การแสดงข้อมูลตามตัวชี้วัด
GRI, UN SDGs, IR, UNGC และ TCFD

Global Reporting Initiative (GRI)

GRI Standard/ OGSD	Description	56-1 One Report 2021 (Page) and PTT Website (URL)	Contribution to the SDGs*	UNGC Principles	WEF
Organizational Profile					
GRI 102-1	Name of the organization	https://www.pttplc.com/th/About/About-Ptt/Background.aspx	-	NA	NA
GRI 102-2	Activities, brands, products, and services	https://www.pttplc.com/th/About/About-Ptt/Background.aspx	-	NA	NA
GRI 102-3	Location of headquarters	https://www.pttplc.com/th/About/About-Ptt/Background.aspx	-	NA	NA
GRI 102-4	Location of operations	https://www.pttplc.com/th/About/About-Ptt/Background.aspx	-	NA	NA
GRI 102-5	Ownership and legal form	https://www.pttplc.com/th/About/About-Ptt/Background.aspx	-	NA	NA
GRI 102-6	Markets served	https://www.pttplc.com/th/About/About-Ptt/Background.aspx	-	NA	NA
GRI 102-7	Scale of the organization	https://www.pttplc.com/th/About/About-Ptt/Background.aspx	-	NA	NA
GRI 102-8	Information on employees and other workers	https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	4.4, **8.5,** 10.3, **16.7**	NA	NA
GRI 102-9	Supply chain	https://www.pttplc.com/th/Sustainability/Economics/Supplychainmanagement.aspx	**12.7**	Criterion 2	NA
GRI 102-10	Significant changes to the organization and its supply chain	https://www.pttplc.com/th/Sustainability/SustainabilityGovernance/Sustainabilityreport.aspx	-	Criterion 2	NA
GRI 102-11	Precautionary principle or approach	https://www.pttplc.com/th/Sustainability/SustainabilityGovernance/Riskandcrisismanagement.aspx	**16.3, 16.5, 16.6**	Criterion 1	NA
GRI 102-12	External initiatives	https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Network.aspx	17	NA	NA
GRI 102-13	Membership of associations	https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Network.aspx	17	NA	NA
Strategy					
GRI 102-14	Statement from senior decision-maker	56-1 One Report 2021 (Page 24 - 27)	-	Criterion 19	NA
GRI 102-15	Key impacts, risks, and opportunities	https://www.pttplc.com/th/Sustainability/SustainabilityGovernance/Riskandcrisismanagement.aspx	**16.3, 16.5, 16.6**	Criterion 19	Principles of Governance: Risk and opportunity oversight - Integrating risk and opportunity into business process
Ethics and Integrity					
GRI 102-16	Values, principles, standards, and norms of behavior	https://www.pttplc.com/th/About/About-Ptt/Vision-Mission-Values.aspx	**16.3**	Criterion 12 Criterion 13 Criterion 14	NA
GRI 102-17	Mechanisms for advice and concerns about ethics	https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Fairpractice.aspx	**16.3, 16.5, 16.6**	Criterion 12 Criterion 13 Criterion 14	Principles of Governance: Ethical behaviour - Protected ethics advice and reporting mechanisms

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Governance					
GRI 102-18	Governance structure	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	**16.3, 16.5, 16.6**	Criterion 1 Criterion 20	NA
GRI 102-19	Delegating authority	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	**16.3, 16.5, 16.6**	Criterion 1 Criterion 20	NA
GRI 102-20	Executive-level responsibility for economic, environmental, and social topics	https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilitystrategy.aspx	**7.1, 7.2, 8.1, 8.2, 12.2, 12.5**	Criterion 1 Criterion 20	NA
GRI 102-21	Consulting stakeholders on economic, environmental and social topics	https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Stakeholderengagement.aspx	**16.3, 16.5, 16.6, 16.7**	Criterion 1 Criterion 20	Principles of Governance: Stakeholder engagement - Material issues impacting stakeholders
GRI 102-22	Composition of the highest governance body and its committees	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	5.5, **16.3, 16.5, 16.6, 16.7**	Criterion 1 Criterion 20	Principles of Governance: Quality of governing body - Governance body composition
GRI 102-23	Chair of the highest governance body	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	**16.3, 16.5, 16.6**	Criterion 1 Criterion 20	NA
GRI 102-24	Nominating and selecting the highest governance body	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	5.5, **16.3, 16.5, 16.6, 16.7**	Criterion 1 Criterion 20	NA
GRI 102-25	Conflicts of interest	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Fairpractice.aspx	**16.3, 16.5, 16.6**	Criterion 1 Criterion 20	NA
GRI 102-26	Role of the highest governance body in setting purpose, values, and strategy	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	**16.3, 16.5, 16.6**	Criterion 1 Criterion 20	Principles of Governance: Governing purpose - Setting purpose
GRI 102-27	Collective knowledge of highest governance body	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	**16.3, 16.5, 16.6,**	Criterion 1 Criterion 20	NA
GRI 102-28	Evaluating the highest governance body's performance	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	**16.3, 16.5, 16.6,**	Criterion 1 Criterion 20	NA
GRI 102-29	Identifying and managing economic, environmental and social impacts	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	**16.3, 16.5, 16.6, 16.7**	Criterion 1 Criterion 20	NA
GRI 102-30	Effectiveness of risk management process	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Riskandcrisismanagement.aspx https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	**16.3, 16.5, 16.6**	Criterion 1 Criterion 20	NA
GRI 102-31	Review of economic, environmental, and social topics	56-1 One Report 2021 (Page 138 - 143) https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	**16.3, 16.5, 16.6**	Criterion 1 Criterion 20	NA
GRI 102-32	Highest governance body's roles in sustainability reporting	56-1 One Report 2021 (Page 138 - 143) https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilitystrategy.aspx	-	Criterion 1 Criterion 20	NA
GRI 102-35	Remuneration Policies	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Corporategovernance.aspx	-	Criterion 1 Criterion 20	Principles of Governance: Quality of governing body - Remuneration
GRI 102-37	Stakeholders' involvement in remuneration	https://www.pttplc.com/th/Sustainability/Social/ Sustainablehumanresourcemanagement. aspx	**16.7**	Criterion 1 Criterion 20	NA
GRI 102-38	Annual total compensation ratio	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance Corporategovernance.aspx	**16.3, 16.5, 16.6**	Criterion 1 Criterion 20	People: Dignity and equality - Pay gap (%, #)

