

Fatal and non-fatal accidents in electric/gas/water service in Japan in 1999-2022

electric/gas/water service industry Code No.0116

Type of accidents in electric/gas/water service in 1999-2022

Type of accidents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
fall from height	29	30	37	37	40	29	45	23	34	32	34	22	27	35	29	23	40	22	30	28	32	40	39	39	776
falling to same level	44	37	56	44	48	45	36	36	44	35	42	32	42	31	32	29	27	27	33	47	34	36	54	50	941
crash	13	11	8	11	12	8	8	6	7	12	7	7	6	5	7	7	11	4	3	10	3	10	9	10	195
struck by flying or falling object	5	6	12	7	4	5	7	8	12	4	3	7	7	6	3	5	7	5	3	8	5	5	4	4	142
collapse	1	1	3	4	1	4		4		1		2	3	1	3	2		2	1	2	1	2	4	2	44
crashed by	5	5	8	3	4	2	4	1	5	3	1	6	3	1	3	6	2	3	6	2	4	5	8	3	93
caught in/between	13	11	21	10	12	7	12	12	12	8	16	5	12	9	4	7	4	9	7	9	11	8	7	13	239
cut	5	4	4	6	2	6	4	5	4	3	6	2	6	8	4	5	3	1	1	4		3	3	4	93
injury to the sole of the foot	1	1			2						1	1							1			1	1		9
drown						2		2			1		6		1			1	1				1		15
contact to high/low-	4	3	5	7	5	5	1	5	7	6	6	7	3	2	3	5	1	5	3	3	3	6	8	6	109

temperature																									
contact to harmful substance	2	4	1	7	1	2	1	3	1	1		3	1	2		1	3	1	1		1	4	1	1	42
electric shock	4	4	2	3	2	1	6	1	1	3		2	1	6	1			1	1	3		3	1	1	47
explosion	4	1			5	1							3												14
burst																						1	1		2
fire			3			1	1	1			1						1					1			9
traffic accident (public road)	34	39	40	42	52	36	30	19	33	27	25	18	16	25	24	26	23	18	24	21	21	13	12	11	629
traffic accident (others)			1	1						1		2					1			2				1	9
reaction to motion/improper motion	13	23	33	18	17	11	25	33	16	27	16	23	23	15	9	14	15	15	17	15	29	16	25	22	470
others	3	4	4	3		6	4	4	8	3	1	3	6	3	2	2		4	5	4		28	73	1	171
unclassifiable	1	1	3	2	1		1				1	1	1											1	13
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	169	4,062

Causal agents (large) of fatal and non-fatal accidents in electric/gas/water service in 1999-2022

Causal (L) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
machine	3	8	11	8	5	8	8	9	8	8	8	5	9	15	2	6	8	8	4	4	4	6	7	7	169

crane, conveying machine	47	49	51	55	63	45	36	33	47	40	43	33	33	31	29	29	28	22	30	33	27	24	25	24	877
other equipment	18	25	37	26	34	16	31	25	23	30	20	17	20	21	25	18	21	13	23	24	16	30	32	25	570
temporary buildings, establishments	61	61	76	69	83	63	58	55	62	57	58	50	61	58	43	48	55	42	51	59	61	70	71	73	1,445
substance, material	11	10	13	14	4	9	14	11	14	6	5	8	8	4	5	5	6	4	3	3	4	7	7	3	178
load	8	7	11	7	3	3	4	6	9	7	9	9	4	4	2	4	4	6	3	8	7	4	4	6	139
environment	18	8	18	13	6	13	18	12	8	8	10	5	19	5	12	14	10	12	8	18	15	11	18	17	296
others	15	17	24	13	10	14	16	12	13	10	8	16	12	11	7	8	6	11	15	9	10	30	87	14	388
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	169	4,062

Causal agents (middle) of fatal and non-fatal accidents in electric/gas/water service in 1999-2022

Causal (M) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
engine					1		1		1		1	1	1	2											8
power transmission mechanism			2	1		1		1		1	1		3		1	3	2	2					1		19
woodworking machine			1	1		3		1	2		2		1	2		2			1	1		2	2	1	22

demolition machine									1				1									1	3		
vehicle for high lift work							2	1	1		1		1	3			3		2		1	1		2	18
other construction machines			1							1														1	3
lathe																									
drill press, milling machine																									
grinding machine, buffing machine			1		1				1			2		1			1	1							8
power press							1																		1
forging pressure hammer																									
shearing machine																									
other metal manufacturing machines			1							1	1				1					1					5
centrifugal machine																									
mixer, grinder			1					1			1			1											4
roll machine (except printingroll machine)																	1					1		1	3

