

PTT E&P

PTT Exploration and Production
Public Company Limited

PTTEP

Bloomberg PTTEP.TB
Reuters PTTEP.BK



5-year plan still displays solid growth

We are optimistic on PTTEP's new 5-year plan with investment of US\$32.6bn and sales volume growth of 5% p.a. through 2028 (down slightly from earlier). The investment strategy reflects its long-term growth target and commitment to Thailand's energy security and transition to clean energy. Incorporating this new plan into our financial forecast results in a small adjustment. The recent 11% fall in share price vs. the SET's -1% due to a weaker oil price opens a window to reenter the stock, in our view. We upgrade our rating to **OUTPERFORM** with DCF-based TP of Bt194, based on L/T Brent oil price of US\$70/bbl.

5-year budget revised up 12%. PTTEP plans to spend US\$32.6bn over the next five years, 64% for capital investment and 36% for operating expenditure. This is 12% higher than the prior plan due to more new projects and higher development cost arising out of short supply for E&P oilfield services, including offshore vessels. Investment will peak in 2025 at US\$7.5bn after making the final investment decision on gas projects in Malaysia, SK410B, in 2024. Other projects scheduled to start up in 2028 include Mozambique LNG, Abu Dhabi Offshore 2 and Southwest Vietnam.

Investment for decarbonization is mainly for CCS project. PTTEP set aside a five-year budget of US\$1.1bn to invest in decarbonization projects, specifically a carbon capture and storage (CCS) project for Arthit field (US\$300mn), and diversification of its businesses via AI and Robotic (ARV). It also set a provisional budget of US\$2bn for other clean energy ventures, including offshore renewable and CCS as-a-service business to solidify its path to net zero emissions by 2050.

Inching down target sales volume. PTTEP's sales volume is expected to increase by a CAGR of 5% over 2023 to 2028 to a record high of 587kBOED in 2028 despite a slight downward revision by an average of 2%, mainly in 2027 (-3% from the earlier plan). This reflects a slight delay in two new projects, Mozambique LNG and Malaysia's SK410B (Lang Lebah), from 2027 to 2028. These two projects will be pivotal to volume growth in 2028 and increase the proportion of gas product to 75% from 72-73%. Sales volume in 2024 is expected to rise 9% YoY to 505kBOED, driven by higher production at G1/61 to 500-550mmcf in Feb-Mar before reaching committed volume of 800mmcf by Apr 2024. Management guided that the drilling of the production wellhead is on track.

Financing remains manageable. We believe PTTEP's solid financial position and strong cash flow from operations will underwrite the higher investment budget over the next five years. Its gearing ratio at end-3Q23 was only 0.3x and we expect this to remain low over the next five years despite the latest budget plan, unless it decides to make more huge investments.

TP of Bt194 is intact. Our DCF-based TP (end-2024) at Bt194/share is based on L/T Dubai of US\$68/bbl and Brent of US\$70/bbl from 2026F on improving global oil price. Note that our volume assumption at 3% below company guidance provides a margin of safety to our earnings forecast and valuation. At our TP, the stock trades at 1.4x PBV for 2024F or +1SD of 5-year average, reflecting a better oil market.

Risk factors: 1) Volatile crude oil price, 2) higher unit cost, 3) asset impairment and 4) regulatory change on GHG emissions. Key ESG risk factors are an environmental impact of its business and how it adapts during the transition to clean energy.

Forecasts and valuation

Year to 31 Dec	Unit	2021	2022	2023F	2024F	2025F
Revenue	(Btmn)	219,068	331,350	293,766	304,609	304,129
EBITDA	(Btmn)	160,693	253,734	224,798	221,607	218,819
Core profit	(Btmn)	42,888	90,721	75,365	72,069	77,082
Reported profit	(Btmn)	38,864	70,901	73,995	72,069	77,082
Core EPS	(Bt)	10.80	22.85	18.98	18.15	19.42
DPS	(Bt)	5.00	9.25	9.25	9.00	9.00
P/E, core	(x)	13.3	6.3	7.6	7.9	7.4
EPS growth, core	(%)	106.6	111.5	(16.9)	(4.4)	7.0
P/BV, core	(x)	1.4	1.2	1.1	1.1	1.0
ROE	(%)	11.1	20.6	15.5	13.8	13.7
Dividend yield	(%)	3.5	6.4	6.4	6.3	6.3
EV/EBITDA	(x)	3.7	2.1	2.4	2.6	2.9

Source: InnovestX Research

Tactical: OUTPERFORM

(3-month)

Stock data	
Last close (Dec 14) (Bt)	143.50
Target price (Bt)	194.00
Mkt cap (Btmn)	569.69
Mkt cap (US\$mn)	16,342

Beta	H
Mkt cap (%) SET	3.36
Sector % SET	21.22
Shares issued (mn)	3,970
Par value (Bt)	1.00
12-m high / low (Bt)	179.5 / 134.5
Avg. daily 6m (US\$mn)	45.59
Foreign limit / actual (%)	40 / 13
Free float (%)	34.7
Dividend policy (%)	≥ 30

Share performance			
(%)	1M	3M	12M
Absolute	(11.4)	(14.3)	(17.1)
Relative to SET	(9.1)	(4.2)	(2.5)

Source: SET, InnovestX Research

2023 Sustainability / 2021 ESG Score	
SET ESG Ratings	AAA

ESG Bloomberg Rank in the sector	
ESG Score Rank	1/67
Environmental Score Rank	4/67
Social Score Rank	2/67
Governance Score Rank	2/67

ESG comment

PTTEP had the sector's best ESG score in 2021, with a satisfactory social and governance score. The environmental score is also above average and much better than peers in the sector in 2021.

Source: Bloomberg Finance L.P.

Analyst

Chaipat Thanawattano
Fundamental Investment
Analyst on Securities
(66-2) 949-1005
chaipat.thanawattano@scb.co.th

Value proposition

PTTEP is a leading E&P operator in the Gulf of Thailand with >80% share of the country's natural gas production. The sales volume of 463kBOED in 2023 will increase to 587kBOED (5-year CAGR of 5%) in 2028 when the new project in Malaysia, SK410B or Lang Lebah (42.5% holding) commences operations. The initial production capacity is set at 800-1,000mmcf, slightly lower than the current combined production of Bongkot and Arthit. PTTEP's proved reserves of 1,442mmBOE as of end-2022 imply 6.8 years of production. Including probable reserve, the 2P reserve implies 10.7 years of production. This is expected to be expanded by several projects under exploration in Malaysia and the Middle East (Oman and UAE). PTTEP's petroleum product price is less volatile than market oil price due to the six- to 12-month lag for price adjustment, particularly for gas (65-70% of total production). The company is the flagship of PTT Group in initiating the carbon capture utilization and storage (CCUS) project in Thailand as one of the pathways to net zero emissions. The pioneer project at Arthit gas field is scheduled to be the first when it starts up in 2027.

