Appendices

A Key Performance

Category	Indicators	Unit	2021	2022	2023
	Total assets	RMB billion	591.08	642.66	661.05
	Operating revenue	RMB billion	327.85	354.94	372.60
	Service revenue	RMB billion	296.15	319.35	335.17
	Profit before income tax	RMB billion	17.93	20.59	22.95
Operations and development	Number of internet billing subscribers	Thousand	317,115	322,698	333,298
·	Number of broadband online subscribers	Thousand	95,046	103,630	113,416
	Cumulative number of IoT terminal connections ⁴	Thousand	1	385,540	493,911
	Number of customers served by virtual private networks in 5G industry ⁴	Units	1	3,805	8,563
	Number of 4G available base stations ⁵	Thousand	1,890	2,276	Over 2,900
	Total number of 5G base station construction	Thousand	690	1,000	Over 1,210
	4G population coverage	%	95	98	99
	Number of fixed network broadband access ports	Billion	0.239	0.250	0.266
	Broadband coverage rate in administrative % villages in ten northern provinces	%	98	99	99
	Gigabit fibre network coverage capacity	Billion households	0.108	0.208	0.356
	Urban 20M or above broadband network	%	99	99	99
Network capabilities	Rural 4M or above broadband network coverage	%	100	100	100
	Coverage rate of mobile network in township	%	100	100	100
	Coverage of mobile network administrative villages	%	93	96	98
	The co-construction rate of pole lines	%	95	95	99.2
	Cable sharing rate	%	93	93	99.6
	Co-construction rate of pipelines	%	85	91	94.9
	Sharing rate of pipelines	%	92	93	98.2
	International internet external bandwidth	G	5,312	5,860	7,000
	Number of data centre racks	Thousand	312	363	405
	Total number of emergency communication guarantees ⁶	Times	695	672	160
Commitment in	Emergency communication support personnel ⁶	Thousand person-time	670	790	242
major assurance initiatives	Mobile emergency communication vehicles ⁶	Thousand vehicle- time	155	285	70
	Investment in emergency communication equipment ⁶	Thousand set-time	172	186	13

Category	Indicators	Unit	2021	2022	2023
	R&D investment	RMB billion	13.23	14.38	15.12
Independent innovation	Number of patent applied	Items	2,224	2,672	4,398
imovation	Number of patents granted	Items	1,128	1,666	2,287
•••••	Overall satisfaction	Points	81.68	81.97	81.78
	Including: Mobile business customer satisfaction	Points	80.62	81.24	80.93
Customer service	Fixed line phone customer satisfaction	Points	88.41	88.34	88.94
3317133	Fixed Internet customer satisfaction	Points	81.84	81.32	81.29
	Customer complaint and report rate ¹¹	Person-time/ million users	-	-	746.5
	Total number of employees	Person	243,380	244,658	242,891
	Gender proportion of employees	Male: female	1.62:1	1.63:1	1.62:1
	Proportion of ethnic minority employees	%	13.23 14.38 2,224 2,672 1,128 1,666 81.68 81.97 80.62 81.24 88.41 88.34 81.84 81.32 - - 243,380 244,658	6.98	
	Proportion of female in senior management	%	12.4	12.8	12.3
	Input in employee training	RMB thousand	340,990	333,320	464,650
	Training hours per employee	Hours	94	118	115
	Network college online learning person-time	Person	4,200	5,004	5,986
	Network college per capita learning hours	Hours	2,373	2,465	2,653
	Proportion of contracted employees in labour	%	100	100	100
	Input to help and support employees suffered from difficulties	RMB thousand	70,220	81,000	120,000
	Employee turnover rate	%	1.69	2.18	2.06
	Number of new employees	Person	12,479	13,260	9,446
	Number of new male employees	Person	7,947	8,468	5,975
	Number of new female employees	Person	4,532	4,792	3,471
	Number of employees who voluntarily resign	Person	3,939	3,200	3,321
People-oriented	Number of male employees who voluntarily resigned	Person	2,515	2,103	2,063
	Number of female employees who voluntarily resigned	Person	1,424	1,097	1,258
	Number of dismissed employees during the year	Person	1,458	2,122	1,686
	Number of dismissed male employees	Person	927	1,369	1,083
	Number of dismissed female employees	Person	531	753	603
	Turnover rate of employees aged below 30	%	6.23	4.23	6.98
	Turnover rate of employees aged 30–50	%	0.94	0.94	1.34
	Turnover rate of employees aged over 50	%	0.10	0.35	0.72
	Turnover rate of male employees	%	1.67	1.39	2.09
	Turnover rate of female employees	%	1.53	1.18	2.01
	Turnover rate of domestic employees	%	1.69	1.31	1.4
	Turnover rate of oversea employees	%	0.58	1.68	3.2
	Number of work-related fatalities	Person	0	0	0
	Rate of work-related fatalities	%	0	0	0
	Lost days due to work injury	Day	0	0	0

