

Environmental Data

■ CITIZEN Group's Environmental Impact related to climate change

Scope 1, 2 CO ₂ Emissions (t-CO ₂)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Scope1	Japan	19,507	19,861	18,215	17,145	14,631
	Outside Japan	3,006	2,875	3,221	2,217	1,740
	Total	22,513	22,737	21,436	19,362	16,371
Scope2	Japan	91,581	91,592	89,543	87,264	74,499
	Outside Japan	57,500	56,413	59,131	53,136	45,356
	Total	149,081	148,005	148,675	140,400	119,854
Scope1 + 2	Japan	111,088	111,453	107,758	104,409	89,130
	Outside Japan	60,506	59,288	62,352	55,352	47,095
	Total	171,594	170,741	170,110	159,762	136,225
Scope2 (When the purchase of electricity from renewable energy sources is set to zero)	Japan	91,581	91,592	89,543	87,264	68,653
	Outside Japan	57,500	56,413	59,131	53,136	45,356
	Total	149,081	148,005	148,675	140,400	114,009
Scope1 + 2 (When the purchase of electricity from renewable energy sources is set to zero)	Japan	111,088	111,453	107,758	104,409	83,284
	Outside Japan	60,506	59,288	62,352	55,352	47,095
	Total	171,594	170,741	170,110	159,762	130,380

Scope 1, 2 CO ₂ emissions per unit of sales (t-CO ₂ /million JPY)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Scope1 + 2	Japan and Outside Japan	0.549	0.533	0.529	0.574	0.659
Scope1 + 2 (When the purchase of electricity from renewable energy sources is set to zero)	Japan and Outside Japan	0.549	0.533	0.529	0.574	0.631

* Scope 1 includes greenhouse gas emissions other than CO₂

* Scope 2 emission factors are based on the Ministry of the Environment's "Emission Factors by Electric Utility (for Calculating Greenhouse Gas Emissions of Specified Emitters)" for fiscal 2017.

Scope 3 CO ₂ Emissions (t-CO ₂)		FY 2018	FY 2019	FY 2020
Category1	Purchased goods and services	659,984	407,620	52,400
Category2	Capital goods	39,733	49,872	11,376
Category3	Fuel and energy related activities	34,078	22,561	7,458
Category4	Upstream transportation and distribution	33,046	27,173	5,445
Category5	Waste generated in operations	5,943	3,285	1,671
Category6	Business travel	2,243	2,208	947
Category7	Employee commuting	6,745	6,739	3,001
Category8	Upstream leased assets	113	113	112
Category9	Downstream transportation and distribution	3,294	2,478	1,235
Category10	Processing of sold products	11,309	9,337	4,846
Category11	Use of sold products	703,892	404,494	844
Category12	End-of-life treatment of sold products	777	664	41
Category13	Downstream leased assets	0	0	0
Category14	Franchises	-	-	-
Category15	Investments	-	-	-
Total		1,501,155	936,545	89,375

* The data for FY2018 and FY2019 covers all CITIZEN Group businesses, while the data for FY2020 covers the mainstay watch business.

* The data for FY2019 has undergone third-party verification by an external verification organization.

Non-CO ₂ Greenhouse gas emissions (t-CO ₂)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Methane	127	126	131	158	147
Nitrous Oxide	46	51	45	43	31
Hydrofluorocarbons (HFC)	248	50	88	22	84
Perfluorocarbons (PFC)	0	0	0	0	0
Sulfur hexafluoride (SF ₆)	5	30	29	33	10
Nitrogen trifluoride (NF ₃)	0	0	0	0	0
Total	426	256	293	255	271

* Non-CO₂ Greenhouse gas emissions are calculated only for the data in Japan.

Environmental Data

■ CITIZEN Group's Environmental Impact related to Energy

Total Energy Consumption (GJ)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total Energy Consumption	Japan	2,144,443	2,152,716	2,082,388	2,019,829	1,723,084
	Outside Japan	1,168,610	1,144,792	1,203,165	1,071,425	912,112
Total Energy Consumption per unit of sales (GJ/million JPY)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Japan and Outside Japan	10.60	10.30	10.21	11.10	12.75
Electricity consumption (MWh)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Electricity consumption	Japan	183,162	183,184	179,295	174,742	149,244
	Outside Japan	115,000	112,826	118,263	106,271	90,911
of which electricity purchased	Japan	183,162	183,184	179,086	174,529	148,997
	Outside Japan	115,000	112,826	118,263	106,271	90,711
of which electricity purchased from renewable energy sources	Japan	–	–	0	0	11,691
	Outside Japan	–	–	0	0	0
Renewable energy generation	Japan	–	–	209	214	277
	Outside Japan	–	–	0	0	200
Renewable energy ratio	Japan	–	–	0.1%	0.1%	8.0%
	Outside Japan	–	–	0.0%	0.0%	0.2%
	Total	–	–	0.1%	0.1%	5.1%

* Total energy consumption does not include consumption of in-house renewable energy generation.

