

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	KPI	UM	FY2016	FY2017	FY2018	FY2019
Coverage						
	Employees					
	TEPCO HD and core operating companies	(no.)	33,197	32,546	31,718	30,999
	TEPCO HD and all of consolidated subsidiary companies	(no.)	42,060	41,525	41,086	37,892
	TEPCO HD and core operating companies / TEPCO HD and all of consolidated subsidiary companies	(%)	79	78	77	82
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
Key figures						
Installed capacity by energy source						
	Total net electrical capacity	(MW)	67,594	63,691	63,697	18,194 * 1
	Thermal net capacity	(MW)	45,060	41,155	41,161	57
	Coal	(MW)	3,200	3,200	3,200	0
	LNG	(MW)	31,030	29,251	29,251	0
	Oil	(MW)	10,830	8,704	8,710	57
	Nuclear net capacity	(MW)	12,612	12,612	12,612	8,212
	Renewable net capacity	(MW)	9,922	9,924	9,924	9,925 * 2
	Hydroelectric	(MW)	9,871	9,872	9,873	9,874
	Solar	(MW)	30	30	30	30
	Wind	(MW)	18	18	21	21
	Geothermal	(MW)	3	3	0	0
	Biomass and cogeneration	(MW)	0	0	0	0
Net energy production by energy source						
	Total net electrical production	(GWh)	200,378	196,668	190,752	10,966
	Thermal net production	(GWh)	190,276	184,384	179,610	160
	Coal	(GWh)	23,255	24,069	23,888	0
	LNG	(GWh)	158,448	156,393	153,517	0
	Oil	(GWh)	8,574	3,923	2,204	160
	Nuclear net production	(GWh)	0	0	0	0
	Renewable net production	(GWh)	10,102	12,428	11,535	10,806
	Hydroelectric	(GWh)	10,034	12,212	11,071	10,743 * 2
	Solar	(GWh)	33	33	32	31
	Wind	(GWh)	24	30	35	32
	Geothermal	(GWh)	10	9	4	0
	Biomass and cogeneration	(GWh)	0	[144]	[393]	0 * 3
Efficiency						
	Thermal power plant	(%)	49.0	49.6	49.7	-
Development						
	Development of renewable power generation facilities	(MW)	-	-	-	30
Availability						
	Nuclear power plant	(%)	0	0	0	0
Network						
	Electricity network					
	Total transmission network	(km)	40,690	40,665	40,663	40,804
	- of which aerial line	(km)	28,365	28,333	28,314	28,391
	- of which underground cable	(km)	12,325	12,332	12,349	12,413
	Total distribution network	(km)	377,053	378,370	379,724	381,028
	- of which aerial line	(km)	339,108	340,134	341,184	342,222
	- of which underground cable	(km)	37,945	38,236	38,540	38,806
	Transmission and distribution loss					
	Extra high voltage	(%)	1.5	1.4	1.2	-
	High voltage	(%)	4.0	3.8	4.0	-
	Low voltage	(%)	6.5	5.9	6.9	-
	Average	(%)	4.1	3.8	4.2	4.3
	Supply reliability					
	System Average Interruption Duration Index (SAIDI)	(min.)	7	6	19	200
	Interruption time (min.) / year (min.)	(%)	0.001	0.001	0.004	0.038
Smart meter						
	Number of installations	(10k units)	1060.4	1602.3	2152.4	2533.0
	Installation rate	(%)	39.3	55.3	74.1	87.2
Sales						
	Electricity volumes	(GWh)	241,525	233,123	219,448	209,707
	CO ₂ related electricity sales					
	Adjusted emissions intensity	(kg-CO ₂ /kWh)	0.474	0.462	0.455	0.441 * 19
	Basic emissions intensity	(kg-CO ₂ /kWh)	0.486	0.475	0.468	0.457 * 4, 19
	Adjusted emissions	(ktCO ₂)	114,400	107,700	99,700	92,400 * 19
	Basic emissions	(ktCO ₂)	117,400	110,800	102,700	95,800 * 5, 19
	Procurement outside the TEPCO Group	(GWh)	53,000	47,936	42,574	208,000 * 6
	Gas volumes	(kt)	1,510	1,830	1,770	2,170
	Leakege rate (Transportation)	(%)	0	0	0	0
	Leakege rate (Distribution)	(%)	0	0	0	0
	Leakege rate (Strage)	(%)	0	0	0	0
307-1	Environmental compliance					
	Total monetary value of significant fines	(mil. JPY)	0	0	0	0
	Total number of non-monetary sanctions	(no.)	0	0	0	0
306-3	Significant spill					
	Total number of significant spill	(no.)	0	0	0	0
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
Emissions						
305-1	Direct greenhouse gas emissions (Scope 1)					* 7
	Total direct emissions (Scope 1)	(ktCO ₂ eq)	89,000	84,300	81,600	191
	CO ₂ emissions from electricity production and other activities	(ktCO ₂)	88,900	84,200	81,500	120
	CO ₂ emissions from vehicles (gasoline and diesel)	(ktCO ₂)	14	9	8	8
	Total other CO ₂ eq emissions	(ktCO ₂ eq)	124	126	126	63
	N ₂ O	(ktCO ₂ eq)	59	60	59	1
	HFCs	(ktCO ₂ eq)	4	5	6	3 * 8
	SF ₆	(ktCO ₂ eq)	61	61	61	59 * 8
	Other emissions volume					
	N ₂ O	(t)	198	201	198	3
	SF ₆	(t)	2.7	2.7	2.7	2.6 * 8
	SF ₆ recovery rate					
	In equipment inspections	(%)	99	>99.5	>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	(ktCO ₂ eq)	7	11	13	9
305-2	Indirect greenhouse gas emissions (Scope 2)					* 9
	Related to energy purchased from the grid (Scope 2, market based)					* 10
	Civil uses, hydroelectric and thermal electric plants	(ktCO ₂ eq)	494	576	532	492 * 11
	Related to energy purchased from the grid (Scope 2, location based)					* 12
	Civil uses, hydroelectric and thermal electric plants	(ktCO ₂ eq)	534	618	564	497
	Related to technical losses from distribution and transmission network		-	-	-	5,390 * 13

