ESG Data 2024 - Environmental Data

Updated May 2025

TEPCO HD and core operating companies (Tokyo Electric Power Company Holdings, Inc., TEPCO Fuel & Power, Inc., TEPCO Power Grid, Inc., TEPCO Energy Partner, Inc., and TEPCO Renewable Power, Inc.)						
GRI	UM	FY2020	FY2021	FY2022	FY2023	
Coverage						
Operating revenues	(billion JPY)	5,867	5,310	7,799	6,918	
Electric power operating revenues	(billion JPY)	5,514	4,842	7,132	6,330	
Other operating revenues	(billion JPY)	353	468	667	589	
TEPCO HD and core operating companies / TEPCO HD and all of consolidated subsidiary companies	(%)	94	91	91	91	
GRI	UM	FY2020	FY2021	FY2022	FY2023	
Key figures						
Installed capacity by energy source						*1
Total net electrical capacity	(MW)	18,199	18,200	18,122	18,116	
Thermal net capacity	(MW)	58	58	58	58	
Coal	(MW)	0	0	0	0	
LNG	(MW)	0	0	0	0	
Oil	(MW)	58	58	58	58	
Nuclear net capacity	(MW)	8,212	8,212	8,212	8,212	
Renewable net capacity	(MW)	9,929	9,930	9,852	9,845	
Hydroelectric	(MW)	9,878	9,879	9,801	9,794	*2
Solar	(MW)	30	30	30	30	
Wind	(MW)	21	21	21	21	
Geothermal	(MW)	0	0	0	0	
Biomass and cogeneration	(MW)	0	0	0	0	
Net energy production by energy source						*1
Total net electrical production (energy consumption)	(GWh)	11,937	13,106	11,706	10,507	
Thermal net production (energy consumption)	(GWh)	159	157	156	155	
Coal	(GWh)	0	0	0	0	
LNG	(GWh)	0	0	0	0	
Oil	(GWh)	159	157	156	155	
Nuclear net production (energy consumption)	(GWh)	0	0	0	0	
Renewable net production (energy consumption)	(GWh)	11,778	12,948	11,550	10,353	
Hydroelectric	(GWh)	11,722	12,882	11,489	10,296	*2
Solar	(GWh)	29	29	24	22	
Wind	(GWh)	26	37	36	35	
Geothermal	(GWh)	0	0	0	0	
Biomass and cogeneration	(GWh)	0	0	0	0	
Efficiency						
Thermal power plant	(%)	-	-	-	-	
Development						
Development of renewable power generation facilities	(MW)	138	192	326	325	
Availability						
Nuclear power plant	(%)	0	0	0	0	
Network						
Electricity network						
Total transmission network	(km)	41,059	40,966	41,037	40,999	
- of which aerial line	(km)	28,585	28,453	28,480	28,410	
- of which underground cable	(km)	12,474	12,513	12,557	12,589	
Total distribution network	(km)	382,290	383,415	384,544	385,624	
- of which aerial line	(km)	343,257	344,208	345,095	345,883	
- of which underground cable	(km)	39,033	39,207	39,449	39,741	
Transmission and distribution loss						
Extra high voltage	(%)	1.4	1.3	1.3	1.3	*3
High voltage	(%)	3.9	3.9	3.7	3.7	*3
Low voltage	(%)	6.4	6.6	6.9	6.9	*3
Average	(%)	4.0	4.5	3.8	4.7	
Supply reliability						
System Average Interruption Duration Index (SAIDI)	(hours)	0.12	0.12	0.08	0.08	
Interruption time (min.) / year (min.)	(%)	0.001	0.001	0.001	0.001	

