances, and performs regularly checks and repairs on each section of the water supply system to prevent occurrence of “water runs all the time” and “water runs without being used”. The major source of water is municipal water and reclaimed water is also used to certain extent. Within the reporting period, no water originated from its source has constituted major material impact.

The Company encourages paper saving. The Company actively pushes forward measurements on its paper use. According to the preliminary estimates, the amount of paper used in 2017 was approximately 2,000 tons. The Company, from the perspectives of technical and procedures, proactively reduces paper use in operation sites and office facilities, and popularises electronic VAT invoice, electronic bills and paperless operation. In 2017, the Company connected its financial system in alignment with the system of the tax bureau, achieving automatic check of invoice authenticity and ceasing to provide the original paperwork for authentication checks.

The Company deepens reverse logistics by implementation of measures on reverse logistics, enhances the recycling, disposal and utilisation of waste and used materials, to effectively save resources and to reduce environmental pollution. In 2017, the Company constantly promoted the recycling, utilisation and harmless disposal of such waste and old materials as batteries, copper cable and wireline devices. Since the traditional lead-acid battery contains large amount of heavy metal, waste acid, waste alkali and other electrolyte solution, discarding battery carelessly will create water pollution and damage the crops and land. The

Company, on one hand, conducts overall on-site evaluation on the environmental protection practices of the battery supplier, and constantly purchases green and energy-saving products such as high temperature resistant lead-acid battery and lithium iron phosphate battery, and on the other hand, the Company gradually establishes a complete management system for battery recycling and disposal, and complies with relevant state laws and regulations in terms of recycling, transportation, storage and transfer, to prevent pollution. The Company centralises the trade and transfer of waste copper cables generated from the ‘Fibre roll-out’ campaign, through public auction, etc., to ensure openness, justice and fairness. The Company constantly enhances the recycling and reuse of equipments like wireline terminals through measures such as refurbishment and cross-provincial re-allocation, etc., to improve resources efficiency and to mitigate the risk of environmental pollution. Waste and used materials without recovery value are properly disposed in strict accordance with state regulations after taking full account of the environmental impact.

Emphasising environmental protection in engineering construction

The Company has taken proactive environmental protection measures regarding issues in telecommunications engineering construction concerned by the government and the public, such as farmland protection, equipment pollution, construction impact and electromagnetic radiation.

In the aspect of farmland protection, the occupied lands for residential use and other used lands will be preferred in site selection for base stations, to the greatest extent that no additional farmland will be occupied.

In the area of equipment pollution, non-polluted equipment with low noise and electromagnetic and free of pollutants will be preferred.

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In the aspect of construction impact, mineral reserves, forest, grasslands, wildlife habitats, natural and cultural relics, natural reserves, scenery areas, etc. are intentionally avoided when conducting routing roll-out deployment for fibre cables, so that the surrounding environment will not be changed.

In regard to electromagnetic radiation, the Company monitors and assesses the electromagnetic radiation around the base station, opens to public scrutiny, enhances communication with the community and respects voices from the community, strictly controls the quality of network equipment by imposing controls from the source, actively takes advanced technical means to refine the layout of base station, so that the emission is lower than the national standards.

Promoting co-construction and co-sharing of communication infrastructure

The Company closely worked with other telecommunications operators and China Tower Corporation Limited, actively pushing forward the co-construction and co-sharing of such infrastructures as base stations, channels and pole lines, to effectively reduce repeated construction, to protect the natural environment and landscape, and to reduce the land use and energy and raw materials consumption. In 2017, the Company provided more than 22,000 kilometers of shared pole line, more than 1,500 kilometers of shared pipeline, and more than 1,200 sets of shared indoor distribution system.

VI. Promoting obligation performance by the supply chain

China Telecom strictly follows the purchase-related state laws and regulations as well as its internal management rules on purchase,

consistently adheres to the management concepts focusing on value-added, sunshine and green procurement, commits to a trusted relationship with suppliers to achieve win-wins, and actively communicates with and encourages its suppliers to fulfill social responsibilities together.

Regarding value-added procurement, the Company implements requirements on quality of the purchased materials, expands the scope of quality inspection, improves supplier performance management, reviews the supplier evaluation system, enhances the application of data from above-mentioned supplier management activities in purchase bidding evaluation, and facilitates the supplier to improve the delivery performance.

Regarding sunshine procurement, the Company strictly complies with requirements of regulations on management of the purchase bidding and tendering, and constantly promotes open bidding and transparent sourcing. In 2017, the Company organised its first competition on purchase regulations knowledge, in which over 8,700 personnel from 40 business units participated, promoting the standardisation of purchasing activities; released 85,000 sourcing notices, which increased by over 3 times over 2016.

Regarding green procurement, the Company constantly promotes the application of green procurement index in the sourcing process, increasing the purchase of energy-saving products. DC power modules purchased in 2017 accounted for 94% of the high efficient power modules and the unit energy consumption of the sourced key specialised equipment was 2.8% lower than that in 2016.

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VII. Participation in social welfare activities

China Telecom voluntarily participates in social welfare activities. The Company implements the measures on donation, under the principles of 'voluntariness, clear accountability, action within capabilities, being honest and trustworthy', supports the development of technology, education, culture, sports and health care through multiple ways, and helps the vulnerable, disabled and disadvantaged. The Company encourages its employees to carry forward the spirit of volunteerism, and actively participate in volunteering activities of various types.