GRI Standard/ OGSD	Description	56-1 One Report 2021 (Page) and PTT Website (URL)	Contribution to the SDGs*	UNGC Principles	WEF
Stakeholder Engagement					
GRI 102-40	List of stakeholder groups	56-1 One Report 2021 (Page 136 - 137) https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Stakeholderengagement.aspx	**16.7**	Criterion 21	NA
GRI 102-41	Collective bargaining agreements	https://www.pttplc.com/th/Sustainability/Social/ Sustainablehumanresourcemanagement. aspx	**8.8, 16.7**	NA	NA
GRI 102-42	Identifying and selecting stakeholders	56-1 One Report 2021 (Page 133 - 134) https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Stakeholderengagement.aspx	**16.7**	Criterion 21	NA
GRI 102-43	Approach to stakeholder engagement	56-1 One Report 2021 (Page 136 - 137) https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Stakeholderengagement.aspx	**16.7**	Criterion 21	Principles of Governance: Stakeholder engagement - Material issues impacting stakeholders
GRI 102-44	Key topics and concerns raised	56-1 One Report 2021 (Page 136 - 137) https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Stakeholderengagement.aspx	**16.7**	Criterion 21	NA
Reporting Practice					
GRI 102-45	Entities included in the consolidated financial statements	56-1 One Report 2021 (Page 430)		NA	NA
GRI 102-46	Defining report content and topic boundaries	56-1 One Report 2021 (Page 140 - 143)		NA	NA
GRI 102-47	List of material topics	56-1 One Report 2021 (Page 138 - 143) https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilitystrategy.aspx	-	NA	Principles of Governance: Stakeholder engagement - Material issues impacting stakeholders
GRI 102-48	Restatements of information	https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilityreport.aspx		NA	NA
GRI 102-49	Changes in reporting	56-1 One Report 2021 (Page 139, 430)		NA	NA
GRI 102-50	Reporting period	56-1 One Report 2021 (Page 430)		NA	NA
GRI 102-51	Date of most recent report	56-1 One Report 2021 (Page 430)		NA	NA
GRI 102-52	Reporting cycle	56-1 One Report 2021 (Page 430)		NA	NA
GRI 102-53	Contact point for questions regarding the report	56-1 One Report 2021 (Page 433)		NA	NA
GRI 102-54	Claims of reporting in accordance with the GRI Standards	56-1 One Report 2021 (Page 430)		NA	NA
GRI 102-55	GRI content index	https://www.pttplc.com/th/ Sustainability/SustainabilityGovernance/ Sustainabilityreport.aspx		NA	NA
GRI 102-56	External assurance	56-1 One Report 2021 (Page 431 - 432)		NA	NA
GRI 103: Management Approach					
GRI 103-1	Explanation of the material topic and its Boundary	56-1 One Report 2021 (Page 138 - 143) https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilitystrategy.aspx	**15.2**	NA	NA
GRI 103-2	The management approach and its components	https://www.pttplc.com/th/Sustainability. aspx	**16.3, 16.5, 16.6**	NA	NA
GRI 103-3	Evaluation of the management approach	https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Pttgroupsustainabilitymanagementsystem. aspx	**16.3, 16.5, 16.7**	NA	NA

