



## Independent Practitioner's Assurance Report

## Independent Assurance Report



**Mr. Shunichi Kito**  
Representative Director, President and Chief Executive Officer  
Idemitsu Kosan Co.,Ltd.

We, SOCOTEC Certification Japan (hereafter "SOCOTEC"), have performed a limited assurance engagement, in relation to Idemitsu Kosan Co.,Ltd. (hereafter "the Company") in order to provide an opinion as to whether the subject matter information ("FY2020 GHG Emissions and Environmental Performance Data" and "FY2020 Social Performance Data" (period: 1 April 2020 to 31 March 2021)) of the Company meets the criteria in all material respects.

#### 1 Subject Matter Information and Criteria

The subject matter information for our assurance is "a report on GHG Emissions, Environmental and Social Performance Data (shown in APPENDIX)" covering the operations and activities of domestic bases and overseas group companies subject to consolidation of the Company described in "FY2020 GHG Emissions and Environmental Performance Data" and "FY2020 Social Performance Data (period: 1 April 2020 to 31 March 2021(\*1))".

The subject matter information is provided based on "Environmental Performance Data Calculation Rules (revised on 27 August 2021)" and "Social Performance Data Calculation Procedures".

#### 2 Management Responsibility

"FY2020 GHG Emissions and Environmental Performance Data" and "FY2020 Social Performance Data" was prepared by the management of the Company, who is responsible for the integrity of the assertions, statements, and claims made therein (including the assertions over which we have been engaged to provide limited assurance), the collection, quantification and presentation of all data and information in the report, and applied criteria, analysis and publication.

The management of the Company is responsible for maintaining adequate records and internal controls that are designed to support the reporting process and ensure that "FY2020 GHG Emissions and Environmental Performance Data" and "FY2020 Social Performance Data" is free from material misstatement whether due to fraud or error.

#### 3 Assurance Practitioner's Responsibility

The responsibility of SOCOTEC is to express a limited assurance conclusion as to whether the subject matter information has been prepared in compliance with the criteria in all material respects.

SOCOTEC performed limited assurance engagement in accordance with the verification procedures stipulated by SOCOTEC and "ISO14064-3: Specification with guidance for the validation and verification of greenhouse gas assertions" as well as the International Standard on Assurance Engagements (ISAE) 3410 "Assurance Engagements on Greenhouse Gas Statements" and ISAE3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" of International Auditing and Assurance Standards Board.

The procedures implemented in the limited assurance engagement are limited in their type, timing and scope as compared to the procedures implemented in the reasonable assurance engagement. As a result, our limited assurance engagement does not provide as high assurance as reasonable assurance engagement.

Our procedures performed depend on the assurance professional practitioner's judgement, including the risk of material misstatement, whether due to fraud or error. Our conclusion was not designed to provide assurance on internal controls. We believe that we have obtained the evidence to provide a basis for the conclusion for limited assurance.

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#### 4 Assurance Procedures

The procedures that SOCOTEC has conducted are based on professional judgment and include, but are not limited to:

- Evaluation of policies and procedures created by the Company in relation to subject matter information
- Questions to Company personnel to understand the above policies and procedures
- Verification that the target project meets eligibility requirements
- Matching with the basis data by trial calculation and recalculation
- Obtaining and collating material for important assumptions and other data
- We selected the Head Office and Tokuyama Complex of the Company as verification sites in order to confirm the calculation structure and procedures, data collection and implementation status of record control.

#### 5 Statement of Our Independence, Quality Control and Competence

SOCOTEC has introduced and maintained a comprehensive management system that conforms to the accreditation requirements of "ISO17021 Conformity assessment – Requirements for bodies providing audit and certification of management systems". In addition, we have also established a management system according to "ISO14065 Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition". These meet the requirements of "International Standard on Quality Control 1" by the International Auditing and Assurance Standards Board and "Code of Ethics for Professional Accountants" by International Ethics Standards Board for Accountants. We maintain a comprehensive quality control system that includes ethical rules, professional standards and documented policies and procedures for compliance with applicable laws and regulations.

The SOCOTEC Group is a comprehensive third-party organisation in inspection, testing and certification operations, and conducts management system certification services and training services related to quality, environment, labour and information security in countries around the world. Engaged in performance data and sustainability report assurance of environmental and social information, SOCOTEC affirms that it is independent of the organisation that has ordered the assurance engagement, its affiliated companies, and stakeholders, and that there is no possibility of impairing impartiality or conflict of interest.

We assure that the team engaged in the assurance is selected based on knowledge, experience in the relevant industry, and the competence requirements for this assurance engagement.

#### 6 Use of Report

Our responsibility in performing our limited assurance activities is to the management of the company only in accordance with the terms for this engagement as agreed with the Company. We do not therefore assume any responsibility for any other purpose or to any other person or organisation.

#### 7 Our Conclusion

On the basis of our procedures performed and evidence obtained nothing has come to our attention that causes us to believe that the subject matter information is not, in all material respects, prepared and reported in accordance with the stated criteria.

SOCOTEC Certification Japan

Seigo Futaba  
Managing Director  
22 October 2021

\*1: The time range for some social data is different (see APPENDIX).

