



TABLE OF THE INDICATORS

Issues	No.	Name of Indicators	Unit	Year 2022	Year 2021
Emissions	1.	Scope 1: Direct greenhouse gas emissions ¹	million tons CO ₂ e	0.20	0.28
	2.	Scope 2: Indirect greenhouse gas emissions ¹	million tons CO ₂ e	15.57	15.18
	3.	Total greenhouse gas emissions ¹	million tons CO ₂ e	15.77	15.46
	4.	Greenhouse gas emissions per unit operating revenue ¹	tons CO ₂ e/RMB million	32.76	35.18
	5.	Greenhouse gas emissions per unit of information flow	tons CO ₂ e/TB	0.0154	0.0194
	6.	Sewage emissions ²	million tons	28.69	29.55
	7.	SO ₂ emissions ³	tons	24.54	26.86
	8.	Non-hazardous waste produced ⁴	tons	23,296.69	23,243.50
	9.	Non-hazardous waste produced per unit operating revenue	tons/RMB million	0.05	0.05
	10.	Hazardous waste produced ⁴	tons	22,540.19	17,760.76
	11.	Hazardous waste produced per unit operating revenue	tons/RMB million	0.05	0.04
	12.	Electronic waste produced ⁴	tons	31,435.86	39,343.05
	13.	Electronic waste produced per unit operating revenue	tons/RMB million	0.07	0.09
Use of Resources	14.	Electricity consumption ⁵	MWh	26,598,676.90	25,870,117.27
	15.	Natural gas consumption ⁵	MWh	101,412.81	95,563.15
	16.	Coal consumption ⁵	MWh	13,108.48	14,644.36
	17.	Gasoline consumption ⁵	MWh	507,487.19	756,017.63
	18.	Diesel consumption ⁵	MWh	173,041.02	233,367.88
	19.	Purchased heat consumption amount ⁵	MWh	297,184.94	367,109.87
	20.	Overall energy consumption ⁵	MWh	27,690,911.34	27,336,820.16
	21.	Overall energy consumption per unit of information flow	MWh/TB	0.0270	0.0344
	22.	Overall energy consumption per unit operating revenue	MWh/RMB million	57.52	62.19
	23.	Power consumption per carrier frequency at base stations	kwh/carrier frequency	1,437.82	1,391.04
	24.	Water consumption ⁶	million tons	33.76	34.76
	25.	Water consumption per unit operating revenue	tons/RMB million	70.12	79.08
	26.	Reclaimed water consumption ⁶	tons	286,508.75	61,332.93

Table of the Indicators

Issues	No.	Name of Indicators	Unit	Year 2022	Year 2021
The Environment and Natural Resources	27.	Investment in energy saving and environmental conservation ⁷	RMB million	1,357.95	764.19
Product Responsibility	28.	Countries and regions of mobile data international roaming and roaming in Hong Kong, Macau and Taiwan	–	251	248
	29.	Domestic administrative village fibre broadband coverage	%	97	97
	30.	Domestic administrative village 4G network coverage	%	97	96
	31.	Internet backbone network interconnection bandwidth	Gbps	32,720.00	17,705.00
	32.	International interconnection bandwidth	Gbps	10,964.76	10,792.00
	33.	Call drop rate of mobile communication ⁸	%	0.03	0.03
	34.	Call completion rate of mobile communication network ⁸	%	99.24	99.14
	35.	Call completion rate for access line	%	91.72	92.25
	36.	Packet loss rate of broadband Internet ChinaNet backbone network	%	0.03	0.03
	37.	Mobile service satisfaction ⁹	points	81.53	81.56
	38.	Fixed broadband satisfaction ⁹	points	82.34	80.95
	39.	Wireline voice satisfaction ⁹	points	87.43	87.44
	40.	Percentage of in-time response to international customer repair reports ¹⁰	%	99.55	99.68
	41.	International customer satisfaction ¹¹	points	93.30	93.80
	42.	Number of new patents granted	–	602	505
	43.	Number of new invention patents granted	–	560	481
	44.	Number of phishing and fraud websites blocked	–	675	2,925
	45.	Number of customer complaints ¹²	person-times	52,600	64,492
	46.	Customer complaint rate ¹²	person-times/million users	75.00	96.20
Anti-corruption	47.	Number of anti-corruption education activities	–	23,574	24,997
	48.	Attendance of anti-corruption education and trainings	person-times	1,398,273	1,170,320
	49.	Number of corruption cases ¹³	–	1	0
Supplier	50.	Total number of suppliers ¹⁴	–	24,237	19,041
	51.	Number of suppliers in Mainland China ¹⁴	–	23,706	18,515
	52.	Number of suppliers in regions of Hong Kong, Macau and Taiwan of China ¹⁴	–	157	145
	53.	Number of suppliers from other countries and regions ¹⁴	–	374	381