305-3	Other indirect greenhouse gas emissions (Scope 3, per GHG protocol)					* 14
	Total of Scope 3	(ktCO ₂ eq)	48,865	46,443	42,417	116,460
	Category 1 Purchased goods and services	(ktCO ₂ eq)	11	11	12	11 * 11
	Category 2 Capital goods	(ktCO ₂ eq)	1,864	1,976	2,097	1,719 * 11
	Category 3 Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	(ktCO ₂ eq)	42,845	39,449	35,469	108,824 * 11
	Category 4 Upstream transportation and distribution	(ktCO ₂ eq)	0	0	0	0
	Category 5 Waste generated in operations	(ktCO ₂ eq)	31	30	30	2
	Category 6 Business travel	(ktCO ₂ eq)	4	4	4	4
	Category 7 Employee commuting	(ktCO ₂ eq)	11	11	11	11
	Category 8 Upstream leased assets	(ktCO ₂ eq)	0	0	0	0
	Category 9 Downstream transportation and distribution	(ktCO ₂ eq)	0	0	0	0
	Category 10 Processing of sold products	(ktCO ₂ eq)	0	0	0	0
	Category 11 Use of sold products	(ktCO ₂ eq)	4,099	4,962	4,793	5,888 * 11
	Category 12 End-of-life treatment of sold products	(ktCO ₂ eq)	0	0	0	0
	Category 13 Downstream leased assets	(ktCO ₂ eq)	0	0	0	0
	Category 14 Franchises	(ktCO ₂ eq)	0	0	0	0
	Category 15 Investments	(ktCO ₂ eq)	0	0	0	0
	Scope 1 and 2					
	Market based	(ktCO ₂ eq)	89,500	84,900	82,100	6,080
	Location based	(ktCO ₂ eq)	89,500	84,900	82,200	6,080
	Scope 1, 2 and 3					
	Market based	(ktCO ₂ eq)	138,000	131,000	125,000	123,000
	Location based	(ktCO ₂ eq)	138,000	131,000	125,000	123,000
305-7	Other atmospheric emission					
	NO _x emissions	(kt)	21	18	18	2
	SO _x emissions	(kt)	10	7	6	<1
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
	Energy					
302-1	Energy consumption					
	Total	(GJ)	1,580,000,000	1,510,000,000	1,460,000,000	5,740,000
	Electricity production and other activities	(GJ)	1,580,000,000	1,500,000,000	1,460,000,000	1,730,000
	Vehicles (gasoline and diesel)	(GJ)	207,000	131,000	123,000	122,000
	Electricity, heat and steam (civil uses, hydroelectric and thermal electric plants)	(GJ)	3,610,000	4,310,000	4,110,000	3,880,000
	Energy consumption intensity in buildings					
	Per total floor space of office (headquarters, branch offices, etc.)	(MJ/m ²)	1,427	1,400	1,410	1,413
	Costs					
	Total costs of energy consumption	(mil. JPY)	1,160,000	1,340,000	1,570,000	3,380
	Renewable energy (in-house power generation)					
	Installed buildings	(kW)	-	-	-	18
	Installed capacity	(kW)	-	-	-	269
	Net energy production	(MWh)	-	-	-	281
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
	Raw materials					
301-1	Fuel consumption from non-renewable sources					
	Coal	(kt)	8,140	8,310	8,140	<1
