การแสดงข้อมูลตามตัวชี้วัด GRI, UN SDGs, IR และ TCFD

GLOBAL REPORTING INITIATIVE (GRI)

GRI Standard	Description	Material Issues	56-1 One Report 2020 (Page) and PTT Website (URL)	Contribution to the SDGs
Organizationa	al Profile			•
GRI 102-1	Name of the organization		https://www.pttplc.com/th/About/About-Ptt/ Background.aspx	
GRI 102-2	Activities, brands, products, and services		https://www.pttplc.com/th/About/About-Ptt/ Background.aspx	
GRI 102-3	Location of headquarters		https://www.pttplc.com/th/About/About-Ptt/ Background.aspx	
GRI 102-4	Location of operations		https://www.pttplc.com/th/About/About-Ptt/ Background.aspx	
GRI 102-5	Ownership and legal form		https://www.pttplc.com/th/About/About-Ptt/ Background.aspx	
GRI 102-6	Markets served		https://www.pttplc.com/th/About/About-Ptt/ Background.aspx	
GRI 102-7	Scale of the organization		https://www.pttplc.com/th/About/About-Ptt/ Background.aspx	
GRI 102-8	Information on employees and other workers	Human Capital Development, Talent Attraction and Retention	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport. aspx	4.4, 8.5, 10.3 16.7
GRI 102-9	Supply chain	Supply Chain Management	https://www.pttplc.com/th/Sustainability/ Economics/Supplychainmanagement.aspx	12.7
GRI 102-10	Significant changes to the organization and its supply chain		https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Sustainabilityreport. aspx	
GRI 102-11	Precautionary principle or approach	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/ Riskandcrisismanagement.aspx	16.3, 16.5, 16.6
GRI 102-12	External initiatives		https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Network.aspx	17
GRI 102-13	Membership of associations		https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Network.aspx	17
Strategy				
GRI 102-14	Statement from senior decision-maker		56-1 One Report 2020 (Page 20 - 23)	
GRI 102-15	Key impacts, risks, and opportunities	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/ Riskandcrisismanagement.aspx	16.3, 16.5, 16.6
Ethics and In	ntegrity			
GRI 102-16	Values, principles, standards, and norms of behavior	Governance, Risk Management and Compliance	https://www.pttplc.com/th/About/About-Ptt/ Vision-Mission-Values.aspx	16.3
GRI 102-17	Mechanisms for advice and concerns about ethics	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Fairpractice.aspx	16.3, 16.5, 16.6

GRI Standard	Description	Material Issues	56-1 One Report 2020 (Page) and PTT Website (URL)	Contribution to the SDGs
Governance				
GRI 102-18	Governance structure	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx	16.3, 16.5, 16.6
GRI 102-19	Delegating authority	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx	16.3, 16.5, 16.6
GRI 102-20	Executive-level responsibility for economic, environmental, and social topics	Evolving the Business Model, Application of the Circular Economy	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilitystrategy. aspx	7.1, 7.2, 8.1, 8.2, 12.2, 12.5
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
GRI 102-22	Composition of the highest governance body and its committees	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx	5.5, 16.3, 16.5, 16.6, 16.7
GRI 102-23	Chair of the highest governance body	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx	16.3, 16.5, 16.6
GRI 102-24	Nominating and selecting the highest governance body	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx	5.5, 16.3, 16.5, 16.6, 16.7
GRI 102-25	Conflicts of interest	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Fairpractice.aspx	16.3, 16.5, 16.6
GRI 102-26	Role of the highest governance body in setting purpose, values, and strategy	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx	16.3, 16.5, 16.6
GRI 102-27	Collective knowledge of highest governance body	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx	16.3, 16.5, 16.6,
GRI 102-28	Evaluating the highest governance body's performance	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx	16.3, 16.5, 16.6,
GRI 102-29	Identifying and managing economic, environmental and social impacts	Governance, Risk Management and Compliance	56-1 One Report 2020 (Page 118 - 127) https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx	16.3, 16.5, 16.6, 16.7
GRI 102-30	Effectiveness of risk management process	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/ Riskandcrisismanagement.aspx	16.3, 16.5, 16.6
GRI 102-31	Review of economic, environmental, and social topics	Governance, Risk Management and Compliance	56-1 One Report 2020 (Page 122 - 127) https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilitystrategy. aspx	16.3, 16.5, 16.6
GRI 102-32	Highest governance body's roles in sustainability reporting		56-1 One Report 2020 (Page 122 - 127) https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilitystrategy. aspx	
GRI 102-38	Annual total compensation ratio	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Corporategovernance. aspx	16.3, 16.5, 16.6