* Renewable energy ratio = (amount of electricity purchased from renewable energy sources + amount of renewable energy generation) / total electricity consumption

Gas (thousand m ³)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Japan	6,237	6,259	5,806	5,587	4,739
Outside Japan	155	99	116	113	85
Heavy Oil (kL)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Japan	169	228	181	163	155
Outside Japan	176	207	207	126	86

■ CITIZEN Group's Environmental Impact related to Waste

Total Waste, Hazardous waste, Recycled Waste	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	
Total Waste (tons)	Japan	6,637	6,743	6,718	6,423	4,844
	Outside Japan	5,711	5,927	6,238	5,244	4,096
	Total	12,348	12,670	12,956	11,667	8,940
of which hazardous waste (tons)	Japan	–	–	–	–	533
	Outside Japan	–	–	–	–	50
	Total	–	–	–	–	583
Recycled Waste (tons)	Japan	6,578	6,691	6,673	6,395	4,834
	Outside Japan	1,644	2,725	3,506	2,622	2,169
	Total	8,221	9,416	10,179	9,017	7,003
Recycling rate (%)	Japan	99.1%	99.2%	99.3%	99.6%	99.8%
	Outside Japan	28.8%	46.0%	56.2%	50.0%	53.0%
	Total	66.6%	74.3%	78.6%	77.3%	78.3%

* Hazardous wastes are those that fall under the classification of specially controlled industrial wastes in Japan's Waste Disposal Law.

* The total amount of thermal, material, and chemical recycling is considered to be the amount of recycled waste.

Non-recycled waste (tons)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	
Land-filled	Japan	22	12	6	16	7
	Outside Japan	3,469	2,714	2,054	1,956	1,307
Incinerated without recycling	Japan	37	40	39	12	4
	Outside Japan	599	488	678	666	620

Environmental Data

■ CITIZEN Group's Environmental Impact related to Water

Water Use (thousand m ³)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Japan	1,465	1,370	1,315	1,436	1,296
	Outside Japan	1,008	942	1,012	807	735
	Total	2,473	2,313	2,327	2,243	2,031
Water withdrawal by source (thousand m ³)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Groundwater (recyclable)	Japan	705	603	563	562	546
Third-party source (city water)	Japan	480	482	471	443	399
Third-party source (industrial water)	Japan	232	238	240	231	158
Total (Japan)		1,418	1,323	1,273	1,236	1,103
Groundwater (recyclable)	Outside Japan	3	3	10	4	2
Third-party source (city water)	Outside Japan	480	470	522	503	389
Third-party source (industrial water)	Outside Japan	408	395	397	221	279
Total (outside Japan)		891	868	929	728	671
	Total	2,309	2,191	2,202	1,964	1,774
Recycled and Reused Water (thousand m ³)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Japan	48	47	42	200	194
	Outside Japan	117	75	83	79	64
	Total	164	122	125	279	258
Water discharge (thousand m ³)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Japan	1,064	970	945	969	830
	Outside Japan	557	541	583	428	376
	Total	1,621	1,510	1,528	1,396	1,206
Water discharge by destination (thousand m ³)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Surface water	Japan	628	499	483	480	448
Third-party destination	Japan	435	471	462	489	382
Total (Japan)		1,064	970	945	969	830
Surface water	Outside Japan	10	12	12	9	7
Third-party destination	Outside Japan	547	528	571	419	369
Total (outside Japan)		557	541	583	428	376
	Total	1,621	1,510	1,528	1,396	1,206

*Water Use=Water withdrawal+recycled and reused water

BOD (tons)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Japan	20.9	25.5	25.4	26.4	14.4
	Outside Japan	1.3	10.7	6.6	8.9	7.4

COD (tons)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Japan	6.8	9.3	6.9	6.3	3.6
	Outside Japan	5.2	32.1	19.6	30.1	33.7

Environmental Data

■ CITIZEN Group's Other Environmental Impact (including environmental pollution)

NOx(tons)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Japan	3.6	3.6	3.8	2.8	2.5

SOx(tons)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Japan	0.8	0.2	0.0	0.0	0.0

Handled amount of Substances Subject to the PRTR Act (tons)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Japan	150	121	98	95	77

■ The Amount of Substances Subject to the PRTR Act Handled/Discharged/Transferred (FY 2020)

Chemical Substances	Handled amount (tons)	Discharged amount (tons)				Teabserferred amount (tons)	
		Discharged to the Atmosphere	Discharged to Public Water Bodies	Discharged to the Soil at the Sites	Land-filled at the Sites	Transferred to Sewers	Transferred to Off-site
1-Bromopropane	28.00	27.31	0.00	0.00	0.00	0.00	0.00
1,2,4-Trimethylbenzene	11.84	0.08	0.00	0.00	0.00	0.00	1.68
Xylene	10.32	0.09	0.00	0.00	0.00	0.00	1.64
Hydrogen Fluoride and its water soluble salts	5.71	0.04	0.13	0.00	0.00	0.00	0.00
Lead	5.64	0.00	0.00	0.00	0.00	0.00	0.00
Poly(oxyethylene)=nonylphenyl ether	4.65	4.59	0.00	0.00	0.00	0.00	0.00
Nickel Compounds	2.80	0.00	0.00	0.00	0.00	0.12	1.58
Inorganic cyanide compounds (excluding complex salts and cyanates)	2.25	0.00	0.00	0.00	0.00	0.00	1.32
Methylnaphthalene	1.90	0.00	0.00	0.00	0.00	0.00	0.00
Toluene	1.03	0.00	0.00	0.00	0.00	0.00	0.00
Cobalt and its compounds	0.68	0.00	0.00	0.00	0.00	0.00	0.12
Others	2.66	0.01	0.03	0.00	0.00	0.00	0.43
Total	77.48	32.13	0.16	0.00	0.00	0.12	6.78

Chemical Substances Used (tons)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Outside Japan	1,702	1,855	1,250	1,070	924

