

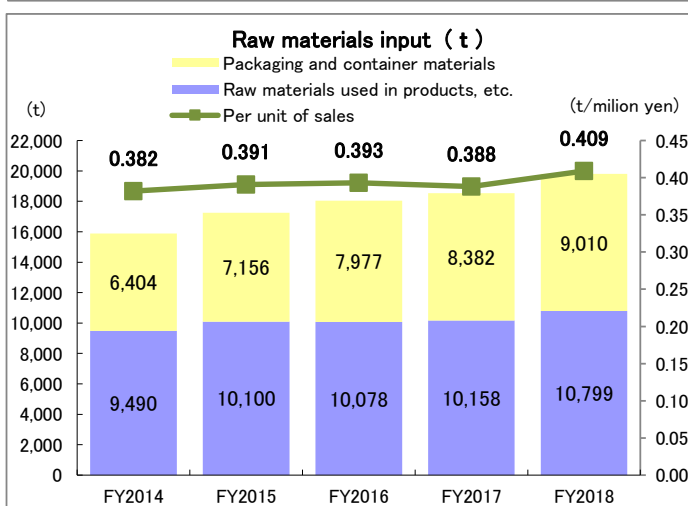
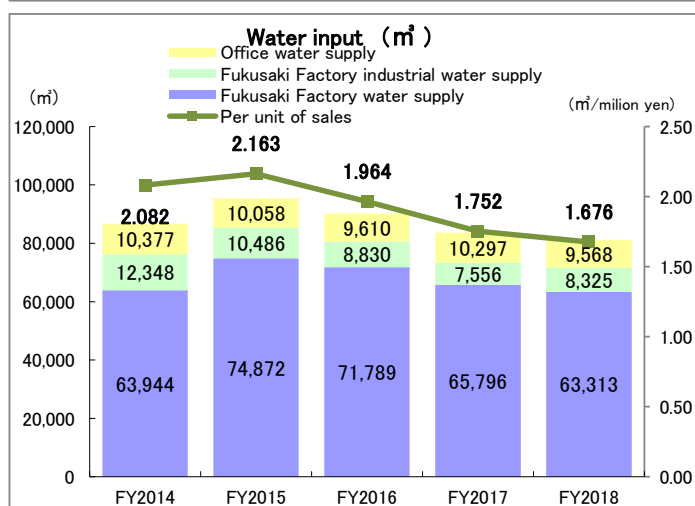
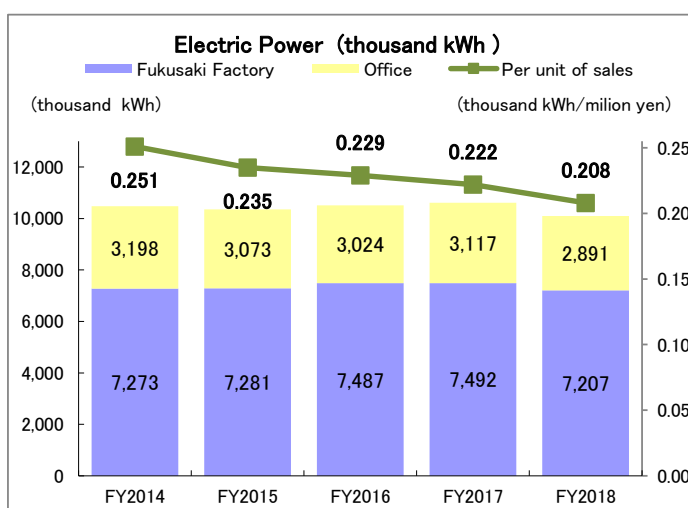
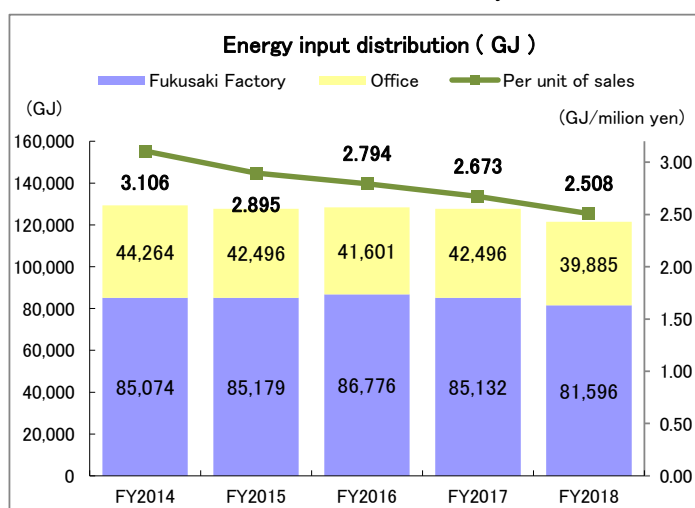
# Main Environmental Indicators (5 Years)

