

Independent Assurance Report

Mr. Shigeru Yamada
Representative Director, Group CEO
COSMO ENERGY HOLDINGS CO., LTD.

We, SOCOTEC Certification Japan (hereafter "SOCOTEC"), have performed a limited assurance engagement, in response to the entrustment from COSMO ENERGY HOLDINGS CO., LTD. (hereafter "the Company") in order to provide an opinion as to whether the subject matter information ("FY2022 ESG Data"(period: 1 April 2022 to 31 March 2023)) 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(Scope1,2,3(Categories: 1,4,11)), Water-related data, air pollutant emissions, amount of waste generated and data related to society and safety (shown in APPENDIX)" covering the operations and activities of the Company and its consolidated companies in Japan and overseas (COSMO ENERGY EXPLORATION & PRODUCTION CO., LTD., COSMO OIL CO., LTD., COSMO OIL MARKETING CO., LTD. and other related 43 companies) described in "FY2022 ESG Data"(period: 1 April 2022 to 31 March 2023).

The criteria for preparing subject matter information is "GHG Emissions Calculation Rules_Ver1".

2 Management Responsibility

"FY2022 ESG Data"(period: 1 April 2022 to 31 March 2023) 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 "FY2022 ESG Data"(period: 1 April 2022 to 31 March 2023) is free from material misstatement whether intentional or negligent.

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 verification and validation of greenhouse gas statements" and the International Standard on Assurance Engagements (ISAE) 3000 (Revised), "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" of International Auditing and Assurance Standards Board (IAASB).

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.

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 the 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 visited Head office of the Company, COSMO OIL CO., LTD. Yokkaichi refinery, YOKKAICHI KASUMI POWER CO., LTD. YOKKAICHI KASUMI POWER STATION and COSMO MATSUYAMA OIL CO., LTD. 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

29 September 2023

GHG Emissions(Scope1,2,3(Categories:1,4,11)), Water-related data, air pollutant emissions, amount of waste generated and data related to society and safety

Table1 GHG Emissions by Scope

Item		Figure	Unit
Scope1 (breakdown)	Total	7,287	thousand t-CO2
	CO2	7,262	thousand t-CO2
	GHG other than CO2	26	thousand t-CO2
Scope2 (Market-based)	Total	243	thousand t-CO2
Scope2 (Location-based)	Total	285	thousand t-CO2
Scope3 (breakdown)	Total	53,018	thousand t-CO2
	Category1*1	1,150	thousand t-CO2
	Category4*2	840	thousand t-CO2
	Category11*3	51,028	thousand t-CO2

*1 Purchased goods and services : Target crude oil production

*2 Upstream transportation and distribution

*3 Use sold products : Target petroleum products

Table2 Energy consumption & CO2 emissions (COSMO OIL CO.,LTD)

Item	Figure	Unit
Refinery Unit Energy consumption*4	9.17	L/kL
Refinery Crude oil equivalent energy consumption	1,621	thousand kL
Refinery Unit CO2 Emissions*5	23.49	kg-CO2/kL
Refinery CO2 Emissions	4,153	thousand t-CO2
Transpotation department Unit Energy consumption (marine)	8.17	L/thousand (t•km)
Transpotation department Unit Energy consumption (land)	35.60	L/thousand (t•km)
Transpotation department CO2 Emissions	171,351	t-CO2

*4、*5 per unit of crude oil equivalet throughput

Table3 Energy consumption (COSMO ENERGY Group Total)

Item	Figure	Unit
Heat quantity equivalent	115,558	TJ
Crude oil equivalent	2,981	thousand kL

Table4 Water intake & Wastewater

Item		Figure	Unit
COSMO OIL	Industrial water	41,243	thousand t
	Sea water	409,504	thousand t
	Well water	284	thousand t
	Tap water	165	thousand t
	water intake total	451,196	thousand t
	Wastewater	445,532	thousand t
Petrochemical	Industrial water	19,856	thousand t
	Sea water	88,791	thousand t
	Well water	34	thousand t
	Tap water	20	thousand t
	water intake total	108,702	thousand t
	Wastewater	95,808	thousand t
Logistics base	Industrial water	335	thousand t
	Sea water	0	thousand t
	Well water	61	thousand t
	Tap water	24	thousand t
	water intake total	420	thousand t
	Wastewater	260	thousand t
Research institute	Industrial water	0	thousand t
	Sea water	0	thousand t
	Well water	97	thousand t
	Tap water	32	thousand t
	water intake total	129	thousand t
	Wastewater	91	thousand t