	Smart meter						
	Number of installations	(10,000 units)	2,840	2,840	2,840	2,840	*4
	Instalation rate	(%)	100	100	100	100	*4
	Sales						
	Electricity volumes	(GWh)	192,866	177,118	173,089	192,125	*5
305-4	CO_2 related electricty sales						
	Adjusted emissions intensity	(kg-CO_2/kWh)	0.441	0.451	0.376	0.408	*6
	Basic emissions intensity	(kg-CO_2/kWh)	0.447	0.457	0.457	0.475	
	Adjusted emissions	(1,000 t-CO_2)	85,100	79,900	65,100	78,400	*7
	Basic emissions	(1,000 t-CO_2)	86,300	80,900	79,100	91,300	
	Gas volumes	(1,000 m^3)	659,635	1,230,253	1,378,263	1,284,810	*8
	Adjusted emissions intensity	(kg-CO_2/m^3)	-	-	-	2.05	*9
	Basic emissions intensity	(kg-CO_2/m^3)	-	-	-	2.05	
	Adjusted emissions	(1,000 t-CO_2)	-	-	-	2,634	*9
	Basic emissions	(1,000 t-CO_2)	-	-	-	2,634	
	Leakege rate (Transportation)	(%)	0	0	0	0	
	Leakege rate (Distribution)	(%)	0	0	0	0	
	Leakege rate (Strage)	(%)	0	0	0	0	
2-27	**Environmental compliance**						
	Total monetary value of significant fines	(million JPY)	0	0	0	0	
	Total number of non-monetary sanctions	(cases)	0	0	0	0	
	Significant spill						
	Total number of significant spill	(cases)	0	0	0	0	

GRI		UM	FY2020	FY2021	FY2022	FY2023	
	Emissions						
305-1	**Direct greenhouse gas emissions (Scope 1)**						*10
	Total direct emissions (Scope 1)	(1,000 t-CO_2eq)	190	192	193	194 ★	*11
	CO_2 emissions from electricity production and other activities	(1,000 t-CO_2)	120	118	119	121	
	CO2 emissions from vehicles (gasoline and diesel)	(1,000 t-CO_2)	7	7	6	6	
	Total other CO_2eq emissions	(1,000 t-CO_2eq)	63	67	68	67	
	N_2O	(1,000 t-CO_2eq)	1	1	1	1	
	HFCs	(1,000 t-CO_2eq)	3	3	6	3	*12
	SF_6	(1,000 t-CO_2eq)	59	63	61	63	*12
	Other emissions volume						
	N_2O	(t)	3	3	3	3	
	SF_6	(t)	2.6	2.8	2.7	2.7	*12
	SF_6 recovery rate						
	In equipment inspections	(%)	>99.5	99	>99.5	>99.5	
	In equipment removal	(%)	>99.5	99	99	>99.5	
	Fluorocarbon emissions						
	Leaked volumes based on the act on rational use and proper management of fluorocarbon	(1,000 t-CO_2eq)	5	6	9	5	
305-2	**Indirect greenhouse gas emissions (Scope 2)**						*13
	Total of Scope2,market based	(1,000 t-CO_2eq)	5,205	5,753	4,917	5,918 ★	*14
	Total of Scope2,location based	(1,000 t-CO_2eq)	5,207	5,744	4,896	5,961 ★	*15
	Civil uses, hydroelectric and thermal electric plants						
	Related to energy purchased from the grid (Scope 2, market based)	(ktCO_2eq)	469	465	490	427	*14
	Related to energy purchased from the grid (Scope 2, location based)	(ktCO_2eq)	471	456	469	470	*15
	Related to technical losses from distribution and transmission network	(ktCO_2eq)	4,736	5,288	4,427	5,491	*16