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## GHG Emissions, Environmental and Social Performance Data

Table 1-1 GHG Emissions by Scope

Item	Figure	Unit
Scope 1	12,193	thousand tCO <sub>2</sub>
	14,531	tCH <sub>4</sub>
	0.413	tHFC
	392	tN <sub>2</sub> O
	0.002	tSF <sub>6</sub>
Scope 2	12,674	thousand tCO <sub>2</sub> e
Scope 3	829	thousand tCO <sub>2</sub>
(Category 11: Solid products consumption)	108,187	thousand tCO <sub>2</sub>
Scope 1 + 2	13,022	thousand tCO <sub>2</sub>
	13,503	thousand tCO <sub>2</sub> e
Scope 1 + 2 + 3	121,209	thousand tCO <sub>2</sub>
	121,650	thousand tCO <sub>2</sub> e

Table 1-2 GHG emissions per unit of production

Item	Figure	Unit
Crude oil production	0.006	tCO <sub>2</sub> e/bbl
Coal production	0.066	tCO <sub>2</sub> e/t
Oil refining	0.040	tCO <sub>2</sub> e/bbl
Petrochemical plants	0.896	tCO <sub>2</sub> e/t

Table 1-3 Energy Consumption

Item	Figure	Unit
Heat quantity equivalent	191	PJ
Crude oil equivalent	4,916	thousand kL
Unit energy consumption (Refinery)	8.64	L/kL
Unit energy consumption (Petrochemical plant)	0.415	kL/t



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Table 1-4 Amount of Water Resources Intake and Wastewater

Item	Figure	Unit
Seawater intake	1,357,736	thousand t
Industrial water intake	82,074	thousand t
Tap water intake	11,711	thousand t
Underground water intake	15,789	thousand t
Total water intake	1,467,310	thousand t
Wastewater	1,429,680	thousand t
Water recycling rate	94	%

Table 1-5 Water withdrawal rate

Item	Figure	Unit
Crude oil production	0.467	t/bbl
Coal production	0.486	t/t
Oil refining	3.830	t/bbl
Petrochemical plants	164	t/t

Table 1-6 Water Pollution Effects

Item	Figure	Unit
COD	336	t
Total nitrogen	146	t
Total phosphorus	3.2	t

Table 1-7 Air Pollutant Emissions

Item	Figure	Unit
SOx	7,886	t
NOx	13,980	t
Soot/dust	223	t
VOC	5,411	t



Table 1-8 Waste

Item	Figure	Unit
Total waste	224,084	t
Reduced by intermediate treatment	96,768	t
Recycled	124,699	t
Final disposal	38	t
Final disposal rate	0.017	%

Table 2-1 Status of Employees

Item	Figure	Unit	
Number of employees*1	4,943	People	
	4,355	People	
	588	People	
Number of employees in managerial positions (including managers, general managers, and executive officers)*1	11.9	%	
	984	People	
	960	People	
Average age*1	24	Percentage of women	
	42.1	years old	
	42.3	years old	
Average years employed*1	40.3	years old	
	19.4	years	
	19.7	years	
Status of employees with disabilities*2	17.3	years	
	-	2.3	%
New graduate retention rate (Average for newly hired employees between 2016 and 2018)	-	89.4	%
	-	8.8	%

\*1 As of March 31, 2021

\*2 As of June 1, 2021



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Table 2-2 Status of Recruitment

Item	Figure	Unit	
Recruitment of new graduates <sup>3</sup>	151	People	
	Men	127	People
	Women	24	People
	Percentage of women	15.9	%
	Foreign nationals	2	People
	Percentage of foreign nationals	1.3	%
Career recruitment <sup>4</sup>	91	People	

<sup>3</sup> Hired in April 2021<sup>4</sup> Hired in FY2020

Table 2-3 Work-Life Balance Support Systems and Usage Numbers

Item	Figure	Unit	
Maternity leave	35	People	
Childcare leave	90	People	
	Men	22	People
	Women	68	People
Nursing care leave	2	People	
	Men	2	People
	Women	0	People
Reduced working hours for parenting	72	People	
	Men	1	People
	Women	71	People
Leave to care for sick/injured child	133	People	
	Men	61	People
	Women	72	People
Family care leave	37	People	
	Men	25	People
	Women	12	People
Telecommuting	3,592	People	
	Men	3,086	People
	Women	506	People
Self-development leave of absence	2	People	
	Men	2	People
	Women	0	People



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Table 2-4 Overtime Work and Annual Paid Leave

Item	Figure	Unit
Average overtime work hours per employee	20.0	hours/month
Average annual paid leave taken by an employee	14.1	Days
Average usage rate of annual paid leave per employee	69.5	%

Table 2-5 Training Results

Item	Figure	Unit	
Training hours	Total	57,581	Hours
	Per person	10.9	Hours
Amount of investment in training	Total	256,000	thousand yen
	Per person	48	thousand yen

Table 2-6 Results related to health

Item	Figure	Unit
Occupational accidents frequency rate <sup>5</sup>	0.30	-
Severity rate <sup>5</sup>	0.00	-

<sup>5</sup> January 2020 to December 2020

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