GRI Standard/ OGSD	Description	56-1 One Report 2021 (Page) and PTT Website (URL)	Contribution to the SDGs*	UNGC Principles	WEF
GRI 201: Economic Performance					
GRI 201-1*/ Economic impacts 11.14.2 Payments to governments 11.21.2	Direct economic value generated and distributed	56-1 One Report 2021 (Page 144 - 145, 172 -179) https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilityreport.aspx	**8.1, 8.2, 9.1, 9.4, 9.5**	NA	-Prosperity: Employment and wealth generation - Economic contribution - Prosperity: Community and social vitality - Total tax paid - Prosperity: Community and social vitality - Additional tax remitted - Prosperity: Community and social vitality - Total tax paid by country for significant locations
GRI 201-2 / Climate adaptation, resilience, and transition 11.2.2	Financial implications and other risks and opportunities due to climate change	https://www.pttplc.com/th/Sustainability/ Environment/Climatechangemanagement. aspx	**13.1**	Criterion 9 Criterion 10 Criterion 11	NA
GRI 201-4 / Payments to governments 11.21.3	Financial assistance received from government	https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilityreport.aspx	-	NA	Prosperity: Employment and wealth generation - Economic contribution
GRI 202: Market Presence					
GRI 202-1	Ratios of standard entry level wage by gender compared to local minimum wage	https://www.pttplc.com/th/Sustainability/Social/ Sustainablehumanresourcemanagement. aspx	1.2, 5.1, **8.5**	NA	People: Dignity and equality - Wage level (%)
GRI 202-2 / Non-discrimination and equal opportunity 11.11.2 Economic impacts 11.14.3	Proportion of senior management hired from the local community	https://www.pttplc.com/th/Sustainability/Social/ Sustainablehumanresourcemanagement. aspx	**8.5**	NA	NA
GRI 203: Indirect Economic Impact					
GRI 203-1 / Economic impacts 11.14.4	Infrastructure investments and services supported	https://www.pttplc.com/th/Sustainability/ Social/Corporatecitizenship.aspx	5.4, **9.1, 9.4,** 11.2	NA	Prosperity: Employment and wealth generation - Infrastructure investments and services supported
GRI 203-2 / Economic impacts 11.14.5	Significant indirect economic impacts	https://www.pttplc.com/th/Sustainability/ Social/Corporatecitizenship.aspx	1.2, 1.4, **3.8, 8.2, 8.3, 8.5**	NA	Prosperity: Employment and wealth generation - Significant indirect economic impacts
GRI 204: Procurement Practices					
GRI 204-1 / Economic impacts 11.14.6	Proportion of spending on local suppliers	https://www.pttplc.com/th/Sustainability/ Economics/Supplychainmanagement.aspx	**8.3**	Criterion 2	NA
GRI 205: Anti-Corruption					
GRI 205-1 / Anti-corruption 11.20.2	Operations assessed for risks related to corruption	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Fairpractice.aspx	**16.5**	NA	NA
GRI 205-2 / Anti-corruption 11.20.3	Communication and training about anti-corruption policies and procedures	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Fairpractice.aspx	**16.5**	Criterion 14	Principles of Governance: Ethical behaviour - Anti-corruption
GRI 205-3 / Anti-corruption 11.20.4	Confirmed incidents of corruption and actions taken	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Fairpractice.aspx	**16.5**	Criterion 14	Principles of Governance: Ethical behaviour - Anti-corruption

GRI Standard/ OGSD	Description	56-1 One Report 2021 (Page) and PTT Website (URL)	Contribution to the SDGs*	UNGC Principles	WEF
GRI 207: Tax (2019)					
GRI 207-1 / Payments to governments 11.21.4	Approach to tax	https://www.pttplc.com/th/Sustainability/Economics/Taxstrategy.aspx	1.1, 1.3, 10.4, 17.1, 17.3	NA	NA
GRI 207-2 / Payments to governments 11.21.5	Tax governance, control, and risk management	https://www.pttplc.com/th/Sustainability/Economics/Taxstrategy.aspx	1.1, 1.3, 10.4, 17.1, 17.3	NA	NA
GRI 207-3 / Payments to governments 11.21.6	Stakeholder engagement and management of concerns related to tax	https://www.pttplc.com/th/Sustainability/Economics/Taxstrategy.aspx	1.1, 1.3, 10.4, 17.1, 17.3	NA	NA
GRI 207-4 / Payments to governments 11.21.7	Country-by-country reporting	https://www.pttplc.com/th/Sustainability/Economics/Taxstrategy.aspx	1.1, 1.3, 10.4, 17.1, 17.3	NA	NA
GRI 302: Energy					
GRI 302-1♦ / GHG Emissions 11.1.2	Energy consumption within the organization	https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	**7.2, 7.3, 8.4, 12.2, 13.1, 13.2, 13.3**	Criterion 11	NA
GRI 302-2 / GHG emissions 11.1.3	Energy consumption out-side of the organization	https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx	**7.2, 7.3, 8.4, 12.2, 13.1**	Criterion 2	NA
GRI 302-3♦ / GHG emissions 11.1.4	Energy intensity	56-1 One Report 2021 (Page 150) https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	**7.2, 7.3, 8.4, 12.2, 13.1, 13.2, 13.3**	NA	NA
GRI 303: Water and effluents (2018)					
GRI 303-1 / Water and effluents 11.6.2	Interactions with water as a shared resource	56-1 One Report 2021 (Page 158) https://www.pttplc.com/th/Sustainability/Environment/Water.aspx	**6.A, 6.B, 6.2, 6.3, 6.4, 6.5, 6.6, 12.4, 14.1,** 17	Criterion 9 Criterion 10 Criterion 11	Planet: Freshwater availability - Water consumption and withdrawal in water-stressed areas
GRI 303-2 / Water and effluents 11.6.3	Management of water discharge-related impacts	https://www.pttplc.com/th/Sustainability/Environment/Water.aspx	**6.2, 6.3, 6.4, 6.6, 14.1**	NA	NA
GRI 303-3♦ / Water and effluents 11.6.4	Water withdrawal	56-1 One Report 2021 (Page 156) https://www.pttplc.com/th/Sustainability/Environment/Water.aspx https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	**6.2, 6.4, 6.6, 14.1**	Criterion 11	NA
GRI 303-4♦ / Water and effluents 11.6.5	Water discharge	https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	**6.2, 6.3, 6.4, 6.6, 14.1**	Criterion 11	NA
GRI 303-5 / Water and effluents 11.6.6	Water consumption	https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	**6.2, 6.3, 6.4, 6.6**	NA	NA
GRI 304: Biodiversity					
GRI 304-1 / Biodiversity 11.4.2	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	https://www.pttplc.com/th/Sustainability/Environment/Biodiversity.aspx	**3.9, 6.3, 6.6, 9.4, 12.2, 12.4, 14.2, 15.1, 15.2, 15.5**	Criterion 9 Criterion 10 Criterion 11	Planet: Nature loss - Land use and ecological sensitivity
GRI 304-2 / Biodiversity 11.4.3	Significant impacts of activities, products, and services on biodiversity	https://www.pttplc.com/th/Sustainability/Environment/Biodiversity.aspx	**3.9, 6.3, 6.6, 9.4, 12.2, 12.4, 14.2, 15.1, 15.2, 15.5**	Criterion 9 Criterion 10 Criterion 11	NA