Business outlook

PTTEP's sales volume will continue to increase, not only in Thailand but in strategic countries in ASEAN where it has proven track records. It plans to accelerate exploration in 2023-24, focusing on Thailand, Malaysia and the Middle East. These countries are expected to be growth drivers for sales volume in the next five years. Its Malaysian subsidiary announced the discovery of a large gas field with its first well in the SK410B block offshore Sarawak. More appraisal drilling will take place in 2024 for further development and final investment decision and the first gas is expected in 2028. In Myanmar, PTTEP assumed operatorship of Yadana gas field after the withdrawal of western partners in response to internal political unrest and human rights abuses. PTTEP also has exposure to the LNG business in Malaysia and Mozambique, giving opportunities for growth in the current market trend for gas. PTTEP also won two Production Sharing Contracts (PSC) in the 24th bid round in the Gulf of Thailand, Blocks G1/65 and G3/65.

Bullish views	Bearish views
1. PTTEP's sales volume is expected to gradually increase in the medium term upon continuing development of new projects both domestically and internationally.	1. PTTEP is a proxy play on oil price, which will hover in a narrow range over the next six months on weaker-than-expected demand and higher global supply.
2. PTTEP's ASP is more stable than crude oil price due to the lag before prices of its gas output are adjusted (>70% of total sales volume).	2. Average gas price will be eroded by more volume contribution from Sabah-H in Malaysia and Oman Block 61, whose gas prices are lower than those in the Gulf of Thailand and Myanmar.
3. More petroleum recovery, mainly in Malaysia, will drive sales volume growth.	3. Net profit for 2023F is expected to decline YoY on lower sales volume and oil price despite a smaller oil price hedging position in 2023 than in 2022.

Key catalysts

Factor	Event	Impact	Comment
Oil price movement	Benchmark crude oil prices turned back up in Aug 2023 as the output cut by Saudi Arabia and Russia took effect. Fragile demand outlook in the high interest rate could hold back the upward momentum.	Positive	Near-term oil price is expected to increase from tighter supply in 4Q23 due to seasonal demand and production cut by OPEC+.
Near-term earnings outlook	4Q23F recurring profit momentum	Lower QoQ and YoY	We expect 4Q23F core earnings to weaken QoQ and YoY on lower oil price.
Factors to watch in 2024	More gas discovery was announced at projects in Malaysia and development in Myanmar	Positive	PTTEP continues to announce more reserves recovery in Malaysia which will be the new growth driver for its sales volume.

Sensitivity Analysis

Factor	Earnings impact	TP impact
L/T crude oil price (-US\$/bbl)	-1.9% (2023F)	-Bt4/share

Our view on ESG

We view that PTTEP provides concrete targets on environmental and social issues with a committed timeline and actual performance relative to its targets. We view PTTEP's management and governance as satisfactory, reflecting management expertise and experience in the business, a diverse Board of Directors and transparency with stakeholders.

ESG Disclosure Score

Bloomberg ESG Score	80.95 (2021)
Rank in Sector	1/67

	CG Rating	DJSI	SETESG	SET ESG Ratings
PTTEP	5	No	Yes	AAA

Source: Thai Institute of Directors (IOD), SET

Environmental Issue (E)

- PTTEP aims at reducing GHG intensity by 30% by 2030 from the base year in 2020. This will be reduced further to 50% by 2040 and to net zero by 2050. PTTEP was able to reduce GHG by 358.187k tons of CO₂ equivalent.
- PTTEP has conducted feasibility studies on carbon capture utilization and storage (CCUS) as one of its strategies on greenhouse gas management. The company has selected Arthit Project as a pilot project for CCS implementation. With the success of this project in the future, CO₂ emissions will be reduced by more than 500k tons/year.
- PTTEP has continued to develop technologies for minimizing environmental impacts in both existing and new production areas. These include the conservation and restoration of natural resources and marine ecosystems project under "Ocean for Life Strategy" and the technology for supporting energy transition.

Social Issue (S)

- PTTEP is committed to minimize impact of its operation to the communities. These include its commitment of zero waste to landfill and circular model of E&P operation by reusing at least 50% of main structures.
- The Ocean for Life Strategy is aiming at achieving net positive impact of ocean biodiversity and ecosystem while Increase 50% of community income for focused communities and achieve 16,000 conservation networks by 2030.
- PTTEP emphasizes and commits to continuously improving SSHE (Safety, Security, Health, and Environment) implementation, so as to achieve its ultimate goal of being a "Zero Incident Organization" where employees and contractors can come to work and return home safely every day.

Governance Issue (G)

- PTTEP's board of directors consists of 15 directors, 14 non-executive directors (93.33% of the entire board), 10 independent directors, which exceeds half of the board (66.67% of the entire Board), and an executive director. These include two female members (13.33% of the entire board).
- PTTEP was rated "5 star" (Excellent) by the Thai Institute of Directors for 2022.
- We view PTTEP's management and governance as satisfactory, reflecting management's expertise and experience in the oil and gas sector, its transparency with stakeholders, and its independent board of directors.

ESG Disclosure Score

	2020	2021
ESG Disclosure Score	73.46	80.95
Environment	71.61	75.05
Emissions Reduction Initiatives	Yes	Yes
Climate Change Policy	Yes	Yes
GHG Scope 1	5,387.74	5,147.77
Biodiversity Policy	Yes	Yes
Energy Efficiency Policy	Yes	Yes
Total Energy Consumption	9,084.18	9,218.16
Social	58.86	71.61
Human Rights Policy	Yes	Yes
Equal Opportunity Policy	Yes	Yes
Health and Safety Policy	Yes	Yes
Fatalities - Employees	0.00	0.00
Total Recordable Incident Rate - Employees	0.00	0.04
Employee Turnover Pct	2.80	4.50
Governance	89.86	96.12
Size of the Board	15	15
Number of Board Meetings for the Year	18	19
Board Meeting Attendance Pct	95	96
Number of Female Executives	8	8
Number of Independent Directors	9	10
Board Duration (Years)	3	3

Source: Bloomberg Finance L.P.

Disclaimer

Bloomberg ESG Disclosure Scores rate companies on their level of disclosure of ESG data. Bloomberg offers four disclosure scores, for overall ESG, as well as Environmental, Social, and Governance. To review the fully transparent methodology, calculate disclosure scores for any company, and compare a company's scores vs its peers, see ESG Disclosure Score Model in Bloomberg.