302-2 305-3	**Other indirect greenhouse gas emissions (Scope 3, per GHG protcol)**						*17
	Total of Scope 3	(1,000 t-CO_2eq)	110,119	101,946	106,073	114,585	
Upstream	Category 1 Purchased goods and services	(1,000 t-CO_2eq)	1,236	1,670	2,688	3,432	*18
Upstream	Category 2 Capital goods	(1,000 t-CO_2eq)	1,906	1,758	1,988	2,279	
Upstream	Category 3 Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	(1,000 t-CO_2eq)	101,402	91,342	94,174	101,903 ★	*19
Upstream	Category 4 Upstream transportation and distribution	(1,000 t-CO_2eq)	0	0	0	21	*20
Upstream	Category 5 Waste generated in operations	(1,000 t-CO_2eq)	2	3	4	4	
Upstream	Category 6 Business travel	(1,000 t-CO_2eq)	4	4	4	4	
Upstream	Category 7 Employee commuting	(1,000 t-CO_2eq)	11	10	10	9	
Upstream	Category 8 Upstream leased assets	(1,000 t-CO_2eq)	0	0	0	0	
Upstream	Other (upstream)	(1,000 t-CO_2eq)	0	0	0	0	
Downstream	Category 9 Downstream transportation and distribution	(1,000 t-CO_2eq)	0	0	0	0	
Downstream	Category 10 Processing of sold products	(1,000 t-CO_2eq)	0	0	0	0	
Downstream	Category 11 Use of sold products	(1,000 t-CO_2eq)	5,559	7,159	7,206	6,933 ★	*21
Downstream	Category 12 End-of-life treatment of sold products	(1,000 t-CO_2eq)	0	0	0	0	
Downstream	Category 13 Downstream leased assets	(1,000 t-CO_2eq)	0	0	0	0	
Downstream	Category 14 Franchises	(1,000 t-CO_2eq)	0	0	0	0	
Downstream	Category 15 Investments	(1,000 t-CO_2eq)	0	0	0	0	
Downstream	Other (downstream)	(1,000 t-CO_2eq)	0	0	0	0	
	Scope 1 and 2						
	Market based	(1,000 t-CO_2eq)	5,395	5,945	5,110	6,113	
	Location based	(1,000 t-CO_2eq)	5,397	5,936	5,089	6,156	
	Scope 1, 2 and 3						
	Market based	(1,000 t-CO_2eq)	115,514	107,891	111,183	120,697	
	Location based	(1,000 t-CO_2eq)	115,516	107,882	111,162	120,740	
305-7	**Other atmospheric emission**						
	NO_X emissions	(1,000 t)	2	2	2	2	
	SO_X emissions	(1,000 t)	0.1	0.2	0.2	0.2	
	Dust emissions	(1,000 t)	0.03	0.03	0.04	0.03	
	Direct mercury emissions	(1,000 t)	0	0	0	0	
	Volatile organic compounds (VOC) emissions	(1,000 t)	0	0	0	0	*22

GRI		UM	FY2020	FY2021	FY2022	FY2023	
	Energy						
302-1 302-4	**Energy consumption**						
	Total	(GJ)	12,376,989	12,283,582	12,585,020	11,104,432	*23
	Electricity production and other activities	(GJ)	1,738,099	1,705,628	1,723,232	1,717,883	
	Vehicles (gasoline and diesel)	(GJ)	106,536	96,981	94,634	92,839	
	Electricity, heat and steam (civil uses, hydroelectric and thermal electric plants)	(GJ)	10,532,354	10,480,973	10,767,154	9,293,709	*23
302-3	**Energy consumption intensity in buildings**						
	Per total floor space of office (headquarters, branch offices, etc.)	(MJ/m^2)	1,397	1,336	1,316	1,172	*23
	Costs						
	Total costs of energy consumption	(million JPY)	2,948	3,914	4,198	5,294	
	Renewable energy (in-house power generation)						
	Installed buildings	(buildings)	17	15	14	14	
	Installed capacity	(kW)	229	303	301	312	
	Net energy production	(MWh)	227	225	223	251	

GRI		UM	FY2020	FY2021	FY2022	FY2023	
	Raw materials						
301-1	**Fuel consumption**						
	from non-renewable sources						
	Coal	(1,000 t)	<1	<1	<1	<1	
	Heavy oil, crude oil, etc.	(ML)	44	43	44	44	
	Gas (LNG, LPG)	(1,000 t)	<1	<1	<1	<1	
	City Gas	(million m^3)	<1	<1	<1	<1	
	Fuel for nuclear power plants	(t)	0	0	0	0	
	from renewable sources						
	Biomass	(1,000 t)	0	0	0	0	

