



ESG Data

Environment

- For each data from FY2016 to FY2018, the upper row is the Idemitsu Group and the lower row is the Showa Shell Group. (The Showa Shell Group's FY2018 results are reported for 15 months from January 2018 to March 2019.)
- FY2019 data is for the Idemitsu Group. Idemitsu Kosan and Showa Shell merged in April 2019, and the data is after the business integration.
- The scope of data for FY2019 is Idemitsu Kosan and consolidated subsidiaries. However, the reporting scope of some data point differs from the others. For details, please refer to the notes for each data point.
- Data calculation conditions have been revised in conjunction with business integration. Therefore, data for FY2019 is not consistent with the sum of the two companies' data before FY2018. (From FY2016 to FY2018, there are differences in the calculation conditions of the Idemitsu Group and Showa Shell Group.
- The data for FY2019 indicated with has been assured by the Independent Practitioner.

GHG Emissions by Scope	Unit	FY2016	FY2017	FY2018	FY2019	Independent Practitioner's Assurance	Note
Scope1	thousand tCO ₂	7,579	7,465	7,347	12,041	<input checked="" type="checkbox"/>	
		-	5,137	7,015			
	tCH ₄	-	-	-	1,986	<input checked="" type="checkbox"/>	
		-	-	-			
	tHFC	-	-	-	0.103	<input checked="" type="checkbox"/>	
		-	-	-			
	tN ₂ O	-	-	-	228	<input checked="" type="checkbox"/>	
	-	-	-				
	tSF ₆	-	-	-	0.004	<input checked="" type="checkbox"/>	
		-	-	-			
	thousand tCO ₂ e	-	-	-	12,158	<input checked="" type="checkbox"/>	Total 7 GHGs converted to carbon dioxide
		-	-	-			
Scope2	thousand tCO ₂	448	424	460	855	<input checked="" type="checkbox"/>	
		-	530	556			
Scope3*	thousand tCO ₂	87,715	82,224	79,318	117,691	<input checked="" type="checkbox"/>	
		66,278	56,526	63,331			
Scope1+2	thousand tCO ₂	8,027	7,889	7,807	12,896	<input checked="" type="checkbox"/>	
		-	5,667	7,571			
	thousand tCO ₂ e	-	-	-	13,014	<input checked="" type="checkbox"/>	
		-	-	-			
Scope1+2+3*	thousand tCO ₂	95,742	90,113	87,125	130,586	<input checked="" type="checkbox"/>	
		-	62,193	70,902			
	thousand tCO ₂ e	-	-	-	130,704	<input checked="" type="checkbox"/>	
		-	-	-			

*Scope3 records category 11 (Sold products consumption)



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Energy Consumption	Unit	FY2016	FY2017	FY2018	FY2019	Independent Practitioner's Assurance	Note
Heat quantity equivalent	PJ	194	188	186	196	☑	Before FY2018, the energy consumption of both Idemitsu Group's and other companies' business activities are counted. In FY2019, the scope is limited only to the energy consumption of Idemitsu Group's business activities.
		83	84	108			
Crude oil equivalent	thousand kL	4,983	4,858	4,811	5,070	☑	
		2,153	2,156	2,808			
Unit energy consumption(Refinery)	L/kL	8.49	8.79	8.87	8.09	☑	Scope of Reporting: Hokkaido Refinery, Chiba Complex(Petroleum), Aichi Refinery, TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd. Unit energy consumption=Crude oil equivalent(L) / Atmospheric distillation equipment converted throughput(kL)
		7.55	7.47	7.28			
Unit energy consumption(Petrochemical plant)	kL/t	0.404	0.406	0.396	0.421	☑	Scope of Reporting: Chiba Complex(Chemicals), Tokuyama Complex Unit energy consumption=Crude oil equivalent(L) / Ethylene equivalent production(t)
		-	-	-			
Amount of Water Resources Intake and Wastewater	Unit	FY2016	FY2017	FY2018	FY2019	Independent Practitioner's Assurance	Note
Seawater intake	thousand t	1,231,103	1,257,447	1,288,375	1,330,838	☑	
		137,039	133,554	170,600			
Industrial water intake	thousand t	58,562	58,322	60,143	81,740	☑	
		33,223	31,797	41,795			
Tap water intake	thousand t	-	-	-	16,500	☑	The amount of Idemitsu before 2018 are included in industrial water.
		306	249	304			
Underground water intake	thousand t	-	-	-	18,894	☑	The amount of Idemitsu before 2018 are included in industrial water.
		1,734	2,009	2,102			
Total water intake	thousand t	1,289,665	1,315,769	1,348,518	1,447,972	☑	
		172,302	167,609	214,801			
Wastewater	thousand t	1,287,638	1,314,002	1,345,990	1,412,073	☑	
		155,332	150,515	199,813			
Water recycling rate	%	-	-	90	94	☑	The water recycling rate is for industrial water only
		-	97	97			
Water Pollution Effects	Unit	FY2016	FY2017	FY2018	FY2019	Independent Practitioner's Assurance	Note
COD	t	96	104	97	276	☑	Scope of Reporting: Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd., Solar Frontier K.K., Shell Lubricants Japan K.K., Nippon Grease Co., Ltd., IdemitsuSM(Malaysia), Petrochemicals(Malaysia)
		-	-	255			
Total nitrogen	t	91	93	104	97	☑	
		-	-	-			
Total phosphorus	t	1.1	1.2	1.5	1.8	☑	
		-	-	-			



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Air Pollutant Emissions	Unit	FY2016	FY2017	FY2018	FY2019	Independent Practitioner's Assurance	Note
SOx	t	51,034	48,223	47,349	12,315	☑	Before FY2018, the air pollutants of both Idemitsu Group's and other companies' business activities are counted. In FY2019, the scope is limited only to the air pollutants of Idemitsu Group's business activities.
		2,694	2,250	2,972			
NOx	t	44,353	42,823	42,029	17,286	☑	
		2,189	1,942	2,769			
Soot/dust	t	285	230	231	232	☑	
		91	72	95			
VOC	t	3,751	3,707	3,658	5,536	☑	Scope of Reporting: Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd., Shell Lubricants Japan K.K. Kobe Plant, Okinawa Idemitsu Co., Ltd.
		-	4,873	4,639			

Waste	Unit	FY2016	FY2017	FY2018	FY2019	Independent Practitioner's Assurance	Note
Total waste	t	213,550	215,354	209,828	217,516	☑	Scope of Reporting: Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd.
		42,886	37,994	40,188			
Reduced by intermediate treatment	t	86,998	91,227	107,605	110,264	☑	
		-	-	26,087			
Recycled	t	126,415	123,182	100,840	106,640	☑	
		-	-	14,102			
Final disposal	t	137	945	1,383	614	☑	
		-	-	0			
Final disposal rate	%	0.064	0.439	0.659	0.282	☑	
		-	-	0			

Number of Environmental Abnormalities

FY2019

0 case

Acquisition Status of ISO 14001 (Environmental Management Systems)

*As of April 1, 2020

Domestic business sites 24 sites

Overseas business sites 13 sites

*More than 95% of Idemitsu Group GHG emitted from the sites which acquired ISO 14001 certificate.