



# LRQA Independent Assurance Statement

## Relating to PTT Global Chemical Public Company Limited's GHG Report for the FY 2024

### Terms of Engagement

This Assurance Statement has been prepared for PTT Global Chemical Public Company Limited.

LRQA was commissioned by PTT Global Chemical Public Company Limited (GC) to assure its GHG Report for the fiscal year 2024(1 January – 31 December 2024) (hereafter referred to as “the Report”).

The Report relates to direct GHG emissions and indirect GHG emissions

PTT Global Chemical Public Company Limited 's geographical boundary includes its HO operations located at Rayong, Thailand and other sites located in Thailand only (Annex A). The main activities of the organization are manufacturing for petrochemical, chemical, utility supply and technical service. The GHG emissions have been consolidated using operational control approach.

### Management Responsibility

PTT Global Chemical Public Company Limited's management was responsible for preparing the claim, report and conformity with the criteria of ISO 14064-1:2018 and for maintaining effective internal controls over the data and information disclosed. LRQA's responsibility was to carry out an assurance engagement on the Report in accordance with our contract with PTT Global Chemical Public Company Limited.

Ultimately, the Report has been approved by, and remains the responsibility of PTT Global Chemical Public Company Limited.

### LRQA's Approach

Our verification has been conducted in accordance with ISO 14064–3:2019, 'Specification with guidance for verification and validation of greenhouse gas statements' to provide limited assurance that GHG data as presented in the Report have been prepared in conformance with ISO 14064–1:2018, 'Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals'.

To form our conclusions the assurance engagement was undertaken as a sampling exercise and covered the following activities:

- conducted site visit at the Rayong facilities and reviewed processes related to the control of GHG emissions data and records;
- interviewed relevant staff of the organization responsible for managing GHG emissions data and records; and
- verified historical GHG emissions data and records at an aggregated level for the financial year 2024.

### Level of Assurance & Materiality

In accordance with our contract agreement, the assurance was conducted at a limited level of assurance at a materiality of 5% at aggregation level. The opinion expressed in this Assurance Statement has been accordingly formed.

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<sup>1</sup> other locations in boundary scope has been referred to Table 2 : Annex of locations



### LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that the GHG emissions disclosed in the Report as summarized in Table 1 below are not materially correct and that the Report has not been prepared in conformance with ISO 14064–1:2018

### LRQA's Recommendations

PTT Global Chemical Public Company Limited should:

- GHG emissions data collection and quantification methods should consider having a management process regarding data management in case there are changes in operations or calculation methods of each facility data the past year and based year. This will increase the accuracy of data reported in the future.

*Kamiga S.*

Kamiga Sukkeaw  
LRQA Lead Verifier

On behalf of LRQA (Thailand) Ltd.  
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LRQA reference: BGK00001075

Dated: 30 May,25





**Table 1. Summary of PTT Global Chemical Public Company Limited, GHG Emissions Inventory / Report 2024**

Scope of GHG emissions	Tonnes CO <sub>2</sub> e Y2021	Tonnes CO <sub>2</sub> e Y2024
<b>Direct GHG emissions (Category 1)</b>	6,522,101	6,165,999
<b>Indirect GHG emissions from imported energy (Category 2)</b> <ul style="list-style-type: none"> <li>Location Based</li> <li>Market Based</li> </ul> <i>(Market Based included International Renewable Energy Certificate as a total of 100.00 MWh for GHG reporting data in 2024)</i>	2,029,480 1,992,246	1,853,133 1,655,164
<b>Indirect GHG emissions from transportation (Category 3)</b> <ul style="list-style-type: none"> <li>Upstream Transport</li> <li>Downstream Transport (only Polymer products)</li> </ul>	570,068 40,138	580,966 35,726
<b>Indirect GHG emissions from products used by an organization (Category 4)</b> <ul style="list-style-type: none"> <li>Capital goods</li> <li>Purchased goods and services</li> <li>Fuel and energy related activities</li> </ul>	581,050 7,539,072 1,018,477	121,552 5,872,136 1,277,531
<b>Indirect GHG emissions associated with the use of products from the organization (Category 5)</b> <ul style="list-style-type: none"> <li>Processing of sold products (only Polymer products)</li> <li>Used of sold products</li> <li>End of life treatment of sold products</li> <li>Investment</li> </ul>	3,387,091 24,266,496 1,007,825 1,574,065	3,608,576 25,989,989 1,076,756 1,593,811
Location based and Market based are terminologies from Annex E of ISO 14064-1:2018.		