GRI		UM	FY2020	FY2021	FY2022	FY2023
	Water					
303-3	**Water withdrawal in “water stressed” areas**					
	Total	(1,000 m^3)	0	0	0	0
303-3	**Water withdrawal by source**					
	Total withdrawal from scarce sources	(1,000 m^3)	47,420,172	49,463,282	47,263,796	37,129,334
	Surface water (wetlands, lakes, rivers)	(1,000 m^3)	47,419,391	49,462,537	47,263,067	37,128,590
	Ground water (from wells)	(1,000 m^3)	25	27	24	31
	Water from municipal water supplies	(1,000 m^3)	756	719	705	714
	Water withdrawal by uses					
	Total	(1,000 m^3)	47,420,172	49,463,282	47,263,796	37,129,334
	River water for hydroelectric plants	(1,000 m^3)	47,419,231	49,462,389	47,262,577	37,128,052
	Industrial water	(1,000 m^3)	67	73	384	422
	Municipal water	(1,000 m^3)	849	794	811	831
	Groundwater	(1,000 m^3)	25	27	24	31
	Water intensity for electricity generation activities					
	Total	(m^3/kWh)	5.6	5.7	5.5	5.2
303-4	**Water discharge by destination**					
	Total	(1,000 m^3)	47,420,170	49,463,282	47,263,796	37,129,331
	Surface water (wetlands, lakes, rivers)	(1,000 m^3)	47,419,231	49,462,389	47,262,577	37,128,057
	Groundwater	(1,000 m^3)	0	0	0	0
	Sea (in industrial treatment plants)	(1,000 m^3)	352	335	668	715
	Third party water (municipal treatment plants)	(1,000 m^3)	588	558	551	559
303-5	**Freshwater consumption**					
	Total	(1,000 m^3)	2	<1	<1	3
	Water treatment					
	Volume of waste water treatment in power plants	(1,000 m^3)	-	-	-	-
	COD emissions from power plants	(t)	-	-	-	-
	Annual accumulated ALPS treated water discharge volume	(1,000 m^3)	-	-	-	31
	Business Impacts of Water Related Incidents	(million JPY)	-	-	-	0

GRI		UM	FY2020	FY2021	FY2022	FY2023
	Waste					
	Industrial waste by disposal method					
306-3	Total generated	(1,000 t)	144	148	140	156
306-4	Recycled volume	(1,000 t)	144	148	140	156
306-5	Landfill treatment volume	(1,000 t)	0.105	0.486	0.055	0.093
	Recycling rate	(%)	99.9	99.6	99.9	99.9
	Hazardous waste					
	Waste volume containing PCB	(1,000 t)	26	27	18	21
	Insulating oil (inadvertently contaminated)	(ML)	4	4	4	6
	Pole-mounted transformers	(10,000 units)	7	5	3	3
	Management of remaining PCB equipments					
	Pole-mounted transformers	(10,000 units)	12	8	6	3
	Ash management					
	Total generated	(1,000 t)	0	0	0	0
	Recycled volume	(1,000 t)	0	0	0	0
	Landfill treatment volume	(1,000 t)	0	0	0	0
	Recycling rate	(%)	-	-	-	-

GRI		UM	FY2020	FY2021	FY2022	FY2023
	Other					
	Electric vehicle					
	Number of EV or PHEV	(vehicles)	569	656	720	915
	Rate of EV or PHEV fleets	(%)	15	18	21	27
	Green procurement					
	Green procurement rate in office supplies (monetary value based)	(%)	99.8	99.9	99.9	>99.9
	Paper bought for printers/ photocopiers					
	Number of sheets (equivalent A4 sheets)	(million A4eq)	205	170	171	171
	Weight	(t)	818	678	681	684