pressure vessel						1																	1		
other pressure vessels				1		1	2	2		2	1		1		1		1		1		1	3	17		
chemical facilities																									
gas welding equipment																									
arc welding equipment																									
other welding equipment																									
kiln, caldron			1						2	1													4		
industrial dryer																									
other kiln, caldron							1																1		
transmission			3		1		2	2	1				3	2	1		1	1	3	1	5	1	2	29	
electric power facilities			4		6		5	1	2	4	1	6	3	2		1					1	1		37	
other electrical equipment			2					1		1								1						5	
human power cranes							1										1							2	
human power hauling equipment			5		3		7	2		1	2	1	2	2	3	4	2	2	1	2	3		2	1	45

human power machine													1		1									2	
hand tool			1		1		2	3	1	2	4	2	1	3	4	2	1		4	3		1	2	3	40
ladder			13		8		8	3	6	8	5	4	3	5	8	3	10	5	8	11	4	8	12	6	138
slinging tool					1				1	2													1	5	
other tools			1		2			2	3	3			5	1	2	1	1	2	2	2	7	8	5	5	52
other equipment, facilities			6		9		4	6	7	7	5	2	6	3	5	5	6	2	5	1	1	6	6	7	99
scaffolding			1		1		1	2	2			2	1	1	1								2		14
timbering					1																				1
stairs, landing stage			19		18		15	14	17	14	9	15	20	19	10	13	17	12	12	12	17	21	17	17	308
opening			2		2		4		2	2	2		1	3	3	1	1	2	3		2	3	1		34
roof, beam, haze, crossbeam, principal rafter					5			1			1		1	2				1		1	1	1	2	3	19
working platform, boot board			4		4		5	7	3	3	5	4	4	2	2	1	4	2	4	4	1	3	3	6	71
passage			22		25		15	16	22	17	21	13	12	18	8	20	17	15	19	26	27	21	23	28	385
building, establishment			19		20		12	10	10	17	14	13	17	6	16	7	11	6	8	7	6	9	10	9	227
other temporary buildings,			9		7		6	5	6	4	6	3	5	7	3	6	5	4	5	9	7	12	13	10	132

environment																	1						1	1		3
high/cold temperature environment			1					1	1	1	1	2	1		1	2	1	4	2	2	2	3	4	7	36	
other environments			11		2		14	5	5	5	4	2	6	3	3	6	4	6	4	11	9	3	10	6	119	
other causal agent			4		2		7	3	7	2	2	3	2	2	2	2		2	6	2	2	27	74	5	156	
no causal agent			17		7		9	9	5	8	5	13	10	9	5	6	6	8	9	6	8	3	12	8	163	
unclassifiable			3		1				1		1							1		1			1	1	10	
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	169	4,062	

Workers age of fatal and non-fatal accidents in electric/gas/water service in 1999-2022

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
19 years old or less	3	3	3	2	2	1			1	1	1	1	4	1		1	2	1	1	2		2	2	1	35
20-29	30	33	53	29	29	25	26	19	24	19	16	18	18	15	16	21	16	16	17	21	22	19	31	26	559
30-39	36	28	47	40	38	40	43	31	49	32	34	27	27	26	26	18	14	10	15	19	19	17	33	13	682
40-49	41	39	41	56	45	40	43	37	34	40	36	35	34	35	33	31	43	33	39	37	39	45	71	36	963
50-59	59	68	76	64	78	49	58	57	58	50	45	36	56	46	33	40	31	42	39	50	39	61	70	54	1,259
60 years old or more	12	14	21	14	16	16	15	19	18	24	29	26	27	26	17	21	32	16	26	29	25	38	44	39	564
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	169	4,062

Workers' number of workplace of fatal and non-fatal accidents in electric/gas/water service in 1999-2022

Workers scale	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
9 workers or less	24	12	31	17	21	14	26	19	16	10	14	9	11	18	10	4	15	13	12	13	19	17	20	11	376
10-29	32	34	36	34	28	33	28	29	35	34	37	34	34	26	23	24	21	29	20	42	30	33	44	45	765
30-49	23	22	21	18	25	20	31	23	24	29	33	20	23	17	16	24	26	15	20	24	20	24	33	30	561
50-99	36	33	40	37	48	40	29	28	39	32	28	20	31	25	27	25	27	24	33	30	27	53	52	33	797
100-299	51	58	86	76	52	45	44	45	46	41	38	42	37	48	36	39	40	23	36	40	30	34	79	34	1,100
300 workers or more	15	26	27	23	34	19	27	19	24	20	11	18	30	15	13	16	9	14	16	9	18	21	23	16	463
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	169	4,062