Containers and Packaging Used (tons)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Japan	551	533	521	555	310
	Outside Japan	1,458	1,458	1,337	1,104	661
Paper used (tons)		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Japan	84	68	75	71	45
	Outside Japan	39	43	43	45	34

■ Boundary

Japan

CITIZEN WATCH / CITIZEN MACHINERY / CITIZEN ELECTRONICS / CITIZEN FINEDEVICE / CITIZEN SYSTEMS JAPAN / CITIZEN WATCH MANUFACTURING / CITIZEN T.I.C. / CITIZEN PLAZA / CITIZEN MICRO / FUJIMI / CITIZEN ELECTRONICS TIMEL / CITIZEN ELECTRONICS FUNEHIKI / CITIZEN CHIBA PRECISION / CITIZEN LOGISTICS SERVICE

Target Period: April 1, 2020 – March 31, 2021
(CITIZEN ELECTRONICS FUNEHIKI until September 2020, CITIZEN PLAZA until December 2020)

Outside Japan

ROYAL TIME CITI CO., LTD. / GUANGZHOU MOST CROWN ELECTRONICS / CITIZEN MACHINERY ASIA / CITIZEN MACHINERY PHILIPPINES / CITIZEN MACHINERY VIETNAM / CITIZEN CHINA PRECISION MACHINERY / JIANGXING ELECTRONICS LTD. / CITIZEN SYSTEMS (JIANGMEN) / MASTER CROWN ELECTRONICS (WUZHOU) / CITIZEN WATCH MANUFACTURING (THAILAND) CO., LTD. / CITIZEN SEIMITSU (THAILAND) CO., LTD. / CITIZEN SYSTEMS (DONGGUAN) CO., LTD. / SUNCITI PVD (JIANGMEN) LTD. / CITIZEN FINEDEVICE PHILIPPINES CORP

Target Period: January 1, 2020 – December 31, 2020

Environmental Impact Status of Group Companies in Japan

Target Period : April 1, 2020 – March 31, 2021 (CITIZEN ELECTRONICS FUNEHIKI until September 2020, CITIZEN PLAZA until December 2020)
Reporting Scope : 29 Sites in Japan

※The CO₂ emissions shown in the data by site are based on the assumption that the amount of electricity derived from renewable energy sources is zero.

CITIZEN WATCH (Tokyo Office)	
■ Location	Nishitokyo-shi, Tokyo
■ Description of Business	As a holding company, formulation and promotion of group management strategies, audit of group
■ INPUT	
Energy Consumption(GJ)	133,042
Water(thousand m ³)	31.8
PRTR Act Substances(tons)	0.28
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	946
Water discharge(thousand m ³)	15.2
Waste generated	
·Total Waste (tons)	80
·Recycled Waste (tons)	80

CITIZEN SYSTEMS JAPAN (Fujiyoshida Plant)	
■ Location	Fujiyoshida-shi, Yamanashi
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	1,939
Water(thousand m ³)	1.7
PRTR Act Substances(tons)	
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	99
Water discharge(thousand m ³)	1.7
Waste generated	
·Total Waste (tons)	29
·Recycled Waste (tons)	29

CITIZEN MACHINERY (Karuzawa Headquarters)	
■ Location	Miyota-machi, Kitasaku-gun, Nagano
■ Description of Business	CNC automatic lathes
■ INPUT	
Energy Consumption(GJ)	99,045
Water(thousand m ³)	8.1
PRTR Act Substances(tons)	1.0
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	5,185
Water discharge(thousand m ³)	7.4
Waste generated	
·Total Waste (tons)	430
·Recycled Waste (tons)	430

CITIZEN MACHINERY (Kitakami Works)	
■ Location	Kitakami-shi, Iwate
■ Description of Business	CNC automatic lathes
■ INPUT	
Energy Consumption(GJ)	25,899
Water(thousand m ³)	3.8
PRTR Act Substances(tons)	1.7
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	1,427
Water discharge(thousand m ³)	3.8
Waste generated	
·Total Waste (tons)	107
·Recycled Waste (tons)	107

Environmental Impact Status of Group Companies in Japan

CITIZEN MACHINERY (Saku Works)	
■ Location	Saku-shi, Nagano
■ Description of Business	CNC automatic lathes
■ INPUT	
Energy Consumption (GJ)	21,424
Water (thousand m ³)	4.5
PRTR Act Substances (tons)	
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	1,113
Water discharge (thousand m ³)	4.5
Waste generated	
·Total Waste (tons)	68
·Recycled Waste (tons)	68

CITIZEN ELECTRONICS	
■ Location	Fujiyoshida-shi, Yamanashi
■ Description of Business	Lighting LED, compact chip LED, tactile switch, optical sensor
■ INPUT	
Energy Consumption (GJ)	191,608
Water (thousand m ³)	174.9
PRTR Act Substances (tons)	0.0
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	9,850
Water discharge (thousand m ³)	113.7
Waste generated	
·Total Waste (tons)	128
·Recycled Waste (tons)	128

CITIZEN FINEDEVICE (Kawaguchiko Plant) , FUJIMI	
■ Location	Fujiyoshida-shi, Yamanashi
■ Description of Business	Automotive components, display devices, measuring instruments, mini printers for business use
■ INPUT	
Energy Consumption (GJ)	218,595
Water (thousand m ³)	275.8
PRTR Act Substances (tons)	31.5
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	11,188
Water discharge (thousand m ³)	191.9
Waste generated	
·Total Waste (tons)	1296
·Recycled Waste (tons)	1296