	Heavy oil, crude oil, etc.	(ML)	2,140	982	558	48
	Gas (LNG, LPG)	(kt)	21,400	21,000	20,800	<1
	City Gas	(mil m ³)	2,540	2,350	2,090	<1
	Fuel for nuclear power plants	(t)	0	0	0	0
	from renewable sources					
	Biomass	(kt)	0	74	200	0
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
	Water					
303-3	Water withdrawal in "water stressed" areas					
	Total	(kilo m ³)	0	0	0	0
303-3	Water withdrawal by source					
	Total withdrawal from scarce sources	(kilo m ³)	50,965,154	55,301,022	49,135,474	46,015,196
	Surface water (wetlands, lakes, rivers)	(kilo m ³)	50,963,584	55,299,479	49,133,813	46,014,248
	Ground water (from wells)	(kilo m ³)	31	39	39	0
	Water from municipal water supplies	(kilo m ³)	1,539	1,504	1,622	948
	Water withdrawal by uses					
	Total	(kilo m ³)	50,965,154	55,301,022	49,135,474	46,015,196
	River water for hydroelectric plants	(kilo m ³)	50,953,899	55,290,179	49,124,416	46,014,244
	Industrial water for thermal electric plants	(kilo m ³)	9,935	9,634	9,939	6
	Municipal water	(kilo m ³)	1,293	1,190	1,102	946
	Groundwater	(kilo m ³)	27	19	18	0
303-4	Water discharge by destination					
	Total	(kilo m ³)	50,955,219	55,291,388	49,125,535	46,015,190
	Surface water (wetlands, lakes, rivers)	(kilo m ³)	50,953,899	55,290,179	49,124,416	46,014,245
	Groundwater	(kilo m ³)	27	19	18	0
	Water in municipal/ industrial treatment plants	(kilo m ³)	1,293	1,190	1,102	945
	Third party water	(kilo m ³)	0	0	0	0
303-5	Freshwater consumption					
	Total	(kilo m ³)	9,935	9,634	9,939	6
	Water treatment					
	Volume of waste water treatment in power plants	(kilo m ³)	4,970	4,690	4,010	-
	COD emissions from power plants	(t)	-	15	14	-
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
	Waste					
306-2	Industrial waste by disposal method					
	Total generated	(kt)	1,141	1,093	1,084	146
	Recycled volume	(kt)	1,135	1,089	1,081	146
	Landfill treatment volume	(kt)	5	4	3	<1
	Recycling rate	(%)	99.5	99.6	99.8	>99.9
306-4	Hazardous waste					
	Waste volume containing PCB	(kt)	19	25	27	25
	Insulating oil (inadvertently contaminated)	(ML)	4	5	4	4
	Pole-mounted transformers	(10k units)	7	8	8	9
	High-voltage transformers and capacitors (high contaminated)	(units)	797	190	116	121
	Management of remaining PCB equipments					
	Pole-mounted transformers	(10k units)	41	32	27	16
	High-voltage transformers and capacitors (high contaminated)	(units)	493	302	186	63
	Ash management					
	Total generated	(kt)	786	742	741	0
	Recycled volume	(kt)	786	742	741	0
	Landfill treatment volume	(kt)	<1	<1	<1	0
	Recycling rate	(%)	>99.9	>99.9	>99.9	-

GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
Other						
Electric vehicle						
	Number of EV or PHEV	(no.)	476	464	446	427
	Rate of EV or PHEV fleets	(%)	-	-	-	10
Renewable energy in electricity sales						
	Volume	(GWh)	22,900	27,000	27,500	29,000
	Rate	(%)	9	12	13	14
Unused in electricity sales						
	Volume	(GWh)	2,600	1,590	2,870	3,160
	Rate	(%)	1.06	0.68	1.31	1.51
Green procurement						
	Green procurement rate in office supplies (monetary value based)	(%)	99.5	99.6	99.8	>99.9
Paper bought for printers/ photocopiers						
	Number of sheets (equivalent A4 sheets)	(mil A4eq)	313	304	282	258
	Weight	(t)	1,248	1,215	1,126	1,028
TEPCO HD and all of consolidated subsidiary companies						
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
Key figures						
Installed capacity by energy source						
	Total net electrical capacity	(MW)	-	63,882	63,850	18,345
	Thermal net capacity	(MW)	-	41,155	41,161	57
	Coal	(MW)	-	3,200	3,200	0
	LNG	(MW)	-	29,251	29,251	0
	Oil	(MW)	-	8,704	8,710	57
	Nuclear net capacity	(MW)	-	12,612	12,612	8,212
	Renewable net capacity	(MW)	-	10,115	10,078	10,076
	Hydroelectric	(MW)	-	10,059	10,023	10,021
	Solar	(MW)	-	31.4125	31.4295	31.1717
	Wind	(MW)	-	18	21	21
	Geothermal	(MW)	-	3	0	0
	Biomass and cogeneration	(MW)	-	2.56	2.56	2.56
Net energy production by energy source						
	Total net electrical production	(GWh)	-	197,515	191,398	11,638
	Thermal net production	(GWh)	-	184,384	179,610	160
	Coal	(GWh)	-	24,069	23,888	0
	LNG	(GWh)	-	156,393	153,517	0
	Oil	(GWh)	-	3,923	2,204	160
	Nuclear net production	(GWh)	-	0	0	0
	Renewable net production	(GWh)	-	13,275	12,181	11,478
	Hydroelectric	(GWh)	-	13,038	11,698	11,396
	Solar	(GWh)	-	35	33	32
	Wind	(GWh)	-	30	35	32
	Geothermal	(GWh)	-	9	4	0
	Biomass and cogeneration	(GWh)	-	[163]	[410]	19
Sales						
	Electricity volumes	(GWh)	-	240,300	230,306	222,277
307-1	Environmental compliance					
	Total monetary value of significant fines	(mil. JPY)	0	0	0	0
	Total number of non-monetary sanctions	(no.)	-	0	0	0
306-3	Significant spill					
	Total number of significant spill	(no.)	-	0	0	0
ISO 14001						
	Certificated offices	(no.)	-	24	24	24
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
Emissions						
305-1	Direct greenhouse gas emissions (Scope 1)					
	Total direct emissions (Scope 1)	(ktCO ₂ eq)	-	84,300	81,600	200
305-2	Indirect greenhouse gas emissions (Scope 2)					
	Related to energy purchased from the grid (Scope 2, market based)					
	Civil uses, hydroelectric and thermal electric plants	(ktCO ₂ eq)	-	603	559	520
	Related to energy purchased from the grid (Scope 2, location based)					
	Civil uses, hydroelectric and thermal electric plants	(ktCO ₂ eq)	-	647	592	525
	Related to technical losses from distribution and transmission network	(ktCO ₂ eq)	-	-	-	5,390
Scope 1 and 2						
	Market based	(ktCO ₂ eq)	-	84,900	82,200	6,110
	Location based	(ktCO ₂ eq)	-	85,000	82,200	6,120
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
Energy						
Energy consumption						
	Total	(GJ)	-	1,510,000,000	1,460,000,000	6,100,000
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
Water						
Water withdrawal by uses						
	Total	(kilo m ³)	-	60,187,511	52,935,328	50,037,979
	River water for hydroelectric plants	(kilo m ³)	-	60,176,500	52,924,074	50,036,857
	Industrial water for thermal electric plants	(kilo m ³)	-	9,634	9,939	6
	Municipal water	(kilo m ³)	-	1,358	1,298	1,116
	Groundwater	(kilo m ³)	-	19	18	0
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
Waste						
306-2	Industrial waste by disposal method					
	Total generated	(kt)	-	1,111	1,122	158
	Recycled volume	(kt)	-	1,106	1,119	158
	Landfill treatment volume	(kt)	-	5	3	<1
	Recycling rate	(%)	-	99.6	99.7	99.7
GRI	KPI	UM	FY2016	FY2017	FY2018	FY2019
Other						
Electric vehicle						
	Number of EV or PHEV	(no.)	-	466	448	430
Green procurement						
	Green procurement rate in office supplies (monetary value based)	(%)	-	82.0	88.0	92.8
Paper bought for printers/ photocopiers						
	Number of sheets (equivalent A4 sheets)	(mil A4eq)	-	380	355	348
	Weight	(t)	-	1,515	1,419	1,390