Financial statement

Profit and Loss Statement

FY December 31	Unit	2018	2019	2020	2021	2022	2023F	2024F	2025F
Total revenue	(Btmn)	171,809	191,053	160,401	219,068	331,350	293,766	304,609	304,129
Cost of goods sold	(Btmn)	97,350	106,881	106,143	122,122	148,949	141,159	149,638	150,210
Gross profit	(Btmn)	74,459	84,172	54,258	96,946	182,401	152,607	154,971	153,919
SG&A	(Btmn)	9,405	11,870	9,754	11,416	20,386	15,050	16,506	16,480
Other income	(Btmn)	4,338	4,405	2,306	4,869	8,552	6,116	1,579	1,207
Interest expense	(Btmn)	7,707	7,291	7,956	6,472	8,218	8,469	9,745	10,949
Pre-tax profit	(Btmn)	59,799	69,415	38,217	83,927	162,348	135,204	130,299	127,697
Corporate tax	(Btmn)	23,764	20,952	18,764	41,528	72,295	60,541	58,966	51,388
Equity a/c profits	(Btmn)	256	380	1,307	489	668	701	736	773
Minority interests	(Btmn)	0	0	0	0	0	0	0	0
Core profit	(Btmn)	36,291	48,844	20,760	42,888	90,721	75,365	72,069	77,082
Extra-ordinary items	(Btmn)	(85)	(42)	1,904	(4,024)	(19,820)	(1,370)	0	0
Net Profit	(Btmn)	36,206	48,803	22,664	38,864	70,901	73,995	72,069	77,082
EBITDA	(Btmn)	127,315	139,517	111,422	160,693	253,734	224,798	221,607	218,819
Core EPS	(Bt)	9.14	12.30	5.23	10.80	22.85	18.98	18.15	19.42
Net EPS	(Bt)	9.12	12.29	5.71	9.79	17.86	18.64	18.15	19.42
DPS	(Bt)	5.00	6.00	4.25	5.00	9.25	9.25	9.00	9.00

Balance Sheet

FY December 31	Unit	2018	2019	2020	2021	2022	2023F	2024F	2025F
Total current assets	(Btmn)	186,783	142,125	152,716	139,584	196,842	211,044	191,348	151,850
Total fixed assets	(Btmn)	445,473	529,866	522,921	643,952	673,022	687,588	757,674	857,670
Total assets	(Btmn)	632,256	671,990	675,637	783,536	869,864	898,632	949,022	1,009,519
Total loans	(Btmn)	49,932	99,448	102,878	102,661	97,095	113,878	128,878	143,878
Total current liabilities	(Btmn)	80,663	61,841	56,257	104,502	114,616	105,089	106,692	106,621
Total long-term liabilities	(Btmn)	162,020	253,090	264,969	263,684	288,128	289,150	301,598	320,814
Total liabilities	(Btmn)	242,683	314,932	321,226	368,186	402,744	394,239	408,290	427,434
Paid-up capital	(Btmn)	3,970	3,970	3,970	3,970	3,970	3,970	3,970	3,970
Total equity	(Btmn)	389,573	357,059	354,411	415,350	467,121	504,393	540,732	582,085
BVPS	(Bt)	98.13	89.94	89.27	104.62	117.66	127.05	136.21	146.62

Cash Flow Statement

FY December 31	Unit	2018	2019	2020	2021	2022	2023F	2024F	2025F
Core Profit	(Btmn)	36,291	48,844	20,760	42,888	90,721	75,365	72,069	77,082
Depreciation and amortization	(Btmn)	59,809	62,811	65,250	70,294	83,168	81,125	81,563	80,173
Operating cash flow	(Btmn)	105,704	102,878	86,120	119,485	165,514	136,706	149,708	160,803
Investing cash flow	(Btmn)	3,755	(103,769)	(33,515)	(123,016)	(58,760)	(95,691)	(151,649)	(180,168)
Financing cash flow	(Btmn)	(55,685)	(17,181)	(26,469)	(22,199)	(69,958)	(19,939)	(20,730)	(20,730)
Net cash flow	(Btmn)	53,774	(18,072)	26,136	(25,730)	36,796	21,076	(22,671)	(40,095)

Key Financial Ratios

FY December 31	Unit	2018	2019	2020	2021	2022	2023F	2024F	2025F
Gross margin	(%)	43.3	44.1	33.8	44.3	55.0	51.9	50.9	50.6
Operating margin	(%)	37.9	37.8	27.7	39.0	48.9	46.8	45.5	45.2
EBITDA margin	(%)	74.1	73.0	69.5	73.4	76.6	76.5	72.8	71.9
EBIT margin	(%)	39.3	40.1	28.8	41.3	51.5	48.9	46.0	45.6
Net profit margin	(%)	21.1	25.5	14.1	17.7	21.4	25.2	23.7	25.3
ROE	(%)	9.5	13.1	5.8	11.1	20.6	15.5	13.8	13.7
ROA	(%)	5.8	7.5	3.1	5.9	11.0	8.5	7.8	7.9
Net D/E	(x)	(0.2)	0.0	(0.0)	0.0	(0.1)	(0.1)	0.0	0.1
Interest coverage	(x)	16.5	19.1	14.0	24.8	30.9	26.5	22.7	20.0
Debt service coverage	(x)	16.5	19.1	14.0	24.8	30.9	26.5	22.7	20.0
Payout Ratio	(%)	54.8	48.8	74.4	51.1	51.8	49.6	49.6	46.4

Main Assumptions

FY December 31	Unit	2018	2019	2020	2021	2022	2023F	2024F	2025F
Sales volume	(kBOED)	306	351	354	416	468	463	490	507
- Liquid product	(% of total)	28.1	29.1	33.3	28.7	27.5	28.0	28.0	28.0
- Gas product	(% of total)	71.9	70.9	66.7	71.3	72.5	72.0	72.0	72.0
Dubai crude oil price	(US\$/bbl)	69.7	63.2	42.2	68.9	97.1	82.5	78.0	73.0
Avg selling price	(US\$/BOE)	46.7	47.2	38.9	43.5	53.4	48.9	47.9	46.3
CAPEX	(US\$mn)	1,081	1,062	1,093	1,508	2,780	2,718	4,316	5,130

Financial statement

Profit and Loss Statement

FY December 31	Unit	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23
Total revenue	(Btmn)	63,189	68,149	83,088	88,503	91,611	75,493	67,479	78,206
Cost of goods sold	(Btmn)	28,641	29,221	36,168	41,626	41,934	33,963	31,236	38,301
Gross profit	(Btmn)	34,547	38,928	46,920	46,877	49,676	41,530	36,243	39,905
SG&A	(Btmn)	4,190	3,061	3,865	2,919	10,541	3,410	3,646	3,979
Other income	(Btmn)	3,112	742	1,549	1,222	5,038	2,312	2,720	2,404
Interest expense	(Btmn)	1,696	1,718	2,194	2,270	2,037	2,617	2,606	2,653
Pre-tax profit	(Btmn)	31,773	34,891	42,410	42,911	42,136	37,815	32,711	35,676
Corporate tax	(Btmn)	14,919	16,436	21,042	17,006	17,811	18,199	13,283	17,035
Equity a/c profits	(Btmn)	109	350	445	(619)	492	419	331	320
Minority interests	(Btmn)	0	0	0	0	0	0	0	2
Core profit	(Btmn)	16,963	18,805	21,813	25,286	24,817	20,034	19,759	18,963
Extra-ordinary items	(Btmn)	(6,318)	(8,286)	(1,213)	(1,114)	(9,207)	(753)	1,277	(862)
Net Profit	(Btmn)	10,645	10,519	20,600	24,172	15,611	19,281	21,036	18,101
EBITDA	(Btmn)	47,510	53,695	64,047	68,153	67,839	57,015	54,627	60,462
Core EPS	(Bt)	4.27	4.74	5.49	6.37	6.25	5.05	4.98	4.78
Net EPS	(Bt)	2.68	2.65	5.19	6.09	3.93	4.86	5.30	4.56