CITIZEN FINEDEVICE (Miyota Works)	
■ Location	Miyota-machi, Kitasaku-gun, Nagano
■ Description of Business	Crystal oscillators, transmitters/crystal blanks, electronic devices for video, photonics device components
■ INPUT	
Energy Consumption (GJ)	189,891
Water (thousand m ³)	127.6
PRTR Act Substances (tons)	11.1
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	9,874
Water discharge (thousand m ³)	76.6
Waste generated	
·Total Waste (tons)	169
·Recycled Waste (tons)	169

Environmental Impact Status of Group Companies in Japan

CITIZEN WATCH MANUFACTURING (Tokorozawa Works)	
■ Location	Tokorozawa-shi,Saitama
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	192,275
Water (thousand m³)	145.9
PRTR Act Substances(tons)	0.6
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	9,809
Water discharge(thousand m³)	131.0
Waste generated	
·Total Waste (tons)	87
·Recycled Waste (tons)	87

CITIZEN WATCH MANUFACTURING (Saitama Sayama Plant)	
■ Location	Sayama-shi, Saitama
■ Description of Business	Manufacturing of watches, clocks and their components
■ INPUT	
Energy Consumption(GJ)	54,936
Water (thousand m³)	11.2
PRTR Act Substances(tons)	6.5
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	2,830
Water discharge(thousand m³)	11.2
Waste generated	
·Total Waste (tons)	312
·Recycled Waste (tons)	312

CITIZEN WATCH MANUFACTURING (Saitama Yoshimi Plant)	
■ Location	Yoshimi-machi,Hiki-gun,Saitama
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	54,613
Water (thousand m³)	47.8
PRTR Act Substances(tons)	1.3
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	2,796
Water discharge(thousand m³)	47.8
Waste generated	
·Total Waste (tons)	124
·Recycled Waste (tons)	124

CITIZEN WATCH MANUFACTURING (Iida Plant)	
■ Location	Iida-shi,Nagano
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	51,208
Water (thousand m³)	7.1
PRTR Act Substances(tons)	0.0
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	2,641
Water discharge(thousand m³)	7.1
Waste generated	
·Total Waste (tons)	66
·Recycled Waste (tons)	66

Environmental Impact Status of Group Companies in Japan

CITIZEN WATCH MANUFACTURING (Tohoku Kitakami Plant)	
■ Location	Kitakami-shi, Iwate
■ Description of Business	
■ INPUT	
Energy Consumption (GJ)	104,018
Water (thousand m ³)	167.1
PRTR Act Substances (tons)	18.0
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	5,594
Water discharge (thousand m ³)	145.9
Waste generated	
·Total Waste (tons)	419
·Recycled Waste (tons)	419

CITIZEN WATCH MANUFACTURING (Tohoku Souma Plant)	
■ Location	Shinchi-machi, Souma-gun, Fukushima
■ Description of Business	
■ INPUT	
Energy Consumption (GJ)	11,446
Water (thousand m ³)	1.8
PRTR Act Substances (tons)	2.1
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	589
Water discharge (thousand m ³)	1.8
Waste generated	
·Total Waste (tons)	86
·Recycled Waste (tons)	83

CITIZEN WATCH MANUFACTURING (Miyota Saku Plant)	
■ Location	Saku-shi, Nagano
■ Description of Business	
■ INPUT	
Energy Consumption (GJ)	59,081
Water (thousand m ³)	22.8
PRTR Act Substances (tons)	0.0
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	3,032
Water discharge (thousand m ³)	9.2
Waste generated	
·Total Waste (tons)	21
·Recycled Waste (tons)	21

CITIZEN WATCH MANUFACTURING (Kawaguchiko Plant)	
■ Location	Fujiyoshida-shi, Yamanashi
■ Description of Business	
■ INPUT	
Energy Consumption (GJ)	33,339
Water (thousand m ³)	6.8
PRTR Act Substances (tons)	2.1
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	1,722
Water discharge (thousand m ³)	6.8
Waste generated	
·Total Waste (tons)	36
·Recycled Waste (tons)	36

Environmental Impact Status of Group Companies in Japan

CITIZEN WATCH MANUFACTURING (Yubari Plant)	
■ Location	Yubari-shi,Hokkaido
■ Description of Business	Watch components, components of precision instruments
■ INPUT	
Energy Consumption(GJ)	44,446
Water(thousand m³)	8.2
PRTR Act Substances(tons)	
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	2,328
Water discharge(thousand m³)	8.2
Waste generated	
·Total Waste (tons)	75
·Recycled Waste (tons)	75

CITIZEN WATCH MANUFACTURING (Kagoshima Plant)	
■ Location	Hioki-shi,Kagoshima
■ Description of Business	Movement components of watch
■ INPUT	
Energy Consumption(GJ)	81,729
Water(thousand m³)	53.5
PRTR Act Substances(tons)	0.3
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	4,299
Water discharge(thousand m³)	13.8
Waste generated	
·Total Waste (tons)	323
·Recycled Waste (tons)	323

CITIZEN WATCH MANUFACTURING (Tohoku Nishiwaga Plant)	
■ Location	Nishiwaga-machi, Waga-gun, Iwate
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	5,514
Water(thousand m³)	0.3
PRTR Act Substances(tons)	0.2
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	290
Water discharge(thousand m³)	0.3
Waste generated	
·Total Waste (tons)	4
·Recycled Waste (tons)	4