- Totals may not be exact due to significant digits or rounding.
- Due to integrating the existing thermal power generation businesses of TEPCO Fuel & Power, Inc. into JERA Co., Inc. as of 1 April 2019, since FY2019 there is a difference in the data related to thermal electric plants compared to before FY2018.
- The values of TEPCO HD and all of consolidated subsidiary companies are the sum of the value multiplying each company data by the voting rights ratio.
- 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 value in [] is the re-posted value of biomass power generation in thermal power production.

*4 Basic emissions intensity is the value before adjustment of feed-in tariff scheme for renewable energy based on the Act on Promotion of Global Warming Countermeasures.

*5 Basic emissions is the value before adjustment of feed-in tariff scheme for renewable energy based on the Act on Promotion of Global Warming Countermeasures.

*6 TEPCO Group means Tokyo Electric Power Company Holdings, Inc., TEPCO Fuel & Power, Inc., TEPCO Power Grid, Inc., TEPCO Energy Partner, Inc., and TEPCO Renewable Power, Inc..

*7 Emissions of greenhouse gases released directly into the atmosphere from emission sources within organizational boundaries.

*8 The value for calendar year (from January 1 to December 31)

*9 Emissions due to the use of electricity, heat and steam supplied by others.

*10 Reflecting the emissions intensity of each electricity retail company

*11 Values of previous years are updated in accordance with revisions to calculation method

*12 Reflecting the average emissions intensity of grids

*13 Until FY2018 the emissions equivalent to power transmission and distribution technical loss was contained in Scope 1 emissions. Since Scope 1 emissions decreased because of integrating the existing thermal power generation businesses of TEPCO Fuel & Power, Inc. into JERA Co., Inc., calculation was started based on the GHG protocol from FY2019.

*14 Indirect greenhouse gas emissions from business activities in the supply chain, other than direct emissions (Scope 1 emissions) and indirect emissions (Scope 2 emissions).

Approach to calculation

We follow major guidelines have been published:

"Corporate Value Chain (Scope 3) Accounting and Reporting Standard"

"Green Value Chain Platform (Japanese Ministry of the Environment website, which provides Scope 3 emissions calculation methods and models)"

Calculation method for each of the categories

Category 1: Calculated by multiplying the amount of purchased goods by the emission factor

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 electricity sales and gas sales 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: No applicable emissions due to our type of business

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

*15 Including renewable energy under feed-in-tariff scheme

*16 Heat, blast furnace gas and other gas byproducts produced from the incineration of waste not including waste heat and biomass from factories, etc.

*17 Regarding the value related to TEPCO Fuel & Power, Inc. of the value in [] the re-posted value of biomass power generation in thermal power production.

*18 Added up without multiplying by voting rights ratio

*19 Updated November 2020