Balance Sheet

FY December 31	Unit	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23
Total current assets	(Btmn)	139,584	172,002	166,048	201,415	196,842	209,370	180,580	200,729
Total fixed assets	(Btmn)	643,952	631,879	687,746	734,263	673,022	662,400	685,530	702,973
Total assets	(Btmn)	783,536	803,881	853,794	935,678	869,864	871,771	866,110	903,701
Total loans	(Btmn)	123,828	123,491	127,186	136,061	107,574	107,334	107,503	108,948
Total current liabilities	(Btmn)	104,502	129,400	89,902	102,683	114,616	99,123	64,968	80,402
Total long-term liabilities	(Btmn)	263,684	261,517	311,250	337,889	288,128	292,408	300,150	308,124
Total liabilities	(Btmn)	368,186	390,917	401,153	440,573	402,744	391,531	365,117	388,526
Paid-up capital	(Btmn)	3,970	3,970	3,970	3,970	3,970	3,970	3,970	3,970
Total equity	(Btmn)	415,350	412,964	452,641	495,105	467,121	480,240	500,993	515,175
BVPS	(Bt)	104.62	104.02	114.02	124.71	117.66	120.97	126.20	129.77

Cash Flow Statement

FY December 31	Unit	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23
Core Profit	(Btmn)	16,963	18,805	21,813	25,286	24,817	20,034	19,759	18,963
Depreciation and amortization	(Btmn)	14,041	17,087	19,443	22,973	23,666	16,584	19,310	22,133
Operating cash flow	(Btmn)	34,516	40,547	19,286	67,501	38,179	48,786	14,738	42,273
Investing cash flow	(Btmn)	(19,131)	(13,141)	(7,279)	(17,480)	(20,860)	(24,158)	(24,941)	(20,811)
Financing cash flow	(Btmn)	2,295	(1,521)	(24,362)	(18,829)	(25,245)	(2,319)	(25,363)	(19,533)
Net cash flow	(Btmn)	17,680	25,885	(12,355)	31,192	(7,926)	22,310	(35,565)	1,929

Key Financial Ratios

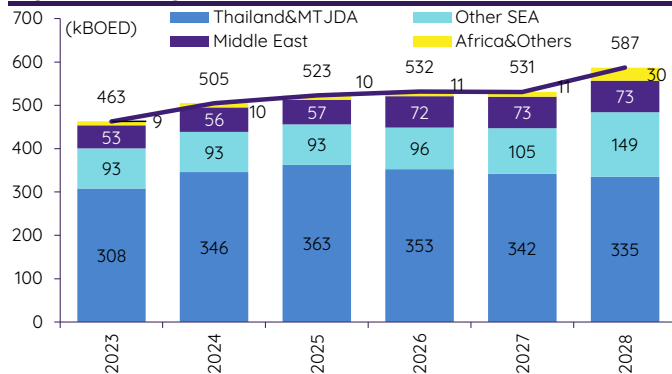
FY December 31	Unit	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23
Gross margin	(%)	54.7	57.1	56.5	53.0	54.2	55.0	53.7	51.0
Operating margin	(%)	48.0	52.6	51.8	49.7	42.7	50.5	48.3	45.9
EBITDA margin	(%)	75.2	78.8	77.1	77.0	74.1	75.5	81.0	77.3
EBIT margin	(%)	53.7	54.5	54.4	52.0	49.1	54.4	53.3	49.7
Net profit margin	(%)	16.8	15.4	24.8	27.3	17.0	25.5	31.2	23.1
ROE	(%)	16.5	18.2	20.2	21.3	20.6	16.9	16.1	14.9
ROA	(%)	8.6	9.5	10.5	11.3	11.0	9.2	9.1	8.6
Net D/E	(x)	0.1	0.0	0.1	0.0	(0.0)	(0.1)	(0.0)	(0.0)
Interest coverage	(x)	28.0	31.3	29.2	30.0	33.3	21.8	21.0	22.8
Debt service coverage	(x)	6.8	7.7	15.6	14.4	14.6	10.6	10.9	12.2

Main Assumptions

FY December 31	Unit	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23
Sales volume	(kBOED)	421	427	465	478	501	461	445	467
- Liquid product	(% of total)	29.1	27.3	27.6	27.3	27.8	27.9	27.3	29.8
- Gas product	(% of total)	70.9	72.7	72.4	72.7	72.2	72.1	72.7	70.2
Dubai crude oil price	(US\$/bbl)	77.8	96.8	108.9	98.2	84.4	79.3	77.6	86.7
Avg selling price	(US\$/BOE)	46.9	51.4	55.6	53.7	52.8	50.0	45.7	48.7

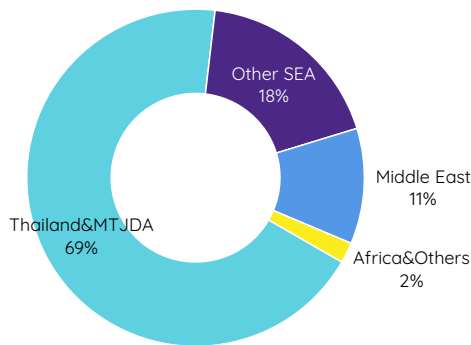
Appendix

Figure 1: Target sales volume



Source: PTTEP and InnovestX Research

Figure 3: Sales volume breakdown (2024)



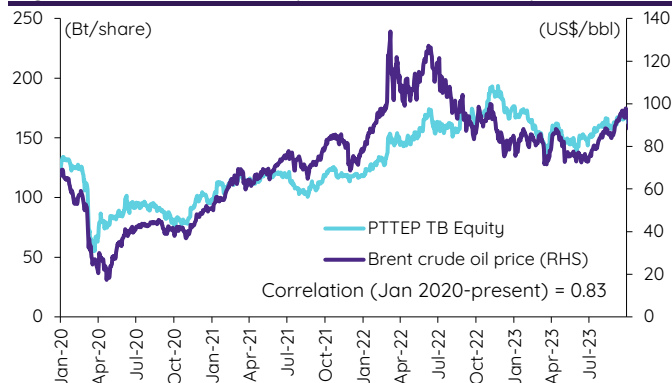
Source: PTTEP and InnovestX Research

Figure 5: Exploration plan (2024)