Table of the Indicators

Issues	No.	Name of Indicators	Unit	Year 2022	Year 2021	
Employment	54.	Proportion of female managers	%	21.30	20.89	
	55.	Total number of employees ¹⁵	–	280,683	278,922	
	56.	Number of full-time employees ¹⁵	–	274,229	272,157	
	57.	Number of part-time employees ¹⁵	–	6,454	6,765	
	58.	Number of employees under the age of 30	–	41,058	37,728	
	59.	Number of employees aged 30-49	–	168,584	176,572	
	60.	Number of employees aged 50 and above	–	71,041	64,622	
	61.	Number of male employees	–	191,773	189,461	
	62.	Number of female employees	–	88,910	89,461	
	63.	Number of employees in Mainland China	–	278,483	276,781	
	64.	Number of employees in Hong Kong, Macau, Taiwan and overseas branches	–	2,200	2,141	
	65.	Percentage of ethnic minority employees ¹⁵	%	6.87	6.81	
	66.	Number of new employees ¹⁵	–	14,021	12,016	
	67.	Percentage of female among new employees ¹⁵	%	34.77	36.81	
	68.	Turnover rate of employees under the age of 30 ¹⁶	%	4.11	5.18	
	69.	Turnover rate of employees aged 30-49 ¹⁶	%	0.83	1.13	
	70.	Turnover rate of employees aged 50 and above ¹⁶	%	0.64	0.71	
	71.	Turnover rate of female employees ¹⁶	%	1.31	1.64	
	72.	Turnover rate of male employees ¹⁶	%	1.24	1.55	
	73.	Turnover rate of employees in Mainland China ¹⁶	%	1.27	1.59	
	74.	Turnover rate of employees in Hong Kong, Macau, Taiwan and overseas branches ¹⁶	%	0.55	0.47	
	Safety and Health	75.	Serious injury rate per 1,000 employees ¹⁷	number of serious injuries/ thousand	0.00	0.00
		76.	Loss of working days due to work-related injury ¹⁷	days	0.00	0.00
		77.	Number of participants in safety emergency drills	person-times	445,539	244,619
78.		Number of participants in health and safety trainings	person-times	670,461	353,057	
79.		Participation rate of employee health checkup ¹⁵	%	94.45	90.40	
80.		Number of work-related fatalities ¹⁷	–	0	0	
81.		Fatality rate per 1,000 employees ¹⁷	number of deaths/ thousand	0.0000	0.0000	