## 1. Environmental Impact of Business Activities by the Mandom Group in Japan

Data gathered from: 1 manufacturing location, 10 non-manufacturing locations, 1 consolidated subsidiary, and 1 non-consolidated subsidiary  
 Data collection period: April of the year shown to March of the following year

Reporting Content	Unit	Apr. 2014 to Mar. 2015	Apr. 2015 to Mar. 2016	Apr. 2016 to Mar. 2017	Apr. 2017 to Mar. 2018	Apr. 2018 to Mar. 2019
		FY2014	FY2015	FY2016	FY2017	FY2018
<b>INPUT</b>						
Energy input	GJ	129,338	127,675	128,377	127,628	121,481
Electric power	thousand kWh	10,470	10,354	10,511	10,609	10,097
Gas	m <sup>3</sup>	20,175	20,929	19,838	20,035	57,824
LP Gas	m <sup>3</sup>	1,981	1,988	1,852	1,527	39,093
City Gas	m <sup>3</sup>	18,194	18,941	17,986	18,508	18,731
Kerosene	kl	368	367	355	309	179
Gasoline	kl	350	333	323	322	318
Water input	m <sup>3</sup>	86,669	95,416	90,229	83,649	81,206
Water supply	m <sup>3</sup>	74,321	84,930	81,399	76,093	72,881
Industrial water supply	m <sup>3</sup>	12,348	10,486	8,830	7,556	8,325
Raw materials used in products, etc.	t	9,490	10,100	10,078	10,158	10,799
PRTR-listed raw materials in use	t	46	102	96	91	90
Other raw materials in use	t	9,443	9,998	9,982	10,066	10,709
Packaging and container materials	t	6,404	7,156	7,977	8,382	9,010
Materials to which recycling laws apply	t	3,563	4,083	4,380	4,695	5,045
Others *1	t	2,842	3,073	3,597	3,687	3,965

\*1 Amount of materials used in distribution are yet to be calculated.