	TEPCO HD and all of consolidated subsidiary companies						
GRI	KPI	UM	FY2020	FY2021	FY2022	FY2023	注
	Key figures						
	Installed capacity by energy source						
	Total net electrical capacity	(MW)	18,350	18,354	18,269	18,310	
	Thermal net capacity	(MW)	58	58	58	58	
	Coal	(MW)	0	0	0	0	
	LNG	(MW)	0	0	0	0	
	Oil	(MW)	58	58	58	58	
	Nuclear net capacity	(MW)	8,212	8,212	8,212	8,212	
	Renewable net capacity	(MW)	10,080	10,084	9,998	10,039	
	Hydroelectric	(MW)	10,025	10,021	9,945	9,985	*2
	Solar	(MW)	31	39	30	30	
	Wind	(MW)	21	21	21	21	
	Geothermal	(MW)	0	0	0	0	
	Biomass and cogeneration	(MW)	3	3	3	3	
	Net energy production by energy source						
	Total net electrical production	(GWh)	12,561	13,698	12,248	11,225	
	Thermal net production	(GWh)	159	157	156	155	
	Coal	(GWh)	0	0	0	0	
	LNG	(GWh)	0	0	0	0	
	Oil	(GWh)	159	157	156	155	
	Nuclear net production	(GWh)	0	0	0	0	
	Renewable net production	(GWh)	12,402	13,541	12,092	11,070	
	Hydroelectric	(GWh)	12,332	13,458	12,016	10,992	*2
	Solar	(GWh)	31	31	25	22	
	Wind	(GWh)	26	37	36	35	
	Geothermal	(GWh)	0	0	0	0	
	Biomass and cogeneration	(GWh)	13	16	16	21	
	Sales						
	Electricity volumes	(GWh)	204,484	233,812	242,784	228,745	*24
2-27	**Environmental compliance**						
	Total monetary value of significant fines	(million JPY)	0	0	0	0	
	Total number of non-monetary sanctions	(cases)	0	0	0	0	
	Significant spill						
	Total number of significant spill	(cases)	0	0	0	0	
	ISO 14001						
	Certificated offices	(offices)	24	19	20	21	
GRI		UM	FY2020	FY2021	FY2022	FY2023	注
	Emissions						
305-1	**Direct greenhouse gas emissions (Scope 1)**						
	Total direct emissions (Scope 1)	(1,000 t-CO_2eq)	203	203	205	211	
	CO_2 emissions from electricity production and other activities	(1,000 t-CO_2)	128	123	125	132	
	CO2 emissions from vehicles (gasoline and diesel)	(1,000 t-CO_2)	11	11	10	9	
	Total other CO_2eq emissions	(1,000 t-CO_2eq)	64	69	69	69	
305-2	**Indirect greenhouse gas emissions (Scope 2)**						
	Total of Scope2,market based	(1,000 t-CO_2eq)	5,229	5,777	4,934	5,937	
	Total of Scope2,location based	(1,000 t-CO_2eq)	5,231	5,773	4,913	5,981	
	Civil uses, hydroelectric and thermal electric plants						
	Related to energy purchased from the grid (Scope 2, market based)	(1,000 t-CO_2eq)	493	489	507	446	
	Related to energy purchased from the grid (Scope 2, location based)	(1,000 t-CO_2eq)	495	485	485	490	
	Related to technical losses from distribution and transmission network	(1,000 t-CO_2eq)	4,736	5,288	4,427	5,491	
	Scope 1 and 2						
	Market based	(1,000 t-CO_2eq)	5,432	5,980	5,139	6,148	
	Location based	(1,000 t-CO_2eq)	5,433	5,976	5,118	6,192	