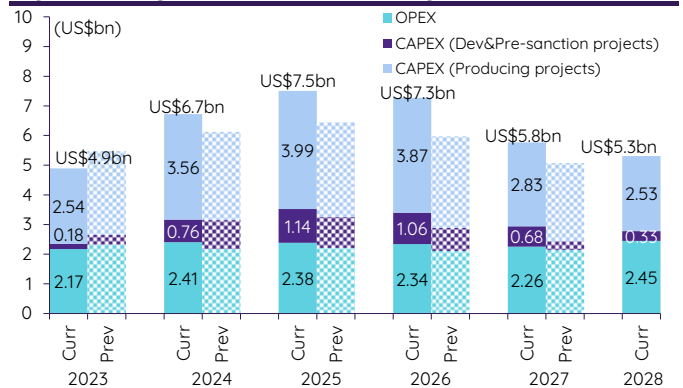
Source: PTTEP and InnovestX Research

Figure 7: PTTEP share price vs. Dubai oil price



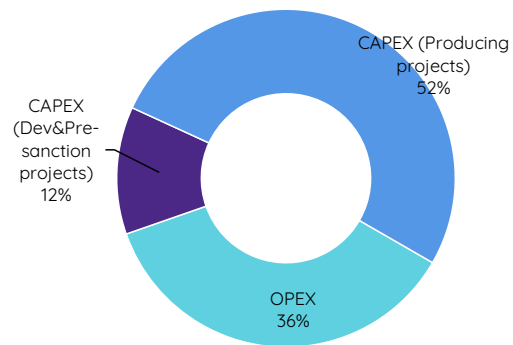
Source: Bloomberg Finance L.P. and InnovestX Research

Figure 2: 5-year investment budget



Source: PTTEP and InnovestX Research

Figure 4: 5-year investment budget breakdown



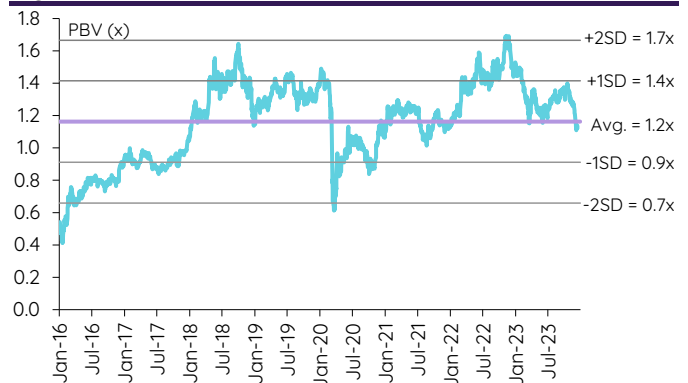
Source: PTTEP and InnovestX Research

Figure 6: Budget for decarbonize & diversify



Source: PTTEP and InnovestX Research

Figure 8: PTTEP - PBV band



Source: Bloomberg Finance L.P. and InnovestX Research

Figure 9: Valuation summary (price as of Dec 14, 2023)

	Rating	Price (Bt/Sh)	Target (Bt/Sh)	ETR (%)	P/E (x)			EPS growth (%)			P/BV (x)			ROE (%)			Div. Yield (%)			EV/EBITDA (x)		
					22A	23F	24F	22A	23F	24F	22A	23F	24F	22A	23F	24F	22A	23F	24F	22A	23F	24F
BCP	Outperform	42.50	51.0	28.9	3.2	5.8	3.8	99	(45)	53	0.9	0.8	0.7	24	11	15	5.3	8.9	8.0	2.1	3.5	2.4
BSRC	Underperform	8.25	10.5	32.1	3.0	5.9	7.5	114	(49)	(21)	1.0	0.9	0.8	41	17	12	9.7	4.8	3.6	5.1	7.1	7.9
IRPC	Neutral	1.93	3.0	55.4	14.1	n.m.	7.2	(82)	n.m.	n.m.	0.5	0.5	0.5	3	(2)	7	3.6	0.0	6.7	9.5	13.4	5.8
OR	Outperform	20.30	27.0	35.5	22.9	17.9	16.0	(6)	28	12	2.3	2.2	2.0	10	13	13	2.5	2.5	2.9	12.5	10.8	9.9
PTT	Outperform	35.75	45.0	31.5	6.4	8.3	9.4	9	(24)	(11)	1.0	0.9	0.9	11	8	7	5.6	5.6	5.9	3.7	4.0	3.8
PTTEP	Outperform	143.50	194.0	41.6	6.3	7.6	7.9	112	(17)	(4)	1.2	1.1	1.1	21	16	14	6.4	6.4	6.3	2.1	2.4	2.6
SPRC	Neutral	7.85	11.8	54.8	4.6	7.9	4.6	55	(42)	69	0.9	0.9	0.8	20	11	18	14.1	5.1	7.6	3.6	4.2	2.3
TOP	Outperform	52.00	71.0	41.0	3.5	6.9	5.8	61	(50)	20	0.7	0.7	0.6	22	10	11	7.1	4.4	5.4	4.6	8.7	7.4
Average					8.0	8.6	7.8	45	(28)	17	1.1	1.0	0.9	19	10	12	6.8	4.7	5.8	5.4	6.8	5.3

Source: InnovestX Research

Disclaimer

The information in this report has been obtained from sources believed to be reliable. However, its accuracy or completeness is not guaranteed. Any opinions expressed herein reflect our judgment at this date and are subject to change without notice. This report is for information only. It is not to be construed as an offer, or solicitation of an offer to sell or buy any securities. We accept no liability for any loss arising from the use of this document. We or our associates may have an interest in the companies mentioned therein.

InnovestX Securities Company Limited ("INVX") is wholly owned by SCB X Public Company Limited ("SCBX") and The Siam Commercial Bank Public Company Limited ("SCB") is majority-owned by SCBX. Any information related to SCB is for sector comparison purpose.

This document is prepared by InnovestX Securities Company Limited ("INVX") which is wholly-owned by SCB X Public Company Limited ("SCBX"). The Siam Commercial Bank Public Company Limited, which is majority-owned by SCBX, acts as financial advisor of the SCG Chemicals Public Company Limited (SCGC). Any opinions, news, research, analyses, prices, statements, forecasts, projections and/or other information contained in this document (the "Information") is provided as general information purposes only and shall not be construed as individualized recommendation of an offer to buy or sell or the solicitation of an offer to buy or sell any securities. INVX and/or its directors, officers and employees shall not be liable for any direct, indirect, incidental, special or consequential loss or damage, resulting from the use of or reliance on the Information, including without limitation to, damages for loss of profits. The investors shall use the Information in association with other information and opinion, including their own judgment in making investment decision. The Information is obtained from sources believed to be reliable, and INVX cannot guarantee the accuracy, completeness and/or correctness of the Information.