GRI Standard	Description	Material Issues	56-1 One Report 2020 (Page) and PTT Website (URL)	Contribution to the SDGs
Stakeholder E	Engagement			
GRI 102-40	List of stakeholder groups		56-1 One Report 2020 (Page 118 - 121) https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/ Stakeholderengagement.aspx	16.7
GRI 102-41	Collective bargaining agreements		https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport. aspx	8.8, 16.7
GRI 102-42	Identifying and selecting stakeholders		56-1 One Report 2020 (Page 118 - 121) https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/ Stakeholderengagement.aspx	16.7
GRI 102-43	Approach to stakeholder engagement		56-1 One Report 2020 (Page 118 - 121) https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/ Stakeholderengagement.aspx	16.7
GRI 102-44	Key topics and concerns raised		56-1 One Report 2020 (Page 118 - 121) https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/ Stakeholderengagement.aspx	16.7
Reporting Pra	actice			
GRI 102-45	Entities included in the consolidated financial statements		56-1 One Report 2020 (Page 408)	
GRI 102-46	Defining report content and topic boundaries		56-1 One Report 2020 (Page 122 - 127, 408)	
GRI 102-47	List of material topics		56-1 One Report 2020 (Page 122 - 127) https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilitystrategy.aspx	
GRI 102-48	Restatements of information		https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport. aspx	
GRI 102-49	Changes in reporting		56-1 One Report 2020 (Page 408)	
GRI 102-50	Reporting period		56-1 One Report 2020 (Page 408)	
GRI 102-51	Date of most recent report		56-1 One Report 2020 (Page 408)	
GRI 102-52	Reporting cycle		56-1 One Report 2020 (Page 408)	
GRI 102-53	Contact point for questions regarding the report		56-1 One Report 2020 (Page 412)	
GRI 102-54	Claims of reporting in accordance with the GRI Standards		56-1 One Report 2020 (Page 408)	
GRI 102-55	GRI content index		https://www.pttplc.com/th/Sustainability/ SustainabilityGovernance/Sustainabilityreport.aspx	
GRI 102-56	External assurance		56-1 One Report 2020 (Page 409 - 410)	
Management	Approach			
GRI 103-1	Explanation of the material topic and its Boundary		56-1 One Report 2020 (Page 122 - 127) https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilitystrategy.aspx	15.2
GRI 103-2	The management approach and its components	All	https://www.pttplc.com/th/Sustainability.aspx	16.3, 16.5, 16.6
GRI 103-3	Evaluation of the management approach	All	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/ Pttgroupsustainabilitymanagementsystem.aspx	16.3, 16.5, 16.7

GRI Standard	Description	Material Issues	56-1 One Report 2020 (Page) and PTT Website (URL)	Contribution to the SDGs		
GRI 201: Eco	GRI 201: Economic Performance					
GRI 201-1*	Direct economic value generated and distributed		56-1 One Report 2020 (Page 128 - 129, 138 - 149) https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport.aspx	8.1, 8.2, 9.1, 9.4, 9.5		
GRI 205: Ant	ti-Corruption					
GRI 205-3	Confirmed incidents of corruption and actions taken	Governance, Risk Management and Compliance	56-1 One Report 2020 (Page 279) https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Fairpractice.aspx	16.5		
GRI 207: Tax	(2019)					
GRI 207-1	Approach to tax		https://www.pttplc.com/th/Sustainability/ Economics/Taxstrategy.aspx	1.1, 10.3, 10.4, 17.1, 17.3		
GRI 302: Ene						
GRI 302-1*	Energy consumption within the organization	Climate Change	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		
GRI 302-3*	Energy intensity	Climate Change	56-1 One Report 2020 (Page 133) 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		
GRI 303: Wa	ter (2018)					
GRI 303-1	Interactions with water as a shared resource	Integrated Water Management	https://www.pttplc.com/th/Sustainability/ Environment/Water.aspx https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport.aspx	6.A, 6.B, 6.2, 6.3, 6.4, 6.6, 12.4, 14.1		
GRI 303-2	Management of water discharge-related impacts	Integrated Water Management	https://www.pttplc.com/th/Sustainability/ Environment/Water.aspx https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport.aspx	6.2, 6.3, 6.4, 6.6, 14.1		
GRI 303-3*	Water withdrawal	Integrated Water Management	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		
GRI 303-4*	Water discharge	Integrated Water Management	https://www.pttplc.com/th/Sustainability/ Environment/Water.aspx https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport.aspx	6.2, 6.3, 6.4, 6.6, 14.1		
GRI 303-5	Water consumption	Integrated Water Management	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport.aspx	6.2, 6.3, 6.4, 6.6		
GRI 305: Emissions						
GRI 305-1*	Direct (Scope 1) GHG emissions	Climate Change	56-1 One Report 2020 (Page 116, 132 - 133) 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		
GRI 305-2*	Energy indirect (Scope 2) GHG emissions	Climate Change	56-1 One Report 2020 (Page 116, 132 - 133) 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		