In 2017, the Company constantly assisted the parent company to carry out fixed-point poverty alleviation and supported the allocated area, The Company sponsored projects in fields like infrastructure, digitalisation, educational training, agriculture, sanitation and technology in 5 counties, including Banbar County of Tibet Autonomous Region, Yanyuan and Muli Counties

of Sichuan Province, Shufu County of Xinjiang Uygur Autonomous Region and Tianlin County of Guangxi Zhuang Autonomous Region.

The Company constantly promotes the application of the Big Data Management platform for targeted poverty alleviation to all regions which makes it possible for the poverty alleviation administration authority to manage at village, household and individual level and to facilitate the measurement implementation. By the end of 2017, the management platform was deployed to 718 counties in 15 provinces (autonomous regions, municipalities), benefiting more than 31 million population living in poverty. The Company actively promotes information construction in rural areas to relieve poverty, constantly builds online platform for farmers, improves network services in rural areas and facilitates the market entry of agricultural products to the city. By the end of 2017, the number of farmer cooperation reached 65,000, covering 579 counties (districts) in 23 provinces (autonomous regions, municipalities) and benefited over 9 million farming households.



"multi-mode" handsets gained popularity in Tushan temple fair



Introduced emergency communications to schoolchildren

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Human Resources Development Report

In 2017, our work on human resources has firmly adhered to the Company's overall strategies in transformation and upgrades. We further liberalised our thoughts, innovated mechanisms, solidified foundation, standardised management and optimised the allocation of existing resources in order to continuously enhance human resources efficiency and provide sound organisational assurance and personnel support for the corporate sustainable and healthy development.

I. Strengthen senior management and executive team building. Integrating with the structural adjustment of executive team, we continue to promote younger cadre team and optimised the leadership structure of our provincial and municipal branches. Through methods including selection and recruitment, job exchange programs and rotation, as well as succession and retirement, we adjusted our executive teams among headquarters, provincial branches, professional units and sub-organisations. A group of well-recognised executives with superb qualities, distinguished capabilities and outstanding performance were selected and promoted to important management positions, hence the professional and age structure of our management teams became more reasonable and balanced. We increased our efforts in training reserve cadres so as to achieve full coverage of practical training on reserved deputy cadres of provincial branches and provide the back-up reserve talents pool for corporate development.

II. Strengthen the supervision and guidance on staff selection and appointment. Insisted on problem-oriented approach, we embed staff selection and appointment inspections into internal review with concurrent deployment and commencement, achieving full coverage of selection and appointment inspections. By launching deepened staff selection and appointment specific governance work, we implement rectifications according to categories so as to ensure specific governance work attaining effective results. The unification of the development of online selection and appointment supervision system has effectively reduced irregular staff selection and appointment practice and unconscious working errors or omissions.

III. Firmly establish "Talent Strong Enterprise" development strategy and clearly define talents work planning and goals to actively promote key tasks on talent management. In 2017, the Company further defined talents work planning and goals of "Hundred, Thousand and Ten Thousand Professional Talent Project". We fully optimised the eco-system for talent development and increased our efforts in innovation and attraction of talents, achieving new progress and new breakthrough in the area of talents work.



Management exchanged ideas with frontline network maintenance technical experts

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Human Resources Development Report

IV. Continuously optimise the structure of human resources. In 2017, according to the actual circumstances of business development of various provincial companies and the actual needs of adjusting workforce structure, we further optimised the total staff size control methods and reduced total staff size control for the provincial branches with rapid business development and high per headcount efficiency. Meanwhile, we provided tools and guidelines in managing staff size and optimisation of structure through annual efficiency benchmarking for provincial branches.

V. Enhance precision management of human resources and promote smart operations of human resources. With centralised MSS human resources system as the carrier, we strengthen connection and applications of human resources information and work information through injecting intelligence in Big Data application and management. In 2017, we carried out smart human resources pilot projects in Anhui and Zhejiang. Focusing on frontline customer-facing staff and surrounding the promotion of “three forces”, we commenced staff profiling and injecting intelligence in management, achieving precision allocation, precision motivation and precision cultivation so as to enhance execution capability.

Information of Employees

As at the end of 2017, the Group had 284,206 employees. The number of employees working under each classification and their respective proportions were as follows:

	Number of Employees	Percentage
Management, Finance and Administration	44,289	15.6%
Sales and Marketing	141,261	49.7%
Operations and Maintenance	89,047	31.3%
Research and Development	9,609	3.4%
Total	284,206	100.0%

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Human Resources Development Report

Corporate - Employee Relationship

Communication between Management and Employees

We endeavour to maintain close connection with employees and understand the employees' issues in all aspects. We established employee representative system at the group level to further standardise corporate employee empowerment. We also created a platform for employees at the group level to participate in company's affairs so as to facilitate the implementation of employees' rights of knowledge, participation, expression and scrutiny. In addition, we convened the Employees' Representative Congress to listen to the general managers work report, reports of employees' protection and development and "Four-Small" construction employees' caring report. On special occasions such as holidays and important events, we innovated and carried out micro-surveys such as "International Working Women's Day" female employees' wishes, "National May 1st" outstanding model workers' thoughts and demands, "Four-Small" demands of employees from northern branches at county level, comments and recommendation of cadres of labour unions and employee representatives. We also conducted micro-surveys on employees who participated the training

every session. Our labour unions at provincial level initiated various survey activities such as micro wishes. In total, over 50,000 individuals participated. Through multi-type, multi-layer and multi-frequency surveys, we had more comprehensive, deepened and precise understanding in employees' thoughts and working and living conditions. The understanding rate of complaint channels among frontline staffs reached 93%.

