Performance Summary: GHG Emission and Other Emissions

Mode Processed Date	GHG Emission and Other Emissions								
Trail Delication	GRI	Required Data		OR Performance					
Note Content Note Content Note Content Note Content Note No			Unit	2020	2021	2022	2023	Target	
Total Indiana Conference (Score 1)	-	Total GHG emissions (Scope 1+2)	Metric tonnes CO ₂ equivalents	25,334	22,249	30,293	33,407	28,900	
Direct Classificación (Sorgio 1)	GRI 305-1 (2016)	Direct Greenhouse Gas Emissions (Scope 1)							
Oil Business (Company Own Company Congonate) Medic Isrnes CO ₂ equivalents 764 0.039 0.33.70 1.152 1.15		Total direct GHG emissions (Scope 1) ^[1]	Metric tonnes CO ₂ equivalents	4,074	3,483	4,427	4,998	4,639	
Note: Col husiness reclude Oxidicas Terminal, I.P.C. 1,150		Direct Greenhouse Gas Emissions (Scope 1)							
Corporation		Note: Oil business includs Oil&Gas Terminal, LPG Refurbishing Plant, Lubricants Distribution Center,	Metric tonnes CO ₂ equivalents	794	839	833.78	1,152	-	
Note: Building and Office 2,674 2,004 2,756 3,000			Metric tonnes CO ₂ equivalents	607	640	837	785	-	
Fig. 1905-2 (2016) Indirect Greenhouse Gas Emissions (Scope 2) Total Indirect Greenhouse Gas Emissions (Scope 2) Melric tomes CO ₂ equivalents 21,260 18,766 25,866 28,410 26,242 16,766 25,866 28,410 26,242 16,766 25,866 28,410 26,242 16,766 25,866 28,410 26,242 16,766 25,866 28,410 26,242 16,766 25,866 28,410 26,242 16,766 25,866 28,410 26,242 16,766 25,866 28,410 26,242 16,766 25,866 28,410 26,242 16,766 25,866 28,410 26,242 16,766 25,866 28,410 26,242 16,766 25,866 28,410 26,242 16,766 16			$\label{eq:constraint} \text{Metric tonnes CO}_2 \ \text{equivalents}$	2,674	2,004	2,756	3,060	-	
Total Indirect Greenhouse Gas Emissions (Scope 2) ^[1] Metric tonnes CO ₂ equivalents 21.260 18.766 25.866 28.410 26.292 - Location-based Metric tonnes CO ₃ equivalents 21.260 18.766 25.866 29.188 26.292 - Market-based Metric tonnes CO ₃ equivalents NAA NA 0.00 28.410 25.514 indirect Greenhouse Gas Emissions (Scope 2) breakt/own by business units Oil Business (Company Own Company Corporate) Note: Oil Dusiness include SidiScas Terminal, LPG Redurbishing Plant, Lubricants Distribution Center, ITT Auto, Retails Distrib	_	Biogenic CO2 emissions (Scope 1)	Metric tonnes CO ₂ equivalents	No Data	No Data	No Data	No Data	-	
- Location-based Metric tonnes CO ₂ equivalents 21,286 18,766 25,866 29,188 26,292 - Market-based Metric tonnes CO ₂ equivalents N/A N/A 0,00 28,410 25,514 Indirect Greenhouse Gas Emissions (Scope 2) breakdown by business units Oil Business (Company Comporate) Notic: Oil business include Oil&Cas Terminal, LPG Refurbishing Plant, Lubricants Distribution Center, FIT Auto, Retails) - Location-based Metric tonnes CO ₂ equivalents 17,096 13,719 20,102 18,779 Retail Business (Company Own Company Corporate) Note: Cafe Amazon, Resisting - Location-based Metric tonnes CO ₂ equivalents 2,835 4,113 4,427 8,069 - Market-based Metric tonnes CO ₂ equivalents 2,834,98 4,113 4,427 8,069 - Market-based Metric tonnes CO ₂ equivalents 1,329 9,34 1,337 1,562 - Market-based Metric tonnes CO ₂ equivalents 1,329 9,34 1,337 1,562 - Location-based Metric tonnes CO ₂ equivalents 1,329 9,34 1,337 1,562 - Location-based Metric tonnes CO ₂ equivalents 1,329 9,34 1,337 1,562 - Location-based Metric tonnes CO ₂ equivalents 1,329 9,39 1,337,00 1,605 - Market-based Metric tonnes CO ₂ equivalents 1,329 9,39 1,337,00 1,605 - Market-based Metric tonnes CO ₂ equivalents NA NA NA NA NA 1,562 GRI 305-7 (2018) Other Indirect (Scope 3) GRIS Emissions Cat 11: Use of sold product Metric tonnes CO ₂ equivalents No Data No Data 66,855,074 66,356,737 Total sutfur coides (SOX) emissions Metric tonnes CO ₂ equivalents No Data No Data 8,486,71 8,789,85 8,877,45	GRI 305-2 (2016)		Metric tonnes CO ₂ equivalents	21,260	18,766	25,866	28,410	26,292	
Indirect Greenhouse Gas Emissions (Scope 2) breakdown by business units			Metric tonnes CO ₂ equivalents	21,260	18,766	25,866	29,188	26,292	
Oil Business (Company Own Company Corporate) Note: Oil business include Oil&Gas Terminal, LPG Refurbishing Plant, Lubricants Distribution Center, FIT Auto, Retails 17,096 13,719 20,102 18,779 18,779 18,779 17,096 13,719 20,102 18,779 18,779 18,779 18,779 19,774 19,779 19		- Market-based	Metric tonnes CO ₂ equivalents	N/A	N/A	0.00	28,410	25,514	
Note: Oil business includs Oil&Gas Terminal, LPG 17,096 13,719 20,102 18,779 18,779 18,779 17,096 13,719 20,102 18,779 18,7		Indirect Greenhouse Gas Emissions (Scope 2) breakdo	own by business units						
- Market-based Metric tonnes CO ₂ equivalents N/A N/A N/A N/A N/A 18,779 - Retail Business (Company Own Company Corporate) Metric tonnes CO ₂ equivalents 2,835		Note: Oil business includs Oil&Gas Terminal, LPG Refurbishing Plant, Lubricants Distribution Center,	Metric tonnes CO ₂ equivalents	17,096	13,719	20,102	18,779	-	