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GRI 304-3 / Biodiversity 11.4.4	Habitats protected or restored	https://www.pttplc.com/th/Sustainability/ Environment/Biodiversity.aspx	**3.9, 6.3, 6.6, 9.4, 12.2, 12.4, 14.2, 15.1, 15.2, 15.5**	Criterion 9 Criterion 10 Criterion 11	NA
GRI 304-4 / Biodiversity 11.4.5	IUCN Red List species and national conservation list species with habitats in areas affected by operations	https://www.pttplc.com/th/Sustainability/ Environment/Biodiversity.aspx	**3.9, 6.3, 6.6, 9.4, 12.2, 12.4, 14.2, 15.1, 15.2, 15.5**	Criterion 9 Criterion 10 Criterion 11	NA
GRI 305: Emissions					
GRI 305-1♦ / GHG Emissions 11.1.5	Direct (Scope 1) GHG emissions	56-1 One Report 2021 (Page 145, 150) https://www.pttplc.com/th/Sustainability/ Environment/Climatechangemanagement.aspx https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilityreport.aspx	**3.9, 12.4, 13.1, 14.3, 15.2**	Criterion 11	Planet: Climate change - Greenhouse gas (GHG) emissions
GRI 305-2♦ / GHG Emissions 11.1.6	Energy indirect (Scope 2) GHG emissions	56-1 One Report 2021 (Page 145, 150) https://www.pttplc.com/th/Sustainability/ Environment/Climatechangemanagement.aspx https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilityreport.aspx	**3.9, 12.4, 13.1, 14.3, 15.2**	Criterion 11	Planet: Climate change - Greenhouse gas (GHG) emissions
GRI 305-3♦ / GHG Emissions 11.1.7	Other indirect (Scope 3) GHG emissions	56-1 One Report 2021 (Page 150) https://www.pttplc.com/th/Sustainability/ Environment/Climatechangemanagement.aspx https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilityreport.aspx	**3.9, 12.4, 13.1, 14.3, 15.2**	Criterion 2	Planet: Climate change - Greenhouse gas (GHG) emissions
GRI 305-4♦ / GHG Emissions 11.1.8	GHG emissions intensity	56-1 One Report 2021 (Page 150) https://www.pttplc.com/th/Sustainability/ Environment/Climatechangemanagement.aspx https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilityreport.aspx	**13.1, 14.3, 15.2**	Criterion 11	NA
GRI 305-5 / Climate adaptation, resilience, and transition 11.2.3	Reduction of GHG emissions	https://www.pttplc.com/th/Sustainability/ Environment/Climatechangemanagement. aspx	**13.1, 14.3, 15.5**	Criterion 11	NA
GRI 305-7♦ / Air Emissions 11.3.2	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	https://www.pttplc.com/th/Sustainability/ Environment/Air.aspx https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilityreport.aspx	**3.9, 12.4, 14.3, 15.2**	Criterion 11	Planet: Air pollution - Air pollution
GRI 306: Effluents and Waste (2016)					
GRI 306-3♦ / Asset integrity and critical incident management 11.8.2	Significant spills	https://www.pttplc.com/th/Sustainability/ Environment/Spill.aspx https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilityreport.aspx	**3.9, 6.3, 6.6, 12.4, 14.1, 15.1**	Criterion 11	NA
GRI 306: Waste (2020)					
GRI 306-1 / Waste 11.5.2	Waste generation and significant waste-related impacts	https://www.pttplc.com/th/Sustainability/ Environment/Waste.aspx	**3.9, 6.3,** 11.2, 11.6, **12.4, 12.5**	NA	NA
GRI 306-2 / Waste 11.5.3	Management of significant waste-related impacts	https://www.pttplc.com/th/Sustainability/ Environment/Waste.aspx	**3.9, 6.3, 8.4,** 11.6, **12.4, 12.5**	Criterion 9 Criterion 10 Criterion 11	NA
GRI 306-3♦ / Waste 11.5.4	Waste generated	https://www.pttplc.com/th/Sustainability/ Environment/Waste.aspx	**3.9, 6.3, 6.6,** 11.6, **12.4, 12.5, 14.1, 15.1**	Criterion 11	NA
GRI 306-4♦ / Waste 11.5.5	Waste diverted from disposal	56-1 One Report 2021 (Page 156) https://www.pttplc.com/th/Sustainability/ Environment/Waste.aspx	**3.9,** 11.6, **12.4, 12.5**	Criterion 11	NA