Cadres of labour unions at all levels, employees' representatives and heads of labour unions insisted on in-depth investigations of frontline employees' conditions, assisting in reflection and facilitating solving of employees' difficulties and complaints. Through initiation of investigations on the platforms such as "Dual Hundred", WeChat, YiChat and OA, we attended to the employees' discussions and feedbacks on the Internet and understood employees' condition via different channels. Labour unions at all levels held employees forum, visited staff families and employees at the frontline of production, received employees' letters and visits as well as conducted online and offline questionnaire surveys, etc., at 62,000 times. In addition, we collected more than 16,000 employees' requests. All these measures facilitated the employee resolution rate of reasonable requests reached 86%.



Management provided guidance for emergency support



Management instructed employees at sales outlets

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Roles and Duties of Labour Unions

Surrounding stimulation of vitality of employees, enhancement of capabilities and strengthening execution capability, we carry out job innovation activities to motivate employees to love and respect their jobs, make contributions so as to foster development. The Company launched “My job, My innovation” theme activities while the online activities emphasised fun and interaction. General knowledge competitions themed as Transformation 3.0, discipline inspection, production safety, employee empowerment and confidentiality were hosted on “Dual Hundred” platform with 370,000 participants in total. With the launch of job innovation “Xiao Xin San Wen” topics sharing activities, our employees shared nearly 10,000 topics. The “I want to share” module effectively promoted the exchange, replication and promotion of good practices and outstanding results. By carrying out “My team, My home” activity, more than 265,000 people participated in online communication and discussion, and selected 100 excellent teams. Offline activities emphasised effectiveness. Through job innovation training classes, promotion of outstanding job innovation employees’ stories and recognition of excellent achievements, the enthusiasm of frontline employees devoted into job innovation was significantly stimulated.

During the periods of “International Working Women’s Day” and “National May 1st”, the Company obtained a total of 205 external honours at provincial and ministerial levels or above. To vigorously promote model workers spirit and craftsmans spirit, we held forums to recognise the model outstanding employees and members of our senior management team met

with representatives. 1,130 innovation workshops for model workers and employees were established. 32 employees were awarded the title of “Technical Master of China’s State-owned Enterprises”. 21 employees were awarded the title of “Labour Master of China Telecom”. 81 employees were awarded the title of “Technical Master of China Telecom” while 7 employees were awarded the title of “Experts of Job Innovation of China Telecom”.

Coordination and Communication between the Company and the Labour Unions

Surrounding key task and major work of transformation and upgrades, we organised 14 various competitions such as “Excellent Marketing Skills Cup”, “Integration Cup” and “e-Surfing Cloud Cup” jointly with relevant business departments. The Company also organised 4 phases of exchange programmes of outstanding staff by categories and carried out selection activities for outstanding job innovation teams and individuals. The Company organised more than 4,600 competitions including labour competitions, skills competitions and knowledge competitions, which effectively promoted the accomplishment of operating production tasks and enhancement of the employees’ skills. Labour unions at all levels motivated employees to be conscientious and innovative and actively established platforms to create an environment for innovation. The Company carried out more than 2,700 activities to encourage employees’ innovation in their own job, resulting in more than 17,000 job innovation achievements and more than 3,700 recognitions.

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Caring for Employees

With persistent enrichment in connotation and expansion in outreach, we promoted “Four-Small” activities by continuously solving basic livelihood difficulties of staffs, concerned problems as reflected by employees and helping female employees to solve special difficulties, so as to help our employees to solve their practical problems in a timely manner. Units at all levels updated and maintained the obsolete “Four-Small” facilities and adopted measures to enhance standard of catering service to the staff. More than 2,700 “Four-Small” facilities were newly built while 14,500 established “Four-Small” were consolidated and enhanced. The investment amounted to RMB280 million while the staff satisfaction rate on catering service reached 95%. We coordinated northern counties’ branches to set up “Four-Small” and discussed the promotion of “Four-Small” construction of northern counties’ branches.

Labour unions at all levels do solid work and solve difficult problems for employees, cumulative of more than 15,000 employees’ problems were effectively tackled in total. In the aspect of physical and mental health, we organised more than 4,000 activities such as psychological counselling, EAP trainings and activities for personal growth and pressure relief. We installed more than 2,000 air purifiers, more than 5,000 water purifiers and 12,000 small medical boxes for frontline units. Medical services were provided to more than 29,000 individuals. In regard to difficulty assistance, we helped 22,000 employees who were in difficulties and invested more than RMB50 million in the relief fund. In the aspect of employee care, routine care and visits covered cumulative of 645,000 employees and RMB160 million was allocated to the sympathy fund. We also visited staff families for more than 27,000 times and expressed our sympathy and care to more than 14,000 employees

having kids taking examinations. We also carried out more than 11,000 staff engagement activities such as childcare and office open day for employees’ families. Regarding the care of female employees, we built 1,045 “Mummy Cabins”, distributed approximately 3,000 radiation protection suits to female employees during pregnancy and carried out more than 3,000 activities for female employees during the “Women’s Day”. In terms of recreational and sports activities, the Company’s labour unions held the first “e-Surfing Cup” employee badminton competition. Labour unions at all levels organised nearly 3,000 matches and activities which involved 250,000 employees. The “e-Surfing Cup” mobile photography contest was held and 15,000 photos for contest were received in total. The Company’s labour unions at all levels carried out more than 33,000 recreational and sports activities with participation rate of employees reaching 88%.

Strengthening Human Capital

In 2017, we actively undertook and participated in the national knowledge updates project for professional and technical personnel. In August 2017, China Telecom held the knowledge updates project training class of the Ministry of Human Resources and Social Sciences at Zhejiang Telecom Training Centre — “Advanced Training class on Information Security in the Big Data Era”. A total of 87 professional and technical personnel and management personnel related to information system and information security from the government, enterprises, universities, computer associations and communications industries attended the training.