CITIZEN WATCH MANUFACTURING (Akita Plant)	
■ Location	Kitaakita-shi, Akita
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	3,009
Water(thousand m³)	2.0
PRTR Act Substances(tons)	0.4
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	154
Water discharge(thousand m³)	0.3
Waste generated	
·Total Waste (tons)	3
·Recycled Waste (tons)	2

Environmental Impact Status of Group Companies in Japan

CITIZEN WATCH MANUFACTURING (Myoko Plant)	
■ Location	Myoko-shi, Niigata
■ Description of Business	
■ INPUT	
Energy Consumption (GJ)	3,581
Water (thousand m³)	1.2
PRTR Act Substances (tons)	0.0
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	184
Water discharge (thousand m³)	0.9
Waste generated	
·Total Waste (tons)	4
·Recycled Waste (tons)	3

CITIZEN T.I.C.	
■ Location	Koganei-shi, Tokyo
■ Description of Business	Clock devices, digital signage, electronic scoreboards
■ INPUT	
Energy Consumption (GJ)	1,674
Water (thousand m³)	0.7
PRTR Act Substances (tons)	
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	86
Water discharge (thousand m³)	0.7
Waste generated	
·Total Waste (tons)	28
·Recycled Waste (tons)	28

CITIZEN PLAZA	
■ Location	Shinjuku-ku
■ Description of Business	Leisure services
■ INPUT	
Energy Consumption (GJ)	16,388
Water (thousand m³)	9.7
PRTR Act Substances (tons)	
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	838
Water discharge (thousand m³)	9.7
Waste generated	
·Total Waste (tons)	11
·Recycled Waste (tons)	11

CITIZEN ELECTRONICS FUNEHIKI	
■ Location	Tamura-shi, Fukushima
■ Description of Business	Electronic components such as LED chips
■ INPUT	
Energy Consumption (GJ)	20,804
Water (thousand m³)	1.1
PRTR Act Substances (tons)	
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	1,066
Water discharge (thousand m³)	1.1
Waste generated	
·Total Waste (tons)	735
·Recycled Waste (tons)	735

Environmental Impact Status of Group Companies in Japan

CITIZEN ELECTRONICS TIMEL	
■ Location	Fujiyoshida-shi, Yamanashi
■ Description of Business	Lighting LED, compact Chip LED, tactile Switch
■ INPUT	
Energy Consumption (GJ)	90,980
Water (thousand m ³)	179.4
PRTR Act Substances (tons)	0.0
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	4,687
Water discharge (thousand m ³)	16.7
Waste generated	
·Total Waste (tons)	76
·Recycled Waste (tons)	72

CITIZEN CHIBA PRECISION	
■ Location	Yachiyo-shi, Chiba
■ Description of Business	Brushless motors, linear actuators, coreless DC servomotors
■ INPUT	
Energy Consumption (GJ)	3,709
Water (thousand m ³)	0.8
PRTR Act Substances (tons)	0.2
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	190
Water discharge (thousand m ³)	0.8
Waste generated	
·Total Waste (tons)	16
·Recycled Waste (tons)	16

CITIZEN MICRO	
■ Location	Hidaka-shi, Saitama
■ Description of Business	Micro reduction gears, micro motors
■ INPUT	
Energy Consumption (GJ)	6,527
Water (thousand m ³)	1.0
PRTR Act Substances (tons)	0.3
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	344
Water discharge (thousand m ³)	1.0
Waste generated	
·Total Waste (tons)	15
·Recycled Waste (tons)	15

CITIZEN LOGISTICS SERVICE	
■ Location	Kawajima-machi, Hiki-gun, Saitama
■ Description of Business	
■ INPUT	
Energy Consumption (GJ)	2,363
Water (thousand m ³)	0.7
PRTR Act Substances (tons)	
■ OUTPUT	
CO ₂ Emission (t-CO ₂)	121
Water discharge (thousand m ³)	0.7
Waste generated	
·Total Waste (tons)	95
·Recycled Waste (tons)	95

Environmental Impact Status of Group Companies outside Japan

Reporting period : January 1, 2020 - December 31, 2020

Reporting Scope : 14 sites outside Japan

ROYAL TIME CITI CO., LTD.	
■ Location	Thailand
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	38,813
Water (thousand m³)	27.1
PRTR Act Substances(tons)	34.9
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	2,005
Water discharge(thousand m³)	0.3
Waste generated	
·Total Waste (tons)	229
·Recycled Waste (tons)	90

CITIZEN WATCH MANUFACTURING (THAILAND) CO., LTD.	
■ Location	Thailand
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	40,116
Water (thousand m³)	60.6
PRTR Act Substances(tons)	150.3
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	2,064
Water discharge(thousand m³)	47.4
Waste generated	
·Total Waste (tons)	249
·Recycled Waste (tons)	11

SUNCITI PVD (JIANGMEN) LTD.	
■ Location	China
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	15,021
Water (thousand m³)	12.4
PRTR Act Substances(tons)	20.3
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	770
Water discharge(thousand m³)	12.4
Waste generated	
·Total Waste (tons)	21
·Recycled Waste (tons)	14

GUANGZHOU MOST CROWN ELECTRONICS LTD.	
■ Location	China
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	43,137
Water (thousand m³)	64.7
PRTR Act Substances(tons)	1.0
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	2,296
Water discharge(thousand m³)	60.7
Waste generated	
·Total Waste (tons)	946
·Recycled Waste (tons)	121