Table5 Water Pollution Loading Amount

Item		Figure	Unit
COSMO OIL	COD	89.6	t
	Total nitrogen	44.6	t
	Total phosphorus	0.9	t
Petrochemical	COD	61.5	t
	Total nitrogen	36.3	t
	Total phosphorus	1.4	t
Logistics base	COD	1.8	t
	Total nitrogen	0.3	t
	Total phosphorus	0.01	t

Table6 Air Pollution Emissions

Item		Figure	Unit
COSMO OIL	SO _x emissions	3,196	t
	NO _x emissions	2,300	t
Petrochemical	SO _x emissions	597	t
	NO _x emissions	774	t

Table7 Air Pollution Emissions & Water Pollution Loading

Item		Figure	Unit
Refinery	Unit SO _x emissions* ⁶	17.9	g/kL
	SO _x emissions	3,161	t
	Unit NO _x emissions* ⁷	12.6	g/kL
	NO _x emissions	2,223	t
	Unit COD loading* ⁸	0.51	g/kL
	COD loading	90	t

*6、*7、*8 per unit of crude oil equivalent throughput

SOCOTEC Certification Japan: This appendix is a valid document as an appendix to the independent assurance report issued to COSMO ENERGY HOLDINGS CO., LTD. on September 29, 2023.

APPENDIX 4/8

Table8-1 Industrial waste (By business)

Item		Figure	Unit
COSMO OIL	Industrial waste generated	59,068	t
	Recycled industrial waste	17,837	t
	Final disposal	10	t
Petrochemical	Industrial waste generated	89,197	t
	Recycled industrial waste	15,264	t
	Final disposal	183	t
Logistics base	Industrial waste generated	1,171	t
	Recycled industrial waste	1,064	t
	Final disposal	3	t
Research institute	Industrial waste generated	144	t
	Recycled industrial waste	94	t
	Final disposal	2	t

Table8-2 Industrial waste (By company)

Item		Figure	Unit
COSMO OIL Group	industrial waste generated	59,569.9	t
	Final disposal	13.6	t
	Final disposal rate	0.02	%
COSMO OIL LUBRICANT	industrial waste generated	813.2	t
	Final disposal	2.2	t
	Final disposal rate	0.27	%
COSMO ENGINEERING	industrial waste generated	3,427.4	t
	Final disposal	0.0	t
	Final disposal rate	0.0	%

Table9 PRTR-Designated Substances

Item		Figure	Unit
COSMO OIL	Discharged amount	94	t
	Transferred amount	432	t
Petrochemical	Discharged amount	255	t
	Transferred amount	19	t
Logistics base	Discharged amount	32	t
	Transferred amount	2	t
Research institute	Discharged amount	0	t
	Transferred amount	4	t

Table10 Employees (COSMO OIL Co.,LTD)

Item		Figure	Unit
Ratio of female managers* ⁹		6.7	%
Ratio of female hires	managing section* ¹⁰	32.1	%
	new graduate* ¹¹	60.0	%
Employment rate of persons with disabilities* ¹²		2.31	%
Childcare leave	Female acquisition rate	100.0	%
	Male acquisition rate	55.8	%

*9 As of April 1, 2023

*10 New graduate recruitment+Mid-career recruitment in FY2022

*11 As of April 1, 2023

*12 As of Jun 1, 2023

Table11 Gender pay gap (COSMO OIL Co.,LTD)

Item		Figure	Unit
Gender pay gap	Total	76.0	%
	Regular employees	75.5	%
	Non-regular employee	78.2	%

Table12 Industrial accident(COSMO ENERGY Group:41 group companies)

Item		Figure	Unit
Occupational accident	Lost work accident	42	number
	Industrial accident without lost time	74	number
Work-related accident while commuting	Lost work accident	12	number
	Industrial accident without lost time	18	number
Total	Lost work accident	54	number
	Industrial accident without lost time	92	number
Grand Total		146	number
Number of fatalities due to work-related accidents	employee	1	people
	Partner company employee	0	people