This document is prepared by InnovestX Securities Company Limited ("INVX") which is wholly-owned by SCB X Public Company Limited ("SCBX"). The Siam Commercial Bank Public Company Limited, which is majority-owned by SCBX, acts as financial advisor of the Big C Retail Company Limited (BRC), a subsidiary of Berli Jucker Public Company Limited. Any opinions, news, research, analyses, prices, statements, forecasts, projections and/or other information contained in this document (the "Information") is provided as general information purposes only and shall not be construed as individualized recommendation of an offer to buy or sell or the solicitation of an offer to buy or sell any securities. INVX and/or its directors, officers and employees shall not be liable for any direct, indirect, incidental, special or consequential loss or damage, resulting from the use of or reliance on the Information, including without limitation to, damages for loss of profits. The investors shall use the Information in association with other information and opinion, including their own judgment in making investment decision. The Information is obtained from sources believed to be reliable, and INVX cannot guarantee the accuracy, completeness and/or correctness of the Information.

This document is prepared by InnovestX Securities Company Limited ("INVX") which is wholly owned by SCB X Public Company Limited ("SCBX"). The Siam Commercial Bank Public Company Limited, which is majority-owned by SCBX, acts as financial advisor of the LH Hotel Leasehold Real Estate Investment Trust. Any opinions, news, research, analyses, prices, statements, forecasts, projections and/or other information contained in this document (the "Information") is provided as general information purposes only and shall not be construed as individualized recommendation of an offer to buy or sell or the solicitation of an offer to buy or sell any securities. INVX and/or its directors, officers and employees shall not be liable for any direct, indirect, incidental, special or consequential loss or damage, resulting from the use of or reliance on the Information, including without limitation to, damages for loss of profits. The investors shall use the Information in association with other information and opinion, including their own judgment in making investment decision. The Information is obtained from sources believed to be reliable, and INVX cannot guarantee the accuracy, completeness and/or correctness of the Information.

INVX reserves the right to modify the Information from time to time without notice and in its sole discretion. This document is delivered to intended recipient(s) only and is not permitted to reproduce, retransmit, disseminate, sell, distribute, republish, circulate or commercially exploit the Information in any manner without the prior written consent of INVX.

Futures and Options trading carry a high level of risk with the potential for substantial losses, and are not suitable for all persons. Before deciding to trade Futures and Options, you should carefully consider your financial position, investment objectives, level of experience, and risk appetite if Futures and Options trading are appropriate. The possibility exists that you could sustain a loss of some or all of your initial investment. You should be aware of all the risks associated with Futures and Options trading, and you are advised to rely on your own judgment while making investment decision and/or should seek advice from professional investment advisor if you have any doubts.

This document is delivered to intended recipient(s) only and is not permitted to reproduce, retransmit, disseminate, sell, distribute, republish, circulate or commercially exploit the Information in any manner without the prior written consent of INVX.

© Copyright 2022 InnovestX Securities Co., Ltd. All right reserved.

CG Rating 2023 Companies with CG Rating**Companies with Excellent CG Scoring**

7UP, AAV, ABM, ACE, ACG, ADB, ADD, ADVANC, AEONTS, AF, AGE, AH, AHC, AIRA, AIT, AJ, AKP, AKR, ALLA, ALT, AMA, AMARIN, AMATA, AMATAV, ANAN, AOT, AP, APCO, APCS, ARIP, ARROW, ASEFA, ASK, ASP, ASW, ATP30, AUCT, AWC, AYUD, B, BA, BAFS, BAM, BANPU, BAY, BBGI, BBIK, BBL, BC, BCH, BCP, BCPG, BDMS, BEC, BEM, BEYOND, BGC, BGRIM, BH, BIZ, BJC, BJCHI, BKI, BLA, BOL, BPP, BRI, BROOK, BRR, BTS, BTW, BWG, BYD, CBG, CENTEL, CFRESH, CHASE, CHEWA, CHG, CHOW, CIMBT, CIVIL, CK, CKP, CM, CNT, COLOR, COM7, COTTO, CPALL, CPAXT, CPF, CPI, CPL, CPN, CPW, CRC, CRD, CSC, CSS, CV, DCC, DDD, DELTA, DEMCO, DMT, DOHOME, DRT, DUSIT, EA, EASTW, ECF, ECL, EE, EGCO, EPG, ERW, ETC, ETE, FE, FLOYD, FN, FPI, FPT, FSX, FVC, GBX, GC, GCAP, GENCO, GFPT, GGC, GLAND, GLOBAL, GPSC, GRAMMY, GULF, GUNKUL, HANA, HARN, HENG, HMPRO, HPT, HTC, ICC, ICHI, ICN, III, ILINK, ILM, IMH, IND, INET, INTUCH, IP, IRC, IRPC, ITC, ITCL, IVL, JAS, JTS, KBANK, KCC, KCE, KEX, KKP, KSL, KTB, KTC, KTMS, KUMWEL, KUN, LALIN, LANNA, LH, LHFG, LIT, LOXLEY, LPN, LRH, LST, M, MAJOR, MALEE, MATCH, MBK, MC, M-CHAI, MCOT, MEGA, MFC, MFEC, MILL, MINT, MONO, MOONG, MSC, MST, MTC, MTI, NC, NCH, NCL, NDR, NER, NKI, NOBLE, NRF, NTV, NVD, NWR, NYT, OCC, OISHI¹, ONEE, OR, ORI, OSP, OTO, PAP, PATO, PB, PCSGH, PDG, PDJ, PG, PHOL, PIMO, PJW, PLANB, PLAT, PLUS, PM, POLY, PORT, PPP, PPS, PR9, PRG, PRINC, PRM, PRTR, PSH, PSL, PT, PTC, PTT, PTTER, PTGTC, Q-CON, QH, QTC, RATCH, RBF, RPH, RS, RT, S, S&J, SA, SABINA, SAK, SAMART, SAMTEL, SAPPE, SAT, SBNEXT, SC, SCB, SCC, SCCC, SCG, SCGP, SCM, SDC, SEAFCO, SEAOL, SECURE, SELIC, SENA, SENX, SFP², SFT, SGC, SGF, SGP, SHR, SICT, SIRI, SIS, SITHAI, SJWD, SKR, SM, SMPC, SMT, SNC, SNNP, SNP, SO, SPALI, SPC, SPCG, SPI, SPRC, SR, SSC, SSF, SSSC, STA, STC, STEC, STGT, STI, SUC, SUN, SUSCO, SUTHA, SVI, SVT, SYMC, SYNEX, SYNTec, TACC, TAE, TCAP, TCMC, TEAMG, TEGH, TFG, TFMAMA, TGE, TGH, THANA, THANI, THCOM, THIP, THRE, THREL, TIDLOR, TIPH, TISCO, TK, TKN, TKS, TKT, TLI, TM, TMC, TMD, TMT, TNDT, TNITY, TNL, TNR, TOA, TOG, TOP, TPBI, TPCC, TPIPL, TPIPP, TPS, TQM, TQR, TRT, TRUE, TRV, TSC, TSTE, TSTH, TTA, TTB, TTCL, TTW, TURTLE, TVDH, TVH, TVO, TVT, TWPC, UAC, UBE, UBIS, UKEM, UP, UPF, UPOIC, UV, VCOM, VGI, VIBHA, VIH, VL, WACOAL, WGE, WHA, WHAUP, WICE, WINMED, WINNER, XPG, YUASA, ZEN