Environmental Impact Status of Group Companies outside Japan

CITIZEN MACHINERY ASIA CO.,LTD.	
■ Location	Thailand
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	53,182
Water (thousand m³)	10.0
PRTR Act Substances(tons)	25.5
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	2,740
Water discharge(thousand m³)	8.0
Waste generated	
·Total Waste (tons)	136
·Recycled Waste (tons)	100

CITIZEN MACHINERY VIETNAM CO.,LTD.	
■ Location	Vietnam
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	46,957
Water (thousand m³)	9.0
PRTR Act Substances(tons)	355.2
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	2,428
Water discharge(thousand m³)	7.2
Waste generated	
·Total Waste (tons)	778
·Recycled Waste (tons)	749

CITIZEN MACHINERY PHILIPPINES INC.	
■ Location	Philippines
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	41,437
Water (thousand m³)	35.4
PRTR Act Substances(tons)	84.0
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	2,209
Water discharge(thousand m³)	30.1
Waste generated	
·Total Waste (tons)	500
·Recycled Waste (tons)	143

CITIZEN (CHINA) PRECISION MACHINERY CO.,LTD.	
■ Location	China
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	56,715
Water (thousand m³)	3.2
PRTR Act Substances(tons)	18.1
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	2,906
Water discharge(thousand m³)	3.2
Waste generated	
·Total Waste (tons)	226
·Recycled Waste (tons)	181

Environmental Impact Status of Group Companies outside Japan

JIANGXING ELECTRONICS LTD.	
■ Location	China
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	241,616
Water (thousand m³)	122.3
PRTR Act Substances(tons)	19.2
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	12,385
Water discharge(thousand m³)	18.8
Waste generated	
•Total Waste (tons)	86
•Recycled Waste (tons)	65

MASTER CROWN ELECTRONICS (WUZHOU) Ltd.	
■ Location	China
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	119,423
Water (thousand m³)	72.5
PRTR Act Substances(tons)	35.8
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	6,118
Water discharge(thousand m³)	0.9
Waste generated	
•Total Waste (tons)	32
•Recycled Waste (tons)	13

CITIZEN FINEDEVICE PHILIPPINES CORP.	
■ Location	China
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	80,709
Water (thousand m³)	177.9
PRTR Act Substances(tons)	17.6
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	4,253
Water discharge(thousand m³)	130.0
Waste generated	
•Total Waste (tons)	309
•Recycled Waste (tons)	286

CITIZEN SEIMITSU (THAILAND) CO., LTD.	
■ Location	Thailand
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	81,980
Water (thousand m³)	40.0
PRTR Act Substances(tons)	153.9
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	4,202
Water discharge(thousand m³)	32.0
Waste generated	
•Total Waste (tons)	408
•Recycled Waste (tons)	315

Environmental Impact Status of Group Companies outside Japan

CITIZEN SYSTEMS (JIANGMEN) Co., Ltd.	
■ Location	China
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	25,248
Water (thousand m³)	14.3
PRTR Act Substances(tons)	6.0
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	1,298
Water discharge(thousand m³)	12.8
Waste generated	
·Total Waste (tons)	137
·Recycled Waste (tons)	55

CITIZEN SYSTEMS (DONGGUAN) CO., LTD.	
■ Location	China
■ Description of Business	
■ INPUT	
Energy Consumption(GJ)	27,758
Water (thousand m³)	21.4
PRTR Act Substances(tons)	2.4
■ OUTPUT	
CO ₂ Emission(t-CO ₂)	1,422
Water discharge(thousand m³)	12.1
Waste generated	
·Total Waste (tons)	39
·Recycled Waste (tons)	25

Environmental Accounting

Consolidated environmental accounting for the scope of coverage, including CITIZEN WATCH and main production site of the group companies, has been compiled. The standard for calculating the economic effect is only the real effect, and the so-called risk aversion effect and deemed effect are not calculated. The total amount of investment for the period was 6,767 million JPY, and the total amount of research and development expenses was 6,646 million JPY. The Ministry of the Environment's Environmental Accounting Guidelines 2005 were used as a reference in the calculation.

Target Period : April 1, 2020 - March 31, 2021

Reporting Scope : 11 companies (CITIZEN WATCH / CITIZEN MACHINERY / CITIZEN ELECTRONICS / CITIZEN FINEDEVICE / CITIZEN SYSTEMS JAPAN / CITIZEN WATCH MANUFACTURING / CITIZEN T.I.C. / CITIZEN ELECTRONICS TIMEL / CITIZEN MICRO / CITIZEN CHIBA PRECISION / FUJIMI)

■ Environmental Conservation Costs (Unit: million JPY)

Category		Major Areas Covered	Amount of Investment	Amount of Costs
Business Area Costs			101	855
Breakdown	1. Pollution Prevention Costs	Air Pollution, Water Pollution, Noise Prevention	9	349
	2. Global Environmental Conservation Costs	Energy Conservation	87	192
	3. Resource Circulation Costs	Reducing Waste Generated, Recycling, Effective Use of Water	5	314
Upstream/Downstream Costs		Recycling of Containers and Packaging, Use of ECOMARK	0	5
Management Overhead Costs		Environmental Education, Operation of Environmental	0	198
R&D Costs		Solar-Powered Watch, R&D of Watch Basic Technologies	27	198
Social Activity Costs		Social Contribution Activities	0	30
Environmental Remediation Costs		Survey of Soil Pollution, Purification of Soil	0	76
Total			128	1,362