Retail Business (Company Own Company Corporate) Metric tonnes CO ₂ equivalents 2,835		- Location-based	Metric tonnes CO ₂ equivalents	17,095.80	13,719.08	20,102.00	19,293	-	
Note: Café Amazon, Roasting 2,835		- Market-based	Metric tonnes CO ₂ equivalents	N/A	N/A	N/A	18,779	-	
- Market-based Metric tonnes CO ₂ equivalents N/A N/A N/A N/A 8,069 - Others Metric tonnes CO ₂ equivalents 1,329 934 1,337 1,562 - - Location-based Metric tonnes CO ₂ equivalents 1,329 48 933.92 1,337.00 1,605 - - Market-based Metric tonnes CO ₂ equivalents N/A N/A N/A N/A N/A 1,562 - GRI 305-3 (2016) Other Indirect (Scope 3) GHG Emissions Cat 11: Use of sold product Metric tonnes CO ₂ equivalents No Data No Data 66,855,074 66,356,737 - GRI 305-7 (2016) Nitrogen Oxides (NOX), Sulfur Oxides (SOX) and Other Significant Air Emissions Total nitrogen oxides (NOX) emissions Metric tonnes 0.02 0.36 0.99 1.48 - Total volatile organic compounds (VOC) emissions Metric tonnes 8,380.01 8,426.71 8,789.95 8,877.45 -			Metric tonnes CO ₂ equivalents	2,835	4,113	4,427	8,069	-	
Others		- Location-based	Metric tonnes CO ₂ equivalents	2,834.98	4,113.35	4,427.00	8,290	1	
-Location-based Metric tonnes CO ₂ equivalents 1,329.48 933.92 1,337.00 1,605Market-based Metric tonnes CO ₂ equivalents N/A N/A N/A N/A 1,562 - GRI 305-3 (2016) Other Indirect (Scope 3) GHG Emissions Cat 11: Use of sold product Metric tonnes CO ₂ equivalents No Data No Data 66,855,074 66,356,737 - GRI 305-7 (2016) Nitrogen Oxides (NOX), Sulfur Oxides (SOX) and Other Significant Air Emissions Total nitrogen oxides (NOX) emissions Metric tonnes 0.27 0.51 1.93 1.68 - Total sulfur oxides (SOX) emissions Metric tonnes 0.02 0.36 0.99 1.48 - Total volatile organic compounds (VOC) emissions Metric tonnes 8,380.01 8,426.71 8,789.95 8,877.45 -		- Market-based	Metric tonnes CO ₂ equivalents	N/A	N/A	N/A	8,069	-	
- Market-based Metric tonnes CO ₂ equivalents N/A N/A N/A N/A N/A 1,562 - GRI 305-3 (2016) Other Indirect (Scope 3) GHG Emissions Cat 11: Use of sold product Metric tonnes CO ₂ equivalents No Data No Data 66,855,074 66,356,737 - GRI 305-7 (2016) Nitrogen Oxides (NOx), Sulfur Oxides (SOx) and Other Significant Air Emissions Total nitrogen oxides (NOX) emissions Metric tonnes 0.27 0.51 1.93 1.68 - Total sulfur oxides (SOX) emissions Metric tonnes 0.02 0.36 0.99 1.48 - Total volatile organic compounds (VOC) emissions Metric tonnes 8,380.01 8,426.71 8,789.95 8,877.45 -		Others	Metric tonnes CO ₂ equivalents	1,329	934	1,337	1,562	-	
GRI 305-3 (2016) Other Indirect (Scope 3) GHG Emissions Cat 11: Use of sold product Metric tonnes CO ₂ equivalents No Data No Data 66,855,074 66,356,737 - GRI 305-7 (2016) Nitrogen Oxides (NOx), Sulfur Oxides (SOx) and Other Significant Air Emissions Total nitrogen oxides (NOX) emissions Metric tonnes 0.27 0.51 1.93 1.68 - Total sulfur oxides (SOX) emissions Metric tonnes 0.02 0.36 0.99 1.48 - Total volatile organic compounds (VOC) emissions Metric tonnes 8,380.01 8,426.71 8,789.95 8,877.45 -		- Location-based	Metric tonnes CO ₂ equivalents	1,329.48	933.92	1,337.00	1,605	-	
Cat 11: Use of sold product Metric tonnes CO ₂ equivalents No Data No Data 66,855,074 66,356,737 - GRI 305-7 (2016) Nitrogen Oxides (NOX), Sulfur Oxides (SOX) and Other Significant Air Emissions Total nitrogen oxides (NOX) emissions Metric tonnes 0.27 0.51 1.93 1.68 - Total sulfur oxides (SOX) emissions Metric tonnes 0.02 0.36 0.99 1.48 - Total volatile organic compounds (VOC) emissions Metric tonnes 8,380.01 8,426.71 8,789.95 8,877.45 -		- Market-based	Metric tonnes CO ₂ equivalents	N/A	N/A	N/A	1,562	-	
GRI 305-7 (2016) Nitrogen Oxides (NOx), Sulfur Oxides (SOx) and Other Significant Air Emissions Total nitrogen oxides (NOX) emissions Metric tonnes 0.27 0.51 1.93 1.68 - Total sulfur oxides (SOX) emissions Metric tonnes 0.02 0.36 0.99 1.48 - Total volatile organic compounds (VOC) emissions Metric tonnes 8,380.01 8,426.71 8,789.95 8,877.45		Other Indirect (Scope 3) GHG Emissions							
Total nitrogen oxides (NOX) emissions Metric tonnes 0.27 0.51 1.93 1.68 - Total sulfur oxides (SOX) emissions Metric tonnes 0.02 0.36 0.99 1.48 - Total volatile organic compounds (VOC) emissions Metric tonnes 8,380.01 8,426.71 8,789.95 8,877.45 -		Cat 11: Use of sold product	Metric tonnes CO ₂ equivalents	No Data	No Data	66,855,074	66,356,737	-	
Total sulfur oxides (SOX) emissions Metric tonnes 0.02 0.36 0.99 1.48 - Total volatile organic compounds (VOC) emissions Metric tonnes 8,380.01 8,426.71 8,789.95 8,877.45 -	GRI 305-7 (2016)			0.27	0.51	1.02	1.60	_	
Total volatile organic compounds (VOC) emissions Metric tonnes 8,380.01 8,426.71 8,789.95 8,877.45 -								-	
								-	
		Total suspended particles (TSP) emissions	Metric tonnes	N/A	N/A	2.88	9.30	-	