Category	Indicators	Unit	2021	2022	2023
	Special investment in energy conservation and emission reduction	RMB billion	0.13	0.168	0.336
	Greenhouse gas emission reduction	Thousand tonnes of carbon dioxide equivalent	360	120	1,360
	Water resources consumption	Thousand tonnes	16,980	16,630	14,920
	Water consumption density	Tons/RMB Million	51.65	50.72	40.04
	Total energy consumption	Thousand tonnes of standard coal	2,700	2,890	2,920
	Energy saving	Thousand tonnes of standard coal	77	269	415
	Fossil energy consumption	Thousand tonnes of standard coal	100	60	50
	Gasoline consumption ^{7,9}	Millions of litres	37	40	29
Low-carbon development	Diesel consumption ^{7, 9}	Millions of litres	20	11	9
dovolopinone	Natural gas consumption ⁹	Millions of m ³	5.81	4.65	4.09
	Coal consumption ⁹	Thousand tonnes	40	1	0.3
	Electricity consumption	Billion kWh	20.4	22.2	22.5
	Comprehensive Energy consumption per unit of information flow	Kg of standard coal/ TB	3.7	2.4	2.3
	Greenhouse gas emissions ¹⁰	Million tonnes	12.97	13.4	13.25
	Total direct emission of GHG (category I)	Million tonnes	0.53	0.14	0.10
	Total indirect emission of GHG (category II)	Million tonnes	12.44	13.22	13.15
	Sulphur dioxide emission	Tonnes	20	2	0.1
	Scrap disposal and recycling amount	RMB billion	0.456	0.63	0.655
	Disposal of scrapped batteries	Thousand tonnes	12.2	9.3	12.3
	Comprehensive waste treatment volume	Thousand tonnes	33.4	28.7	29.7
Compliance	Number of employees trained in compliance with laws and regulations	Thousand persons	243	200	300
management	Production safety training sessions	tion RMB billion 0.13 0.168 Thousand tonnes of carbon dioxide equivalent 360 120 Thousand tonnes 16,980 16,630 Tons/RMB Million 51.65 50.72 Thousand tonnes of standard coal 2,700 2,890 Thousand tonnes of standard coal 77 269 Thousand tonnes of standard coal 100 60 Millions of litres 37 40 Millions of m³ 5.81 4.65 Thousand tonnes 40 1 Billion kWh 20.4 22.2 Million tonnes 12.97 13.4 MILLION Million tonnes 12.97 13.4 MILLION Million tonnes 12.44 13.22 Tonnes 20 2 R RMB billion 0.456 0.63 Thousand tonnes 12.2 9.3 me Thousand tonnes 243 200 Times 119 131	169		
	Production safety training coverage rate	%	100	100	100
	Number of registered volunteers	Units	57,550	89,714	95,734
	Credit rating ⁸	Grade	28	AAA	
Community responsibility	Total tax paid	RMB billion	7.93	120 16,630 50.72 2,890 269 60 40 11 4.65 1 22.2 2.4 13.4 0.14 13.22 2 0.63 9.3 28.7 200 131 100 89,714 AAA 7.11 13,349	8.60
. soponoismty	Employment creation	Person	13,038		9,446
	Total donations	RMB thousand	2,082	1,045	1,436