In 2017, we actively promoted the construction of national-level professional and technical personnel continuing education base. In 2017, as a national-level professional and technical personnel continuing education base, our Zhejiang Telecom Training Center leveraged its

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industry advantages on the professional and technical personnel training while focusing on the adjustment of economic structure, the development of high-technology industries and the enhancement of self-innovation capabilities. In 12 key areas and 9 modern service industries, we implemented short-term training programs for training and cultivation of talents that are in urgent demand, endeavouring to become the service platform for cultivating high-level, urgently-needed, and backbone professional and technical personnel for the nation.

In 2017, China Telecom endeavoured to promote the construction of the first batch of the state's model in mass entrepreneurship and innovation. In 2016, China Telecom became one of seven companies being the first batches of the state's model in mass entrepreneurship and innovation. To fully exploit the advantages of corporate innovation and resource integration capabilities, in 2017, China Telecom closely focused on the corporate transformation and upgrades strategy, and endeavoured to build a "five-in-one" systems and mechanisms in mass entrepreneurship and innovation in alignment with frontline entrepreneurship platform, technology research and development institution, product innovation base, business incubation platform and self-innovation activities, which strongly stimulated the vitality of innovation and entrepreneurship within the Company and drove all employees to participate in innovation and entrepreneurship. Meanwhile, through open-source software talent training camps, data analysis and excavation talent training camps, ecosphere operation elite training camps and product manager training camps, employees' skills and capabilities in innovation and entrepreneurship was continuously enhanced.

Efficient operations of online college

In 2017, with full exploitation on the functions of online college in the field of Internet learning, we continuously carried out platform construction, product iteration and business operations. Throughout the year, we added 3,348 online learning resources (including 1,341 courses) with length of study of approximately 4.49 million hours, with 270,267 students accumulated in total. 64 post certifications were also organised, covering a total of 100,965 individuals. We vigorously promoted and operated online training class products and promoted the holding of 553 online special classes within the Company, a total of 249,194 employees registered. Mobile learning products have a daily activity of 16,300 people, representing an increase of 30% from 2016. Focusing on key businesses, we launched various quality resource learning packages, covering a total of 257,074 people. We also operated two types of online live courses, namely "Internet + New Classroom" and "New Network Technology Class", covering 114,073 people. In addition, we operated Unit CEO learning zone and built Unit CEO business school covering 103,379 people.

Building up the Internal Training Team

The construction of the internal training team system and team building has new progress. The first was to establish systems of internal trainer points and grade management so as to further improve the incentive and recognition mechanism for internal trainers. The second was to carry out annual appointments of internal trainers at the group level. We newly-added market and discipline professional group-level internal trainers so that the group-level (exclusive) internal

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trainers were no longer distinguished by professional categories. In 2017, a total of 44 group-level (exclusive) internal trainers, 281 group-level internal trainers (including regular ones) and 195 group-level internal trainers were employed. As of December 2017, the Company established internal training team for 8 specialties and 31 sub-specialties, and the group-level internal trainers (including trial recruitment) reached 1,070 individuals. The third was to adjust the remuneration standards for internal trainers. The remuneration standards of the group corporate-level internal trainers were doubled on the basis of the original standards.

Developing leadership skills

We achieved full coverage of the training of operation management personnel at provincial level and completed the full coverage of training for leaders at all levels. In 2017, the Company organised the seminar for general managers of provincial companies, the seminar for deputy general managers of provincial companies, the special training courses for new deputy general managers of provincial companies, 2017 China Telecom Spring Division-level Cadre Training Course (headquarters sent 5 people for the first time for a 100-day intensive training), China Telecom Entrepreneurs Training Camp A7, A8 class, the seminar for general manager of city-level companies, intensive training for leading the transformation for thousands of people, the training camp for new deputy general manager of the city-level companies, totaling 25 sessions with the number of man day reaching 10,965 (an increase of nearly 20% over the previous period). Meanwhile, seminars were held for managers of outstanding counties companies, and a total of 9 phases of strategic decoding training

camps for city-level companies were held. Throughout the year, the leadership training, open classes, and training of internal trainers covers the total number of leading cadres at all levels of 1,517 individuals, reaching 12,143 man day.

Cultivating professional talents

In 2017, the Company further defined the human resources work target and development plan of the "Hundred, Thousand and Ten Thousand Professional Talent Team Building", that is, "building 50 to 100 chief experts of the group, about 1,000 group experts and about 10,000 provincial company experts and city-level company expert team", clarifying the division of labour and job responsibilities and determining the professional classification of technical, marketing, and comprehensive talents, and further optimising various systems and processes for talent "selection, cultivation, utilisation and retention". By the end of 2017, the Company had 7,910 experts at various levels. The overall layout of the "Hundred, Thousand and Ten Thousand Professional Talent Project" achieved initial results.

From the perspective of selection, cultivation, utilisation and retention, we strengthened the transformation of talents through the open-source online programming examinations and a variety of innovative personnel training models. The Company's two transformation talent teams of open-source talent and Big Data began to take shape. We established a practical training base for industry-university-research collaboration represented by the OTMS transfer talent workstation. Through the tagging of transformation of talents, Big Data was used to drive intellectualisation of talent management upgrades.

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Staff capacity building

The Unit CEO talent training program doubled in size. For the third consecutive year, the “China Telecom Unit CEO Talent Cultivation and Capacity Improvement Project” was launched. A total of 73 Unit CEO training courses were held at the corporate level and the joint regional training project was carried out creatively, carrying out direct face-to-face teaching on 3,323 people, accounting for nearly 10% of the total number of Unit CEOs. Among them, there were 12 classes for internal trainers and 480 instructors were authorised to deliver training courses. This project was awarded “Excellence in Practice Award” by the Association for Talent Development (ATD) of United States in May 2017.