GRI Standard	Description	Material Issues	56-1 One Report 2020 (Page) and PTT Website (URL)	Contribution to the SDGs
GRI 305-3*	Other indirect (Scope 3) GHG emissions	Climate Change	56-1 One Report 2020 (Page 132 - 133) 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
GRI 305-4*	GHG emissions intensity	Climate Change	56-1 One Report 2020 (Page 132 - 133) https://www.pttplc.com/th/Sustainability/ Environment/Climatechangemanagement.aspx https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport.aspx	13.1, 14.3, 15.2
GRI 305-7*	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Environmental Management, Climate Change, Application of the Circular Economy	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
GRI 306: Eff	luents and Waste (2016)			
GRI 306-2*	Waste by type and disposal method	Waste Management, Application of the Circular Economy	56-1 One Report 2020 (Page 135 - 137) https://www.pttplc.com/th/Sustainability/ Environment/Waste.aspx https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport.aspx	3.9, 6.3, 11.6, 12.4, 12.5
GRI 306-3*	Significant spills	Environmental Management	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
GRI 306: Wa	ste (2020)			
GRI 306-1	Waste generation and significant waste-related impacts	Waste Management, Application of the Circular Economy	56-1 One Report 2020 (Page 135 - 137) https://www.pttplc.com/th/Sustainability/ Environment/Waste.aspx https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport.aspx	3.9, 6.3, 11.2, 11.6, 12.4, 12.5
GRI 306-3	Waste generated	Waste Management,	https://www.pttplc.com/th/Sustainability/ Environment/Waste.aspx https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport.aspx	3.9, 6.3, 6.6, 11.6, 12.4, 12.5, 14.1, 15.1
GRI 307: En	vironmental Compliance			
16.3	Non-compliance with environmental laws and regulations	Environmental Management	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport.aspx	16.3
GRI 308: Su	pplier Environmental Assess	ment		
GRI 308-1	New suppliers that were screened using environmental criteria	Supply Chain Management	https://www.pttplc.com/th/Sustainability/ Economics/Supplychainmanagement.aspx	
GRI 403: Occ	cupational Health and Safet	y (2016)		
GRI 403-1	Occupational health and safety management system	Occupational Health and Safety	https://www.pttplc.com/th/Sustainability/Social/ Securitysafetyandoccupationalhealth.aspx	3.6, 8.8
GRI 403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Occupational Health and Safety	https://www.pttplc.com/th/Sustainability/Social/ Securitysafetyandoccupationalhealth.aspx	3.3, 3.4, 3.6, 3.9, 8.8
GRI 403-3	Occupational health services	Occupational Health and Safety	https://www.pttplc.com/th/Sustainability/Social/ Securitysafetyandoccupationalhealth.aspx	3.6, 8.8

GRI Standard	Description	Material Issues	56-1 One Report 2020 (Page) and PTT Website (URL)	Contribution to the SDGs
GRI 403-4	Worker participation, consultation, and communication on occupational health and safety	Occupational Health and Safety	https://www.pttplc.com/th/Sustainability/Social/ Securitysafetyandoccupationalhealth.aspx	3.6, 8.8, 16.7
GRI 403-5	Worker training on occupational health and safety	Occupational Health and Safety	https://www.pttplc.com/th/Sustainability/Social/ Securitysafetyandoccupationalhealth.aspx	3.6, 8.8
GRI 403-6	Promotion of worker health	Occupational Health and Safety	https://www.pttplc.com/th/Sustainability/Social/ Securitysafetyandoccupationalhealth.aspx	3.3, 3.5,3.7,3.8
GRI 403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational Health and Safety	https://www.pttplc.com/th/Sustainability/Social/ Securitysafetyandoccupationalhealth.aspx	3.3, 3.4, 3.6, 3.9, 8.8
GRI 403-9*	Work-related injuries	Occupational Health and Safety	56-1 One Report 2020 (Page 116) 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
GRI 403-10*	Work-related ill health	Occupational Health and Safety	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
GRI 404: Tra	ining and Education			
GRI 404-1*	Average hours of training per year per employee	Human Capital Development, Talent Attraction and Retention	56-1 One Report 2020 (Page 151) https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilityreport.aspx	4.3, 4.4, 4.5, 5.1, 8.2, 8.5
GRI 411: Rig	hts of Indigenous Peoples			
GRI 411-1	Incidents of violations involving rights of indigenous peoples	Human Rights	https://www.pttplc.com/th/Sustainability/Social/ Humanright.aspx	2.3
GRI 412: Hu	man Rights Assessment			
GRI 412-1	Operations that have been subject to human rights reviews or impact assessments	Human Rights	https://www.pttplc.com/th/Sustainability/Social/ Humanright.aspx	
GRI 413: Loc	cal Communities			
GRI 413-1	Operations with local community engagement, impact assessments, and development programs	Creating Social Value	56-1 One Report 2020 (Page 138 - 149) https://www.pttplc.com/th/Sustainability/ Economics/Projectmanagement.aspx https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Sustainabilitystrategy. aspx	
GRI 414: Loc	cal Communities			
GRI 414-1	New suppliers that were screened using social criteria	Supply Chain Management	https://www.pttplc.com/th/Sustainability/ Economics/Supplychainmanagement.aspx	5.2, 8.8, 16.1
GRI 415: Pul	blic Policy			
GRI 415-1	Political contributions	Governance, Risk Management and Compliance	https://www.pttplc.com/th/Sustainability/ Sustainabilitygovernance/Fairpractice.aspx	16.5
GRI 416: Cu	stomer Health and Safety			
GRI 416-1	Assessment of the health and safety impacts of product and service categories	Innovation and Technology, Customer Relationship Management	56-1 One Report 2020 (Page 155) https://www.pttplc.com/th/Sustainability/ Economics/Innovationandproductresponsibility. aspx	