- 1. Data Description: The data and information collection of this report mainly sourced from the Company's internal data collection system and relevant statistical reports, as well as the corporate sustainable development practise cases submitted by provincial companies. There is no material change in relation to the methods used for prepping the disclosure. The data for 2023 quoted in this report is the final statistical data. If there is any discrepancy between the financial data and the annual report, the annual report shall prevail. The monetary unit adopted in this report is RMB.
- 2. Please refer to the Description to the Report for the details of the report reference standards.
- 3. Quality assurance: The Board of Directors and all directors undertake that the information disclosed in the report is authentic, complete and correct, with no false record or misleading statements.
- 4. To better reflect the Company's good progress in grasping new opportunities, embracing new changes and achieving new development, the Company has adjusted the disclosure of its monthly operational statistics since 22 March 2022, and improved market transparency in a number of key business areas such as "Ubiquitous Connectivity, Innovative Application, Smart Services and Technological Innovation".
 5. From the perspective of user perception, in order to more accurately reflect the 4G network coverage, the "number of 4G base stations" was replaced with the "number
- of available 4G base stations
- 6. In 2023, the Company established and improved the important communication guarantee scheduling mechanism, refined the hierarchical and classified management standards, and adjusted the statistical calibre such as the number, personnel, vehicles and equipment investment for important communication guarantee services.
- 7. With reference to the requirements of ESG information disclosure, gasoline and diesel consumption has been measured by volume unit since 2022.
- The credit rating of China United Network Communications Corporation Limited was granted by United Credit Ratings Co., Ltd. and China Chengxin International Credit Rating Co., Ltd.
- 9. The data statistics of petrol consumption, diesel consumption, natural gas consumption, electricity consumption and coal consumption cover the headquarters and 31 provincial branches. The conversion factor of each energy consumption shall refer to "General Rules for the Calculation of the Comprehensive Energy Consumption". 10.Statistical methods of greenhouse gas emissions mainly refer to ISO 14064.
- 11. The data source of customer complaint and report rate in 2023 is from the Ministry of Industry and Information Technology of the People's Republic of China. Such number adopts different statistical calibres with monthly average complaint rate in the year in 2021 and 2022, thereby 2021 and 2022 data are shown as "—".

Honours and Recognition

- · China Unicom ranked 267th in "Fortune Global 500" in 2023.
- China Unicom ranked 277th in "Forbes Global 2000" in 2023.
- China Unicom was voted as "Asia's Most Honoured Telecom Company", by Institutional Investor for eight consecutive years. China Unicom was also voted as "Asia's Best CEO (Telecoms)", "Asia's Best CFO (Telecoms)", "Asia's Best IR Team (Telecoms)" and "Asia's Best Board (Telecoms)".
- China Unicom was awarded the "Best Overall Company in China Gold", the "Best CFO in China Gold", "Best Investor Relations in China Gold" and "Best DEI Strategy in China Gold" by FinanceAsia.
- China Unicom was awarded the "Best CSR in Asia", "Best CEO in Asia", "Best CFO in Asia", "Best Corporate Communications" and "Best Investor Relations Company" by Corporate Governance Asia.
- China Unicom's website won "Best use of Video Gold" and "Best Use of Motion Graphics Gold" in 2023 International W3 Awards, and the Gold Award of the "2023 Astrid Awards" and the Gold Award of the "2022/2023 Mercury Awards" in 2023.
- China Unicom was awarded the "Best Listed Company" and "Best CFO of Listed Company" by the China Securities Golden Bauhinia Awards in 2023.
 - China Unicom was awarded the "Best in Communications Sector" in the "IR Magazine Awards Greater China 2023".