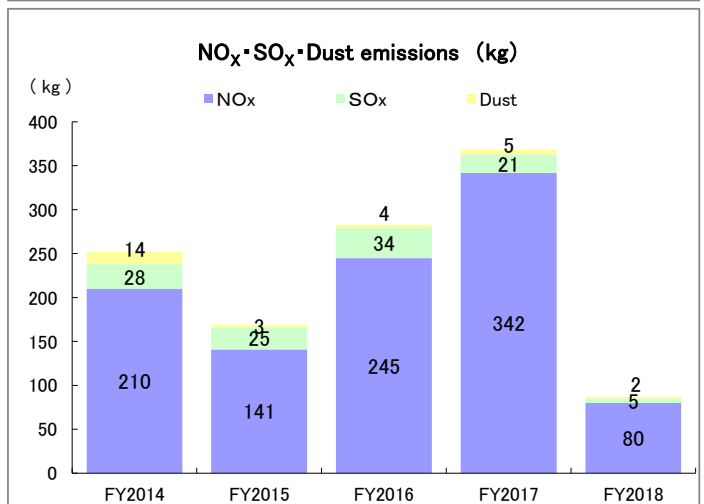
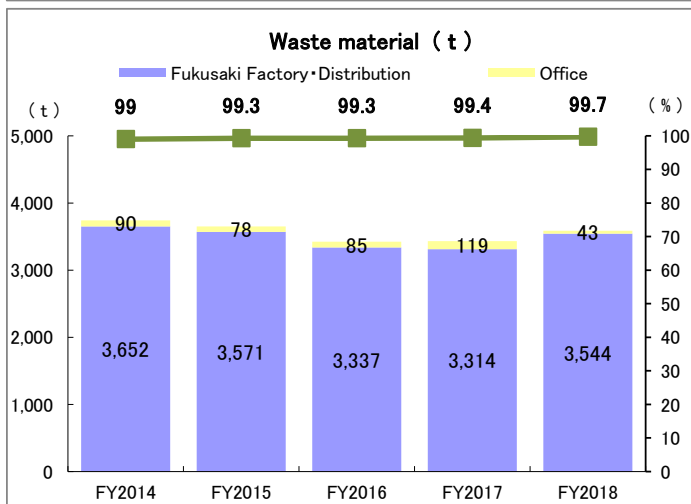
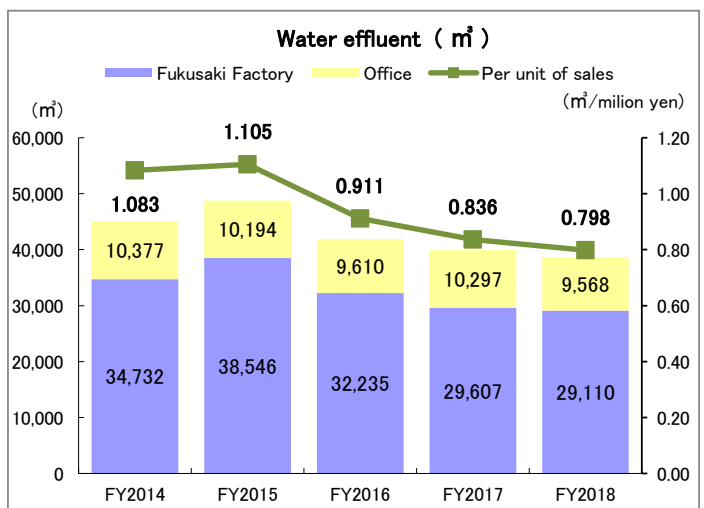
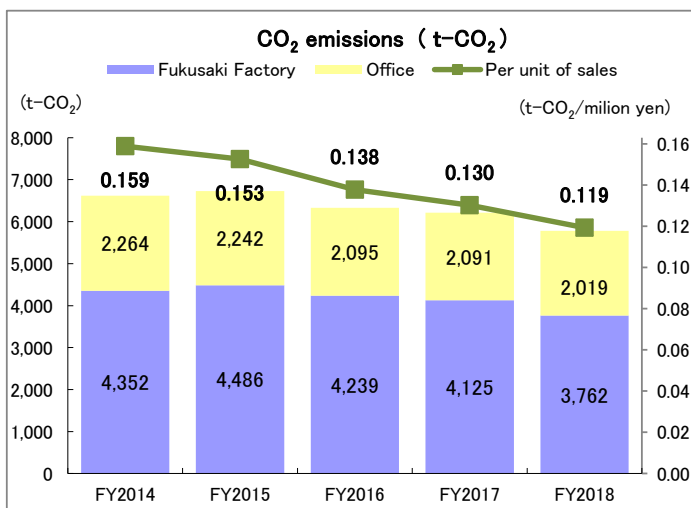


Reporting Content	Unit	Apr. 2014 to Mar. 2015	Apr. 2015 to Mar. 2016	Apr. 2016 to Mar. 2017	Apr. 2017 to Mar. 2018	Apr. 2018 to Mar. 2019
		FY2014	FY2015	FY2016	FY2017	FY2018
<b>OUTPUT</b>						
CO <sub>2</sub> emissions (Scope 1+2)	t-CO <sub>2</sub>	6,616	6,729	6,334	6,216	5,781
Fukusaki Factory	t-CO <sub>2</sub>	4,352	4,486	4,239	4,125	3,762
Office	t-CO <sub>2</sub>	2,264	2,242	2,095	2,091	2,019
Water effluent	m <sup>3</sup>	45,109	48,740	41,845	39,904	38,678
Fukusaki Factory	m <sup>3</sup>	34,732	38,546	32,235	29,607	29,110
Office	m <sup>3</sup>	10,377	10,194	9,610	10,297	9,568
Waste material *2	t	3,743	3,649	3,422	3,433	3,584
Fukusaki Factory, distribution	t	3,652	3,571	3,337	3,314	3,544
Office	t	90	78	85	119	43
Sulfur oxide (SO <sub>x</sub> ) emissions	kg	28	25	34	21	5
Nitrogen oxide (NO <sub>x</sub> ) emissions	kg	210	141	245	342	80
Dust emissions	kg	14	3	4	5	2

\*2 From FY2017 onward, waste materials for promotional items are included in calculations.