302-2 305-3	**Other indirect greenhouse gas emissions (Scope 3, per GHG protcol)**						
	Total of Scope 3	(1,000 t-CO_2eq)	-	-	106,401	115,463	*25
	Upstream: Category 1 Purchased goods and services	(1,000 t-CO_2eq)	-	-	-	3,895	
	Upstream: Category 2 Capital goods	(1,000 t-CO_2eq)	-	-	-	2,533	
	Upstream: Category 3 Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	(1,000 t-CO_2eq)	-	-	-	102,045	
	Upstream: Category 4 Upstream transportation and distribution	(1,000 t-CO_2eq)	-	-	-	26	
	Upstream: Category 5 Waste generated in operations	(1,000 t-CO_2eq)	-	-	-	6	
	Upstream: Category 6 Business travel	(1,000 t-CO_2eq)	-	-	-	5	
	Upstream: Category 7 Employee commuting	(1,000 t-CO_2eq)	-	-	-	13	
	Upstream: Category 8 Upstream leased assets	(1,000 t-CO_2eq)	-	-	-	1	
	Upstream: Other (upstream)	(1,000 t-CO_2eq)	-	-	-	0	
	Downstream: Category 9 Downstream transportation and distribution	(1,000 t-CO_2eq)	-	-	-	0	
	Downstream: Category 10 Processing of sold products	(1,000 t-CO_2eq)	-	-	-	0	
	Downstream: Category 11 Use of sold products	(1,000 t-CO_2eq)	-	-	-	6,934	
	Downstream: Category 12 End-of-life treatment of sold products	(1,000 t-CO_2eq)	-	-	-	0	
	Downstream: Category 13 Downstream leased assets	(1,000 t-CO_2eq)	-	-	-	5	
	Downstream: Category 14 Franchises	(1,000 t-CO_2eq)	-	-	-	0	
	Downstream: Category 15 Investments	(1,000 t-CO_2eq)	-	-	-	0	
	Downstream: Other (downstream)	(1,000 t-CO_2eq)	-	-	-	0	
GRI		UM	FY2020	FY2021	FY2022	FY2023	注
	Energy						
302-1 302-4	**Energy consumption**						
	Total	(GJ)	13,084,756	13,122,744	13,135,128	11,756,069	
	Electricity production and other activities	(GJ)	1,867,640	1,787,910	1,823,146	1,929,388	
	Vehicles (gasoline and diesel)	(GJ)	162,401	155,338	158,534	142,014	
	Electricity, heat and steam (civil uses, hydroelectric and thermal electric plants)	(GJ)	11,054,715	11,179,495	11,153,448	9,684,667	
GRI		UM	FY2020	FY2021	FY2022	FY2023	注
	Water						
303-3	**Water withdrawal by uses**						
	Total	(1,000 m^3)	51,300,384	52,787,101	50,621,370	41,352,728	
	River water for hydroelectric plants	(1,000 m^3)	51,299,291	52,786,057	50,619,971	41,351,172	
	Industrial water for thermal electric plants	(1,000 m^3)	67	73	384	422	
	Municipal water	(1,000 m^3)	1,000	944	991	1,104	
	Groundwater	(1,000 m^3)	25	27	25	31	
GRI	**KPI**	UM	FY2020	FY2021	FY2022	FY2023	注
	Waste						
	Industrial waste by disposal method						
306-3	Total generated	(1,000 t-CO_2)	179	212	152	171	
306-4	Recycled volume	(1,000 t-CO_2)	179	212	152	171	
306-5	Landfill treatment volume	(1,000 t-CO_2)	<1	<1	<1	<1	
	Recycling rate	(%)	99.8	99.6	99.7	99.7	
GRI	**KPI**	UM	FY2020	FY2021	FY2022	FY2023	注
	Other						
	Electric vehicle						
	Number of EV or PHEV	(vehicles)	592	690	754	938	
	Green procurement						
	Green procurement rate in office supplies (monetary value based)	(%)	97.6	95.3	94.8	85.9	
	Paper bought for printers/ photocopiers						
	Number of sheets (equivalent A4 sheets)	(million A4eq)	323	247	249	219	
	Weight	(t)	1,289	985	993	876	

・ Figures which are marked with ★ have been externally assured by KPMG AZSA Sustainability Co.,Ltd.
・ Totals may not be match due to significant digits or rounding.
・ The values are for the fiscal year (from 1 April to 31 March) or as of the end of the fiscal year (31 March) unless otherwise specified.