The Company’s front-end and back-end professional and talent personnel training fully achieved the transition to actual combat and attained remarkable results. The first was the “Value-Creation Marketing, Training and Production Integration Project” of the government-enterprise professional line. It was awarded the 2017 China Performance Improvement Best Practice Model Award by the International Society for Performance Improvement (ISPI). The second was the “Training and Recommendation Project” of the entity channel line. It was awarded the 2017 China Performance Improvement Best Practice Award by the ISPI. The third was “Prospective Sailing” key business promotion of the market professional organisation. A new breakthrough was made in creating a best practice case study training camp. The fourth was that the network operation and IT profession are subject to action learning and practical training. Based on the cultivation of the original B-level talents, we started talent workstation model and created new results.

Nurturing and inducing brilliant young talents

We promoted internship programme operation and management on a regular basis and organised spring and summer internship programmes with our “Surfing internship platform”, providing a total of nearly 2,348 internship positions cumulatively from telecommunications companies and their subordinate units in 2017. We also continued to organise the top graduate cultivation programme. In 2017, units at all levels selected over 1,400 top graduates for this programme. The Company organised corporate-level outstanding graduate demonstration class and 3 sessions of demonstration class for top graduates with the participation of 208 outstanding young staff representatives.

Recruitment

The Company recruits university graduates and mature talents from the society. The Company organised unified platform, unified advertising and unified key universities promotion and talks to recruit university graduates. In 2017, the Company recruited more than 7,000 graduates. Upon joining the Company, the new graduates generally have to attend 1 to 2 months of induction training to help them understand the corporate strategies, culture and business of the Company. In order to promote the integration



Management shook hands with the winners of “National May 1st Labour Medal”

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of new employees into the corporate culture, accelerate the growth of new employees and enhance the competency of new employees, in 2017, the Company expanded the pilot program for new employee tutoring projects. For the recruitment of mature talents, the units at all levels organised the recruitment in accordance with the needs of the business development.

To provide opportunities for the employees' career development, the Company developed a comprehensive dual promotion channel. Promotion is based on the principles of fairness, justice, openness and transparency. The Company fully respects employees' rights of choice, knowledge and scrutiny.

In the recruitment and promotion processes, the Company treats all candidates and employees equally regardless of gender, age and race.

The Company strictly abides by the national regulations relating to employees' working hours and implemented the *Regulations on Paid Annual Leave for Employees* promulgated by the State Council and formulated the relevant policies in relation to employee vacation.

The Company strictly abides by the laws and regulations such as the *Labour Contract Law of the People's Republic of China* and constantly improved the management system relevant to employees. Taking into account the actual circumstances of the Company, we implemented relevant system and developed detailed provisions for termination of employee labour contracts.

Remuneration and Performance Management

Remuneration

With the implementation of positions as foundation and establishment of a close and direct linkage between performance and contribution, the differentiated remuneration distribution system of the Company applicable to different characteristics of positions is mainly comprised of post salary, performance salary, allowance and subsidies, insurance benefits, etc.. Meanwhile, all units are encouraged to actively explore remuneration distribution methods that meet different positions' characteristics according to its business development requirements, including annual salary system, incentive wage system, project wage system and piece-rate wage system. We adhere to performance-oriented and fairness in internal distribution and tilt towards high-quality professionals and the frontline staff so as to encourage more pay for more work.

Persisting in the optimisation and perfection of labour costs resources allocation, as well as the close linkage between corporate development and performance contribution, we implement differentiated resources allocation model for various units integrating with its own characteristics, and fully mobilise the enthusiasm and initiatives of development of various units, encouraging everyone to adhere to "high contribution, high yield" and "early development, early benefit".

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Performance management

The Company has established a relatively comprehensive performance evaluation system for all of its employees. Branches at all levels have established employees' performance evaluation teams which are led by the respective general managers of the relevant branches and have formulated evaluation methods for deputies, functional departments, subordinated units and general employees. The Company improves its employee evaluation and incentive mechanism and the related scrutiny and supervision system to ensure the fairness and reliability of the performance evaluation results. At the same time, we further optimise and improve the performance evaluation system and implement performance evaluation by categories of business units, deputies, mid-level management and employees of all levels, enhancing the specificity of the performance evaluation work.

Guaranteeing Employees' Rights and Interests

The Company strictly abides by the laws and regulations such as the *Labour Law of the People's Republic of China* and the *Labour Contract Law of the People's Republic of China* to regulate its employment practices. The Company adheres to offering equality of remuneration and work for male and female employees and implements special regulations to protect female employees' rights and interests. There were no discriminatory policies or regulations, nor had there been any circumstance whereby child labour or forced labour was employed.