Companies with Very Good CG Scoring

2S, A5, AAI, AIE, ALUCON, AMR, APURE, ARIN, AS, ASIA, ASIAN, ASIMAR, ASN, AURA, BR, BSBM, BTG, CEN, CGH, CH, CHIC, CI, CIG, CMC, COMAN, CSP, DOD, DPAINT, DV8, EFORL, EKH, ESSO, ESTAR, EVER, FORTH, FSMART, FTI, GEL, GPI, HEALTH, HUMAN, IFS, INSET, IT, J, JCKH, JDF, JKN, JMART, JUBILE, K, KCAR, KGI, KIAT, KISS, KK, KTIS, KWM, LDC, LEO, LHK, MACO, METCO, MICRO, MK, MVP, NCAP, NOVA, NTSC, PACO, PIN, PQS, PREB, PRI, PRIME, PROEN, PROS, PROUD, PSTC, PTECH, PYLON, RCL, SALEE, SANKO, SCI, SCN, SE, SE-ED, SFLEX, SINGER, SKN, SONIC, SORKON, SPVI, SSP, SST, STANLY, STP, SUPER, SVOA, SWC, TCC, TEKA, TFM, TMILL, TNP, TPLAS, TPOLY, TRC, TRU, TRUBB, TSE, VRANDA, WAVE, WFX, WIJK, WIN, WP, XO

Companies with Good CG Scoring

24CS, AMANAH, AMARC, AMC, APP, ASAP, BCT, BE8, BIG, BIOTEC, BLESS, BSM, BVG, CAZ, CCET, CHARAN, CHAYO, CHOTI, CITY, CMAN, CMR, CRANE, CWT, DHOUSE, DTCENT, EASON, FNS, FTE, GIFT, GJS, GTB, GTV, GYT, HL, HTECH, HYDRO, IIG, INGRS, INSURE, IRCP, ITD, ITNS, JCK, JMT, JR, JSP, KBS, KGEN, KJL, L&E, LEE, MASTER, MBAX, MEB, MENA, META, MGT, MITSIB, MJD, MOSHI, MUD, NATION, NNCL, NPK, NSL, NV, OGC, PAF, PCC, PEACE, PICO, PK, PL, PLANET, PLE, PMTA, PPM, PRAKIT, PRAPAT, PRECHA, PRIN, PSG, RABBIT, READY, RJH, RSP, RWI, S11, SAAM, SAF, SAMCO, SAWAD, SCAP, SCP, SIAM, SKE, SKY, SMART, SMD, SMIT, SOLAR, SPA, STECH, STPI, SVR, TC, TCCC³, TEAM, TFI, TIGER, TITL, TKC, TMI, TNH, TPA, TPAC, TRITN, UBA, UMI, UMS, UTP, VARO, VPO, W, WARRIX, WORK, WPH, YONG, ZIGA

Corporate Governance Report

The material contained in this publication is for general information only and is not intended as advice on any of the matters discussed herein. Readers and others should perform their own independent analysis as to the accuracy or completeness or legality of such information. The Thai Institute of Directors, its officers, the authors and editor make no representation or warranty as to the accuracy, completeness or legality of any of the information contained herein. By accepting this document, each recipient agrees that the Thai Institute of Directors Association, its officers, the authors and editor shall not have any liability for any information contained in, or for any omission from, this publication.

The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey result may be changed after that date. InnovestX Securities Company Limited does not conform nor certify the accuracy of such survey result.

To recognize well performers, the list of companies attaining "Good", "Very Good" and "Excellent" levels of recognition (Not including listed companies qualified in the "no announcement of the results" clause from 1 January 2022 to 31 October 2023) is publicized.

¹OISHI was voluntarily delisted from the Stock Exchange of Thailand, effectively on September 6, 2023

²SFP was voluntarily delisted from the Stock Exchange of Thailand, effectively on July 19, 2023

³TCCC was voluntarily delisted from the Stock Exchange of Thailand effectively on August 25, 2023

Anti-corruption Progress Indicator**Certified (ได้สัมฤทธิ์ผล)**

2S, 7UP, AAI, ADVANC, AF, AH, AI, AIE, AIRA, AJ, AKP, AMA, AMANAH, AMATA, AMATAV, AP, APCS, AS, ASIAN, ASK, ASP, AWC, AYUD, B, BAFS, BAM, BANPU, BAY, BBGI, BBL, BCH, BCP, BCPG, BE8, BEC, BEYOND, BGC, BGRIM, BKI, BLA, BPP, BROOK, BRR, BSBM, BTS, BWG, CEN, CENTEL, CFRESH, CGH, CHEWA, CHOTI, CHOW, CIG, CIMBT, CM, CMC, COM7, COTTO, CPALL, CPAXT, CPF, CPI, CPL, CPN, CPW, CRC, CSC, DCC, DELTA, DEMCO, DIMET, DOHOME, DRT, DUSIT, EA, EASTW, ECF, EGCO, EP, EPG, ERW, ESTAR, ETC, ETE, FNS, FPI, FPT, FSMART, FTE, GBX, GC, GCAP, GEL, GFPT, GGC, GJS, GPI, GPSC, GSTEEL, GULF, GUNKUL, HANA, HARN, HENG, HMPRO, HTC, ICC, ICHI, IFS, III, ILINK, ILM, INET, INOX, INSURE, INTUCH, IRPC, ITCL, IVL, JAS, JKN, JR, JTS, KASET, KBANK, KBS, KCAR, KCC, KCE, KGEN, KGI, KKP, KSL, KTB, KTC, L&E, LANNA, LHFG, LHK, LPN, LRH, M, MAJOR, MALEE, MATCH, MBAX, MBK, MC, MCOT, META, MFC, MFEC, MILL, MINT, MONO, MOONG, MSC, MST, MTC, MTI, NATION, NCAP, NEP, NKI, NOBLE, NRF, NWR, OCC, OGC, OR, ORI, PAP, PATO, PB, PCSGH, PDG, PDJ, PG, PHOL, PIMO, PK, PL, PLANB, PLANET, PLAT, PM, PPP, PPPM, PPS, PR9, PREB, PRG, PRINC, PRM, PROS, PSH, PSL, PSTC, PT, PTECH, PTG, PTT, PTTER, PTGTC, PYLON, Q-CON, QH, QLT, QTC, RABBIT, RATCH, RML, RS, RWI, S&J, SAAM, SABINA, SAK, SAPPE, SAT, SC, SCC, SCCC, SCG, SCGP, SCM, SCN, SEAOL, SE-ED, SELIC, SENA, SGC, SGP, SIRI, SITHAI, SKR, SMIT, SMK, SMPC, SNC, SNP, SORKON, SPACK, SPALI, SPC, SPI, SPRC, SRICHA, SSF, SSP, SSSC, SST, STA, STGT, STOWER, SUSCO, SVI, SYMC, SYNTec, TAE, TAKUNI, TASCO, TCAP, TCMC, TFG, TFI, TFMAMA, TGE, TGH, THANI, THCOM, THIP, THRE, THREL, TIDLOR, TIPCO, TISCO, TKS, TKT, TMD, TMILL, TMI, TNITY, TNL, TNP, TNR, TOG, TOP, TOPP, TPA, TPCC, TRT, TRU, TSC, TSI, TSTE, TSTH, TTA, TTB, TTCL, TU, TVDH, TVO, TWPC, UBE, UBIS, UEC, UKEM, UOBKH, UV, VCOM, VGI, VIH, WACOAL, WHA, WHAUP, WICE, WIJK, XO, YUASA, ZEN, ZIGA