Table of the Indicators

Issues	No.	Name of Indicators	Unit	Year 2022	Year 2021
Training and Development ¹⁸	82.	Training expenses per employee	RMB/person	2,355.30	2,693.82
	83.	Number of internal trainers	–	13,280	14,289
	84.	Total number of participants trained	10,000 person-times	37.26	45.79
	85.	Number of senior management trained	person-times	497	499
	86.	Number of middle-level management trained	person-times	51,105	61,343
	87.	Number of general employees trained	person-times	321,030	396,054
	88.	Number of male employees trained	person-times	245,429	270,768
	89.	Number of female employees trained	person-times	127,203	187,128
	90.	Number of employees passed skill certification exams	person-times	24,602	20,794
	91.	Number of employees enrolled in online college	10,000 persons	24.96	22.69
	92.	Average training time per employee	hours/person	31.65	43.16
	93.	Average training time per senior management	hours/person	90.31	87.94
	94.	Average training time per middle-level management	hours/person	34.67	52.74
	95.	Average training time per general employee	hours/person	31.14	41.95
	96.	Average training time per male employee	hours/person	30.93	37.75
	97.	Average training time per female employee	hours/person	33.24	54.56
	98.	Average training time in online college per employee	hours/person	57.15	40.73
	99.	Proportion of senior management participating in training	%	98.39	83.20
	100.	Proportion of middle-level management participating in training	%	50.87	74.70
	101.	Proportion of general employees participating in training	%	42.34	57.80
102.	Proportion of male employees participating in training	%	41.62	58.70	
103.	Proportion of female employees participating in training	%	47.42	61.90	

Table of the Indicators

Issues	No.	Name of Indicators	Unit	Year 2022	Year 2021
Community	104.	Total service time of volunteers	10,000 hours	108.57	65.13
	105.	Number of participants in volunteering activities	10,000 persons	20.11	13.74
	106.	Number of volunteering activities	sessions	16,417	12,754
	107.	Volunteer service activities input amount	RMB million	16.44	19.02
	108.	Number of participated pole line co-built ¹⁹	kilometres	1,412	3,488
	109.	Number of provided pole line co-shared ¹⁹	kilometres	13,595	19,829
	110.	Number of co-built pipelines participated ¹⁹	kilometres	6,792	8,076
	111.	Number of co-shared pipelines provided ¹⁹	kilometres	896	1,210
	112.	Number of co-built indoor distribution systems participated ¹⁹	-	68,339	42,476
	113.	Personnel involved in emergency communication support	person-times	840,242	676,075
	114.	Number of emergency communication equipment dispatched	set-times	113,928	110,731
	115.	Number of emergency communication vehicles dispatched	vehicle-times	273,941	182,773
	116.	Number of emergency public service messages sent ²⁰	million pieces	27,543.32	17,911.36

Notes:

- 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 emissions include the greenhouse gas emissions from use of natural gas, coal, gasoline and diesel;

Scope II: indirect greenhouse gas emissions include the greenhouse gas emissions from purchased electricity and heating power, where the electricity emissions factors shall refer to the *Guidelines for Calculation Methods and Reporting of Enterprise Greenhouse Gas Emissions – Power Generation Facilities (2022 Revision)* (《企業溫室氣體排放核算方法與報告指南發電設施(2022年修訂版)》) released by Ministry of Ecology and Environment of the People's Republic of China; and the emissions factor for heat shall refer to the *Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industries Enterprises (Trial)* (《工業其他行業企業溫室氣體排放核算方法與報告指南(試行)》) issued by the General Office of National Development and Reform Commission of the People's Republic of China;

Total greenhouse gas emissions shall be the sum of Scope I (direct greenhouse gas emissions) and Scope II (indirect greenhouse gas emissions).

- The quantity of sewage emissions is measured based on water consumption, and the wastewater discharge coefficient shall be based on GB50318-2017: *Code of Urban Wastewater Engineering Planning of the National Standards of the People's Republic of China* and relevant documents of National Bureau of Statistics of the People's Republic of China.
- SO₂ emissions refer to the SO₂ emissions arising from coal use, which are calculated using the material balance method by reference to the standard coal conversion coefficient in GB/T 2589-2020: the *National Standardised General Principles for Calculation of Comprehensive Energy Consumption of the People's Republic of China* (《中華人民共和國國家標準綜合能耗計算通則》).
- Non-hazardous waste includes domestic waste. The quantity of domestic waste produced is measured based on the per capita household waste output coefficient as specified in the guidance released by the State Council of the People's Republic of China. Hazardous waste only includes the volume of disposed waste batteries. Electronic wastes include waste telecommunications equipment, waste cables, waste terminals, and waste electronic office supplies.