O Description to the Report

Reporting Period	From 1 January to 31 December 2023, with some contents exceeding the aforesaid period.
Reporting Cycle	China Unicom (Hong Kong) Limited Sustainability Report is an annual report.
Scope of the Report	This report covers China United Network Communications Limited and its subsidiaries. For the convenience of expression, "China Unicom", "the Group", "the Company" and "we" are used in the presentation of this report.
Reporting Reference Standard	Guidelines for State-owned Enterprises to Better Fulfil Social Responsibilities issued by the State-owned Assets Supervision and Administration Commission of the State Council; Guidelines for ESG Information Disclosure of Listed Companies Controlled by Central Enterprises issued by the State-owned Assets Supervision and Administration Commission of the State Council; Guidelines for Preparation of Corporate Social Responsibility Report issued by the Shanghai Stock Exchange; HKEX ESG Reporting Guide; Reporting Reference Standard Guidelines for Preparation of Social Responsibility Report, AQSIQ and SAC; Chinese Academy of Social Sciences' Guidelines for the Preparation of Corporate Social Responsibility Reports in China (CASS-CSR 3.0); Chinese Academy of Social Sciences' Guidelines for the Preparation of Corporate Social Responsibility Reports in China (CASS-ESG 5.0); GRI Sustainability Reporting Standards (latest version) issued by the Global Sustainability Standards Board (GSSB); Corporate Social Responsibility Management System of China's Information and Communication Industry issued by the China Association of Communications Enterprises.
Report Data Description	The 2023 data quoted in this report are final statistical data. In case of any discrepancy between the financial data herein and those in annual report, the annual report shall prevail.
Reporting Quality Assurance	The Board of Directors and all directors undertake that the information disclosed in the report is authentic, complete and correct, with no false record or misleading statement.
Language versions and availability	The Company's sustainability report is available in both Chinese and English version in both paper and online formats. The Chinese and English version of the online report is available on the website of China Unicom: http://www.chinaunicom.com.hk.
Contact information	Address: China Unicom Corporate Development Department, No. 21 Jinrong Street, Xicheng District, Beijing Postal code: 100033 Fax: 86-10-66258604 Email: cuijc15@chinaunicom.cn

1 Indexes

SEHK ESG Indicators

Index	Page Disclosed						
A1	P33	A2.5	See note 2	В3	P54	B6.1	N/A
A1.1	P34, 75	A3	P35–36, 40	B3.1	P54	B6.2	P16, 49, 74
A1.2	P75	A3.1	P35–36, 40	B3.2	P54, 74	B6.3	P68
A1.3	P75 See note 1	A4	P33	B4	P55	B6.4	P48
A1.4	P75 See note 1	A4.1	P33–35	B4.1	P55	B6.5	P30
A1.5	P33, 37	B1	P53–55	B4.2	P55	В7	P65–66
A1.6	P39	B1.1	P54, 74	B5	P64	B7.1	P65
A2	P33	B1.2	P74	B5.1	P65	B7.2	P66
A2.1	P75	B2	P56, 68	B5.2	P64	B7.3	P66
A2.2	P38, 75	B2.1	P74	B5.3	P64–65	B8	P43, 45, 51–52
A2.3	P36–39	B2.2	P74	B5.4	P39, 64	B8.1	P43–47, 51–52, 57–59
A2.4	P36	B2.3	P56–57, 68	В6	P50	B8.2	P45

Notes:

- 1. As China Unicom is a massive entity and its business covers a wide geographical region, currently the Company is not able to produce full statistics over its waste production (including hazardous and non-hazardous categories) as prescribed in A1.3 and A1.4. Upon identification of material topics, we mainly report on the recycling and reuse of main resources utilised by the Company in the course of operation including battery, terminals and comprehensive supplies. The Company will establish related data collection system in the future.
- 2. As the Company mainly engages in the provision of information communication services, packaging material used for the finished products as prescribed in A2.5 is not applicable to the Company's business practice.
- 3. Product recycling indicator involved in B6.1 is not applicable to the actual business of the Company. Through the identification of substantive agenda, the Company mainly reported on the maintenance of network information security, the protection of emergency communication, and the protection of customer rights and interests in accordance with the law.

Chinese Academy of Social Sciences CASS-ESG5.0

Index	Page Disclosed	Index	Page Disclosed	Index	Page Disclosed	Index	Page Disclosed
I. Preface of t	the Report (P series)	P4.4	P16–22	G1.10	P50, 61	G3.5	P70-71
(P1) Specific	ation of the Report	P4.5	P6, 62, 64–65	G1.11	P61	G3.6	P71
P1.1	P76	2. Responsibility	Governance (G series)	(G2) Govern	nance of the Board	G3.7	P76
P1.2	P76	(G1) Corpo	orate Governance	G2.1	P69	G3.8	P33
P1.3	P80	G1.1	P63–64	G2.2	P69	G3.9	P72
(P2) Message fro	om Senior Management	G1.2	P63–64	G2.3	P34, 70	G3.10	P72
P2.1	P4–5	G1.3	P67–68	G2.4	P69	G3.11	P72
P2.2	P4–5	G1.4	P67–68	G2.5	P33	3. Environmental Ri	sk Management (E Series)
(P3) Resp	onsibility Focus	G1.5	P16, 50	(G3) ESG Management		(E1) ESG Management	
P3.1	P69–71	G1.6	P49	G3.1	P69	E1.1	P33
(P4) Cor	rporate Profile	G1.7	P65–66	G3.2	P69	E1.2	P33
P4.1	P6	G1.8	P66	G3.3	P69	E1.3	P75
P4.3	P6	G1.9	P66	G3.4	P72	E1.4	P34–35