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GRI 306-5* Waste 11.5.6	Waste directed to disposal	56-1 One Report 2021 (Page 156) https://www.pttplc.com/th/Sustainability/Environment/Waste.aspx	**3.9, 6.6,** 11.6, **12.4, 12.5, 15.1,**	Criterion 11	NA
GRI 307: Environmental Compliance					
GRI 307-1 /	Non-compliance with environmental laws and regulations	https://www.pttplc.com/th/Sustainability/Environment/Environmentmanagement.aspx https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	**16.3**	Criterion 9 Criterion 10 Criterion 11	NA
GRI 308: Supplier Environmental Assessment					
GRI 308-1 /	New suppliers that were screened using environmental criteria	https://www.pttplc.com/th/Sustainability/Economics/Supplychainmanagement.aspx	-	Criterion 2	NA
GRI 401: Employment					
GRI 401-1 / Employment practices 11.10.2	New employee hires and employee turnover	56-1 One Report 2021 (Page 170) https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	5.1, **8.5, 8.6, 10.3**	NA	Prosperity: Employment and wealth generation - Absolute number and rate of employment
GRI 401-2 / Employment practices 11.10.3	Benefits provided to full-time employees that are not provided to temporary or part-time employees	https://www.pttplc.com/th/Sustainability/Social/Sustainablehumanresourcemanagement.aspx	**3.2,** 5.4, **8.5**	NA	NA
GRI 401-3 / Employment practices 11.10.4	Parental leave	https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	5.1, 5.4, **8.5**	NA	NA
GRI 403: Occupational Health and Safety (2018)					
GRI 403-1 / Occupational health and safety 11.9.2	Occupational health and safety management system	56-1 One Report 2021 (Page 161 - 166) https://www.pttplc.com/th/Sustainability/Social/Securitysafetyandoccupationalhealth.aspx	**3.6, 8.8**	NA	NA
GRI 403-2 / Occupational health and safety 11.9.3	Hazard identification, risk assessment, and incident investigation	56-1 One Report 2021 (Page 163 - 166) https://www.pttplc.com/th/Sustainability/Social/Securitysafetyandoccupationalhealth.aspx	**3.3, 3.4, 3.6, 3.9, 8.8**	Criterion 2	People: Health and well-being - Employee well-being (#, %)
GRI 403-3 / Occupational health and safety 11.9.4	Occupational health services	https://www.pttplc.com/th/Sustainability/Social/Securitysafetyandoccupationalhealth.aspx	**3.6, 8.8**	NA	NA
GRI 403-4 / Occupational health and safety 11.9.5	Worker participation, consultation, and communication on occupational health and safety	https://www.pttplc.com/th/Sustainability/Social/Securitysafetyandoccupationalhealth.aspx	**3.6, 8.8, 16.7**	NA	NA
GRI 403-5 / Occupational health and safety 11.9.6	Worker training on occupational health and safety	56-1 One Report 2021 (Page 163) https://www.pttplc.com/th/Sustainability/Social/Securitysafetyandoccupationalhealth.aspx	**3.6, 8.8**	NA	NA
GRI 403-6 / Occupational health and safety 11.9.7	Promotion of worker health	56-1 One Report 2021 (Page 163) https://www.pttplc.com/th/Sustainability/Social/Securitysafetyandoccupationalhealth.aspx	**3.3, 3.5, 3.7,3.8**	NA	People: Health and well-being - Health and safety (%)
GRI 403-7 / Occupational health and / safety 11.9.8	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	56-1 One Report 2021 (Page 164) https://www.pttplc.com/th/Sustainability/Social/Securitysafetyandoccupationalhealth.aspx	**3.3, 3.4, 3.6, 3.9, 8.8**	NA	NA
GRI 403-8 / Occupational health and safety 11.9.9	Workers covered by an occupational health and safety management system	https://www.pttplc.com/th/Sustainability/Social/Securitysafetyandoccupationalhealth.aspx	**8.8**	NA	NA