### Per Unit of Sales

Reporting Content	Unit	FY2014	FY2015	FY2016	FY2017	FY2018
Energy input	GJ/million yen	3.106	2.895	2.794	2.673	2.264
CO <sub>2</sub> emissions	t-CO <sub>2</sub> /million yen	0.159	0.153	0.138	0.130	0.119
Water input	m <sup>3</sup> /million yen	2.082	2.163	1.964	1.752	1.676



**Scope 1+2+3 emissions in Japan**

Reporting Content	Unit	FY2014	FY2015	FY2016	FY2017	FY2018
CO2 emissions	t-CO <sub>2</sub>	—	—	—	234,354	252,998
Scope 1	t-CO <sub>2</sub>	1,781	1,742	1,685	1,566	1,458
Scope 2	t-CO <sub>2</sub>	4,835	4,987	4,648	4,649	4,323
Scope 3	t-CO <sub>2</sub>	—	—	—	228,139	247,217
Category 1 (Purchased goods and services)	t-CO <sub>2</sub>	—	—	—	88,828	94,294
Category 2 (Capital goods)	t-CO <sub>2</sub>	—	—	—	4,157	9,691
Category 3 (Fuel- and energy-related activities not included in Scope 1 or Scope 2)	t-CO <sub>2</sub>	—	—	—	537	502
Category 4 (Upstream transportation and distribution)	t-CO <sub>2</sub>	—	—	—	4,631	4,616
Category 5 (Waste generated in operations)	t-CO <sub>2</sub>	—	—	—	2,543	2,838
Category 6 (Business travel)	t-CO <sub>2</sub>	—	—	—	129	132
Category 7 (Employee commuting)	t-CO <sub>2</sub>	—	—	—	297	302
Category 8 (Upstream leased assets)	t-CO <sub>2</sub>	—	—	—	Not applicable	Not applicable
Category 9 (Downstream transportation and distribution)	t-CO <sub>2</sub>	—	—	—	355	367
Category 10 (Processing of sold products)	t-CO <sub>2</sub>	—	—	—	Not applicable	Not applicable
Category 11 (Use of sold products)	t-CO <sub>2</sub>	—	—	—	111,871	119,844
Category 12 (End-of-life treatment of sold products)	t-CO <sub>2</sub>	—	—	—	14,105	13,914
Category 13 (Downstream leased assets)	t-CO <sub>2</sub>	—	—	—	Not applicable	Not applicable
Category 14 (Franchises)	t-CO <sub>2</sub>	—	—	—	Not applicable	Not applicable
Category 15 (Investments)	t-CO <sub>2</sub>	—	—	—	686	714

**Amount and Emissions of PRTR-listed Substances and Movement (FY2018)**

(unit: kg)

Class I Designated Chemical Substance	Amount Used	Emissions and Movement
Water-soluble zinc compounds	1,029	110
Methyl 4-hydroxybenzoate	5,666	149
Poly(oxyethylene) alkyl ether	2,437	37
Sodium poly(oxyethylene) dodecyl ether sulfonate	70,309	1,242
Xylene *	1,428	7
Ferric chloride	7,025	0

Substances used in volume of one ton or more.

\* Xylene indicates emission amount

## 2. Graphs of Main Environmental Data

Japanese data gathered from: 1 manufacturing location, 10 non-manufacturing locations, 1 consolidated subsidiary, and 1 non-consolidated subsidiary  
 Overseas data gathered from: 2 manufacturing locations, 9 consolidated subsidiaries, and 1 equity method affiliate  
 Data collection period: Japan (April of the year shown to March of the following year)  
 Overseas (January to December of the year shown)