Index	Page Disclosed	Index	Page Disclosed	Index	Page Disclosed	Index	Page Disclosed
E1.5	P36	(E4) Safeguar	ding Ecological Safety	\$3.2	P56	V1.2	P15–24, 43–45
E1.6	P36	E4.1	P40	S3.3	P56	V1.3	P15–24, 43–45
E1.7	P38	E4.2	P40	S3.4	P68	V1.4	P15–24, 43–45
E1.8	P37–38	E4.3	P40	S3.5	P68	(V2)	Industry Value
E1.9	P33	(E5) Respondi	ing to Climate Change	S3.6	P68	V2.1	P24–25
(E2) Us	se of Resources	E5.1	P33–35	S3.7	P29	V2.2	P23–24
E2.1	P33	E5.2	P34–35	\$3.8	P68	V2.3	P24
E2.2	P75	E5.3	P34–35	\$3.9	P68	V2.4	P23–25
E2.3	P75	E5.4	P33	S3.10	P68	V2.5	P28–29
E2.4	P38	E5.5	P75	S3.11	P75	V2.6	P28–29
E2.5	P38	E5.6	P75	S3.12	P74	V2.7	P24–25
E2.6	P39	E5.7	P75	(S4) Respon	sibility to Customers	V2.8	P64
E2.7	N/A	4. Social Risk	Management (S Series)	S4.1	P48–49	(V3) Peopl	e's Livelihood Value
E2.8	N/A	(S1)	Employment	S4.2	P74	V3.1	P53-54
E2.9	P36	S1.1	P55	\$4.3	P50	V3.2	P74
E2.10	P38, 75	S1.2	P55	S4.4	P49	V3.3	P15–16
E2.11	P75	\$1.3	P54	S4.5	P49	V3.4	P45–47
E2.12	P75	\$1.4	P55	\$4.6	P30	V3.5	P45–47
E2.13	P38	S1.5	P74	S4.7	P74	V3.6	P45
E2.14	P38	S1.6	P58	\$4.8	P16	V3.7	P46
E2.15	P38	S1.7	P55	\$4.9	P30	(V4) Env	rironmental Value
(E3) Emissions	S1.8	P55	(S5) Responsible	Supply Chain Management	V4.1	P33
E3.1	P36	S1.9	P55	S5.1	P39, 64–65	V4.2	P33
E3.2	P36	S1.10	P56-57	S5.2	P39, 64–65	V4.3	P75
E3.3	P34	S1.11	P26, 56–57	S5.3	P64–65	V4.4	P35-40
E3.4	P75	(S2) Develo	pment and Training	S5.4	P64–65	V4.5	P35–40
E3.5	P39	S2.1	P54	S5.5	P64–65	6. Report	Appendix (A series)
E3.6	P75	S2.2	P54	\$5.6	P64–65	(A1)	P69
E3.7	P75	\$2.3	P74	S5.7	P64–65	(A2)	P73–75
E3.8	P75	\$2.4	P74	5. Value (Creation (V Series)	(A3)	P72
E3.9	P75	(S3) Occupational I	Health and Safety Production	(V1)	Country Value	(A4)	P77–79
E3.10	P75	S3.1	P56	V1.1	P15–24, 43–45	(A5)	P80

Note

^{1.} As the Company mainly engages in the provision of telecommunication services, packaging for finished products and discharge of waste water and waste gas as prescribed in E2.7-2.8, E3.1-3.4 are not applicable to the Company's business practice.