Premier Li Keqiang visited China Telecom



Premier Li Keqiang conducted video call with "unit CEOs"

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Table of the ESG Indicators

Issues	Name of Indicators	Units	Year 2017
Emissions	Scope 1: Direct Greenhouse gas emissions ¹	million tons CO ₂ e	0.29
	Scope 2: Indirect Greenhouse gas emissions ¹	million tons CO ₂ e	11.22
	Total Greenhouse gas emissions ²	million tons CO ₂ e	11.51
	Greenhouse gas emissions per unit operating revenue	tCO ₂ e/million yuan	31.42
	Sewage emissions ³	million tons	37.55
	SO ₂ emissions ⁴	tons	122.11
	Waste disposal amount	tons	121,276.15
	Waste disposal fee	million yuan	2,629.01
	Waste storage batteries disposal amount	tons	11,588.42
	Waste storage batteries disposal fee	million yuan	83.41
	Waste telecommunications equipment disposal amount	tons	14,005.04
	Waste telecommunications equipment disposal fee	million yuan	114.49
	Waste cables disposal amount	tons	85,561.88
	Waste cables disposal fee	million yuan	2,347.43
	Waste terminals disposal amount	tons	587.56
	Waste terminals disposal fee	million yuan	20.40
	Other waste disposal amount	tons	9,533.23
	Other waste disposal fee	million yuan	63.29
	Domestic waste emissions ⁵	tons	19,134.93

Environmental, Social and Governance Report

Table of the ESG Indicators

Issues	Name of Indicators	Units	Year 2017
	Electricity consumption	100 million kwh	162.76
	Natural gas consumption	million m ³	8.50
	Coal consumption	10,000 tons	0.91
	Gasoline consumption	10,000 tons	6.15
	Diesel consumption	10,000 tons	2.04
	Kerosene consumption	tons	0
	Purchased heat consumption amount	GJ	1,500,277.53
	Purchased heat consumption fee	million yuan	79.37
	Overall energy consumption ⁶	tce	2,191,379.37
	Overall energy consumption per unit of information flow	kgce/TB	7.10
Use of Resources	Overall energy consumption per operating revenue	kgce/million yuan	5,983.63
	Power consumption per carrier frequency at base stations	kwh/carrier frequency	721.77
	Water consumption	million tons	44.18
	Water consumption per unit operating revenue	tons/million yuan	120.63
	Coverage rate of energy-saving technology at base stations	%	67.00
	Coverage rate of energy-saving technology at telecommunications equipment room	%	72.81
	Reclaimed water consumption	tons	36,531.37
The Environment and Natural Resources	Investment in energy saving and emission reduction	million yuan	531.94
	Number of new energy base stations	-	23,337
	Times of video conferencing	-	36,896

Environmental, Social and Governance Report

Table of the ESG Indicators

Issues	Name of Indicators	Units	Year 2017
	4G international roaming countries and regions	–	137
	Domestic administrative village fibre broadband coverage ⁷	%	85
	Domestic administrative village 4G network coverage	%	88
	Internet backbone interconnection bandwidth	G	4,656.31
	International interconnection bandwidth	G	4,902.15
	Call drop rate of mobile communication	%	0.24
	Call completing rate of mobile communication network	%	97.51
	Call completing rate for access line	%	94.86
	Packet loss rate of broadband Internet ChinaNet backbone network	%	0.02
Product Responsibility	Degree of satisfaction of mobile Internet users ⁸	points ⁹	76.40
	Degree of satisfaction of mobile voice users ⁸	points ⁹	80.92
	Degree of satisfaction of fixed Internet users ⁸	points ⁹	75.03
	Degree of satisfaction of access line users ⁸	points ⁹	79.41
	Percentage of in-time response to customer repair reports	%	98.30
	Degree of satisfaction of international customers	points ⁹	90.10
	Number of newly acquired patent authorisation	–	432
	Number of newly acquired invention patent authorisation	–	406
	Cumulative number of patent authorisation	–	1,720
	Cumulative number of invention patent authorisation	–	1,611
	Number of phishing and fraud sites blocked	–	3,744
Anti-corruption	Anti-corruption education programs organised	–	11,478
	Attendance of anti-corruption education and trainings	person-times	598,778

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Table of the ESG Indicators

Issues	Name of Indicators	Units	Year 2017
	Percentage of employees participating in labour union	%	100
	Percentage of female employees at management level	%	19.39
	Total number of employees ¹⁰	–	284,206
	Percentage of employees aged 30 and below	%	13.89
	Percentage of employees aged 31 to 50	%	72.37
	Percentage of employees aged 51 and above	%	13.74
	Percentage of female employees	%	32.39
	Percentage of employees of ethnic minorities	%	6.39
Employment	Percentage of local employees hired in Hong Kong, Macau, Taiwan and overseas branches	%	42
	Total number of newly-hired employees	–	8,888
	Percentage of newly-hired female employees	%	41.56
	Number of resigned employees	–	4,599
	Percentage of female employees among resigned employees	%	34.20
	Total number of dismissed employees	–	337
	Percentage of female employees among dismissed employees	%	26.71

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Table of the ESG Indicators

Issues	Name of Indicators	Units	Year 2017
Health and Safety	Death rate in accidents per 1,000 employees	%	0.0035
	Injury rate in accidents per 1,000 employees	%	0
	Loss of working days due to work-related injury	-	0
	Number of participants in safety emergency drills	person-times	192,958
	Number of participants in health and safety trainings	person-times	263,598
	Participation rate of employee health checkup	%	100
Development and Training	Training expenses per employee	yuan	2,584.60
	Number of internal trainers	-	10,151
	Number of training participants	10,000 person-times	46.62
	Number of senior management trained	person-times	360
	Number of middle-level management trained	person-times	58,884
	Number of general employees trained	person-times	406,913
	Number of female employees trained	person-times	156,666
	Number of participants in skill certification	person-times	88,511
	Number of employees enrolled in online college	10,000 persons	27.03
	Average training time per employee	hours	37.20
	Average training time per senior management	hours	56.71
	Average training time per middle-level management	hours	33.01
	Average training time per general employee	hours	21.88
	Average training time per male employee	hours	23.60
Average training time per female employee	hours	22.33	
Average training time in online college per employee	hours	16.60	