GRI Standard/ OGSD	Description	56-1 One Report 2021 (Page) and PTT Website (URL)	Contribution to the SDGs*	UNGC Principles	WEF
GRI 403-9♦ / Occupational health and safety 11.9.10	Work-related injuries	56-1 One Report 2021 (Page 162) https://www.pttplc.com/th/Sustainability/Social/Securitysafetyandoccupationalhealth.aspx https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	**3.3, 3.4, 3.6, 3.9, 8.8, 16.1**	NA	People: Health and well-being - Health and safety (%)
GRI 403-10♦ / Occupational health and safety 11.9.11	Work-related ill health	https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	**3.3, 3.4, 3.6, 3.9, 8.8, 16.1**	NA	People: Health and well-being - Employee well-being (#, %)
GRI 404: Training and Education					
GRI 404-1♦ / Employment practices 11.10.6 Non-discrimination and equal opportunity 11.11.4	Average hours of training per year per employee	56-1 One Report 2021 (Page 171) https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	4.3, 4.4, 4.5, 5.1, **8.2, 8.5**	NA	People: Skills for the future - Training provided (#, $)
GRI 404-2 / Closure and rehabilitation 11.7.3 Employment practices 11.10.7	Programs for upgrading employee skills and transition assistance programs	56-1 One Report 2021 (Page 170-171) https://www.pttplc.com/th/Sustainability/Social/Sustainablehumanresourcemanagement.aspx	**8.2, 8.5**	NA	NA
GRI 404-3	Percentage of employees receiving regular performance and career development reviews	https://www.pttplc.com/th/Sustainability/Social/Sustainablehumanresourcemanagement.aspx	5.1, **8.5,** 10.3	NA	NA
GRI 405: Diversity and Equal Opportunity					
GRI 405-1 / Non-discrimination and equal opportunity 11.11.5	Diversity of governance bodies and employees	https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx	5.1, 5.5, **8.5**	NA	- Principles of Governance: Quality of governing body - Governance body composition - People: Dignity and equality - Diversity and inclusion (%)
GRI 405-2♦ / Non-discrimination and equal opportunity 11.11.6	Ratio of basic salary and remuneration of women to men	https://www.pttplc.com/th/Sustainability/Social/Sustainablehumanresourcemanagement.aspx	5.1, **8.5,** 10.3	NA	People: Dignity and equality - Pay equality (%)
GRI 406: Non-discrimination					
GRI 406-1 / Non-discrimination and equal opportunity 11.11.7	Incidents of discrimination and corrective actions taken	https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Fairpractice.aspx	5.1, **8.8**	NA	People: Dignity and equality - Discrimination and harassment incidents (#) and the total amount of monetary losses ($)
GRI 407: Freedom of Association and Collective Bargaining					
GRI 407-1 / Freedom of association and collective bargaining 11.13.2	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	https://www.pttplc.com/th/Sustainability/Social/Humanright.aspx	**8.8**	Criterion 2	People: Dignity and equality - Freedom of association and collective bargaining at risk (%)

GRI Standard/ OGSD	Description	56-1 One Report 2021 (Page) and PTT Website (URL)	Contribution to the SDGs*	UNGC Principles	WEF
GRI 408: Child Labor					
GRI 408-1	Operations and suppliers at significant risk for incidents of child labor	https://www.pttplc.com/th/Sustainability/ Social/Humanright.aspx	5.2, **8.7, 16.2**	Criterion 2	- People: Dignity and equality - Risk for incidents of child, forced or compulsory labour - People: Dignity and equality - Human rights review, grievance impact & modern slavery (#, %)
GRI 409: Forced or Compulsory Labor					
GRI 409-1 / forced labor and modern slavery 11.12.2	Operations and suppliers at significant risk for incidents of forced or compulsory labor	https://www.pttplc.com/th/Sustainability/ Social/Humanright.aspx	5.2, **8.7**	Criterion 2	- People: Dignity and equality - Risk for incidents of child, forced or compulsory labour - People: Dignity and equality - Human rights review, grievance impact & modern slavery (#, %)
GRI 410: Security Practices					
GRI 410-1 / Conflict and security 11.18.2	Security personnel trained in human rights policies or procedures	https://www.pttplc.com/th/Sustainability/ Social/Humanright.aspx	-	NA	NA
GRI 411: Rights of Indigenous Peoples					
GRI 411-1 / Rights of indigenous peoples 11.17.2	Incidents of violations involving rights of indigenous peoples	https://www.pttplc.com/th/Sustainability/ Social/Humanright.aspx	2.3	Criterion 3 Criterion 4 Criterion 5	NA
GRI 412: Human Rights Assessment					
GRI 412-1	Operations that have been subject to human rights reviews or impact assessments	https://www.pttplc.com/th/Sustainability/ Social/Humanright.aspx	-	Criterion 3 Criterion 4 Criterion 5	People: Dignity and equality - Human rights review, grievance impact & modern slavery (#, %)
GRI 412-2	Employee training on human rights policies or procedures	https://www.pttplc.com/th/Sustainability/ Social/Humanright.aspx	-	Criterion 3 Criterion 4 Criterion 5	NA
GRI 413: Local Communities					
GRI 413-1 / Local Communities 11.15.2	Operations with local community engagement, impact assessments, and development programs	https://www.pttplc.com/en/Sustainability/ Economics/Projectmanagement.aspx	-	NA	NA
GRI 413-2 / Local communities 11.15.3	Operations with significant actual and potential negative impacts on local communities	https://www.pttplc.com/th/Sustainability/ Economics/Projectmanagement.aspx https://www.pttplc.com/th/Sustainability/ Social/Humanright.aspx	1.4, 2.3	NA	NA
GRI 414: Supplier Social Assessment					
GRI 414-1 / Employment Practice 11.10.8 Forced Labor and Modern Slavery 11.12.3	New suppliers that were screened using social criteria	https://www.pttplc.com/th/Sustainability/ Economics/Supplychainmanagement.aspx	5.2, **8.8, 16.1**	Criterion 2	NA
GRI 414-2 / Employment Practice 11.10.9	Negative social impacts in the supply chain and actions taken	https://www.pttplc.com/th/Sustainability/ Social/Humanright.aspx	5.2, **8.8, 16.1**	Criterion 2	NA
GRI 415: Public Policy					
GRI 415-1 / Public Policy 11.22.2	Political contributions	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Network.aspx	**16.5**	Criterion 14	Principles of Governance: Ethical behaviour - Alignment of strategy and policies to lobbying