5. Statistics on electricity consumption, natural gas consumption, coal consumption, gasoline consumption, diesel consumption, purchased heat consumption and overall energy consumption cover the Company's headquarters and 31 provincial branches; the conversion coefficient for each energy consumption shall refer to GB/T 2589-2020: the *National Standardised General Principles for Calculation of Comprehensive Energy Consumption of the People's Republic of China* (《中華人民共和國國家標準綜合能耗計算通則》).
6. The water source used by the Company comes from municipal tap water supply or purchased reclaimed water, and there is no problem in obtaining water source.
7. Investment in energy saving and environmental conservation comprises of two categories: the Company's contribution and contractual energy management.
8. VoLTE data was used for call drop rate of mobile communication and call completion rate of mobile communication network after the full commercial launch of VoLTE (based on 4G network calls) business in 2019.
9. The data sources of user satisfaction for the year of 2022 are from the Ministry of Industry and Information Technology of the People's Republic of China. In 2021, the Ministry of Industry and Information Technology optimised the Telecom Customer Satisfaction Index (TCSI) model, combining handset Internet access user and mobile voice user satisfaction into mobile service satisfaction, and the optimised model includes the mobile service user satisfaction, wireline Internet access user satisfaction and wireline voice user satisfaction.
10. Percentage of in-time response to international customer repair reports refers to the percentage of work orders which are completed by the global company within the required time limit of service recovery for customers to the total number of work orders.
11. The data sources of international customer satisfaction are from a third-party consultation company, who conducted annual satisfaction surveys on enterprise customers to whom the global company provided services during the survey cycle.
12. The data sources of number of customer complaints and customer complaint rate in 2022 are from the Ministry of Industry and Information Technology of the People's Republic of China.
13. Number of corruption cases refers to the number of corruption cases filed against the Company or its employees and the judgement of which has been received during the reporting period.
14. The total number of suppliers, number of suppliers in Mainland China, number of suppliers in regions of Hong Kong, Macau and Taiwan of China, number of suppliers from other countries and regions in 2022 refer to the centralised procurement suppliers of China Telecom. The global company was included in the statistical calibre during the year, and the 2021 data has been restated according to the same calibre.
15. The total number of employees includes the number of contract workers, part-time employees, dispatched employees and other employees, of which, contract workers are counted as full-time employees, whereas dispatched employees, part-time employees and other employees are counted as part-time employees;

The statistics on the percentage of ethnic minority employees cover the branches in Mainland China, and the statistical calibre is consistent with the total number of employees;

Number of new employees, percentage of female among new employees and participation rate of employee health checkup are calculated based on contract employees.
16. Turnover rate of employees = (number of employees turnover during the reporting year/number of employees at the end of the reporting period) *100%. The global company has not been included in the calculation of employees turnover during the reporting year.
17. Serious injury rate per 1,000 employees, loss of working days due to work-related injury, number of work-related fatalities and fatality rate per 1,000 employees are the number of work-related injuries, fatalities or rate of employees on contract terms resulting from safety liability accidents. In 2020, number of work-related fatalities was 1, and the fatality rate per 1,000 employees was 0.0036 deaths per thousand employees.
18. The statistical calibre of training and development related indicators are based on contract employees.
19. Number of participated pole line co-built, number of provided pole line co-shared, number of co-built pipelines participated, number of co-shared pipelines provided and number of co-built indoor distribution systems participated refer to the number of pole lines, pipelines and indoor distribution systems co-built and co-shared which are participated in or provided by the Company during the reporting period.
20. Emergency public service messages include public service messages in relation to natural disaster warning and important events support.