'Remarks:

 $\ensuremath{\text{N/A}}$ (Not Applicable): There is no relevant to the operations of OR.

No Data: There is no data in the reporting year.

- [1] OR using the PTT Group's statistical reporting standards according to the principles of WBCSD Greenhouse Gas Protocol. The data including CO2 CH4 N2O HECs PFCs SF6.
- [3] Other Indirect (Scope 3) GHG Emissions breakdown by category refered to GHG protocol
- [4] In 2021, additional information is reported for the Nakhon Sawan Petroleum Terminal due to the development of NOx data collection.
- [5] GHG calculation of Cat:11 (Use of sold product) is calculated based on the amount of sold company's products which will generated the GHG emission (covering the following products e.g. LPG, Aviation fuel, Fuel oil, Gasoline, Lubricants)

The data covers the following operation site:

- Petroleum Terminal, Oil Depots, LPG Terminal and Aviation except Rental Terminal and Eastern Petroleum Terminal (Which covered Sriracha Oil Depot, Ban Rong Po LPG Depot and LPG Cylinder Refurbishment (Repairing) Plant, Khao Bo Ya LPG Depot)
- COCO PTT Station, FIT Auto
- Lubricants Distribution Center
- Prakanong Office
- LPG Cylinder Refurbishment Plant.
- Café Amazon Roasting Plant
- Amazon Inspiring Campus (AICA)
- Oil and Retail Business Acadamy (ORA)