Reporting Content	Unit	Apr. 2014 to Mar. 2015	Apr. 2015 to Mar. 2016	Apr. 2016 to Mar. 2017	Apr. 2017 to Mar. 2018	Apr. 2018 to Mar. 2019
		FY2014	FY2015	FY2016	FY2017	FY2018
<b>INPUT</b>						
Energy input	GJ	434,218	456,678	479,634	454,043	443,580
Japan	GJ	129,338	127,675	128,377	127,628	121,481
Overseas	GJ	304,880	329,003	351,257	326,415	322,099
Electric power	thousand kWh	37,379	40,342	42,327	40,205	41,153
Japan	thousand kWh	10,470	10,354	10,511	10,609	10,097
Overseas	thousand kWh	26,909	29,988	31,816	29,596	31,056
LP Gas/LN Gas	m <sup>3</sup>	60,640	58,223	52,747	47,433	87,652
City Gas	m <sup>3</sup>	18,194	18,941	17,986	18,508	18,731
Gasolin	kl	841	789	835	695	724
Kerosene	kl	368	367	355	309	179
Diesel fuel	kl	471	331	392	454	66
Water input	m <sup>3</sup>	301,813	287,243	314,525	352,766	312,997
Water supply	m <sup>3</sup>	287,349	276,757	277,899	297,829	277,016
Japan	m <sup>3</sup>	74,321	84,930	81,399	76,093	72,881
Overseas	m <sup>3</sup>	213,028	191,827	196,500	221,736	204,135
Industrial water supply	m <sup>3</sup>	14,464	10,486	36,626	54,937	35,981
Japan	m <sup>3</sup>	12,348	10,486	8,830	7,556	8,325
Overseas	m <sup>3</sup>	2,116	0	27,796	47,381	27,656

<b>OUTPUT</b>						
CO <sub>2</sub> emissions(Scope 1+2)	t-CO <sub>2</sub>	29,427	31,413	32,673	30,701	30,766
Japan *6	t-CO <sub>2</sub>	6,616	6,729	6,334	6,216	5,781
Overseas *7	t-CO <sub>2</sub>	22,811	24,684	26,340	24,486	24,985
Waste material	t	4,540	4,523	4,201	5,484	5,401
Japan	t	3,743	3,649	3,422	3,433	3,688
Overseas	t	797	875	779	2,051	1,713
Remaining waste after treatment	t	202	380	451	1,048	822
Japan	t	29	26	25	22	12
Overseas	t	174	354	426	1,027	810

\*6 Energy consumption calculated based on formulas in the Japanese Act on the Rational Use of Energy.

\*7 Overseas CO<sub>2</sub> emission coefficients by country are drawn from CO<sub>2</sub> Emissions from Fuel Combustion: Highlights, 2013 Edition.

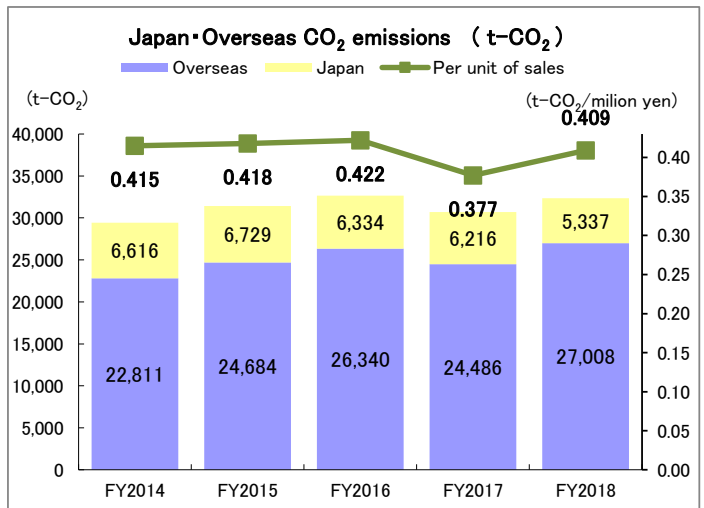
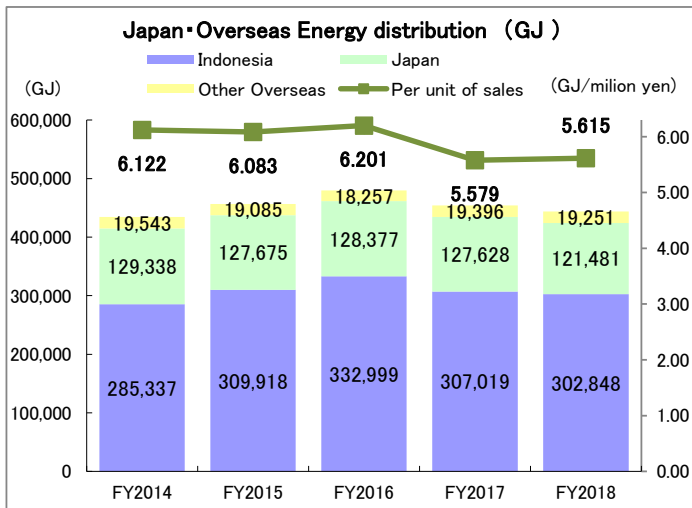
Source: IEA. Fiscal year CO<sub>2</sub> emission coefficients for Japan are based on data from individual electric power producers.