＊1 Source: "Surveys and Statistics of Electricity (the Agency for Natural Resources and Energy)"
＊2 Including pumped-storage power generation
＊3 The transmission and distribution loss rate by voltage is the transmission and distribution loss rate by voltage stated in the General Provisions for Wheeling Service announced at the beginning of the fiscal year.
＊4 The installation was completed in all households by FY2020 except for some places where installation works are technically difficult.
＊5 Excluding wholesale electricity
＊6 Adjusted emissions intensity refers to the CO2 emission intensity after reflecting adjustments related to the allocation of surplus non-fossil value of the feed-in tariff scheme for renewable energy and the purchase of non-fossil certificates, based on the "Act on Promotion of Global Warming Countermeasures."
＊7 Adjusted emissions refer to the CO2 emission after reflecting adjustments related to the allocation of surplus non-fossil value of the feed-in tariff scheme for renewable energy and the purchase of non-fossil certificates, based on the "Act on Promotion of Global Warming Countermeasures."
＊8 Excluding wholesale gas
＊9 CO2 emissions intensity and CO2 emissions are calculated and published from FY2023 results in accordance with the revision of the Act on Promotion of Global Warming Countermeasures and other related laws and regulations.
Adjusted emissions intensity and adjusted emissions refer to the values after reflecting adjustments of domestic and overseas certified emission reductions based on the Act on Promotion of Global Warming Countermeasures.
＊10 Scope 1 emissions refer to GHG emissions released directly into the atmosphere from emission sources within organizational boundaries.
In principle, these emissions are calculated using the emission intensity listed in the Ministry of the Environment's Calculation Methods and Emission Coefficients in the Calculation, Reporting, and Disclosure System.
This is based on Japanese laws: the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures.
In addition, CO2 emissions from vehicles are also included in Scope 1 emissions.
＊11 Scope 1 emissions do not include the amount of fluorocarbon leakage based on the Fluorocarbon Emissions Control Act.
＊12 The value for calendar year (from January 1 to December 31)
＊13 Emissions due to the use of electricity, heat and steam supplied by others.
＊14 "Market based" emissions are emissions which are calculated based on the emissions intensity of each electricity retail company.
Calculated by using the adjusted emissions intensity for each electricity retail company and the emissions intensity of heat and steam specified in the Act on Promotion of Global Warming Countermeasures.
＊15 "Location based" emissions reflect the average emissions intensity of grids.
＊16 The emissions are calculated by multiplying the transmission and distribution (T&D) loss electricity by the TSO's emission intensity.
The T&D loss electricity is calculated by multiplying the amount of electricity TEPCO Power Grid transmitted at the transmission end by the T&D loss rate.
The TSO's emission intensity is converted to the value at the transmission end.
＊17 Scope 3 emissions refer to indirect emissions (not included in scope 2)
Approach to calculation: calculated according to the guidelines below.
"Corporate Value Chain (Scope 3) Accounting and Reporting Standard (GHG protocol)"
"Basic Guidelines for Calculating Greenhouse Gas Emissions through Supply Chains (Ministry of Economy, Trade and Industry, Ministry of the Environment)"
Calculation method for each of the categories
Category 1: A hybrid of the following two
A. Calculated by multiplying the procurement amount for each product/service purchased by the emissions intensity
B. If the supplier publishes corporate emissions and sales on their websites, etc., calculate using the published values and our procurement amount.
Category 2: Calculated by multiplying the amount of annual capital investment in financial report by the emission factor
Category 3: The sum of the following two values;
A. Emissions from resource extraction, production and transportation
Calculated by multiplying amount of electricity procured by emission factors
B. Emissions of energy consumption by other companies related to the amount of electricity sold
Calculated by multiplying the amount of electricity procured from other companies by the emission factor
Category 4: Calculated by multiplying transportation volume or transportation charges by the emission factor from FY2023 results
Category 5: Calculated by multiplying the volume of industrial waste by the emission factor for each type of waste treatment method
Category 6: Calculated by multiplying the number of employees by the emission factor
Category 7: Calculated by multiplying the number of employees by the number of business days and the emission factor for each location type of office
Category 8: No applicable emissions due to our type of business
Category 9: No applicable emissions due to our type of business
Category 10: No applicable emissions due to our type of business
Category 11: Calculated by multiplying the volume of gas sales by the emission factor
Category 12: No applicable emissions due to our type of business
Category 13: No applicable emissions due to our type of business
Category 14: No applicable emissions due to our type of business
Category 15: No applicable emissions due to our type of business

＊18 From FY2022 results, the scope of aggregation has been expanded to include all purchased products and services.
＊19 Total transmission emissions.
・Emissions from resource extraction, production and transport of input fuels for power generation:
calculated by multiplying the amount of electricity procured by the emission intensity of the fuel procurement.
Emissions intensity is based on the “Emissions intensity database for determining greenhouse gas emission transfers of organisations through the supply chain”.
・Emissions associated with electricity sold:
These emissions are calculated by multiplying the amount of electricity sold by the emissions intensity (not adjusted) such as that of TEPCO Energy Partner, while excluding any overlap with Scope 1 and Scope 2 emissions.
＊20 From FY2023 results, calculated by multiplying transportation volume or transportation charges by the emissions intensity.
＊21 Emissions associated with the use of city gas we sell:
Calculated by multiplying the city gas sold (in calorific value) by the emissions factor specified in the GHG emissions accounting, reporting, and disclosure system administered by Japan's Ministry of the Environment.
＊22 VOC emissions based on the emission standards of the Air Pollution Control Act, which is a regulatory law of Japan, are zero.
＊23 Until FY2022 results, calculated using 9.97 (GJ/MWh) as the primary energy equivalent of electricity. From FY2023 results, calculated using 8.64 (GJ/MWh) as the primary energy equivalent of electricity.
＊24 Figures for FY2020 and earlier refer to retail electricity. Since FY2021, the total of retail electricity and wholesale electricity is shown .
＊25 From FY2022 results, the scope of aggregation is expanded to include all consolidated subsidiaries, and from FY2023 results is published by category.