Environmental, Social and Governance Report

Table of the ESG Indicators

Issues	Name of Indicators	Units	Year 2017
	Number of registered employee volunteers	10,000 persons	4.38
	Total service time of volunteers	10,000 hours	47.39
	Number of participants in volunteering activities	10,000 person-times	8.97
	Number of volunteering activities	sessions	9,867
	Volunteer service activities input amount	million yuan	10.75
	Number of participated pole line co-construction	kilometres	5,687
	Number of provided pole line co-sharing	kilometres	22,198
	Number of participated pipeline co-construction	kilometres	3,564
	Number of provided pipeline co-sharing	kilometres	1,533
Community	Number of participated indoor distribution system co-construction	–	9,249
	Number of provided indoor distribution system co-sharing	–	1,299
	Personnel involved in emergency communication support	person-times	111,610
	Number of emergency communication equipment dispatched	set-times	19,494
	Number of emergency communication vehicles dispatched	vehicle-times	25,990
	Number of emergency public service messages sent	million pieces	23.01

Notes:

1. The greenhouse gas is measured based on the Greenhouse Gas Protocol – Enterprise Accounting and Reporting Standards of World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD), the 2006 IPCC Guidelines for National Greenhouse Gas Inventories of Intergovernmental Panel on Climate Change (IPCC) and the Fourth Assessment Report 2007 of Intergovernmental Panel on Climate Change (IPCC), etc.. Scope I: direct greenhouse gas emission includes the greenhouse gas emission from use of natural gas, coal, kerosene, gasoline and diesel. Scope II: indirect greenhouse gas emission includes the greenhouse gas emission from purchased electricity and heating power, where the electricity emission factors shall refer to the base line emission factors of regional power grids in China released by National Development and Reform Commission, Department of Climate Change.
2. Total greenhouse gas emission shall be the sum of Scope I (direct greenhouse gas emission) and Scope II (indirect greenhouse gas emission).
3. The quantity of sewage emission is measured based on water consumption, and the wastewater discharge coefficient shall refer to GB50318-2017 Code of Urban Wastewater Engineering Planning of the National Standards of the PRC and relevant documents of National Bureau of Statistics of the PRC.
4. SO₂ emissions is calculated with the method of the State-owned Assets Supervision and Administration Commission of the State Council.
5. The quantity of domestic waste emission is measured based on the per capita household waste output coefficient as specified in the guidance released by the State Council of the PRC.
6. Overall energy consumption is calculated with the energy statistics calculation method applied by National Bureau of Statistics of the PRC.
7. Domestic administrative village fibre broadband coverage targets the fixed network service area of China Telecom.
8. The 2017 results of “degree of satisfaction of mobile Internet users”, “degree of satisfaction of mobile voice users”, “degree of satisfaction of fixed Internet users” and “degree of satisfaction of access line users” are quoted from the 2017 national telecom service quality satisfaction evaluation by the Ministry of Industry and Information Technology of the PRC.
9. The full mark of user satisfaction measurement is 100.
10. The total number of employees includes the number of contract workers and the number of labour dispatch.

Environmental, Social and Governance Report

Independent Assurance Report

Deloitte.

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Independent Assurance Report

To the Board of Directors of China Telecom Corporation Limited (the "Board of Directors"):

We have been engaged by the Board of Directors of China Telecom Corporation Limited ("China Telecom") to perform a limited assurance engagement on its *Environmental, Social and Governance* performance indicators (see "table of the ESG indicators") in the *Corporate Social Responsibility Report and Human Resource Report ("The Report")* in *Environmental, Social and Governance Report ("ESG report")* of 2017 annual report for the period from 1 January 2017 to 31 December 2017.

Responsibilities of the Board of Directors

The Board of Directors is responsible for preparing *The Report* in accordance with *Environmental, Social and Governance Reporting Guide ("ESG Reporting Guide")* issued by Hong Kong Stock Exchange, and its presentation (including reporting guidelines, limitations, reporting data and relevant identification procedures).

The Board of Directors is also responsible for determining China Telecom's objectives in respect of with Environmental, Social and Governance ("ESG") performance and reporting, including identifying stakeholders and relevant material issues, establishing and maintaining appropriate ESG performance management system and internal control system for obtaining performance information in the report, and maintaining sufficient records.

Our Responsibilities

In accordance with the agreed terms with China Telecom, we are responsible for performing a limited level of assurance engagement on the ESG indicators (see "table of the ESG indicators") in the Report, and expressing an opinion on the ESG indicators. Our work is only for the Board of Directors, and for no other purposes. We do not assume responsibility or accept liability to any other person or third parties for our work or the contents in this Report.

Our Independence and Quality Control

We conducted our engagement in accordance with the independence and other ethical requirements in the *Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants. We maintains a comprehensive system of quality control applying *International Standard on Quality Control 1*.

Basis of Our Work

We conducted our work in accordance with *International Standard on Assurance Engagements 3000: Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* issued by the International Federation of Accountants. We planned and performed our engagement to obtain all the information and evidences which we considered necessary to form conclusions.

Procedures, Scopes and Limitations of Our Work

Our work performed includes interviewing personnel responsible for *the Report*, analysing information, and other steps to collect evidences. Specifically our procedures include:

- Interviewing management and staff responsible for the ESG indicators, to understand the process for determining the key stakeholders and material issues, and applicable controls.
- Assessing the inclusion of the ESG indicators in the Report against requirements of the ESG Reporting Guide, and comparing the sampled original documents from Headquarter with the statements in the Report.
- Establishing acknowledgement of the ESG indicators regarding the Report with China Telecom to perform this limited assurance engagement.
- Analyzing sampled data, and performance claims, reviewing its consistency with our work results, and assessing the effectiveness of the control on the Report preparation procedure.
- Visiting to the head office and the selected 2 branches in Guangdong and Hebei based on the results of risk analysis;
- Assessing the consistency of the key financial data in the Report with the data in the audited financial statements.