### CO<sub>2</sub> emissions falling under Scope 1 and Scope 2

Reporting Content	Unit	Apr. 2014 to Mar. 2015	Apr. 2015 to Mar. 2016	Apr. 2016 to Mar. 2017	Apr. 2017 to Mar. 2018	Apr. 2018 to Mar. 2019
		FY2014	FY2015	FY2016	FY2017	FY2018
CO <sub>2</sub> emissions	t-CO <sub>2</sub>	29,427	31,413	32,673	30,701	30,766
Scope 1	t-CO <sub>2</sub>	4,300	3,813	4,030	3,732	3,744
Scope 2	t-CO <sub>2</sub>	25,127	27,601	28,643	26,970	27,021

### Per Unit of Sales

Reporting Content	Unit	FY2014	FY2015	FY2016	FY2017	FY2018
Energy input	GJ/million yen	6.122	6.083	6.201	5.579	5.615
CO <sub>2</sub> emissions	t-CO <sub>2</sub> /million yen	0.415	0.418	0.422	0.377	0.409



**Reference: Japanese CO<sub>2</sub> emission calculation coefficient**

Reporting Content	Apr. 2014 to Mar. 2015	Apr. 2015 to Mar. 2016	Apr. 2016 to Mar. 2017	Apr. 2017 to Mar. 2018	Apr. 2018 to Mar. 2019
	FY2014	FY2015	FY2016	FY2017	FY2018
<b>Electric power</b>					
Hokkaido Electric Power Co., Inc.	0.678	0.683	0.669	0.632	0.666
Tohoku Electric Power Co., Inc.	0.591	0.571	0.556	0.545	0.521
TEPCO Energy Partner, Inc.	0.531	0.505	0.500	0.486	0.475
CHUBU Electric Power Co., Inc.	0.513	0.497	0.486	0.485	0.476
The Kansai Electric Power Co., Inc.	0.522	0.531	0.509	0.640	0.435
The Chugoku Electric Power Co., Inc.	0.719	0.706	0.697	0.509	0.669
Kyushu Electric Power Co., Inc.	0.613	0.584	0.509	0.462	0.438
ENNET Corp.	0.423	0.454	0.418	0.405	0.423
Tepco Customer Service Corp.	—	—	0.419	0.508	0.578
Kerosene	2.489	2.489	2.489	2.489	2.489
LP Gas	3.000	3.000	3.000	3.000	3.000
City Gas	2.234	2.234	2.234	2.234	2.234
Gasoline	2.322	2.322	2.322	2.322	2.322
Diesel fuel	2.585	2.585	2.585	2.585	2.585
B·C Heavy oil	39	39	39	39	3

Note: Calculations are based on the Japanese government's Act on the Rational Use, etc. of Energy.

**Reference: Overseas CO<sub>2</sub> emission calculation coefficient**

Reporting Content	FY2014	FY2015	FY2016	FY2017	FY2018
<b>Electric power</b>					
Indonesia	0.755	0.755	0.755	0.755	0.755
China	0.764	0.764	0.764	0.764	0.764
Thailand	0.522	0.522	0.522	0.522	0.522
Philippines	0.492	0.492	0.492	0.492	0.492
Malaysia	0.688	0.688	0.688	0.688	0.688
Singapore	0.500	0.500	0.500	0.500	0.500
Taiwan	0.764	0.764	0.764	0.764	0.764
Hong Kong	0.768	0.768	0.768	0.768	0.768
Korea	0.545	0.545	0.545	0.545	0.545
India	0.856	0.856	0.856	0.856	0.856
Vietnam	0.429	0.429	0.429	0.429	0.429

Note: Overseas CO<sub>2</sub> emission coefficients by country are drawn from CO<sub>2</sub> Emissions from Fuel Combustion: Highlights, 2013 Edition. Source: IEA