■ Environmental Conservation Effects

Environmental Conservation Effects (Quantitative Effects)						
Effects		Indicators of Environmental Conservation Effectiveness				
		Category of Indicators	Unit	FY 2019	FY 2020	Increase or Decrease
(1) Effects on Cost of Business Area	[1] Effects related to the Resources Put into Business Activities	Energy Consumption	GJ	2,035,065	1,737,417	-297,647
		Water Use	thousand m ³	1,237	1,104	-133
		Handled amount of Substances Subject to the PRTR Act	tons	92	77	-15
	[2] Effects related to Environmental impact and Generated Waste Caused by Business Activities	CO ₂ Emissions from energy consumption	t-CO ₂	104,154	88,858	-15,296
		Water discharge	thousand m ³	859	716	-143
		Total Waste	tons	6,405	4,834	-1,570
	Recycled Waste	tons	6,377	4,823	-1,554	
(2) Effects on Cost Upstream/ Downstream	[3] Effects related to Goods and Services Produced by Business Activities	Amount of plastic containers and packaging used	tons	274	150	-124
		Amount of paper containers and packaging used	tons	281	160	-122

■ Economic Effect Accompanied with Environmental Conservation Measures - Substantial Effects (Unit : million JPY)

Description of the Effects		Amount
Revenue	Business Income due to the Selling of Valuables in Business Activities	151
Cost Reduction	Reduction of Energy due to Energy Conservation Activities	135
	Reduction of Water Costs and Discharge Treatment Costs due to Resource Conservation or Recycling	35
	Reduction of Waste Treatment Costs associated with Resource Conservation or Recycling	62
	Others	0
Total		383

■ Eco-Efficiency Indicators

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Environmental Impact Sales Index = Net Sales / Environmental Impact* (CO ₂)	2.9	2.8	2.9	2.6	2.1

*Environmental impact is the CO₂ emissions of environmental conservation effects.

■ Costs related to climate change response

Investment in research and development, and cost of countermeasures (Unit: million JPY)	
Investment	87.0
Cost	192.0

■ Costs related to pollution, waste, and resource use

Investment in research and development, and cost of countermeasures (Unit: million JPY)	
Investment	5.0
Cost	314.0

■ Costs related to water-related risks

Investment in research and development, and cost of countermeasures (Unit: million JPY)	
Investment	8.1
Cost	314.1

■ Environment-related accidents, violations, fines, etc.

Violations of Environmental Laws and Regulations and Occurrence of Accidents	
Serious violations of environment-related laws and regulations	0
Serious accidents related to the environment	0

Greenhouse Gas Emissions Verification Report

To: Citizen Watch Co., Ltd.

1. Objective and Scope

Japan Quality Assurance Organization (hereafter “JQA”) was engaged by Citizen Watch Co., Ltd. (hereafter “the Company”) to provide an independent verification on “Citizen Group Scope 3 Calculation Report for 2019” (hereafter “the Report”). The content of our verification was to express our conclusion, based on our verification procedures, on whether the statement of information regarding the FY2019* Scope 3 Greenhouse gases (GHG) emissions in the Report was correctly measured and calculated, in accordance with “Group Scope 3 Calculation Rule ver.2.3” (hereafter “the Rule”). The purpose of the verification is to evaluate the Report objectively and to enhance the credibility of the Report.

*The fiscal year 2019 of the Company ended on March 31, 2020.

2. Procedures Performed

JQA conducted verification in accordance with “ISO 14064-3”. The scope of this verification assignment covers GHG emissions from 12 categories of Scope 3 (Category 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12). The verification was conducted to a limited level of assurance and quantitative materiality was set at 5 percent of the total emissions in the Report. The organizational boundaries of this verification cover Citizen Group 12 domestic sites of office, and overseas 14 sites of office. Our verification procedures included:

- Performing validation to check the Rules, and checking scope of calculation, calculation scenario and allocation method; monitoring and calculation system; and emission data against evidence.
- Vouching: Cross-checking the Scope 3 GHG emissions data against evidence.

3. Conclusion

Based on the procedures described above, nothing has come to our attention that caused us to believe that the statement of the information regarding the Company’s FY2019 Scope 3 GHG emissions in the Report, is not materially correct, or has not been prepared in accordance with the Rule.

4. Consideration

The Company was responsible for preparing the Report, and JQA’s responsibility was to conduct verification of Scope 3 GHG emissions in the Report only. There is no conflict of interest between the Company and JQA.



Sumio Asada, Board Director

For and on behalf of Japan Quality Assurance Organization

1-25, Kandasudacho, Chiyoda-ku, Tokyo, Japan

March 10, 2021

Social Data

■ Basic Data

Employees' average age (Age)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Male	42.3	42.3	42.9	42.7	42.2
Female	39.7	40	40.2	39.8	38.9
Total	41.8	41.9	42.4	42.1	41.5

Average length of employment (Years)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Male	17.8	17.8	18.3	18.5	18.2
Female	15.7	16.1	16.2	16	15.1
Total	17.4	17.5	17.9	18	17.6

New graduate recruitment (Numbers of people)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Male	79	90	76	91	56
Female	33	33	39	36	23
Total	112	123	115	127	79

Mid-career recruitment (Numbers of people)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Male	21	25	56	16	12
Female	8	3	13	5	2
Total	29	28	69	21	14