Declared (ได้ประกาศเจตจำนง)

ACE, ADB, ALT, AMC, ASW, BLAND, BTG, BYD, CAZ, CBG, CV, DEXON, DMT, EKH, FSX, GLOBAL, GREEN, ICN, IHL, ITC, J, JMART, JMT, LEO, LH, MENA, MITSIB, MODERN, NER, NEX, OSP, OTO, PLUS, POLY, PQS, PRIME, PROEN, PRTR, RBF, RT, SA, SANKO, SCB, SENX, SFLEX, SIS, SKE, SM, SVOA, TBN, TEGH, TIPH, TKN, TPAC, TPLAS, TQM, TRUE, W, WPH, XPG

N/A

24CS, 3K-BAT, A, A5, AAV, ABM, ACAP, ACC, ACG, ADD, AEONTS, AFC, AGE, AHC, AIT, AJA, AKR, AKS, ALL, ALLA, ALPHAX, ALUCON, AMARC, AMARIN, AMR, ANAN, ANI, AOT, APCO, APEX, APP, APURE, AQUA, ARIN, ARIP, ARROW, ASAP, ASEFA, ASIA, ASIMAR, ASN, ATP30, AU, AUCT, AURA, B52, BA, BBIK, BC, BCT, BDMS, BEAUTY, BEM, BGT, BH, BIG, BIOTEC, BIS, BIZ, BJC, BJCHI, BKD, BLC, BLESS, BLISS, BM, BOL, BR, BRI, BROCK, BSM, BSRC, BTNC, BTW, BUI, BVG, CCET, CCP, CEYE, CGD, CH, CHARAN, CHASE, CHAYO, CHG, CHIC, CHO, CI, CITY, CIVIL, CK, CKP, CMAN, CMO, CMR, CNT, COCOCO, COLOR, COMAN, CPANEL, CPH, CPR, CPT, CRANE, CSD, CSR, CSS, CTW, CWT, D, DCON, DDD, DHOUSE, DITTO, DOD, DPAINT, DTCENT, DTCI, DV8, EASON, ECL, EE, EFORL, EMC, ETL, EVER, F&D, FANCY, FE, FLOYD, FMT, FN, FORTH, FTI, FVC, GABLE, GENCO, GFC, GIFT, GL, GLAND, GLOCON, GLORY, GRAMMY, GRAND, GSC, GTB, GTV, GYT, HEALTH, HFT, HL, HPT, HTECH, HUMAN, HYDRO, I2, IFEC, IIG, IMH, IND, INGRS, INSET, IP, IRC, IRCP, IT, ITD, ITNS, ITTHI, JAK, JCK, JCKH, JCT, JDF, JPARK, JSP, JUBILE, K, KAMART, KC, KCG, KCM, KDH, KEX, KIAT, KISS, KJL, KK, KKC, KLINIQ, KOOL, KTIS, KTMS, KUMWEL, KUN, KWC, KWI, KWM, KYE, LALIN, LDC, LEE, LIT, LOXLEY, LPH, LST, MACO, MANRIN, MASTER, MATI, MAX, MCA, M-CHAI, MCS, MDX, MEB, MEGA, METCO, MGC, MGI, MGT, MICRO, MIDA, MJD, MK, ML, MORE, MOSHI, MTW, MUD, MVP, NAM, NC, NCH, NCL, NDR, NETBAY, NEW, NEWS, NFC, NNCL, NOK, NOVA, NPK, NSL, NTSC, NTV, NUSA, NV, NVD, NYT, ONEE, ORN, PACE, PACO, PAF, PCC, PEACE, PERM, PF, PHG, PICO, PIN, PJW, PLE, PLT, PMTA, POLAR, POMPU, PORT, POST, PPM, PRAKIT, PRAPAT, PRECHA, PRI, PRIN, PRO, PROUD, PSG, PSP, PTC, PTL, RAM, RCL, READY, RICHY, RJH, ROCK, ROH, ROJNA, RP, RPT, RPH, RSP, S, S11, SABUY, SAF, SAFARI, SAFE, SALEE, SAM, SAMART, SAMCO, SAMTEL, SAUCE, SAV, SAWAD, SAWANG, SBNEXT, SCAP, SCI, SCL, SCP, SDC, SE, SEAFCO, SECURE, SFT, SGF, SHANG, SHR, SIAM, SICT, SIMAT, SINGER, SINO, SISB, SJWD, SK, SKN, SKY, SLM, SLP, SMART, SMD, SMT, SNNP, SO, SOLAR, SONIC, SPA, SPCG, SPG, SPVI, SQ, SR, SRS, SSC, SSS, STANLY, STARK, STC, STEC, STECH, STHAI, STI, STP, STPI, SUC, SUN, SUPER, SUTHA, SVR, SVT, SWC, SYNEX, TACC, TAN, TAPAC, TC, TCC, TCJ, TCOAT, TEAM, TEAMG, TEKA, TFM, TGPRO, TH, THAI, THANA, THE, THG, THMUI, TIGER, TITL, TK, TKC, TLI, TM, TMC, TMI, TMW, TNDT, TNH, TNPC, TOA, TPBI, TPCH, TPIPL, TPIPP, TPL, TPOLY, TPP, TPS, TQR, TR, TRC, TRITN, TRP, TRUBB, TRV, TSE, TTI, TTT, TTW, TURTLE, TVH, TVT, TWP, TWZ, TYCN, UAC, UBA, UMI, UMS, UNIQ, UP, UPF, UPOIC, UREKA, UTP, UVAN, VARO, VIBHA, VL, VNG, VPO, VRANDA, WARRIX, WAVE, WFX, WGE, WIN, WINDOW, WINMED, WINNER, WORK, WORLD, WP, YGG, YONG, ZAA

Explanations

Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of November 1, 2023) are categorised into: companies that have declared their intention to join CAC, and companies certified by CAC.