Month of fatal and non-fatal accidents in electric/gas/water service in 1999-2022

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
January	15	11	22	11	21	12	24	17	11	9	16	15	11	14	20	9	20	10	13	14	13	12	20	12	352
February	25	16	20	13	12	11	16	18	17	19	13	12	13	18	14	8	12	10	10	22	13	13	13	20	358
March	18	14	30	17	18	14	16	17	17	12	15	9	24	13	6	16	9	7	10	11	12	9	19	10	343
April	6	14	18	19	24	19	14	7	17	14	18	9	17	14	5	7	10	7	9	14	6	12	24	16	320
May	13	13	19	18	20	12	14	20	20	20	9	13	14	9	15	8	9	7	9	9	10	16	17	9	323
June	21	20	18	13	19	12	13	9	9	15	11	14	15	16	8	11	6	9	20	14	16	21	20	14	344

July	10	18	23	24	19	21	19	7	14	17	13	13	13	11	6	11	15	5	7	13	16	16	21	17	349
August	19	10	18	14	15	17	19	15	17	11	15	9	9	6	9	10	18	17	10	12	14	13	47	13	357
September	22	11	17	18	18	13	11	12	15	15	13	15	19	9	7	11	10	6	8	10	10	14	21	17	322
October	11	21	23	21	18	13	14	11	14	15	13	10	11	9	11	14	18	13	18	12	12	14	13	21	350
November	8	18	18	25	11	14	5	12	19	6	14	13	10	22	11	10	4	17	9	14	13	6	16	8	303
December	13	19	15	12	13	13	20	18	14	13	11	11	10	8	13	17	7	10	14	13	9	36	20	12	341
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	169	4,062

Prefecture of fatal and non-fatal accidents in electric/gas/water service in 1999-2022

Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
Hokkaido	6	7	7		14		14	8	11	10	9	5	3	3	1	7	5	6	9	9	10	9	8	8	169
Aomori	3	2			1		2	1	3				1	1	4	3	1	1	1	3	4	2	3	1	37
Iwate			3		2			4	2		2	2	2	2				2	1	3	1		1	3	30
Miyagi	2	3	3		2		7	5	8	8	2		10	7	1	6	4	2	4	5	6	7	9	3	104
Akita			3				2		1	1	1	1	2	1		1	2	2	2	1			1	6	27
Yamagata	6	3	2		1		2	1		1	1	1	2	1	1		1		1	2		2	1	1	30
Fukushima	1	1	8		7		4	7	4	5	3	2	10	8	3	6	7	6	4	1	4	2	11	3	107
Ibaraki	3	2	2		3			1	5	3	2	1	4	4	3	2	1	1	1	3	2	2	2	1	48
Tochigi	1	1	3		2		1			1	1		4	1	3	2			2		1	1	5	3	32
Gunma	1	1	5		1		1	3	4	1	3	2	4	3	2	1	2	2	2	1		1	1	5	46

Saitama	7	8	9		3		7	8	5	6	4	8	5	4	4	7	3	4	2	5	2	6	8	8	123
Chiba	9	12	8		15		12	5	14	1	9	4	4	5	1	9	11	8	10	8	5	9	5	8	172
Tokyo	17	25	36		20		15	7	6	10	11	20	12	17	10	13	9	6	6	5	7	13	6	12	283
Kanagawa	14	23	25		18		10	12	8	18	16	11	20	8	14	8	10	9	19	13	6	9	13	14	298
Niigata	1	1	6		5			2	4	3	4	6	3	2	2	2	5	2	2	3	3	3	7	5	71
Toyama	3	3	6		2		2	3		3	1	4		3	3	4	1	2		2	2	3	8	2	57
Ishikawa	4	2	2					1	2		2			2						3	3	2	4	1	28
Fukui	2	1	3		1		2	1			3		3	1		4		3		3	1				28
Yamanashi			1		3		1	1	1		1								1	1	1		1		12
Nagano	1		3		1		1	5	6	1	1		1	5	2	2	3		3	4	3	3	4	5	54
Gifu	3	5	3		5		1			4	2	1		2	2	1		2	1	3	7	3	3	2	50
Shizuoka	8	6	10		5		4	2	7	9	6	1	3	3	1	2	6	6	4	6	2	5	3	2	101
Aichi	15	7	9		11		10	11	7	8	5	16	12	9	13	12	11	3	6	10	6	8	7	13	209
Mie	2	2	1		7		1	3	2	2	3	3	1	3	3	2	3	3	4	2	1	3		2	53
Shiga	3	3			2		4	2	1			1	1		1			1			2	1	2	1	25
Kyoto	5	4	6		5		3	2	2	2	3	1	3	6	2	6	5	4		2	2	4	3	2	72
Osaka	17	21	10		19		11	20	26	15	22	9	10	11	6	3	7	6	11	14	7	11	50	10	316
Hyogo	12	6	12		9		9	13	13	10	12	4	7	4	7	2	5	3	9	9	11	9	18	2	186
Nara	2	1	2				1	1	1	1	6	1	1	2	1	3	4	2	2	2	2	1	3	1	40
Wakayama		1			2		3		1	3	1	1	2	2	2	1		1			2	1	2	1	26
Tottori		2	1		1			1	1				1			1	1		1				1	2	13