Turnover by age (Numbers of people)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
10s	6	1	1	5	3
20s	29	27	34	31	60
30s	28	27	25	34	56
40s	20	13	18	14	10
50s	23	17	17	13	18
60s	5	7	2	8	0
Total	111	92	97	105	147

Turnover by gender (Numbers of people)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Male	-	-	65	73	113
Female	-	-	32	32	34
Total	-	-	97	105	147

Turnover rates for personal reasons (%)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total	2.31	2.01	2.05	2.09	3.19

■ Promoting Diversity

Rates of female workers (%)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Employees	20.8	19.8	19.6	20.9	25.5
Managers	3.5	3.7	3.6	3.7	4.4
Officers	0.0	1.3	2.6	4.6	6.3

Rates of female workers (CITIZEN WATCH) (%)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Employees	24.2	24.7	25.1	25.6	26.0
Managers	6.2	7.0	6.5	6.6	7.0
Officers	0.0	5.9	5.0	10.0	9.5

Rates of employees with disabilities (%)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total	2.15	2.06	2.00	2.10	2.10

*The data is as of March 31, 2021, unless otherwise specified.
* Nine major group companies unless otherwise specified.

Social Data

■ Promoting Work-Life Balance

Employees working shorter hours for childcare (Numbers of people)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Male	4	7	6	18	20
Female	54	56	34	46	27
Total	58	63	40	64	47

Childcare leave taken (Numbers of people)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total	88	105	75	110	65

*In addition to childcare leave, our regular employees receive benefits such as life insurance, medical disability and occupational illness compensation, the company's retirement package and an employee stock ownership plan.

Nursing care leave taken (Numbers of people)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total	2	3	4	0	1

■ Human Resources Development

Hours spent for capacity building programs (Hours)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Average training hours per employee	3.7	4.0	4.2	4.0	5.7
Total training hours	17,717	18,449	20,019	21,005	26,272

■ Occupational Health and Safety

Occupational accident (Numbers of accidents)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Fatal	0	0	0	0	0
accidents	10	4	8	5	6

Occupational health and safety education provided

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Programs	211	246	261	—	45
Eligible employees	4,086	6,846	6,411	8,273	3,000

(Numbers of sessions/people)

Six major group companies

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Lost time injury frequency rate (LTIFR)	0.078	0.24	0.28	0.00	2.26
Lost time injury severity rate (LTISR)	0.00	0.00	0.00	0.00	0.01

* [0.00] represents a figure that is less than 0.01 even after being rounded at the third decimal place.

Specified medical checkup and specific health guidance (23sites) (%)

	Subject to	FY 2016	FY 2017	FY 2018	FY 2019	FY 2019 (In the process of calculation)	FY 2020 (Target)
Rate of specified medical checkup	Insured and family	84.2	83.8	85.3	86.1	84.1	90.0
Rate of metabolic syndrome diagnosed (compared with FY2008)		12.3 (+18.2)	13 (+25.2)	12.8 (+22.7)	13.7 (+32.1)	14.1 (+35.5)	10.4 (+0.0)
Rate of pre-metabolic syndrome diagnosed (compared with 2008)		11.5 (+10.4)	12.3 (+17.9)	12.4 (+18.7)	13.1 (+25.3)	12.7 (+21.8)	10.4 (+0.0)
Rate of specific health guidance provided	Insured	31.8	50.7	43.7	31.7	21.3	46.0

(As of April 1, 2021)

*The data is as of March 31, 2021, unless otherwise specified.

* Nine major group companies unless otherwise specified.

Social Data

■ CSR Procurement

FY 2020 Results and FY 2021 Goals

	CSR procurement briefings for suppliers			No. of suppliers to which Self Assessment Questionnaire (SAQ) is sent			No. of on-site factfinding conducted		
	FY 2020		FY 2021	FY 2020		FY 2021	FY 2020		FY 2021
	Target	Result	Target	Target	Result	Target	Target	Result	Target
CITIZEN WATCH	○	○	○	6	5	45	3	0	1
CITIZEN MACHINERY	-	○	○	14	14	35	1	1	1
CITIZEN ELECTRONICS	-	○	○	9	11	60	2	1	4
CITIZEN FINEDEVICE	○	○	○	50	78	180	3	1	3
CITIZEN SYSTEMS	○	○	○	94	222	180	10	0	12
CITIZEN WATCH MANUFACTURING	○	○	○	20	13	32	2	3	2
CITIZEN T.I.C.	-	○	○	4	4	4	1	2	2
TOKYO BIJUTSU	-	○	○	8	8	8	-	0	1

*The failure to achieve targets for supplier on-site fact-finding surveys was due to the COVID-19 pandemic

■ Social Contribution Activity Expenses

Breakdown by activity area of social contribution expenses

(1,000 JPY)

	FY 2020
Social welfare	2,222
Employment creation	7
Health and sports	15,000
Academic research	252
Education	6,177
Culture and arts	4,220
Environment	84,041
Community activities	20,608
International exchange	53
Disaster assistance	87
Others	7,787
Total	140,555

* May not sum to total due to rounding.

Breakdown by category of social contribution expenses

(1,000 JPY)

	FY 2020
Monetary donation	16,896
In-kind donation	10,957
Making company	5,594
Involvement by employees	15,633
Others	91,474
Total	140,555

* May not sum to total due to rounding.

Number of employees engaged in social contribution activities

(Numbers of people)

	FY 2020
Social Contribution Mission Program	0
Instructor for watchmaking workshop	8
Cleanup activities	2,294

Political donations (JPY)

	FY 2020
Total	0