® GRI Sustainability Reporting Standards

No.	Page Disclosed	No.	Page Disclosed	No.	Page Disclosed	No.	Page Disclosed
GRI2: Ger	neral Disclosure	3–3	P70-71	304–4	P40	GRI404: Trai	ning and Education
GRI1	GRI1: Foundation 2021	GRI201: Eco	nomic Performance	GRI30	05: Emissions	3–3	P53–54
GRI standard	P76	3–3	P6	3–3	P33	404–1	P74
I. Organisation a	and Reporting Practises	201–1	P73	305–1	P75	404–2	P53-54
2–1	P6	201–2	P34–35	305–2	P75	404–3	P55
2–2	P76	201–3	P55	305–3	/	GRI405: Diversity	y and Equal Opportunity
2–3	P76, 80	201–4	See annual report	305–4	P75	3–3	P55
2–4	P75	GRI203: Indire	ct Economic Impacts	305–5	P75	405–1	P54, 74
2–5	1	3–3	P43	305–6	N/A	405–2	P55
2. Activiti	es and Workers	203–1	P43–44	305–7	N/A	GRI406: N	on-discrimination
2–6	P64–65	203–2	P43-44	GRI	306: Waste	3–3	P55
2–7	P54, 74	GRI 204 Pro	curement Practises	3–3	P39	406–1	P10, 55
2–8	P54	3–3	P64	306–1	P39	GRI407: Freedom of Ass	ociation and Collective Bargainir
3. G	overnance	204–1	P65	306–2	P39	3–3	P56, 58
2–9	P62-63	GRI205:	Anti-corruption	306–3	P75	407–1	P58
2–10	P64	3–3	P65–66	306–4	P75	GRI 408	3: Child Labour
2–11	P62-64	205–1	P65–66	306–5	P75	3–3	P55
2–12	P62	205–2	P65–66	GRI308: Supplier E	Environmental Assessment	408–1	P55
2–13	P69	205–3	P65–66	3–3	P39	GRI 409: Forced or Compulsory La	
2–14	P69	GRI206: Anti-o	ompetitive Behaviour	308–1	P39	3–3	P55
2–15	P64	3–3	P16	308–2	P39	409–1	P55
2–16	P61	206–1	P16, 50	GRI401	l: Employment	GRI413: Lo	ocal Communities
2–17	P61	GRI	302: Energy	3–3	P53–55	3–3	P35–36
2–18	P33	3–3	P33	401–1	P74	413–1	P35–36
2–19	P55	302–1	P75	401–2	P55–57	413–2	P35–36
2–20	P55	302–2	P75	401–3	P55	GRI414: Suppl	ier Social Assessment
2–21	P55	302–3	P75	GRI402: Labour	Management Relations	3–3	P64–65
4. Strategy, Po	olicies and Practises	302–4	P75	3–3	P56	414–1	P39, 64–65
2–22	P69	302–5	P75	402–1	P56	414–2	P64–65
2–23	P55	GRI303: W	ater and Effluents	GRI403: Occupa	tional Health and Safety	GRI416: Custor	mer Health and Safety
2–24	P61	3–3	P36	3–3	P56–57, 68	3–3	P28–30
2–25	P49-50	303–1	P36	403–1	P56-57	416–1	P28-30
2–26	P58	303–2	P36	403–2	P68	416–2	P28–30
2–27	P67–68	303–3	P38	403–3	P56–57	GRI417: Marl	keting and Labelling
2–28	P24	303–4	P38	403–4	P56–57	3–3	P50
5. Participati	on by Stakeholders	303–5	P75	403–5	P68	417–1	P50
2–29	P71	GRI30	4: Biodiversity	403–6	P56–57	417–2	P50
2–30	P56	3–3	P40	403–7	P56–57	417–3	P50
GRI3: N	laterial Topics	304–1	P40	403–8	P56–57	GRI418: 0	Customer Privacy
3–1	P70–71	304–2	P40	403–9	P74	3–3	P30
	P70–71	304–3	P40	403–10	P56–57	418–1	P30

Note

^{1.} Material gases such as ozone-depleting substances (ODS), nitrogen oxides (NOX) and sulphur oxides (SOX) cited in 305-6 and 305-7 are not the major emissions of the Company.