Shimane			1					2				2	1		1		1	1				1		1	11
Okayama	1		2		4				4	5		2		1	1	1	1	1	2	3	1	1	3	1	34
Hiroshima	2	5	5		6		11	7	7	3	2	5	5	5	6	4	1	3	7	6	5	35	6	3	139
Yamaguchi		3	1		4		4	2		2	1	4	4	2	1	2	1	3	1	1	2	2	4	2	46
Tokushima		1					2			1		1					1	2			1	2	1		12
Kagawa		2	3				2	3	2	3	1	2	2	3	4	2	4		3	1	2	1	1	2	43
Ehime	3	1	1		1		1			3	2	1		3	1		2	3	2	1			3	3	31
Kochi	2	1	1		2		4		1	1				2	1	1	2	2		1	2		1	3	27
Fukuoka	6	9	9		16		10	7	6	12	12	9	8	5	7	3	5	7	6	7	14	9	14	7	188
Saga	1	1	2		1		2		2		1	1	1	1	5	1	1		2		1	1	1	1	26
Nagasaki	1	3	5		3		3	4	4	4	2		2		1	2			1	2	4	1	4	4	50
Kumamoto	8	1	4				3		3	1	2	1	4	1	1	2		3	2	2		4	10	3	55
Oita		1	2		2		2	1				5	5	4		1	4			3	3	2	1	4	40
Miyazaki	5	1	6				5	1		1					1		3	3	1	2	1	2	4	1	37
Kagoshima	1	2	8		1		4	5	5	2	2	5	2	2	3	3	5	2	2	3	4	1	6	4	72
Okinawa	3	1	2		1		2	1	5	2			1					1		3	1		2	3	28
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	169	4,062

Fatal and non-fatal accidents mean fatal and non-fatal injuries and occupational diseases with work absence of 4 days and more.

Data of 2022 year do not include Covid-19 cases. Data of 2020 & 2021 year include Covid-19 cases. Fatal and non-fatal data are same situation.

Data of 2011 year include fatal and non-fatal accidents caused by Great East Japan Earthquake in 2011.

drown						1		2	1		1						1	1				1			16
contact to high/low-temperature																	1								1
contact to harmful substance	1	1				2		1								2									7
electric shock		1				1				1															3
explosion																									
burst																									
fire			1																						1
traffic accident (public road)	1	1												1											3
traffic accident (others)																									
reaction to motion/improper motion															1										1
others												1	2			1									4
unclassifiable			1															1							2
total	2	5	3		1	4	2	7	4	2	1	3	11	1	2	2	4	3	4			4	2		67

Causal agents (large) of fatal accidents in electric/gas/water service in 1999-2022

environment																1							1	
high/cold temperature environment																1							1	
other environments		1													1		1						3	
other causal agent																								
no causal agent											1	1						1					3	
unclassifiable			1																			1	2	
total	2	5	3		1	4	2	7	4	2	1	3	11	1	2	2	4	3	4			4	2	67

Workers age of fatal accidents in electric/gas/water service in 1999-2022

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
19 years old or less																									
20-29	1	2				1							3		1	1									9
30-39			1			2	1	1	1	1			1												8
40-49	1	1			1							1		1	1		2	1	1						10
50-59		1	2			1	1	4	2		1	2	5			1	2	2				2	2		28
60 years old or more		1							2	1	1		2									2			12
total	2	5	3		1	4	2	7	4	2	1	3	11	1	2	2	4	3	4			4	2		67

Shimane																									
Okayama																									
Hiroshima						1					1	1				1					2			6	
Yamaguchi																	1	1						2	
Tokushima		1																						1	
Kagawa																									
Ehime											1			1		1								3	
Kochi						1																		1	
Fukuoka		1									1									1				3	
Saga																									
Nagasaki																									
Kumamoto																									
Oita																									
Miyazaki																									
Kagoshima			1													1								2	
Okinawa										1														1	
total	2	5	3		1	4	2	7	4	2	1	3	11	1	2	2	4	3	4			4	2	67	

Data sources: <https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.html> (MHLW, Japan)

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