This Assurance Statement is subject to the provisions of this legal section:

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**Table 2 : Annex of Locations**

List of Facility No.	Name	Business Unit	Location
1	GC 1 (RO)	Office building	59, Ratniyom Road, Noenphra, Mueang Rayong, Rayong 21150, Thailand.
2	GC 2 (OLE 1)	Olefins	14, I-1 Road, Tambol Maptaphut, Amphur Mueang Rayong, Rayong 21150, Thailand.
3	GC 2 (UT)	Utilities	
4	GC 2 (HDPE 1)	Polymers	
5	GC 2 (OLE 4)	Olefins	
6	GC 2 (HGP)	Olefins	
7	GC 3 (OLE 2)	Olefins	9, I-4 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong, Rayong 21150, Thailand.
8	GC 4 (ARO 1)	Aromatics	4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong, Rayong 21150, Thailand.
9	GC 5 (ARO 2)	Aromatics	98/9, Rayong Highway 3191, RIL Industrial Estate, Maptaphut District, Rayong 21150, Thailand.
10	GC 6 (REF)	Refinery	8, I-8 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong, Rayong 21150, Thailand.
11	GC 7 (BTF)	Jetty & Buffer Tank Farm	19 Rong Pui Road, Map Ta Phut, Mueang Rayong, Rayong 21150, Thailand.
12	GC 8 (ATF)	Tank Farm	11, I-4 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong, Rayong 21150, Thailand.
13	GC 9 (LAB)	Lab Center	24/9, Pakorn Songkrorat Road, Map Ta Phut, Mueang Rayong, Rayong 21150, Thailand.
14	GC 11 (OLE 3)	Olefins	8 Padaeng Road, Maptaphut Amphur Mueng Rayong, Rayong 21150, Thailand.
15	GC 11 (LDPE)	Polymers	
16	GC 11 (LLDPE)	Polymers	
17	GC 12 (HDPE2)	Polymers	8, I-10 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong, Rayong 21150, Thailand.
18	GC 16 (EO/EG)	EO-Based	9 Soi G-12 Pakorn Songkhraorat Road, Tambon Map Ta Phut Amphur Muang Rayong, Rayong 21150, Thailand.
19	GC 16 (EA)		
20	GGC (Plant I)	Green Chemicals	8, Pakornsongkhorat Road, Map Ta Phut, Muang Rayong, Rayong 21150, Thailand.
21	GCME	Office building	22/2 Pakornsongkoraj Rd. T.Maptaput, A.Mueang, Rayong 21150, Thailand.
22	NPC S&E	Office building	20/9 Pakorn Songkhraorat Road, Tambon Map Ta Phut Amphur Muang Rayong, Rayong 21150, Thailand.
23	GC 17 (GC Stryrenics)	Polymers	7 I-1 Rd., Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong, Rayong 21150, Thailand.

24	ENCO (Head Office)	Office building	555/1 Energy Complex, Building A, 14th-18th Floor, Vibhavadi Rangsit Road, Chatuchak, Chatuchak, Bangkok 10900, Thailand.
25	GC 18 (Phenol I & II)	Phenol	9 Soi G9 Hemaraj eastern Industrail Eastern Pakornsongkrohraj,Rd Map Ta Phut Rayong 21150, Thailand.
26	GC 18 (BPA)	Phenol	
27	GC 13 (INNO)	Innovation building	83/9-10 Moo 5, Tambon Thap Ma, Muang Rayong, Rayong 21000 Thailand.
28	GC Corporate (Scope 1)	Corporate	Bangkok and Rayong
29	GC14 (Maintenance)	Office building	32 Rong Pui Road, Map Ta Phut, Mueang Rayong, Rayong 21150 Thailand.
30	GCMTPA	Polymers	8 Pakorn Songkhraorat Road, Tambon Map Ta Phut Amphur Muang Rayong, Rayong 21150, Thailand
31	TPRC	Polymers	18, Soi G-2 Pakorn Songkhraorat Road, Tambon Map Ta Phut Amphur Muang Rayong, Rayong 21150, Thailand
32	GGC (Plant II)	Green Chemicals	199/1 Moo 2, Khao Sok, Nong Yai, Chon Buri 20190, Thailand
33	GC 19 (GC Oxirane)	EO-Based	12 Soi G-4 Pakorn Songkhraorat Road, Tambon Map Ta Phut Amphur Muang Rayong, Rayong 21150, Thailand
34	GCP (GC Polyols)	Polymers	9 Soi G-14 Pakorn Songkhraorat Road, Tambon Map Ta Phut Amphur Muang Rayong, Rayong 21150, Thailand
35	GC Estate	Office building	888 Sukhumvit Road 20, Huai Pong, Amphur Muang Rayong 21150, Thailand
36	Envicco	PCR Polymers	P433+XQ7 GC Estate Rd, Ban Chang, Ban Chang District, Rayong 21130, Thailand
37	GC 15 (GC Campus)	Office building	66 National Highway 363 Road, Nernpra Sub-District, Muang Rayong District, Rayong, Thailand 21150