Limited assurance conducts process to confirm the credibility of information, and its scope is smaller than that of reasonable assurance. Our work performed is not for the purpose of expressing an opinion on the effectiveness of China Telecom's internal control.

We performed our limited assurance engagement at headquarter and 2 branches of China Telecom in Guangdong and Hebei. We did not carry out such engagement at any other branches and subsidiaries of China Telecom, nor interview with external stakeholders. Moreover, historical data and financial information are not within the scope of our work.

Our Conclusions

Based on our work performed, nothing has come to our attention that would lead us to believe that there is any material misstatement related to the ESG indicators in the 2017 Report.

This is translation of the Chinese language version of the Independent Assurance Report. If there is any conflict between the Chinese and English version, the Chinese version will prevail.

Deloitte Touche Tohmatsu Certified Public Accountants, L.L.P.

28 March 2018



Environmental, Social and Governance Report

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Number	Indicators Description	Page
Aspect A1: Emissions	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. <i>Note: Air emissions include NOx, SOx, and other pollutants regulated under national laws and regulations. Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and Sulphur hexafluoride. Hazardous wastes are those defined by national regulations.</i>	85-86
Aspect A1: Emissions	A1.1 The types of emissions and respective emissions data.	100
Aspect A1: Emissions	A1.2 Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	100
Aspect A1: Emissions	A1.3 Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	100
Aspect A1: Emissions	A1.4 Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	100
Aspect A1: Emissions	A1.5 Description of measures to mitigate emissions and results achieved.	85-86
Aspect A1: Emissions	A1.6 Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	85-86
Aspect A2: Use of Resources	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials. <i>Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.</i>	87
Aspect A2: Use of Resources	A2.1 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	101
Aspect A2: Use of Resources	A2.2 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	101
Aspect A2: Use of Resources	A2.3 Description of energy use efficiency initiatives and results achieved.	86-87
Aspect A2: Use of Resources	A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	87
Aspect A2: Use of Resources	A2.5 Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Not applicable ¹

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Number	Indicators Description	Page
Aspect A3: The Environment and Natural Resources	General Disclosure Policies on minimising the significant impact on the environment and natural resources.	87-88
Aspect A3: The Environment and Natural Resources	A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	87-88
Aspect B1: Employment	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunities, diversity, anti-discrimination and other benefits and welfare.	83-84, 94, 97-99
Aspect B1: Employment	B1.1 Total workforce by gender, employment type, age group and geographical region.	91, 103
Aspect B1: Employment	B1.2 Employee turnover rate by gender, age group and geographical region.	103
Aspect B2: Health and Safety	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	84-85, 94
Aspect B2: Health and Safety	B2.1 Number and rate of work-related fatalities.	104
Aspect B2: Health and Safety	B2.2 Lost days due to work injury.	104
Aspect B2: Health and Safety	B2.3 Description of occupational health and safety measures adopted, how they are implemented and monitored.	84-85, 94

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Number	Indicators Description	Page
Aspect B3: Development and Training	General Disclosure Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. <i>Note: Training refers to vocational training. It may include internal and external courses paid by the employer.</i>	83, 84, 94-97
Aspect B3: Development and Training	B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	103
Aspect B3: Development and Training	B3.2 The average training hours completed per employee by gender and employee category.	103
Aspect B4: Labour Standards	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	83, 99
Aspect B4: Labour Standards	B4.1 Description of measures to review employment practices to avoid child and forced labour.	83, 99
Aspect B4: Labour Standards	B4.2 Description of steps taken to eliminate such practices when discovered.	83, 99
Aspect B5: Supply Chain Management	General Disclosure Policies on managing environmental and social risks of the supply chain.	88
Aspect B5: Supply Chain Management	B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	88

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Number	Indicators Description	Page
Aspect B6: Product Responsibility	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	79-82
Aspect B6: Product Responsibility	B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable ²
Aspect B6: Product Responsibility	B6.2 Number of products and service related complaints received and how they are dealt with.	81, 102
Aspect B6: Product Responsibility	B6.3 Description of practices relating to observing and protecting intellectual property rights.	78
Aspect B6: Product Responsibility	B6.4 Description of quality assurance process and recall procedures.	Not applicable ²
Aspect B6: Product Responsibility	B6.5 Description of consumer data protection and privacy policies, how they are implemented and monitored.	79, 81
Aspect B7: Anti-corruption	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	78
Aspect B7: Anti-corruption	B7.2 Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored	78
Aspect B8: Community Investment	General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	89
Aspect B8: Community Investment	B8.1 Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	89
Aspect B8: Community Investment	B8.2 Resources contributed (e.g. money or time) to the focus area.	105

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Notes:

1. *Packaging materials used for the finished products do not apply to the practice of the Company. Through the identification of substantive issues, we mainly reported the recycling and reusing of the resources such as storage batteries, cables, terminals that the Company mainly use, in the process of operations and services. For more details, please refer to “V. Fulfilling the responsibility for environment” of Corporate Social Responsibility Report.*
2. *Recycling products shall not apply to the practice of the Company. Through the identification of substantive issues, we mainly reported on maintaining network information security, ensuring emergency communication and protecting the rights and interests of customers. For more details, please refer to “II. Fulfilling our inherent responsibilities as a telecommunications operator” and “III. Fulfilling our responsibilities towards our customers” of Corporate Social Responsibility Report.*