GRI Standard/ OGSD	Description	56-1 One Report 2021 (Page) and PTT Website (URL)	Contribution to the SDGs*	UNGC Principles	WEF
GRI 416: Customer Health and Safety					
GRI 416-1 / Air emissions 11.3.3	Assessment of the health and safety impacts of product and service categories	https://www.pttplc.com/th/ Sustainability/Economics/ Innovationandproductresponsibility.aspx	-	NA	NA
GRI 416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	https://www.pttplc.com/th/ Sustainability/Economics/ Innovationandproductresponsibility.aspx	**16.3**	NA	NA
GRI 417: Marketing and Labeling					
GRI 417-2	Incidents of non-compliance concerning product and service information and labeling	https://www.pttplc.com/th/ Sustainability/Economics/ Innovationandproductresponsibility.aspx	**16.3**	NA	NA
GRI 419: Socioeconomic Compliance					
GRI 419-1	Non-compliance with laws and regulations in the social and economic area	https://www.pttplc.com/th/ Sustainability/Economics/ Innovationandproductresponsibility.aspx	**16.3**	NA	NA
G4 Oil and Gas Sector Disclosure					
G4-OG4♦	Number and percentage of significant operating sites in which biodiversity risk has been assessed and monitored	https://www.pttplc.com/th/Sustainability/ Environment/Biodiversity.aspx	**6.6, 14.2, 15.1, 15.5**	NA	NA
G4-OG6♦	Volume of flared and vented hydrocarbon	https://www.pttplc.com/th/ Sustainability/Sustainabilitygovernance/ Sustainabilityreport.aspx	**3.9, 7.3, 12.2, 12.4, 12.5, 13.1, 14.3**	NA	NA
G4-OG10	Number and description of significant disputes with local communities and indigenous peoples	https://www.pttplc.com/th/Sustainability/ Economics/Projectmanagement.aspx	1.4, 2.3	NA	NA
G4-OG12	Operations where involuntary resettlement took place	https://www.pttplc.com/th/Sustainability/ Economics/Projectmanagement.aspx	1.4, 2.3	NA	NA
G4-OG13♦	Number of process safety events, by business activity	56-1 One Report 2021 (Page 162) https://www.pttplc.com/th/Sustainability/ Social/Securitysafetyandoccupationalhealth. aspx	**3.9, 8.8**	NA	NA
G4-OG14	Volume of biofuels produced and purchased meeting sustainability criteria	https://www.pttplc.com/th/ Sustainability/Economics/ Innovationandproductresponsibility.aspx	**7.2, 15.2, 15.5**	NA	NA

Green text means indicators with added commentary in GRI 11: Oil and Gas Sector 2021

♦ These indicators have been externally verified by an independent third party organization, whose assurance statement is available on https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx

* **Bold text** indicates 10 SDGs committed to Integrated into Core Business by PTT in 2021 (SDG 3, 6, 7, 8, 9, 12, 13, 14, 15, 16)

Integrated Reporting <IR>

Capital	Description	56-1 One Report 2021 (Page) and PTT Website (URL)
Financial	The pool of funds that is available to an organization for use in the product of goods or the provision of services; and obtained through financing, such as debt, equity or grants, or generated through operations or investments.	56-1 One Report 2021 (Page 144 - 145)
Manufactured	Manufactured physical objects that are available to an organization for use in the production of goods or the provision of services (e.g. buildings, equipment, and infrastructure).	56-1 One Report 2021 (Page 144 - 145)
Intellectual	Organizational, knowledge-based intangibles including intellectual property (e.g. patents, copyrights, software, rights and licenses) and organizational capital (e.g. tacit knowledge, systems, procedures and protocols).	56-1 One Report 2021 (Page 144 - 145) https://www.pttplc.com/th/Sustainability/Economics/Innovationandproductresponsibility.aspx
Human	People's competencies, capabilities and experience, and their motivations to innovate.	56-1 One Report 2021 (Page 144 - 145, 160 - 166, 167 - 171) https://www.pttplc.com/th/Sustainability/Social/Sustainablehumanresourcemanagement.aspx
Social and Relationship	The institutions and relationships within and between communities, groups of stakeholders and other networks, and the ability to share information to enhance individual and collective well-being (e.g. shared norms, common values and behaviors; key stakeholder relationships; intangibles associated with the brand and reputation; social license to operate).	56-1 One Report 2021 (Page 132 - 137, 144 - 145, 172 - 179) https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Stakeholderengagement.aspx https://www.pttplc.com/th/Sustainability/SustainabilityGovernance/Corporategovernance.aspx https://www.pttplc.com/th/Sustainability/Economics/Projectmanagement.aspx https://www.pttplc.com/th/Sustainability/SustainabilityGovernance/Riskandcrisismanagement.aspx https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Fairpractice.aspxt https://www.pttplc.com/en/Sustainability/Economics/Innovationandproductresponsibility.aspx https://www.pttplc.com/th/Sustainability/Social/Humanright.aspx https://www.pttplc.com/th/Sustainability/Social/Corporatecitizenship.aspx
Natural	All renewable and non-renewable environmental resources and processes that provide goods or services that support the past, current or future prosperity of an organization (e.g. air, water, land, minerals and forests, biodiversity and eco-system health).	56-1 One Report 2021 (Page 144 - 145, 146 - 153, 154 - 159) https://www.pttplc.com/th/Sustainability/Environment/Environmentmanagement.aspx https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx https://www.pttplc.com/th/Sustainability/Environment/Air.aspx https://www.pttplc.com/th/Sustainability/Environment/Biodiversity.aspx https://www.pttplc.com/th/Sustainability/Environment/Water.aspx https://www.pttplc.com/th/Sustainability/Environment/Waste.aspx https://www.pttplc.com/th/Sustainability/Environment/Spill.aspx