GRI Oil and Gas Sector Disclosure	Description	Material Issues	56-1 One Report 2020 (Page) and PTT Website (URL)	Contribution to the SDGs
G4-OG4*	Number and percentage of significant operating sites in which biodiversity risk has been assessed and monitored	Environmental Management	https://www.pttplc.com/th/Sustainability/ Environment/Biodiversity.aspx	6.6, 14.2, 15.1, 15.5
G4-0G6*	Volume of flared and vented hydrocarbon	Environmental Management	https://www.pttplc.com/th/Sustainability/ Environment/Air.aspx	3.9, 7.3, 12.2, 12.4, 12.5, 13.1, 14.3
G4-OG10	Number and description of significant disputes with local communities and indigenous peoples	Creating Social Value	https://www.pttplc.com/th/Sustainability/ Economics/Projectmanagement.aspx	1.4, 2.3
G4-0G12	Operations where involuntary resettlement took place	Creating Social Value	https://www.pttplc.com/th/Sustainability/ Economics/Projectmanagement.aspx	1.4, 2.3
G4-0G13*	Number of process safety events, by business activity	Occupational Health and Safety	https://www.pttplc.com/th/Sustainability/Social/ Securitysafetyandoccupationalhealth.aspx	3.9, 8.8
G4-0G14	Volume of biofuels produced and purchased meeting sustainability criteria	Innovation and Technology, Customer Relationship Management	56-1 One Report 2020 (Page 157) https://www.pttplc.com/th/Sustainability/ Economics/Innovationandproductresponsibility. aspx	7.2, 15.2, 15.5

Green text means indicators with added commentary in GRI Oil and Gas Sector Disclosure (OGSD).

^{*} These indicators have been externally verified by an independent third party organization, whose assurance statement is available on https://www.pttplc.com/th/Sustainability/Sustainabi

INTEGRATED REPORTING <IR>

Capital	Description	56-1 One Report 2020 (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 2020 (Page 128 - 129)
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 2020 (Page 128 - 129)
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 2020 (Page 128 - 129, 156) 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 2020 (Page 128 - 129, 150 - 152) 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 2020 (Page 118 - 121, 128 - 129, 150 - 152) 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.aspx https://www.pttplc.com/th/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 2020 (Page 128 - 129, 131 - 134, 135 - 137) 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 2020 (Page) and 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 2020 (Page 2 - 11, 24 - 31, 102 - 113, 122 - 127, 130) https://www.pttplc.com/th/Sustainability/Sustainabilitygovernance/Stakeholderengagement.aspx
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).	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 2020 (Page 47 - 81, 115 - 117, 128 - 129)
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 2020 (Page 102 - 113) 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 2020 (Page 8 - 11) 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 2020 (Page 8 - 11, 115 - 117) 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 2020 (Page 24 - 31, 102 - 113) 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 2020 (Page 122-127) https://www.pttplc.com/th/Sustainability/SustainabilityGovernance/ Sustainabilityreport.aspx

THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)

TCFD recommendation	56-1 One Report 2020 (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 2020 (Page 131 - 134) 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 2020 (Page 131 - 134) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx			
Strategy: Disclose the actual and potential impa and financial planning where such information	acts of climate-related risks and opportunities on the organization's businesses, strategy, 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 2020 (Page 105, 131) 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 2020 (Page 105, 131) 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	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 2020 (Page 131) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx			
b) Describe the organization's processes for managing climate-related risks.	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.	https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx			
Metrics and Targets: Disclose the metrics and where such information is material.	targets used to assess and manage relevant climate-related risks and opportunities			
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 2020 (Page 105) 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 2020 (Page 105, 131 - 134) 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 2020 (Page 116 - 117, 131 - 134) https://www.pttplc.com/th/Sustainability/Environment/Climatechangemanagement.aspx			