Content Elements	Description	56-1 One Report 2021 (Page), PTT Website (URL)
Organizational overview and external environment	The organization's culture, ethics and values; ownership and operating structure; principal activities and markets; competitive landscape and market positioning, position within the value chain etc. External environment are aspects of the legal, commercial, social, environmental and political context that affect the organization's ability to create value in the short, medium or long term.	56-1 One Report 2021 (Page 40 - 41, 138 - 143) https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Stakeholderengagement.aspx

Content Elements	Description	56-1 One Report 2021 (Page), PTT Website (URL)
Governance	Explanations of how the governance structure support the organization's ability to create value in the short, medium, and long term (the organization's leadership structure; specific processes used to make strategic decisions and monitor the culture of the organization; the organization's culture, ethics, and values and their affects on capitals etc).	56-1 One Report 2021 (Page 129, 182 - 183) https://www.pttplc.com/th/Sustainability/SustainabilityGovernance/Corporategovernance.aspx
Business model	The system of transforming inputs, through its business activities, into outputs and outcomes that aims to fulfil the organization's strategic purposes and create value over the short, medium and long term.	56-1 One Report 2021 (Page 61 - 82, 127 - 131, 144 - 145)
Risks and opportunities	The key risks an opportunities that are specific to the organization, including those that relate to the organization's effects on, and the continued availability, quality and affordability of relevant capitals in the short, medium and long term.	56-1 One Report 2021 (Page 114 - 124) https://www.pttplc.com/th/Sustainability/SustainabilityGovernance/Riskandcrisismanagement.aspx
Strategy and resource allocation	Explanation of the organization's strategic direction and its implementation (short, medium and long term strategic objectives; resource allocation plans to implement the strategy; targets and achievements; the organization's competitive advantage and enablers to create values for stakeholders etc).	56-1 One Report 2021 (Page 10 - 13, 130 - 131) https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilitystrategy.aspx https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Pttgroupsustainabilitymanagementsystem.aspx
Performance	Explanations of the organization's performances in achieving strategic objectives, and the outcomes in terms of effects on the capitals.	56-1 One Report 2021 (Page 126 - 131, 203 - 215) https://www.pttplc.com/th/Sustainability.aspx https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilityreport.aspx
Outlook	Explanations of identified challenges and uncertainties the organization is likely to encounter in pursuing its strategy and potential implications for its business model and future performances.	56-1 One Report 2021 (Page 114 - 125, 182 - 183) https://www.pttplc.com/th/Sustainability/SustainabilityGovernance/Riskandcrisismanagement.aspx https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Sustainabilitystrategy.aspx
Basis of preparation and presentation	The organization's process of determining material issues, reporting boundary, and framework and method used to quantify or evaluate material matters.	56-1 One Report 2021 (Page 138 - 143, 430) https://www.pttplc.com/th/Sustainability/SustainabilityGovernance/Sustainabilityreport.aspx

The Task Force on Climate-related Financial Disclosures (TCFD)

TCFD recommendation	56-1 One Report 2021 (Page) and PTT Website (URL)
Governance: Disclose the organization's governance around climate related risks and opportunities.	
a) Describe the board's oversight of climate-related risks and opportunities.	56-1 One Report 2021 (Page 140, 146 - 153) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx
b) Describe management's role in assessing and managing climate-related risks and opportunities.	56-1 One Report 2021 (Page 146 - 153) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	56-1 One Report 2021 (Page 114 - 125, 146) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx
b) Describe the impact of climate related risks and opportunities on the organization's businesses, strategy, and financial planning.	56-1 One Report 2021 (Page 114 - 125, 146) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx
c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx
Risk Management: Disclose how the organization identifies, assesses, and manages climate-related risks.	
a) Describe the organization's processes for identifying and assessing climate-related risks.	56-1 One Report 2021 (Page 114 - 125, 147) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx
b) Describe the organization's processes for managing climate-related risks.	56-1 One Report 2021 (Page 114 - 125, 147) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	56-1 One Report 2021 (Page 114 - 125, 147) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx
Metrics and Targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	
a) Disclose the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process.	56-1 One Report 2021 (Page 147) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	56-1 One Report 2021 (Page 150) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	56-1 One Report 2021 (Page 130 - 131, 146 - 153) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx