

Thailand Energy Sector

Assessing Thailand's energy security

Sector Valuation		Current price	Target price	Market Cap	Norm EPS grw		— Norm PE —		— P/BV —		— Div. yield —		
Company	BBG Code				Rec.	(Bt)	(Bt)	2021F	2022F	2021F	2022F	2021F	2022F
Banpu Pcl	BANPU TB	BUY	12.40	20.00	1,860	na	21.5	7.8	6.4	1.1	1.0	4.8	6.2
PTT Pcl	PTT TB	BUY	39.00	50.00	32,928	182.0	5.2	10.4	9.9	1.2	1.1	4.8	5.1
Energy Absolute Pcl	EA TB	BUY	61.25	95.00	6,753	15.3	32.6	38.7	29.1	7.1	6.0	0.8	1.0
Stark Corporation Pcl	STARK TB	BUY	5.00	5.00	1,760	57.5	39.3	46.0	33.0	15.9	12.5	1.1	1.5

Source: Thanachart estimates, Based on 30 September 2021 closing prices

We take a look at Thailand's energy security. While the near-term risk looks limited, we see long-term challenges from natural gas supplies. We recommend BANPU and PTT as plays on this theme. For utilities and related names, we recommend EA and STARK.

Long-term gas supplies pose big challenges

While energy supply looks secured for Thailand in the near term, we see growing risks from its heavy reliance on natural gas and the need to import significantly more LNG to replace depleting domestic supply. By 2037F, imported LNG could account for nearly 70% of Thailand's gas supply compared to just 17% in 2021F. We believe this change will favor PTT and upstream producers such as BANPU. At the same time, growing renewable portfolios and the trend towards smart grids may create opportunities for EA and STARK.

Increased efficiency and more renewable energy

Two ways Thailand is tackling its gas dependency are via improving the efficiency of its generating fleet and increasing the portion of renewable energy in the mix. The country is one of the most aggressive when it comes to replacing old power plants. This helps improve energy efficiency as newer-generation gas turbines are much more efficient than older ones. Thailand is also planning to significantly expand its renewable energy portfolio. This could bring the proportion of renewable energy to as much as 50% 16 years from now.

The old-guard picks: BANPU and PTT

Among the traditional energy names, we believe BANPU and PTT are well placed to benefit from tighter energy supplies globally. BANPU has extensive footprints in both coal and gas and will likely enjoy significant earnings growth in 2022-23F. For PTT, we believe its role in securing energy for Thailand will be strengthened, not weakened, by the upcoming challenges. While it will no longer be the sole gas supplier, we believe the vast majority of natural gas that Thailand will consume will be supplied by PTT. We also believe PTT will continue to enjoy strong earnings from gas infrastructure (LNG terminals, pipelines).

The up-and-comers: EA and STARK

We see EA as the key beneficiary of the upcoming PDP-2022, having exposure to both renewable energy and energy storage which are likely to be the two key focuses of the plan. We also like STARK, the largest electrical wires and cables power industry player in ASEAN, as it stands to benefit from investments by the Thai and Vietnamese governments to expand and upgrade their electricity transmission systems.



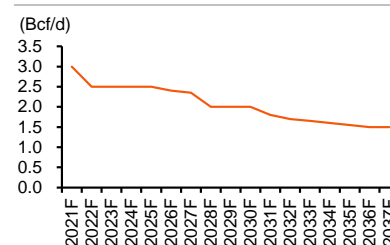
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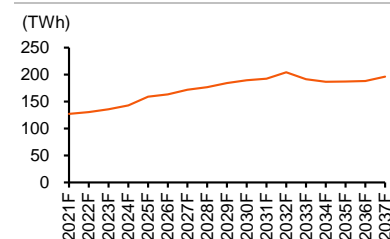
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Domestic Gas Production



Sources: PDP2018 rev.1; Thanachart estimates

Gas-fired Generation



Sources: PDP2018 rev.1; Thanachart estimates

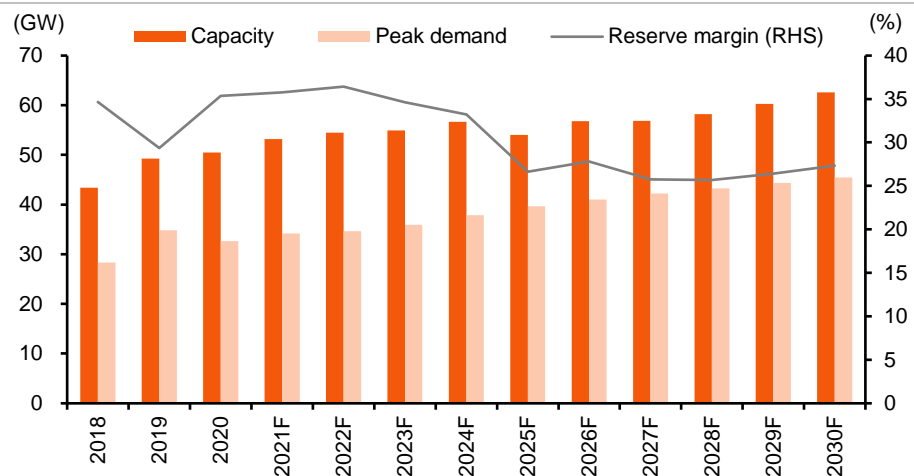
Ample electricity supply near term

Thailand has plenty of electricity reserve capacity...

...but fuel supply could become an issue

We believe Thailand's electricity supply remains ample in the medium term. The country's electricity reserve margin is high at 36%, based on total electricity generation capacity of 53.2GW, vs. peak electricity demand at 34.2GW in April this year. Even if we were to exclude generation capacity from renewable sources (solar, wind and small hydro) as these tend to be less reliable, Thailand's electricity generation capacity still looks to be ample at 44.5GW, providing a 23% reserve margin. Looking forward, we project the reserve margin to decline only slightly since there is a net-addition of 3.4GW capacity from new power plants scheduled to come online by 2024, implying 2.1% annual capacity growth over the next three years compared to forecasted demand growth of 3-4% p.a. during the same period. We expect a sharp drop to a 27% reserve margin in 2025F because of the expiry of 3.5GW of power plant facilities. Note that these numbers have yet to include generation capacity from captive power plants under B2B contracts. Those private power plants increase electricity generation capacity for the country but divert away demand from the main grid, so the reserve margin is likely to remain high for the central system.

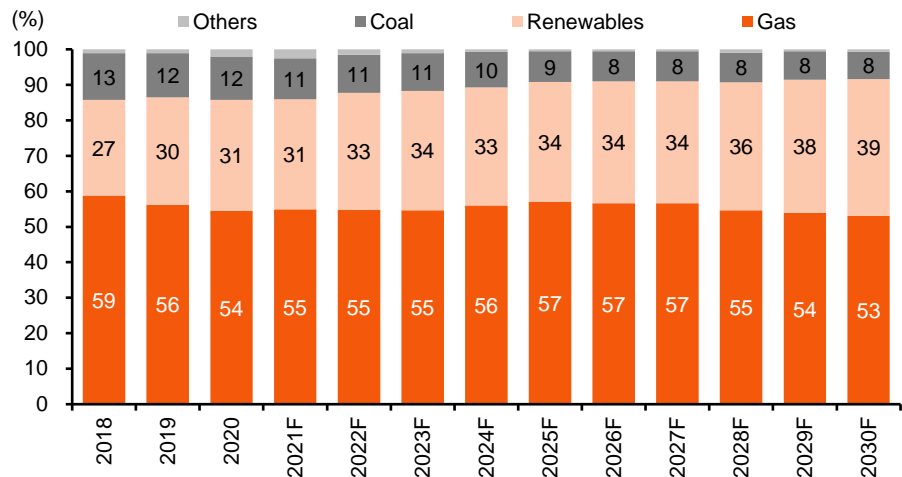
Ex 1: Thailand's Electricity Capacity Still Has Plenty Of Reserves



Sources: PDP2018 rev.1, Thanachart estimates

While we see limited risks to electricity supply from a capacity standpoint, we foresee the risk emerging in the medium term from natural gas supplies. Thailand has always been highly reliant on natural gas for electricity generation with the fuel accounting for as much as 70% of total generation 10 years ago. Even with significant growth in renewable energy in the past five years, gas-fired power still makes up over 50% of total supply. This portion is likely to remain at the current level in the next 10 years if the country were to control its CO2 emissions and still maintain a reliable electrical grid. And therein lies the problem: Natural gas production is dwindling in Thailand, and future supply will have to come from imports.

Ex 2: Heavy Reliance On Natural Gas Unlikely To Change Despite Growth In Renewables



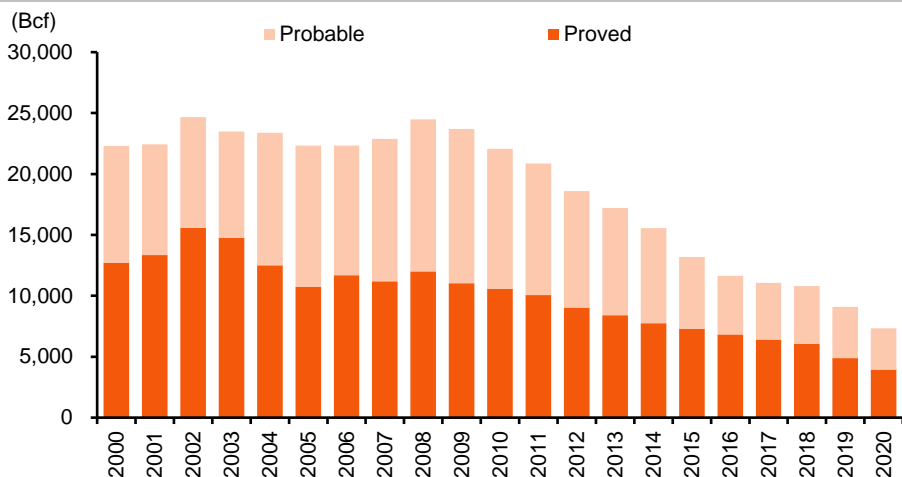
Sources: PDP2018 rev.1, Thanachart estimates

Dwindling local gas reserves

Thailand's gas reserves have been dwindling after 40 years of production

Thailand's natural gas reserves have been on the decline for the past 10 years. Proved and probable reserves (together called "2P reserves") have fallen from a plateau of about 23,000 Bcf in 2000-2010 to only about 8,000 Bcf in 2020. This is equivalent to less than seven years of production at the current rate. We do not expect the significant ramp-up in E&P spending to help either given that the reserves are well developed and there have been no major gas finds in the past decade.

Ex 3: Thailand's Natural Gas Reserves Have Been Declining



Sources: DMF

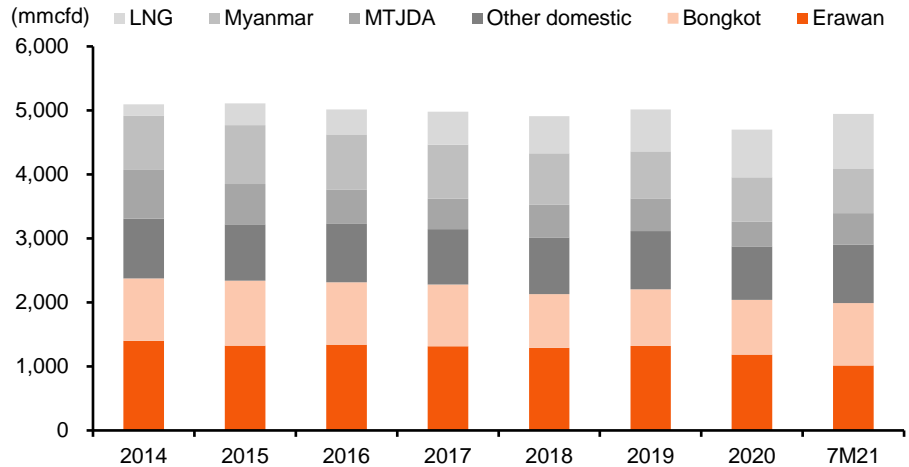
Note: Probable reserve figure for 2020 is not yet available; in the chart above we assume it declined in proportion to proved reserves.

Thailand's domestic gas production could fall by 40% in the next 10 years

The declining reserves have led to a gradual but noticeable drop in domestic gas production. Local output, including that of the Malaysia-Thai Joint Development Area (MTJDA), has fallen from a peak of about 4,100 mmcf in 2014 to 3,400 mmcf in 2021-to-date. Production is likely to decline further in 2022F and beyond due to lower contractual volume from Erawan and Bongkot. The government forecasts local gas production to fall to less than 2,000 mmcf by 2032.

At the same time, gas supply from Myanmar, which was more than 900 mmcf (18% of supplies) in 2015 has fallen to less than 700 mmcf (14% of supply) YTD. We do not expect any major gas project in Myanmar to be able to supply Thailand as the Myanmar government wants its supply to serve domestic needs. For instance, PTTEP is developing the M3 gas field in the Gulf of Mottama and we expect the output to serve gas-fired power plants in Myanmar.

Ex 4: Thailand's Natural Gas Supply



Sources: EPPO

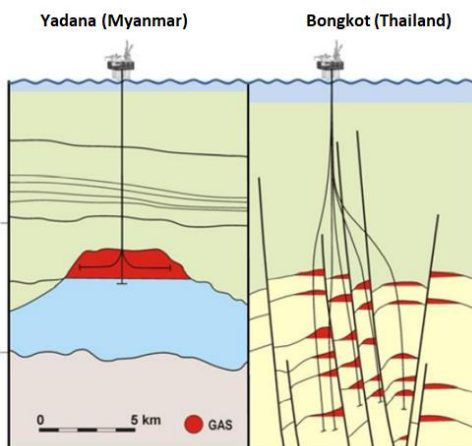
Note: Bongkot includes both Bongkot and Bongkot South fields

A hiccup from Erawan handover

Erawan handover could temporarily disrupt domestic gas supply

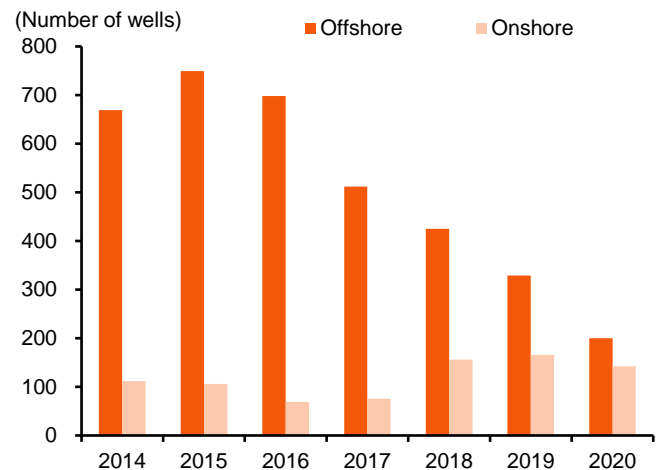
We believe the biggest near-term risk for Thailand gas supply is the transition from old concessionaires to new operators for the Erawan and Bongkot gas fields. Together, these gas fields account for more than half of Thailand's indigenous gas production. The changeover at Bongkot is likely to be less problematic as PTTEP will remain the operator. The transition could be trickier for Erawan as it requires Chevron to hand over operations to PTTEP come April 2022. Further complicating the matter is the dispute between Chevron and the Thai government on decommissioning costs. This means PTTEP will not be able to enter the site until the old concession expires and new contract kicks in.

Ex 5: Reservoir Schematics



Sources: DMF

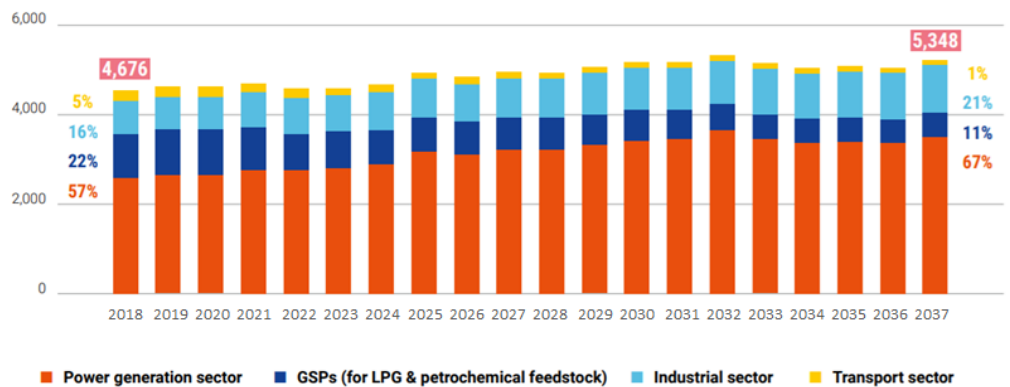
Ex 6: Number Of Production Wells Drilled In Thailand



Sources: DMF

The expiry of old concessions and the change in operatorship for Erawan has led to noticeable reduction in E&P activities in Thailand in the past four years. The number of offshore production wells (where these fields are located) has declined from about 700 in 2014-16 to just 200 wells in 2020. This is problematic for Thailand as gas reserves here are trapped in small pockets and require constant new drilling just to sustain production. With the significantly lower number of wells drilled in the past few years, production could see a big decline in 2022-23F. PTTEP expects production at Erawan to reach only 500 mmcf/d once it takes over. This is well below the 800 mmcf/d target. Still, PTTEP has plans to ramp up production from other fields including Arthit and Bongkot. Together, it expects these fields to add another 200-250 mmcf/d which would help to cushion shortfalls at Erawan.

Ex 7: Thailand's Projected Gas Demand By Sector



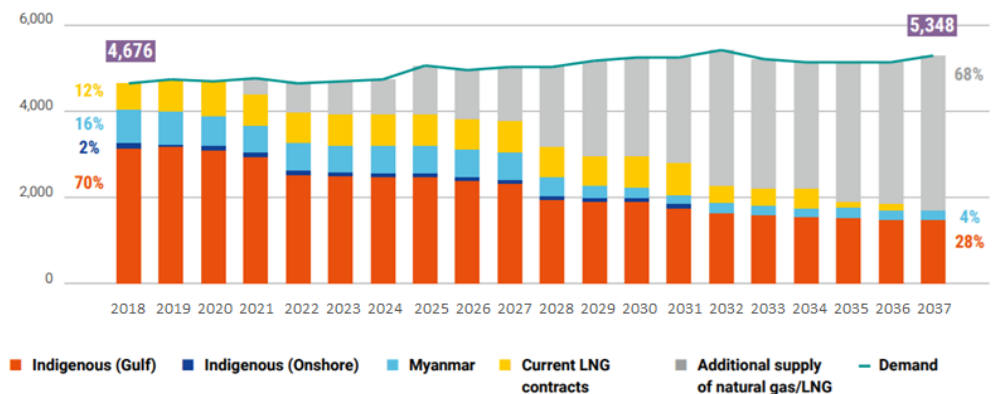
Sources: Gas Plan 2018

Increasing reliance on LNG imports

Imported LNG could make up 68% of total gas supply by 2037F

Going forward, Thailand's electricity security looks set to rely largely on the country's ability to secure gas imports. In 2021, LNG imports will likely make up just 17% of total supplies. By 2037, they could make up as much as 68% of the total. This is equivalent to 3,600 mmcf/d or 27m tpa of LNG. If Thailand were to secure LNG supply and still be able to control electricity price volatility, most of this supply will have to come in the form of long-term contracts, either traditional oil-linked pricing or Henry Hub-linked pricing.

Ex 8: Thailand Will Need To Import Significantly More LNG In The Next 15 Years



Sources: Gas Plan 2018

So far, PTT has been the sole LNG importer for Thailand. The company has signed long-term contracts for 5.2mtpa of LNG supply. Most of these contracts will expire by 2032. This means Thailand will have to sign many more long-term LNG contracts going forward. To alleviate pressure on PTT, the Energy Regulatory Commission (ERC) has granted seven LNG import licenses to private firms, totaling 4.9m tpa. These contracts will help Thailand widen its LNG supplies though none of the new licensees has yet to sign any long-term LNG supply deals.

Ex 9: PTT's Existing Long-Term LNG Contracts

Supplier	Volume	Duration
Qatar	2.0	2015-2035
Shell	1.0	2017-2032
BP	1.0	2017-2032
Petronas	1.2	2017-2032
Total	5.2	

Sources: Company data, Thanachart estimates

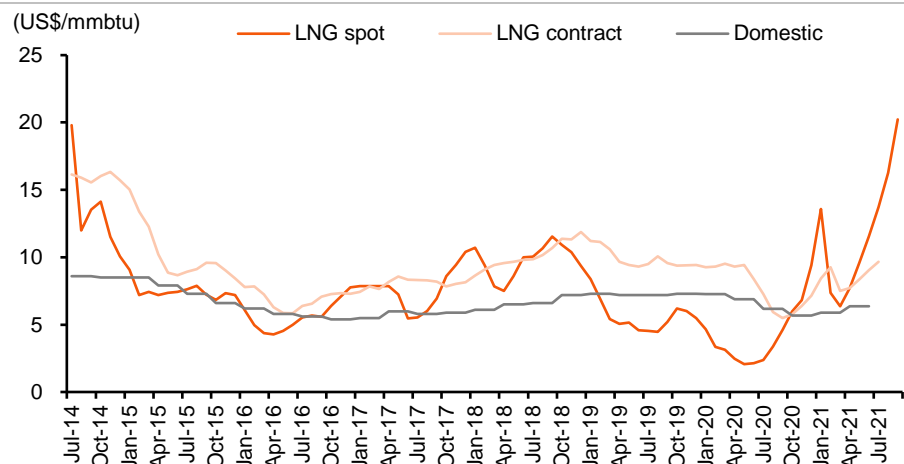
Ex 10: Power Companies' LNG Import Quotas

	(m tpa)
EGAT	1.8
GULF	0.3
HKH	1.4
BGRIM	1.2
EGCO	0.2
Total	4.9

Sources: Company data, Thanachart estimates

Exposure to global gas price volatility

Besides the challenge of procuring sufficient quantity of gas, Thailand could be exposed to higher gas price volatility than it is accustomed to. Domestic gas prices are typically tied to oil price and have always had relatively low volatility. In the past 7 years, Thailand's average domestic gas prices have fluctuated in a range of \$5.4-8.6/mmbtu. By contrast, contract LNG price (crude-oil linked) has been in the range of about \$5.5-16.3/mmbtu. The most extreme price volatility is observed in the LNG spot price which has seen a low of \$2.1/mmbtu and a high of over \$20/mmbtu. As such, with greater LNG import, we believe Thailand gas and electricity prices could fluctuate much more in the future.

Ex 11: Thailand Domestic Gas Prices Have Always Been More Stable Than LNG Prices

Sources: Bloomberg, PTT, Thanachart estimates

Note: LNG spot based on Japan-Korea Marker; LNG contract price based on Japan crude cocktail linked.

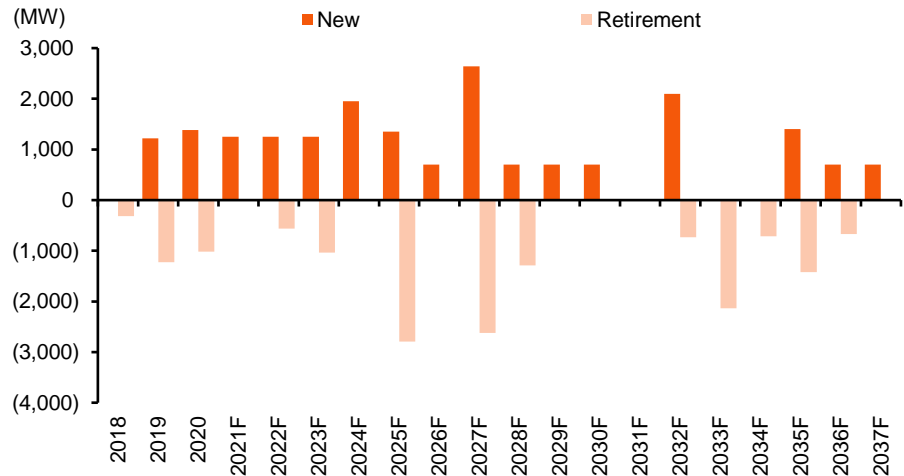
Thailand replaces old power plants at an aggressive rate...

...which helps increase efficiency

Increased efficiency

One measure Thailand is taking to reduce its natural gas consumption is to increase the efficiency of the generating fleet. From 2021 to 2037, Thailand plans to add about 17GW of new gas-fired capacity. However, the majority of the new plants will be just to replace existing ones as the country is retiring 14GW of gas-fired capacity over the same period. Most of these plants are retired at just 20-25 years. By comparison, gas-fired power plants are typically run until they are 40 years old or more in the US.

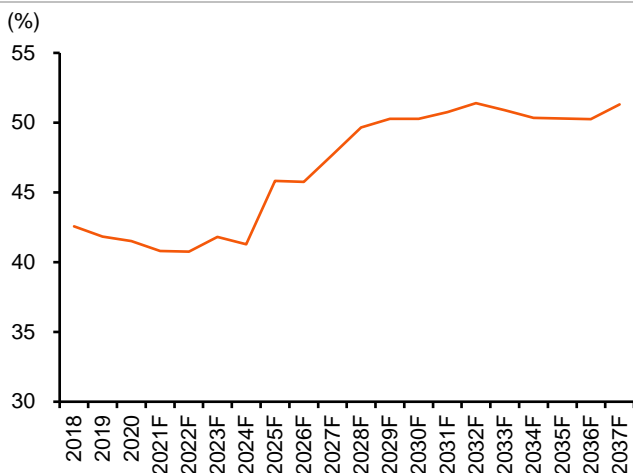
Ex 12: Thailand Is Aggressive In Replacing Old Gas-Fired Power Plants With New Ones



Sources: PDP2018 rev.1, Thanachart estimates

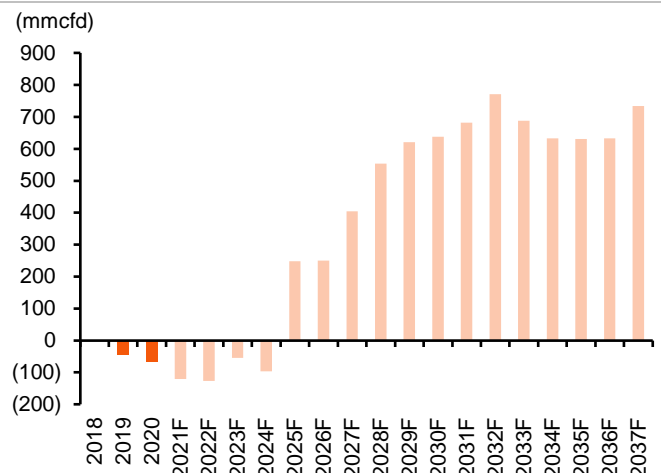
The replacement of old power plants with new ones will lead to significant improvements in overall fleet efficiency. New, large-scale combined-cycle gas-fired power plants can achieve thermal efficiency of 60% or more compared to just 40-45% for those aged 15 years or more. This means the country can save a huge amount of natural gas through efficiency improvement. We estimate that this saving will amount to as much as 700 mmcf/d of natural gas (equivalent to 13% of consumption) by 2037F.

Ex 13: Thailand's Gas-Fired Fleet Efficiency



Sources: PDP2018 rev.1, Thanachart estimates

Ex 14: Amount Of Gas Saved Due To Higher Efficiency



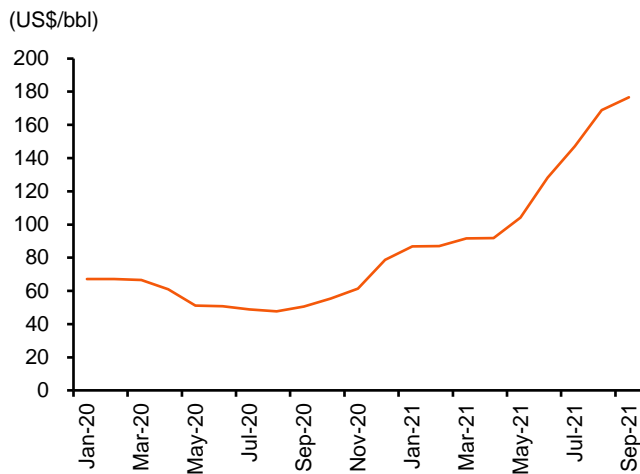
Sources: PDP2018 rev.1, Thanachart estimates

Old-guard beneficiaries: BANPU and PTT

Among the traditional energy names, we believe BANPU and PTT are well placed to benefit from the tighter energy supplies globally. BANPU has extensive footprints in both coal and gas and will likely enjoy significant earnings growth in 2022-23F. We have talked about BANPU extensively and recently upgraded our target price to Bt20. Even then, we see significant upside risks to our forecasts on higher coal and gas prices. See our note *BANPU – Winter wonderland*, dated 20 September 2021 for more details.

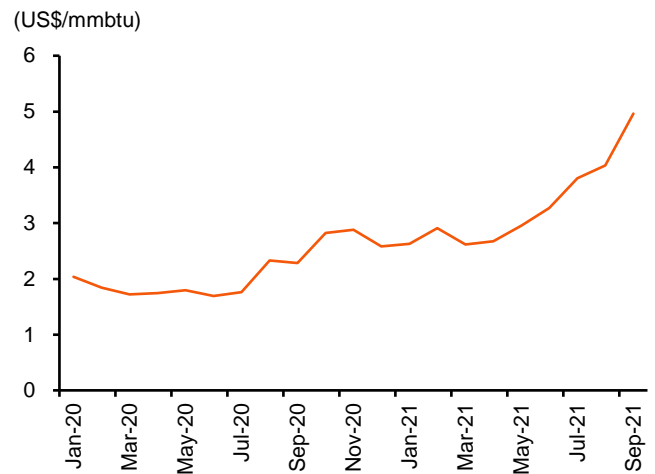
We believe the role of PTT in securing energy for Thailand will be strengthened, not weakened, by the upcoming challenges. While it will no longer be the sole gas supplier, we believe the vast majority of natural gas that Thailand will consume will be supplied by PTT. This is because sellers often require buyers with large enough demand portfolios and long-standing and good credit quality as LNG supply contracts often last 15 years or more. Except for EGAT and GULF, we believe most power companies in Thailand are not large enough to independently procure LNG via long-term contracts. This is reflected in the recent announcement of a joint venture between PTT and B Grimm Power Pcl (BGRIM TB, BUY, Bt41.00) to form an LNG-importing entity. We believe similar arrangements could be forthcoming with other potential customers. Regardless, we believe PTT will still enjoy earnings from LNG regassification plants as well as pipelines since it is so far the sole operator of these critical infrastructures. We discuss our bullish view on PTT in our recent note *PTT – Riding multiple tailwinds*, dated 9 September 2021.

Ex 15: NEX Coal Price



Sources: Company data, Thanachart estimates

Ex 16: Natural Gas Price At Henry Hub



Sources: Company data, Thanachart estimates

Renewable energy and infrastructure: EA and STARK

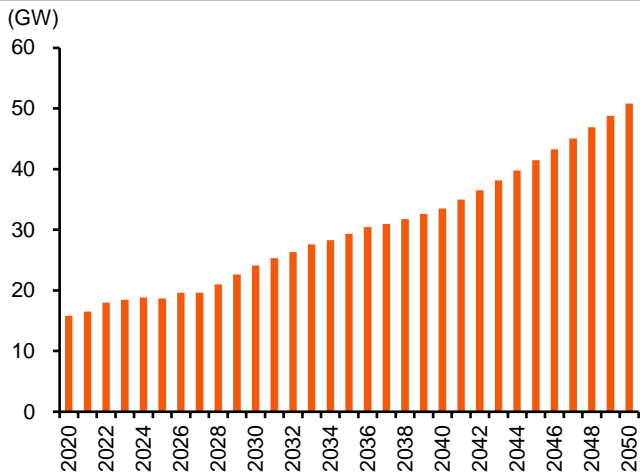
50% renewable capacity target by 2050 still looks challenging

We expect the upcoming Power Development Plan for Thailand (PDP-2022) to heavily focus on expanding renewable capacity for the country. One key conceptual framework of this new PDP (which has yet to be finalized) is to raise the renewable portion to as much as 50% of total electricity generation capacity by 2050 (from 28% in 2021) to align Thailand with its pledge to the Paris Agreement on carbon neutrality for climate change. According to demand forecast from the current PDP (2018, revision 1) at 78.6GW peak demand for the country in 2050, Thailand has to develop another 32GW of renewable capacity over the next 30 years (1.1GW per year) to meet the goal. This is likely to bring up the reserve margin even further, until contracted conventional plants gradually expire.

More infrastructure and technology are needed to grow renewables

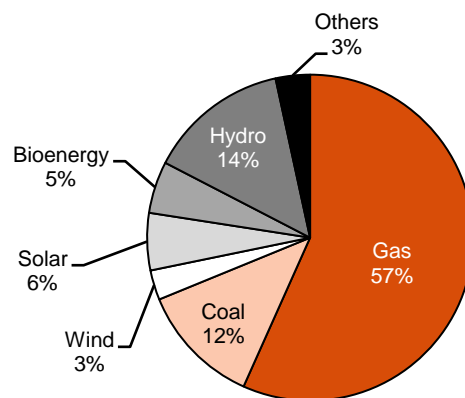
We anticipate Thailand to be able expand renewable capacity with ease, given the country's location right above the equator. The country has strong solar radiation throughout the year and wind power during six months of the monsoon season each year. However, as solar and wind power get larger as a portion of total generation capacity, we believe digital energy technology (smart grid applications, P2P electricity trading platform, and smart two-way metering) and infrastructure upgrades (energy storage systems, transmission line capacity and coverage) will become increasingly important. We believe the regulators will soon need to address these issues and provide frameworks for further development of smart grids if Thailand is to maintain its long-term energy security.

Ex 17: Renewable Capacity To Meet RE50@50 Target



Sources: ERC, Thanachart estimates

Ex 18: Sources Of Thai Electricity Generation (2021)



Sources: ERC, EGAT

We see Energy Absolute (EA) as the key beneficiary of the upcoming PDP-2022, having exposure to both the renewable and electric vehicle industries which are likely the two key focuses of the plan. EA has its own 1.0GWh Li-ion battery production plant and expertise in designing energy storage systems (ESS) to be equipped with growing renewable projects. EA is also the leader in the Thai EV industry, operating EV manufacturing plants using its self-produced Li-ion battery, with the capability to produce electric commercial vehicles (E-buses, E-trucks, and E-pickups) which are expected to lead EV penetration in Thailand.

For electricity infrastructure buildouts, we like STARK, the largest electricity wire and cable player in the power industry in ASEAN. We believe it will benefit from investments by the Thai and Vietnamese governments in expanding and upgrading their electricity transmission systems. These upgrades are needed for their national grids to cope with rising electricity demand and to be compatible with smart grid technology as well as peer-to-peer electricity trading platforms. See our recent note *STARK – Over the hiccup*, dated 6 September 2021 for more details.

Ex 19: Our Energy Sector Coverage

	Rating	Current	Target	Up/down	Market	Norm EPS grw		Norm PE		EV/EBITD		— P/BV		— Yield —		— ROE —		Net D/E	
		price	price	side		cap	21F	22F	21F	22F	21F	22F	21F	22F	21F	22F	21F	22F	21F
		(Bt)	(Bt)	(%)	(US\$ m)	(%)	(%)	(x)	(x)	(x)	(x)	(x)	(x)	(%)	(%)	(%)	(%)	(x)	(x)
BANPU	BUY	12.40	20.00	61.3	1,860	na	21.5	7.8	6.4	5.5	5.0	1.1	1.0	4.8	6.2	14.4	15.8	1.2	1.1
BCP	SELL	27.50	21.00	(23.6)	1,119	na	na	na	25.2	9.0	7.0	0.8	0.8	0.0	2.2	na	3.2	0.6	0.6
ESSO	SELL	8.20	6.90	(15.9)	839	na	na	na	150.3	37.8	21.5	2.1	2.1	0.0	0.3	na	1.4	2.2	1.9
IRPC	BUY	4.16	5.10	22.6	2,513	na	9.6	14.9	13.6	9.2	8.4	1.1	1.0	4.0	4.4	7.4	7.8	0.8	0.7
IVL	BUY	44.50	52.00	16.9	7,385	169.1	(0.9)	14.4	14.6	8.5	9.2	1.8	1.7	2.4	2.4	13.0	11.9	1.2	1.4
PTG	BUY	16.20	22.00	35.8	800	(3.6)	11.8	15.1	13.5	7.2	6.8	3.1	2.7	3.3	3.7	21.5	21.4	2.5	2.4
PTT	BUY	39.00	50.00	28.2	32,928	182.0	5.2	10.4	9.9	4.6	4.2	1.2	1.1	4.8	5.1	11.7	11.6	0.3	0.3
PTTEP	BUY	117.50	140.00	19.1	13,789	68.1	15.8	13.0	11.2	4.1	3.7	1.3	1.2	4.6	5.4	9.9	11.0	0.2	0.2
PTTGC	BUY	63.25	86.00	36.0	8,430	219.4	(1.2)	11.7	11.8	7.0	6.9	1.0	0.9	5.1	5.1	8.5	8.0	0.2	0.1
SPRC	SELL	9.85	7.20	(26.9)	1,262	na	na	na	127.9	23.0	17.0	1.4	1.4	0.0	0.3	na	1.1	0.1	0.0
SUSCO	BUY	3.18	4.80	50.9	103	3.0	23.4	14.9	12.1	6.3	5.1	0.9	0.8	3.4	4.1	5.9	7.1	0.3	0.2
TOP	SELL	52.25	48.00	(8.1)	3,151	na	6.1	26.5	25.0	17.5	18.2	0.9	0.9	1.7	1.8	3.4	3.6	1.0	1.2

Sources: Bloomberg, Company data, Thanachart estimates

Ex 20: Our Utilities Sector Coverage

	Rating	Current	Target	Up/down	Market	Norm EPS grw		Norm PE		EV/EBITD		— P/BV		— Yield —		— ROE —		Net D/E	
		price	price	side		cap	21F	22F	21F	22F	21F	22F	21F	22F	21F	22F	21F	22F	21F
		(Bt)	(Bt)	(%)	(US\$ m)	(%)	(%)	(x)	(x)	(x)	(x)	(x)	(x)	(%)	(%)	(%)	(%)	(x)	(x)
ACE	SELL	3.64	3.40	(6.6)	1,095	9.8	26.4	25.4	20.1	18.8	16.4	2.9	2.6	1.6	2.0	11.7	13.7	0.3	0.8
BCPG	SELL	13.70	13.50	(1.5)	1,098	(13.2)	3.3	19.8	19.2	17.1	17.5	1.7	1.6	2.3	2.3	9.2	8.5	0.7	1.0
BGRIM	BUY	41.00	54.00	31.7	3,159	8.0	25.3	37.1	29.6	13.6	13.0	3.7	3.4	1.3	1.7	10.2	12.0	1.9	2.2
BPP	BUY	17.70	22.50	27.1	1,595	10.2	12.4	14.7	13.1	211.0	158.8	1.3	1.2	4.1	4.6	8.8	9.5	0.2	0.2
CKP	BUY	5.40	7.50	38.9	1,298	418.6	8.2	21.5	19.9	19.2	18.6	1.7	1.7	1.9	2.5	8.3	8.5	0.5	0.5
EA	BUY	61.25	95.00	55.1	6,753	15.3	32.6	38.7	29.1	23.0	17.7	7.1	6.0	0.8	1.0	19.7	22.3	1.2	0.9
EGCO	BUY	174.00	320.00	83.9	2,708	17.9	11.1	8.6	7.7	17.9	15.9	0.8	0.8	4.0	4.3	10.1	10.5	0.7	0.5
GPSC	BUY	75.50	92.00	21.9	6,293	20.3	16.7	23.6	20.2	15.1	14.0	2.0	1.9	2.5	3.0	8.6	9.6	0.9	0.9
GULF	HOLD	41.50	40.00	(3.6)	14,393	88.0	37.4	55.4	40.3	40.8	32.2	7.2	6.7	1.1	1.5	13.4	17.3	2.6	2.7
GUNKUL	BUY	4.86	5.75	18.3	1,276	66.7	26.8	18.5	14.6	19.0	15.9	3.3	2.9	3.0	4.1	18.2	21.2	1.3	1.2
RATCH	BUY	45.25	76.00	68.0	1,939	25.2	2.8	9.6	9.3	17.5	16.1	1.0	1.0	5.7	6.4	11.0	10.8	0.5	0.5
TPCH	BUY	10.90	16.00	46.8	129	52.4	23.3	11.4	9.3	8.8	7.5	1.3	1.2	2.6	3.2	12.3	13.8	1.2	1.0
WHAUP	BUY	4.22	5.00	18.5	477	47.9	24.5	13.6	10.9	30.6	26.2	1.3	1.2	4.4	5.5	9.6	11.5	0.9	0.9
STARK	BUY	5.00	5.00	0.0	1,760	57.5	39.3	46.0	33.0	25.8	20.1	15.9	12.5	1.1	1.5	39.6	42.3	1.8	1.3

Sources: Bloomberg, Company data, Thanachart estimates

Ex 21: Energy Sector Valuation Comparison

		BANPU	BCP	ESSO	IRPC	IVL	PTG	PTT	PTTEP	PTTGC	SPRC	SUSCO	TOP	Industry
Rating		BUY	SELL	SELL	BUY	BUY	BUY	BUY	BUY	BUY	SELL	BUY	SELL	
Target price (Bt)	Thanachart	20.00	21.00	6.90	5.10	52.00	22.00	50.00	140.00	86.00	7.20	4.80	48.00	
	Consensus	13.30	31.50	7.70	4.20	55.00	22.00	48.00	139.00	74.00	10.40	3.90	55.00	
Consensus rec.	BUY	6	10	3	12	18	11	24	22	20	12	3	13	
	HOLD	4	4	1	10	4	1	3	6	7	4	0	6	
	SELL	4	1	4	3	0	0	0	1	1	3	0	8	
Sales (Bt m)	2020	71,332	136,450	126,672	174,463	331,513	104,666	1,615,665	160,401	329,291	130,163	16,673	247,913	3,445,201
	2021F	103,657	180,768	193,882	216,968	462,566	140,273	2,406,979	194,953	405,575	134,892	21,270	334,234	4,796,016
	2022F	111,621	202,438	195,433	217,647	479,115	151,626	2,517,573	221,410	412,951	144,439	25,030	347,136	5,026,420
	2023F	108,009	206,659	198,200	221,898	493,825	159,903	2,554,872	220,047	416,521	148,569	27,830	357,943	5,114,277
Norm profits (Bt m)	2020	(4,122)	(4,450)	(7,911)	(6,506)	6,433	1,857	38,053	21,397	7,634	(1,421)	218	(10,708)	40,472
	2021F	10,111	(77)	(896)	5,721	17,307	1,790	107,325	35,968	24,384	(269)	219	4,020	205,603
	2022F	13,044	1,502	189	6,271	17,156	2,001	112,935	41,656	24,098	334	264	4,267	223,715
	2023F	11,744	2,037	2,264	6,344	16,672	2,069	125,265	42,151	24,120	1,277	302	6,540	240,783
Sales growth (%)	2020	(16.8)	(28.4)	(25.2)	(27.1)	(6.0)	(13.0)	(27.2)	(16.0)	(20.2)	(22.9)	(40.4)	(31.9)	(22.9)
	2021F	45.3	32.5	53.1	24.4	39.5	34.0	49.0	21.5	23.2	3.6	27.6	34.8	32.4
	2022F	7.7	12.0	0.8	0.3	3.6	8.1	4.6	13.6	1.8	7.1	17.7	3.9	6.8
	2023F	(3.2)	2.1	1.4	2.0	3.1	5.5	1.5	(0.6)	0.9	2.9	11.2	3.1	2.5
Norm EPS growth (%)	2020	na	na	na	na	(46.4)	19.0	(51.0)	(56.2)	(6.5)	na	(42.6)	na	(30.6)
	2021F	na	na	na	na	169.1	(3.6)	182.0	68.1	219.4	na	3.0	na	106.3
	2022F	21.5	na	na	9.6	(0.9)	11.8	5.2	15.8	(1.2)	na	23.4	6.1	10.2
	2023F	(10.0)	35.6	1,098.7	1.2	(2.8)	3.4	10.9	1.2	0.1	282.3	14.5	53.3	124.0
Operating margin (%)	2020	(5.0)	(2.1)	(7.9)	(4.1)	3.0	2.9	4.3	27.7	1.8	(2.2)	1.3	(4.0)	1.3
	2021F	20.1	0.9	(0.5)	3.1	6.3	2.7	7.8	30.8	6.6	(0.6)	1.2	1.2	6.6
	2022F	22.9	1.7	0.1	3.5	6.0	2.6	8.1	32.9	6.1	(0.2)	1.3	1.5	7.2
	2023F	20.1	1.9	1.4	3.4	5.9	2.5	8.6	33.2	5.9	0.6	1.3	2.4	7.3
ROE (%)	2020	(6.7)	(9.1)	(43.4)	(8.2)	5.0	25.6	4.3	6.0	2.7	(4.8)	5.8	(9.1)	(2.7)
	2021F	14.4	(0.2)	(6.4)	7.4	13.0	21.5	11.7	9.9	8.5	(0.9)	5.9	3.4	7.3
	2022F	15.8	3.2	1.4	7.8	11.9	21.4	11.6	11.0	8.0	1.1	7.1	3.6	8.7
	2023F	13.1	4.3	15.7	7.7	10.7	19.9	12.1	10.6	7.8	4.0	7.8	5.3	9.9
Dividend yield (%)	2020	2.0	1.5	0.0	1.4	1.6	3.1	2.6	3.6	1.6	0.0	3.5	1.3	1.8
	2021F	4.8	0.0	0.0	4.0	2.4	3.3	4.8	4.6	5.1	0.0	3.4	1.7	2.9
	2022F	6.2	2.2	0.3	4.4	2.4	3.7	5.1	5.4	5.1	0.3	4.1	1.8	3.4
	2023F	5.6	3.0	4.0	5.2	2.3	3.8	5.6	5.4	5.1	1.2	4.7	2.8	4.1
P/BV (x)	2020	1.2	0.8	2.0	1.1	2.0	3.4	1.3	1.3	1.0	1.6	0.9	0.9	1.5
	2021F	1.1	0.8	2.1	1.1	1.8	3.1	1.2	1.3	1.0	1.4	0.9	0.9	1.4
	2022F	1.0	0.8	2.1	1.0	1.7	2.7	1.1	1.2	0.9	1.4	0.8	0.9	1.3
	2023F	0.9	0.8	1.9	1.0	1.6	2.5	1.0	1.1	0.9	1.3	0.8	0.9	1.2
Norm PE (x)	2020	na	na	na	na	38.8	14.6	29.3	21.8	37.4	na	15.3	na	26.2
	2021F	7.8	na	na	14.9	14.4	15.1	10.4	13.0	11.7	na	14.9	26.5	14.3
	2022F	6.4	25.2	150.3	13.6	14.6	13.5	9.9	11.2	11.8	127.9	12.1	25.0	35.1
	2023F	7.1	18.6	12.5	13.4	15.0	13.1	8.9	11.1	11.8	33.5	10.5	16.3	14.3
EV/EBITDA (x)	2020	21.5	19.8	na	75.4	14.2	6.0	6.9	4.2	14.2	na	6.0	na	18.7
	2021F	5.5	9.0	37.8	9.2	8.5	7.2	4.6	4.1	7.0	23.0	6.3	17.5	11.6
	2022F	5.0	7.0	21.5	8.4	9.2	6.8	4.2	3.7	6.9	17.0	5.1	18.2	9.4
	2023F	4.9	6.3	10.5	8.2	8.8	6.6	3.7	3.6	6.7	11.0	4.5	14.8	7.5
Net D/E (x)	2020	1.6	0.7	1.9	0.7	1.3	1.1	0.3	(0.0)	0.3	0.3	0.0	0.6	0.7
	2021F	1.2	0.6	2.2	0.8	1.2	2.5	0.3	0.2	0.2	0.1	0.3	1.0	0.9
	2022F	1.1	0.6	1.9	0.7	1.4	2.4	0.3	0.2	0.1	0.0	0.2	1.2	0.8
	2023F	0.9	0.5	1.6	0.6	1.2	2.3	0.2	0.2	0.1	(0.1)	0.1	1.2	0.7

Sources: Company data; Thanachart estimates

Ex 22: Utilities Sector Valuation Comparison

		ACE	BCPG	BGRIM	BPP	CKP	EA	EGCO	GPSC	GULF	GUNKUL	RATCH	STARK	Industry
Rating		SELL	SELL	BUY	BUY	BUY	BUY	BUY	BUY	HOLD	BUY	BUY	BUY	
Target price (Bt)	Thanachart	3.40	13.50	54.00	22.50	7.50	95.00	320.00	92.00	40.00	5.75	76.00	5.00	
	Consensus	4.46	15.90	55.00	22.15	6.55	70.00	233.00	91.00	42.13	5.40	50.50	5.40	
Consensus rec.	BUY	3	5	17	5	5	6	9	14	11	3	5	3	
	HOLD	1	3	2	3	1	2	4	4	4	2	4	0	
	SELL	1	0	0	2	0	1	0	1	1	0	3	0	
Sales (Bt m)	2020	5,858	4,231	44,087	5,506	6,695	17,080	33,578	69,578	32,827	6,539	34,206	16,858	277,042
	2021F	5,736	4,818	45,635	6,091	8,642	25,342	33,846	74,192	52,892	8,048	38,906	20,194	324,341
	2022F	6,980	5,285	52,003	6,196	8,821	41,384	33,921	72,564	81,004	9,088	38,795	23,281	379,321
	2023F	8,937	4,618	57,188	6,190	8,923	51,815	33,516	80,104	110,009	10,832	38,152	26,584	436,869
Norm profits (Bt m)	2020	1,327	1,900	2,670	3,329	394	5,127	9,080	7,509	4,416	1,399	5,451	1,095	43,697
	2021F	1,457	2,280	2,882	3,668	2,043	5,911	10,707	9,033	8,788	2,332	6,827	1,726	57,653
	2022F	1,843	2,355	3,613	4,123	2,210	7,839	11,894	10,545	12,078	2,958	7,021	2,404	68,883
	2023F	2,405	1,830	4,384	4,389	2,207	10,941	10,422	12,772	16,123	3,968	7,071	3,079	79,591
Sales growth (%)	2020	15.9	23.5	(0.1)	(3.2)	(20.1)	14.7	(10.5)	4.5	9.3	18.4	(10.8)	46.2	7.3
	2021F	(2.1)	13.9	3.5	10.6	29.1	48.4	0.8	6.6	61.1	23.1	13.7	19.8	19.0
	2022F	21.7	9.7	14.0	1.7	2.1	63.3	0.2	(2.2)	53.1	12.9	(0.3)	15.3	16.0
	2023F	28.0	(12.6)	10.0	(0.1)	1.2	25.2	(1.2)	10.4	35.8	19.2	(1.7)	14.2	10.7
Norm EPS growth (%)	2020	44.4	4.1	29.7	(13.2)	53.0	(13.4)	(11.2)	50.3	23.4	(41.1)	(9.7)	629.2	62.1
	2021F	9.8	(13.2)	8.0	10.2	418.6	15.3	17.9	20.3	88.0	66.7	25.2	57.5	60.4
	2022F	26.4	3.3	25.3	12.4	8.2	32.6	11.1	16.7	37.4	26.8	2.8	39.3	20.2
	2023F	30.5	(22.3)	21.4	6.5	(0.1)	39.6	(12.4)	21.1	33.5	34.1	0.7	28.1	15.1
Operating margin (%)	2020	25.1	53.5	16.4	3.1	4.1	38.2	17.0	16.1	21.5	27.9	7.4	17.7	20.7
	2021F	28.9	57.0	18.4	(2.0)	19.8	30.2	17.9	16.0	20.8	31.5	8.6	20.0	22.3
	2022F	31.1	55.5	19.1	(0.4)	19.5	25.1	18.8	18.4	18.4	35.6	9.2	21.5	22.7
	2023F	32.8	47.5	19.8	1.8	20.1	26.6	18.5	19.5	18.3	44.6	8.7	22.5	23.4
ROE (%)	2020	11.6	10.0	9.6	8.3	1.7	20.0	8.8	7.4	8.6	12.1	9.1	36.7	12.0
	2021F	11.7	9.2	10.2	8.8	8.3	19.7	10.1	8.6	13.4	18.2	11.0	39.6	14.1
	2022F	13.7	8.5	12.0	9.5	8.5	22.3	10.5	9.6	17.3	21.2	10.8	42.3	15.5
	2023F	16.2	6.4	13.6	9.7	8.2	26.1	8.6	11.1	21.3	25.4	10.4	42.6	16.6
Dividend yield (%)	2020	1.4	2.4	1.1	3.7	0.6	0.5	3.7	2.0	0.9	3.7	5.3	0.0	2.1
	2021F	1.6	2.3	1.3	4.1	1.9	0.8	4.0	2.5	1.1	3.0	5.7	1.1	2.5
	2022F	2.0	2.3	1.7	4.6	2.5	1.0	4.3	3.0	1.5	4.1	6.4	1.5	2.9
	2023F	2.6	2.3	2.1	4.9	3.0	1.9	4.3	3.6	2.0	5.5	7.0	1.9	3.4
P/BV (x)	2020	3.1	2.0	3.9	1.3	1.8	8.2	0.9	2.1	7.6	3.5	1.1	21.4	4.7
	2021F	2.9	1.7	3.7	1.3	1.7	7.1	0.8	2.0	7.2	3.3	1.0	15.9	4.0
	2022F	2.6	1.6	3.4	1.2	1.7	6.0	0.8	1.9	6.7	2.9	1.0	12.5	3.5
	2023F	2.4	1.6	3.2	1.2	1.6	5.0	0.7	1.8	6.2	2.6	0.9	9.8	3.1
Norm PE (x)	2020	27.9	17.2	40.0	16.2	111.4	44.6	10.1	28.4	104.2	30.8	12.0	72.5	42.9
	2021F	25.4	19.8	37.1	14.7	21.5	38.7	8.6	23.6	55.4	18.5	9.6	46.0	26.6
	2022F	20.1	19.2	29.6	13.1	19.9	29.1	7.7	20.2	40.3	14.6	9.3	33.0	21.3
	2023F	15.4	24.7	24.4	12.3	19.9	20.9	8.8	16.7	30.2	10.9	9.3	25.8	18.3
EV/EBITDA (x)	2020	20.1	14.4	12.9	100.6	35.6	28.7	18.9	15.4	56.6	28.7	22.6	36.4	32.6
	2021F	18.8	17.1	13.6	211.0	19.2	23.0	17.9	15.1	40.8	19.0	17.5	25.8	36.6
	2022F	16.4	17.5	13.0	158.8	18.6	17.7	15.9	14.0	32.2	15.9	16.1	20.1	29.7
	2023F	13.2	24.1	11.0	114.0	18.5	13.9	14.9	13.7	25.2	11.1	15.8	16.5	24.3
Net D/E (x)	2020	0.3	0.7	1.5	0.1	0.6	1.4	0.7	0.8	1.8	1.6	0.5	2.9	1.1
	2021F	0.3	0.7	1.9	0.2	0.5	1.2	0.7	0.9	2.6	1.3	0.5	1.8	1.0
	2022F	0.8	1.0	2.2	0.2	0.5	0.9	0.5	0.9	2.7	1.2	0.5	1.3	1.0
	2023F	1.0	1.3	1.9	0.2	0.5	0.6	0.4	1.0	2.7	1.0	0.4	1.0	1.0

Sources: Company data; Thanachart estimates.

Valuation Comparison

Ex 23: PTT - Comparison With Regional Peers

Company	BBG code	Country	EPS Growth		— PE —		— P/BV —		EV/EBITDA		Div. Yield		— ROE —	
			21F (%)	22F (%)	21F (x)	22F (x)	21F (x)	22F (x)	21F (x)	22F (x)	21F (%)	22F (%)	21F (%)	22F (%)
Integrated oils														
PetroChina	857 HK	China	na	(11.7)	8.1	9.2	0.5	0.5	4.0	4.1	5.7	5.2	6.5	5.5
Sinopec	386 HK	China	96.2	(4.2)	6.7	7.0	0.6	0.6	3.7	3.6	8.7	8.3	9.0	7.9
Total	FP	France	na	7.0	na	na	na	na	na	na	na	na	13.1	13.0
Eni	ENI IM	Italy	na	27.4	13.5	10.6	1.1	1.0	3.8	3.4	7.2	7.2	8.0	9.6
RD/Shell A	RDSA NA	Netherlands	na	18.0	7.8	6.6	0.9	0.8	4.4	4.2	4.5	5.0	11.8	11.7
Repsol	REP SM	Spain	na	9.9	8.1	7.4	0.8	0.8	4.2	4.0	5.3	5.4	10.6	10.4
Chevron Texaco	CVX US	USA	na	14.2	15.1	13.2	1.4	1.4	6.1	5.8	5.3	5.4	8.9	10.0
Exxon Mobil	XOM US	USA	na	12.8	13.2	11.7	1.5	1.4	6.4	5.9	5.9	6.0	11.1	12.0
Conoco Phillips	COP US	USA	na	13.6	14.0	12.3	2.0	1.9	5.5	5.0	2.6	2.7	17.3	17.4
PTT Pcl *	PTT TB	Thailand	182.0	5.2	10.4	9.9	1.2	1.1	4.6	4.2	4.8	5.1	11.7	11.6
Average			139.1	9.2	10.8	9.8	1.1	1.1	4.7	4.5	5.6	5.6	10.8	10.9

Sources: Bloomberg, * Thanachart estimates

Based on 30 September 2021 closing prices

Ex 24: BANPU - Comparison With Regional Peers

Company	BBG code	Country	EPS Growth		— PE —		— P/BV —		— EV/EBITDA —		— Div. yield —	
			21F (%)	22F (%)	21F (x)	22F (x)	21F (x)	22F (x)	21F (x)	22F (x)	21F (%)	22F (%)
New Hope Corp	NHC AU	Australia	15.6	194.6	13.1	4.4	1.1	1.0	6.0	2.6	5.7	11.2
Whitehaven Coal Ltd	WHC AU	Australia	na	na	na	5.1	1.1	1.0	20.8	3.8	0.0	3.5
China Shenhua Energy	601088 CH	China	27.8	(0.4)	9.0	9.0	1.2	1.2	4.1	4.3	7.7	7.2
Datong Coal Industry	601001 CH	China	na	1.9	8.3	8.2	2.1	1.7	3.9	4.0	na	na
Guizhou Panjiang Ref. Coal	600395 CH	China	37.2	22.3	11.9	9.7	2.1	2.0	6.9	6.6	4.6	5.0
Kailuan Energy	600997 CH	China	na	na	na	na	1.2	1.1	4.5	5.2	7.3	7.7
Pingdingshan Tianan Coal	601666 CH	China	67.6	10.2	13.3	12.1	1.9	1.7	8.6	8.1	4.5	4.9
Yang Quan Coal Industry	600348 CH	China	82.2	3.6	12.2	11.8	1.3	1.2	7.4	7.3	2.3	2.3
Yanzhou Coal Mining	600188 CH	China	94.4	3.7	10.8	10.4	2.3	2.0	7.2	7.2	5.7	5.8
China Coal Energy	1898 HK	Hong Kong	na	(12.2)	5.7	6.5	0.7	0.6	4.5	4.8	4.9	4.3
Indo Tambangraya Megah	ITMG IJ	Indonesia	na	(15.0)	6.4	7.5	1.6	1.6	2.9	3.4	6.5	10.7
Bukit Asam Tbk PT	PTBA IJ	Indonesia	64.7	2.1	7.9	7.7	1.6	1.4	5.1	5.0	5.2	7.7
Semirara Mining Corp.	SCC PM	Philippines	na	(8.4)	8.1	8.9	1.9	1.8	5.5	5.4	5.6	5.8
Banpu Pcl *	BANPU TB	Thailand	na	21.5	7.8	6.4	1.1	1.0	5.5	5.0	4.8	6.2
Average			55.7	18.7	9.6	8.3	1.5	1.4	6.6	5.2	5.0	6.3

Sources: Bloomberg, * Thanachart estimates

Based on 30 September 2021 closing prices

Ex 25: EA - Comparison With Regional Peers

Company	BBG code	Country	EPS growth		— PE —		— P/BV —		—EV/EBITDA—		— Div yield —	
			21F (%)	22F (%)	21F (x)	22F (x)	21F (x)	22F (x)	21F (x)	22F (x)	21F (%)	22F (%)
Datang International Power	991 HK	China	(4.0)	16.7	12.5	10.7	0.6	0.6	9.2	8.7	7.3	8.7
Huadian Power	1071 HK	China	8.4	2.4	7.8	7.6	0.5	0.5	8.5	7.8	6.7	7.0
Huaneng Power	600011 CH	China	(31.3)	28.7	25.0	19.4	1.2	1.2	8.8	7.8	1.9	2.4
Cheung Kong Infrastructure	1038 HK	Hong Kong	2.0	11.9	13.0	11.6	0.9	0.9	41.0	39.7	5.8	5.9
China Power Int'l	2380 HK	Hong Kong	4.5	19.8	20.0	16.7	1.2	1.2	11.0	9.4	2.8	3.3
China Resources Power	836 HK	Hong Kong	9.6	19.1	12.0	10.0	1.2	1.1	7.9	7.0	3.3	4.0
CLP Holdings	2 HK	Hong Kong	0.1	7.5	16.7	15.5	1.6	1.6	10.6	10.1	4.2	4.3
Hongkong Electric Holdings	6 HK	Hong Kong	2.9	7.1	15.3	14.3	1.2	1.1	74.0	71.8	6.2	6.2
Huaneng Power	902 HK	Hong Kong	(28.6)	23.8	13.1	10.6	0.6	0.5	8.7	7.8	4.1	5.1
Tata Power	TPWR IN	India	17.6	20.7	32.9	27.3	2.3	2.3	12.0	11.4	1.0	1.1
Tenaga Nasional	TNB MK	Malaysia	8.1	3.3	11.7	11.3	1.0	1.0	6.7	6.5	5.4	5.5
YTL Corp	YTL MK	Malaysia	(68.4)	183.3	101.7	35.9	0.5	0.5	12.1	11.1	4.3	4.4
YTL Power	YTLP MK	Malaysia	47.4	(8.9)	12.0	13.1	0.4	0.4	10.4	10.5	5.7	6.6
Manila Electric	MER PM	Philippines	10.9	1.3	14.6	14.4	3.9	3.5	10.3	9.8	5.0	5.4
EA Pcl*	EA TB	Thailand	15.3	32.6	38.7	29.1	7.1	6.0	23.0	17.7	0.8	1.0
Average			(0.4)	24.6	23.1	16.5	1.6	1.5	17.0	15.8	4.3	4.7

Sources: Bloomberg, * Thanachart estimates

Based on 30 September 2021 closing prices

Ex 26: STARK - Comparison With Regional Peers

Company	BBG code	Country	EPS growth		— PE —		— P/BV —		—EV/EBITDA—		— Div yield —	
			21F (%)	22F (%)	21F (x)	22F (x)	21F (x)	22F (x)	21F (x)	22F (x)	21F (%)	22F (%)
Nexans SA	NEX FP	France	87.7	27.0	21.2	16.7	2.5	2.3	8.1	7.0	1.0	1.2
nVent Electric PLC	NVT US	Britain	26.2	8.7	17.1	15.7	2.1	2.0	13.7	13.0	2.2	2.3
TE Connectivity Ltd	TEL US	Switzerland	63.5	9.2	21.2	19.4	4.5	4.0	13.8	12.9	1.4	1.4
Huber + Suhner AG	HUBN SW	Switzerland	64.6	8.7	20.2	18.6	2.2	2.1	10.6	9.7	2.4	2.6
Topsec Technologies Group	002212 CH	China	57.2	39.2	27.7	19.9	1.8	1.7	23.5	16.9	0.2	0.3
Yangtze Optical Fibre & Cabl	601869 CH	China	24.3	6.9	27.7	25.9	2.2	2.0	15.7	13.6	1.1	1.1
Arrow Syndicate PCL	ARROW TB	Thailand	na	8.8	12.4	11.4	6.0	6.4	9.6	9.3	5.6	6.0
Interlink Communication PCL	ILINK TB	Thailand	20.9	25.0	16.9	13.5	na	na	na	na	na	na
Interlink Telecom PCL	ITEL TB	Thailand	na	26.7	30.8	24.3	2.1	1.9	14.0	12.8	1.7	2.2
Stark Corporation *	STARK TB	Thailand	57.5	39.3	46.0	33.0	15.9	12.5	25.8	20.1	1.1	1.5
Average			50.3	19.9	24.1	19.9	4.4	3.9	15.0	12.8	1.8	2.1

Sources: Bloomberg, * Thanachart estimates

Based on 30 September 2021 closing prices

STOCK PERFORMANCE

	Absolute (%)				Rel SET (%)			
	1M	3M	12M	YTD	1M	3M	12M	YTD
SET INDEX	(1.8)	0.7	28.7	10.8	—	—	—	—
BANPU	13.8	10.7	129.9	33.8	15.5	9.9	101.2	23.0
PTT	4.0	0.0	18.2	(8.2)	5.8	(0.7)	(10.5)	(19.0)
EA	(5.8)	0.8	55.1	24.4	(4.0)	0.1	26.4	13.6
STARK	16.3	24.4	20.2	17.4	18.0	23.6	(8.5)	6.6

Source: Bloomberg

SECTOR - SWOT ANALYSIS**S — Strength**

- Thailand is much more self sufficient compared to many other countries in terms of its energy needs.
- Thai energy companies have strong balance sheets

O — Opportunity

- Further room to grow higher-value added products.
- Overseas acquisitions that could drive growth and value.

W — Weakness

- Limited local reserves of oil and gas
- Limited technology.

T — Threat

- Growth of renewable energy and energy storage could reduce dependencies on oil & gas.
- Regulatory risk, i.e., price caps.

Sources: Bloomberg Consensus

Banpu Pcl

INCOME STATEMENT

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
Sales	85,718	71,332	103,657	111,621	108,009
Cost of sales	63,737	57,768	61,558	63,456	64,027
Gross profit	21,981	13,564	42,099	48,165	43,982
% gross margin	25.6%	19.0%	40.6%	43.2%	40.7%
Selling & administration expenses	21,059	17,128	21,304	22,608	22,316
Operating profit	922	(3,564)	20,794	25,557	21,666
% operating margin	1.1%	-5.0%	20.1%	22.9%	20.1%
Depreciation & amortization	10,535	13,543	15,623	17,764	19,312
EBITDA	11,457	9,979	36,417	43,322	40,978
% EBITDA margin	13.4%	14.0%	35.1%	38.8%	37.9%
Non-operating income	5,367	2,309	1,268	1,175	1,146
Non-operating expenses	(168)	(199)	(320)	(320)	(300)
Interest expense	(5,657)	(5,420)	(7,356)	(6,357)	(6,826)
Pre-tax profit	463	(6,874)	14,386	20,055	15,686
Income tax	2,436	269	5,755	8,022	6,275
After-tax profit	(1,973)	(7,143)	8,632	12,033	9,412
% net margin	-2.3%	-10.0%	8.3%	10.8%	8.7%
Shares in affiliates' Earnings	6,444	4,239	5,409	6,227	6,797
Minority interests	(1,905)	(1,217)	(3,930)	(5,216)	(4,465)
Extraordinary items	(2,962)	2,336	0	0	0
NET PROFIT	(395)	(1,786)	10,111	13,044	11,744
Normalized profit	2,567	(4,122)	10,111	13,044	11,744
EPS (Bt)	(0.1)	(0.3)	1.6	1.9	1.7
Normalized EPS (Bt)	0.4	(0.7)	1.6	1.9	1.7

BALANCE SHEET

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
ASSETS:					
Current assets:	41,095	47,301	49,429	51,700	50,788
Cash & cash equivalent	16,388	23,777	16,836	16,836	16,836
Account receivables	7,415	7,482	9,940	10,703	10,357
Inventories	4,782	3,935	5,060	5,216	5,262
Others	12,510	12,107	17,593	18,945	18,332
Investments & loans	49,711	51,389	54,501	58,225	58,841
Net fixed assets	58,796	77,523	82,015	95,981	95,814
Other assets	93,710	105,435	105,620	113,727	110,282
Total assets	243,312	281,648	291,565	319,633	315,725
LIABILITIES:					
Current liabilities:	47,026	66,405	44,386	48,208	44,952
Account payables	1,798	2,025	1,096	1,130	1,140
Bank overdraft & ST loans	13,716	24,856	13,894	14,918	13,570
Current LT debt	16,417	24,520	10,003	10,741	9,771
Others current liabilities	15,095	15,003	19,393	21,418	20,471
Total LT debt	103,749	112,559	115,040	123,525	112,361
Others LT liabilities	13,084	18,129	27,868	30,001	29,261
Total liabilities	163,859	197,092	187,294	201,733	186,574
Minority interest	18,286	22,211	26,142	31,358	35,823
Preferred shares	0	0	0	0	0
Paid-up capital	5,162	5,075	6,766	6,766	6,766
Share premium	15,372	15,372	22,139	22,139	22,139
Warrants	0	0	0	0	0
Surplus	(25,675)	(19,348)	(19,348)	(19,348)	(19,348)
Retained earnings	66,308	61,245	68,573	76,985	83,772
Shareholders' equity	61,167	62,344	78,129	86,542	93,328
Liabilities & equity	243,312	281,648	291,565	319,633	315,725

Sources: Company data, Thanachart estimates

Banpu Pcl

CASH FLOW STATEMENT

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
Earnings before tax	463	(6,874)	14,386	20,055	15,686
Tax paid	(2,587)	(543)	(5,548)	(8,077)	(6,244)
Depreciation & amortization	10,535	13,543	15,623	17,764	19,312
Chg In working capital	3,509	1,006	(4,511)	(886)	310
Chg In other CA & CL / minorities	(7,019)	7,560	4,106	6,956	6,433
Cash flow from operations	4,901	14,692	24,057	35,811	35,496
Capex	(8,995)	(32,269)	(20,000)	(31,600)	(19,000)
Right of use	0	(2,149)	(300)	(300)	(300)
ST loans & investments	0	0	0	0	0
LT loans & investments	251	(1,678)	(3,113)	(3,724)	(616)
Adj for asset revaluation	0	0	0	0	0
Chg In other assets & liabilities	21,336	(4,767)	9,740	(5,804)	2,860
Cash flow from investments	12,592	(40,863)	(13,673)	(41,428)	(17,056)
Debt financing	428	30,596	(22,999)	10,248	(13,483)
Capital increase	0	(87)	8,458	0	0
Dividends paid	(3,613)	(2,030)	(2,783)	(4,631)	(4,957)
Warrants & other surplus	(17,885)	5,080	0	0	0
Cash flow from financing	(21,070)	33,559	(17,324)	5,617	(18,440)
Free cash flow	(4,093)	(17,578)	4,057	4,211	16,496

VALUATION

FY ending Dec	2019A	2020A	2021F	2022F	2023F
Normalized PE (x)	30.2	na	7.8	6.4	7.1
Normalized PE - at target price (x)	48.7	na	12.6	10.4	11.5
PE (x)	na	na	7.8	6.4	7.1
PE - at target price (x)	na	na	12.6	10.4	11.5
EV/EBITDA (x)	17.0	21.5	5.5	5.0	4.9
EV/EBITDA - at target price (x)	21.2	26.3	6.9	6.2	6.2
P/BV (x)	1.3	1.2	1.1	1.0	0.9
P/BV - at target price (x)	2.0	2.0	1.7	1.6	1.4
P/CFO (x)	15.8	5.2	3.3	2.3	2.4
Price/sales (x)	0.7	0.9	0.6	0.6	0.6
Dividend yield (%)	4.0	2.0	4.8	6.2	5.6
FCF Yield (%)	(5.3)	(22.9)	5.1	5.0	19.7
(Bt)					
Normalized EPS	0.4	(0.7)	1.6	1.9	1.7
EPS	(0.1)	(0.3)	1.6	1.9	1.7
DPS	0.5	0.2	0.6	0.8	0.7
BV/share	9.8	10.2	11.5	12.8	13.8
CFO/share	0.8	2.4	3.8	5.3	5.2
FCF/share	(0.7)	(2.8)	0.6	0.6	2.4

Sources: Company data, Thanachart estimates

Banpu Pcl**FINANCIAL RATIOS**

FY ending Dec	2019A	2020A	2021F	2022F	2023F
Growth Rate					
Sales (%)	(24.0)	(16.8)	45.3	7.7	(3.2)
Net profit (%)	na	na	na	29.0	(10.0)
EPS (%)	na	na	na	21.5	(10.0)
Normalized profit (%)	(74.4)	na	na	29.0	(10.0)
Normalized EPS (%)	(74.4)	na	na	21.5	(10.0)
Dividend payout ratio (%)	(783.6)	(85.2)	40.0	40.0	40.0
Operating performance					
Gross margin (%)	25.6	19.0	40.6	43.2	40.7
Operating margin (%)	1.1	(5.0)	20.1	22.9	20.1
EBITDA margin (%)	13.4	14.0	35.1	38.8	37.9
Net margin (%)	(2.3)	(10.0)	8.3	10.8	8.7
D/E (incl. minor) (x)	1.7	1.9	1.3	1.3	1.1
Net D/E (incl. minor) (x)	1.5	1.6	1.2	1.1	0.9
Interest coverage - EBIT (x)	0.2	na	2.8	4.0	3.2
Interest coverage - EBITDA (x)	2.0	1.8	5.0	6.8	6.0
ROA - using norm profit (%)	1.0	na	3.5	4.3	3.7
ROE - using norm profit (%)	3.6	na	14.4	15.8	13.1
DuPont					
ROE - using after tax profit (%)	na	na	12.3	14.6	10.5
- asset turnover (x)	0.3	0.3	0.4	0.4	0.3
- operating margin (%)	7.1	na	21.0	23.7	20.8
- leverage (x)	3.6	4.3	4.1	3.7	3.5
- interest burden (%)	7.6	472.7	66.2	75.9	69.7
- tax burden (%)	na	na	60.0	60.0	60.0
WACC (%)	7.9	7.9	7.9	7.9	7.9
ROIC (%)	(2.0)	(2.0)	6.2	7.7	5.9
NOPAT (Bt m)	(3,927)	(3,564)	12,477	15,334	13,000
invested capital (Bt m)	178,661	200,502	200,229	218,890	212,193

Sources: Company data, Thanachart estimates

PTT Public Co Ltd

INCOME STATEMENT

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
Sales	2,219,739	1,615,665	2,406,979	2,517,573	2,554,872
Cost of sales	1,967,529	1,437,093	2,114,656	2,204,143	2,228,129
Gross profit	252,210	178,572	292,322	313,430	326,743
% gross margin	11.4%	11.1%	12.1%	12.4%	12.8%
Selling & administration expenses	110,458	109,389	105,578	110,603	106,313
Operating profit	141,751	69,183	186,744	202,828	220,430
% operating margin	6.4%	4.3%	7.8%	8.1%	8.6%
Depreciation & amortization	133,204	139,880	150,052	159,981	166,214
EBITDA	274,955	209,063	336,796	362,809	386,644
% EBITDA margin	12.4%	12.9%	14.0%	14.4%	15.1%
Non-operating income	19,980	20,579	30,658	32,067	32,542
Non-operating expenses	0	0	0	0	0
Interest expense	(27,971)	(28,536)	(37,703)	(44,223)	(44,399)
Pre-tax profit	133,760	61,225	179,699	190,671	208,573
Income tax	32,989	25,166	35,940	38,134	41,715
After-tax profit	100,771	36,059	143,759	152,537	166,859
% net margin	4.5%	2.2%	6.0%	6.1%	6.5%
Shares in affiliates' Earnings	6,008	4,178	2,541	2,547	2,554
Minority interests	(29,141)	(2,184)	(38,974)	(42,149)	(44,148)
Extraordinary items	15,313	(287)	0	0	0
NET PROFIT	92,951	37,766	107,325	112,935	125,265
Normalized profit	77,638	38,053	107,325	112,935	125,265
EPS (Bt)	3.3	1.3	3.8	4.0	4.4
Normalized EPS (Bt)	2.7	1.3	3.8	4.0	4.4

BALANCE SHEET

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
ASSETS:					
Current assets:	717,099	720,930	865,293	885,183	891,332
Cash & cash equivalent	330,806	416,921	416,921	416,921	416,921
Account receivables	167,641	110,528	164,662	172,227	174,779
Inventories	152,126	129,779	190,968	199,049	201,215
Others	66,526	63,703	92,743	96,986	98,417
Investments & loans	87,657	85,312	73,312	73,312	73,312
Net fixed assets	1,294,979	1,292,717	1,428,748	1,490,854	1,482,826
Other assets	387,230	445,224	623,913	644,846	648,780
Total assets	2,486,965	2,544,183	2,991,266	3,094,194	3,096,249
LIABILITIES:					
Current liabilities:	379,785	298,026	469,828	483,324	463,250
Account payables	160,669	108,189	159,198	165,935	167,741
Bank overdraft & ST loans	44,441	4,223	42,876	41,444	35,939
Current LT debt	50,440	73,778	122,196	118,114	102,426
Others current liabilities	124,236	111,837	145,558	157,831	157,145
Total LT debt	562,746	664,732	692,445	669,315	580,414
Others LT liabilities	243,394	295,579	437,961	450,505	451,671
Total liabilities	1,185,925	1,258,338	1,600,234	1,603,143	1,495,336
Minority interest	422,436	403,805	442,779	484,928	529,076
Preferreds shares	0	0	0	0	0
Paid-up capital	28,563	28,563	28,563	28,563	28,563
Share premium	29,211	29,211	29,211	29,211	29,211
Warrants	0	0	0	0	0
Surplus	(52,287)	(49,116)	(49,116)	(49,116)	(49,116)
Retained earnings	873,117	873,383	939,595	997,465	1,063,180
Shareholders' equity	878,604	882,040	948,253	1,006,123	1,071,838
Liabilities & equity	2,486,965	2,544,183	2,991,266	3,094,194	3,096,249

Sources: Company data, Thanachart estimates

PTT Public Co Ltd

CASH FLOW STATEMENT

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
Earnings before tax	133,760	61,225	179,699	190,671	208,573
Tax paid	(49,340)	(36,073)	(24,506)	(37,779)	(40,720)
Depreciation & amortization	133,204	139,880	150,052	159,981	166,214
Chg In working capital	9,335	26,980	(64,313)	(8,910)	(2,912)
Chg In other CA & CL / minorities	(32,924)	(16,034)	(5,530)	10,222	(558)
Cash flow from operations	194,035	175,977	235,401	314,185	330,597
Capex	(314,009)	(137,617)	(281,104)	(217,092)	(153,177)
Right of use	0	(70,831)	(300)	(300)	(300)
ST loans & investments	(886)	951	1,318	0	0
LT loans & investments	(8,109)	2,345	12,000	0	0
Adj for asset revaluation	0	0	0	0	0
Chg In other assets & liabilities	(14,705)	55,243	(40,987)	(13,084)	(7,476)
Cash flow from investments	(337,709)	(149,909)	(309,073)	(230,476)	(160,953)
Debt financing	129,304	94,377	114,784	(28,644)	(110,094)
Capital increase	0	0	(0)	0	0
Dividends paid	(81,351)	(51,624)	(41,113)	(55,065)	(59,550)
Warrants & other surplus	(8,079)	17,295	0	0	0
Cash flow from financing	39,874	60,047	73,671	(83,709)	(169,643)
Free cash flow	(119,973)	38,360	(45,703)	97,093	177,420

VALUATION

FY ending Dec	2019A	2020A	2021F	2022F	2023F
Normalized PE (x)	14.3	29.3	10.4	9.9	8.9
Normalized PE - at target price (x)	18.4	37.5	13.3	12.6	11.4
PE (x)	12.0	29.5	10.4	9.9	8.9
PE - at target price (x)	15.4	37.8	13.3	12.6	11.4
EV/EBITDA (x)	5.2	6.9	4.6	4.2	3.7
EV/EBITDA - at target price (x)	6.4	8.4	5.5	5.1	4.5
P/BV (x)	1.3	1.3	1.2	1.1	1.0
P/BV - at target price (x)	1.6	1.6	1.5	1.4	1.3
P/CFO (x)	5.7	6.3	4.7	3.5	3.4
Price/sales (x)	0.5	0.7	0.5	0.4	0.4
Dividend yield (%)	5.1	2.6	4.8	5.1	5.6
FCF Yield (%)	(10.8)	3.4	(4.1)	8.7	15.9
(Bt)					
Normalized EPS	2.7	1.3	3.8	4.0	4.4
EPS	3.3	1.3	3.8	4.0	4.4
DPS	2.0	1.0	1.9	2.0	2.2
BV/share	30.8	30.9	33.2	35.2	37.5
CFO/share	6.8	6.2	8.2	11.0	11.6
FCF/share	(4.2)	1.3	(1.6)	3.4	6.2

Sources: Company data, Thanachart estimates

PTT Public Co Ltd

FINANCIAL RATIOS

FY ending Dec	2019A	2020A	2021F	2022F	2023F
Growth Rate					
Sales (%)	(5.0)	(27.2)	49.0	4.6	1.5
Net profit (%)	(22.3)	(59.4)	184.2	5.2	10.9
EPS (%)	(22.3)	(59.4)	184.2	5.2	10.9
Normalized profit (%)	(31.5)	(51.0)	182.0	5.2	10.9
Normalized EPS (%)	(31.5)	(51.0)	182.0	5.2	10.9
Dividend payout ratio (%)	61.5	75.6	50.0	50.0	50.0
Operating performance					
Gross margin (%)	11.4	11.1	12.1	12.4	12.8
Operating margin (%)	6.4	4.3	7.8	8.1	8.6
EBITDA margin (%)	12.4	12.9	14.0	14.4	15.1
Net margin (%)	4.5	2.2	6.0	6.1	6.5
D/E (incl. minor) (x)	0.5	0.6	0.6	0.6	0.4
Net D/E (incl. minor) (x)	0.3	0.3	0.3	0.3	0.2
Interest coverage - EBIT (x)	5.1	2.4	5.0	4.6	5.0
Interest coverage - EBITDA (x)	9.8	7.3	8.9	8.2	8.7
ROA - using norm profit (%)	3.2	1.5	3.9	3.7	4.0
ROE - using norm profit (%)	8.9	4.3	11.7	11.6	12.1
DuPont					
ROE - using after tax profit (%)	11.5	4.1	15.7	15.6	16.1
- asset turnover (x)	0.9	0.6	0.9	0.8	0.8
- operating margin (%)	7.3	5.6	9.0	9.3	9.9
- leverage (x)	2.8	2.9	3.0	3.1	3.0
- interest burden (%)	82.7	68.2	82.7	81.2	82.4
- tax burden (%)	75.3	58.9	80.0	80.0	80.0
WACC (%)	9.0	9.0	9.0	9.0	9.0
ROIC (%)	10.9	3.4	12.4	11.7	12.4
NOPAT (Bt m)	106,791	40,745	149,395	162,262	176,344
invested capital (Bt m)	1,205,425	1,207,853	1,388,849	1,418,075	1,373,696

Sources: Company data, Thanachart estimates

Energy Absolute Pcl

INCOME STATEMENT

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
Sales	14,887	17,080	25,342	41,384	51,815
Cost of sales	6,752	9,271	16,264	28,575	35,265
Gross profit	8,134	7,808	9,078	12,808	16,550
% gross margin	54.6%	45.7%	35.8%	31.0%	31.9%
Selling & administration expenses	946	1,278	1,435	2,406	2,764
Operating profit	7,189	6,530	7,643	10,402	13,786
% operating margin	48.3%	38.2%	30.2%	25.1%	26.6%
Depreciation & amortization	2,517	2,844	4,058	4,541	4,780
EBITDA	9,706	9,373	11,701	14,943	18,566
% EBITDA margin	65.2%	54.9%	46.2%	36.1%	35.8%
Non-operating income	68	120	51	83	104
Non-operating expenses	0	0	0	0	0
Interest expense	(1,386)	(1,637)	(1,608)	(1,483)	(1,251)
Pre-tax profit	5,870	5,013	6,086	9,001	12,638
Income tax	(11)	(18)	61	90	126
After-tax profit	5,881	5,031	6,025	8,911	12,512
% net margin	39.5%	29.5%	23.8%	21.5%	24.1%
Shares in affiliates' Earnings	(14)	(61)	(50)	(50)	(50)
Minority interests	55	157	(64)	(1,023)	(1,521)
Extraordinary items	160	78	0	0	0
NET PROFIT	6,082	5,205	5,911	7,839	10,941
Normalized profit	5,922	5,127	5,911	7,839	10,941
EPS (Bt)	1.6	1.4	1.6	2.1	2.9
Normalized EPS (Bt)	1.6	1.4	1.6	2.1	2.9

BALANCE SHEET

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
ASSETS:					
Current assets:	14,033	7,389	10,208	14,979	17,938
Cash & cash equivalent	10,040	2,962	3,012	3,012	3,012
Account receivables	2,666	2,750	4,166	6,803	8,518
Inventories	758	833	1,782	3,132	3,865
Others	569	843	1,248	2,033	2,544
Investments & loans	0	0	0	0	0
Net fixed assets	51,371	55,857	58,938	58,474	58,279
Other assets	4,816	15,238	16,986	18,708	20,405
Total assets	70,220	78,484	86,131	92,162	96,622
LIABILITIES:					
Current liabilities:	6,070	13,564	12,761	13,298	12,601
Account payables	285	373	668	1,174	1,449
Bank overdraft & ST loans	660	2,674	2,160	1,935	1,595
Current LT debt	4,307	9,342	8,210	7,354	6,062
Others current liabilities	818	1,176	1,723	2,834	3,494
Total LT debt	36,977	31,090	32,839	29,417	24,250
Others LT liabilities	2,306	4,203	6,376	8,492	9,719
Total liabilities	45,353	48,857	51,976	51,208	46,570
Minority interest	1,502	1,815	1,879	2,902	4,423
Preferreds shares	0	0	0	0	0
Paid-up capital	373	373	373	373	373
Share premium	3,681	3,681	3,681	3,681	3,681
Warrants	0	0	0	0	0
Surplus	(874)	(428)	(428)	(428)	(428)
Retained earnings	20,185	24,186	28,651	34,427	42,004
Shareholders' equity	23,365	27,812	32,276	38,053	45,629
Liabilities & equity	70,220	78,484	86,131	92,162	96,622

Sources: Company data, Thanachart estimates

Energy Absolute Pcl

CASH FLOW STATEMENT

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
Earnings before tax	5,870	5,013	6,086	9,001	12,638
Tax paid	11	18	(61)	(90)	(126)
Depreciation & amortization	2,517	2,844	4,058	4,541	4,780
Chg In working capital	(1,308)	(73)	(2,069)	(3,480)	(2,173)
Chg In other CA & CL / minorities	(8,236)	501	92	276	99
Cash flow from operations	(1,145)	8,302	8,106	10,249	15,218
Capex	(6,301)	(7,216)	(7,014)	(3,894)	(4,340)
Right of use	0	(1,892)	(1,200)	(1,200)	(1,200)
ST loans & investments	(1)	(4)	0	0	0
LT loans & investments	0	0	0	0	0
Adj for asset revaluation	0	0	0	0	0
Chg In other assets & liabilities	(64)	(6,683)	1,500	1,410	485
Cash flow from investments	(6,366)	(15,794)	(6,714)	(3,684)	(5,055)
Debt financing	12,884	1,171	103	(4,502)	(6,799)
Capital increase	0	0	0	0	0
Dividends paid	(932)	(1,119)	(1,446)	(2,062)	(3,364)
Warrants & other surplus	77	361	0	0	0
Cash flow from financing	12,029	414	(1,343)	(6,565)	(10,163)
Free cash flow	(7,446)	1,086	1,092	6,355	10,878

VALUATION

FY ending Dec	2019A	2020A	2021F	2022F	2023F
Normalized PE (x)	38.6	44.6	38.7	29.1	20.9
Normalized PE - at target price (x)	59.8	69.1	59.9	45.2	32.4
PE (x)	37.6	43.9	38.7	29.1	20.9
PE - at target price (x)	58.3	68.1	59.9	45.2	32.4
EV/EBITDA (x)	26.8	28.7	23.0	17.7	13.9
EV/EBITDA - at target price (x)	39.8	42.1	33.7	26.1	20.6
P/BV (x)	9.8	8.2	7.1	6.0	5.0
P/BV - at target price (x)	15.2	12.7	11.0	9.3	7.8
P/CFO (x)	(199.5)	27.5	28.2	22.3	15.0
Price/sales (x)	15.3	13.4	9.0	5.5	4.4
Dividend yield (%)	0.5	0.5	0.8	1.0	1.9
FCF Yield (%)	(3.3)	0.5	0.5	2.8	4.8
(Bt)					
Normalized EPS	1.6	1.4	1.6	2.1	2.9
EPS	1.6	1.4	1.6	2.1	2.9
DPS	0.3	0.3	0.5	0.6	1.2
BV/share	6.3	7.5	8.7	10.2	12.2
CFO/share	(0.3)	2.2	2.2	2.7	4.1
FCF/share	(2.0)	0.3	0.3	1.7	2.9

Sources: Company data, Thanachart estimates

Energy Absolute Pcl

FINANCIAL RATIOS

FY ending Dec	2019A	2020A	2021F	2022F	2023F
Growth Rate					
Sales (%)	28.9	14.7	48.4	63.3	25.2
Net profit (%)	18.1	(14.4)	13.6	32.6	39.6
EPS (%)	18.1	(14.4)	13.6	32.6	39.6
Normalized profit (%)	45.0	(13.4)	15.3	32.6	39.6
Normalized EPS (%)	45.0	(13.4)	15.3	32.6	39.6
Dividend payout ratio (%)	18.4	21.5	30.0	30.0	40.0
Operating performance					
Gross margin (%)	54.6	45.7	35.8	31.0	31.9
Operating margin (%)	48.3	38.2	30.2	25.1	26.6
EBITDA margin (%)	65.2	54.9	46.2	36.1	35.8
Net margin (%)	39.5	29.5	23.8	21.5	24.1
D/E (incl. minor) (x)	1.7	1.5	1.3	0.9	0.6
Net D/E (incl. minor) (x)	1.3	1.4	1.2	0.9	0.6
Interest coverage - EBIT (x)	na	na	na	na	na
Interest coverage - EBITDA (x)	na	na	na	na	na
ROA - using norm profit (%)	9.2	6.9	7.2	8.8	11.6
ROE - using norm profit (%)	28.5	20.0	19.7	22.3	26.1
DuPont					
ROE - using after tax profit (%)	28.3	19.7	20.1	25.3	29.9
- asset turnover (x)	0.2	0.2	0.3	0.5	0.5
- operating margin (%)	48.7	38.9	30.4	25.3	26.8
- leverage (x)	3.1	2.9	2.7	2.5	2.3
- interest burden (%)	80.9	75.4	79.1	85.9	91.0
- tax burden (%)	100.2	100.4	99.0	99.0	99.0
WACC (%)	5.0	5.0	5.0	5.0	5.0
ROIC (%)	17.2	11.9	11.1	14.2	18.5
NOPAT (Bt m)	7,202	6,553	7,567	10,298	13,648
invested capital (Bt m)	55,268	67,955	72,474	73,748	74,525

Sources: Company data, Thanachart estimates

Stark Corporation Pcl

INCOME STATEMENT

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
Sales	11,529	16,858	20,194	23,281	26,584
Cost of sales	10,103	13,869	16,146	18,280	20,612
Gross profit	1,426	2,989	4,048	5,001	5,973
% gross margin	12.4%	17.7%	20.0%	21.5%	22.5%
Selling & administration expenses	607	866	1,121	1,219	1,307
Operating profit	819	2,123	2,927	3,782	4,665
% operating margin	7.1%	12.6%	14.5%	16.2%	17.5%
Depreciation & amortization	193	357	515	588	634
EBITDA	1,012	2,480	3,442	4,370	5,299
% EBITDA margin	8.8%	14.7%	17.0%	18.8%	19.9%
Non-operating income	79	60	53	59	71
Non-operating expenses	0	0	0	0	0
Interest expense	(487)	(660)	(663)	(617)	(610)
Pre-tax profit	410	1,523	2,317	3,224	4,127
Income tax	145	419	579	806	1,032
After-tax profit	265	1,104	1,738	2,418	3,095
% net margin	2.3%	6.5%	8.6%	10.4%	11.6%
Shares in affiliates' Earnings	3	1	0	0	0
Minority interests	(118)	(10)	(12)	(14)	(17)
Extraordinary items	(26)	513	0	0	0
NET PROFIT	124	1,609	1,726	2,404	3,079
Normalized profit	150	1,095	1,726	2,404	3,079
EPS (Bt)	0.0	0.1	0.1	0.2	0.2
Normalized EPS (Bt)	0.0	0.1	0.1	0.2	0.2

BALANCE SHEET

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
ASSETS:					
Current assets:	8,707	16,331	17,572	19,593	22,517
Cash & cash equivalent	1,431	1,156	1,000	1,500	2,000
Account receivables	3,465	6,042	6,916	7,654	8,740
Inventories	3,671	8,618	9,289	10,016	11,294
Others	140	515	367	423	483
Investments & loans	300	344	344	344	344
Net fixed assets	2,604	4,213	4,325	4,418	5,470
Other assets	1,044	6,429	5,818	5,355	4,787
Total assets	12,655	27,316	28,059	29,710	33,119
LIABILITIES:					
Current liabilities:	8,138	19,649	16,945	16,995	18,547
Account payables	4,788	10,248	11,059	11,519	12,988
Bank overdraft & ST loans	2,528	7,761	3,096	2,464	2,512
Current LT debt	666	1,057	2,167	2,218	2,261
Others current liabilities	155	583	623	795	786
Total LT debt	1,754	3,310	5,057	5,174	5,276
Others LT liabilities	450	594	988	1,085	1,115
Total liabilities	10,341	23,553	22,989	23,254	24,938
Minority interest	46	55	68	82	98
Preferreds shares	0	0	0	0	0
Paid-up capital	12,338	11,906	11,906	11,906	11,906
Share premium	(10,542)	(10,542)	(10,542)	(10,542)	(10,542)
Warrants	0	0	0	0	0
Surplus	(493)	(591)	(591)	(591)	(591)
Retained earnings	965	2,935	4,229	5,601	7,309
Shareholders' equity	2,268	3,709	5,003	6,374	8,082
Liabilities & equity	12,655	27,316	28,059	29,710	33,119

Sources: Company data, Thanachart estimates

Stark Corporation Pcl

CASH FLOW STATEMENT

FY ending Dec (Bt m)	2019A	2020A	2021F	2022F	2023F
Earnings before tax	410	1,523	2,317	3,224	4,127
Tax paid	(129)	(205)	(634)	(709)	(1,022)
Depreciation & amortization	193	357	515	588	634
Chg In working capital	(547)	(2,064)	(734)	(1,005)	(895)
Chg In other CA & CL / minorities	(820)	15	33	19	(79)
Cash flow from operations	(892)	(374)	1,497	2,117	2,765
Capex	(405)	(1,924)	(500)	(500)	(1,500)
Right of use	0	(308)	(500)	(200)	(100)
ST loans & investments	(30)	(179)	209	0	0
LT loans & investments	1,078	(44)	0	0	0
Adj for asset revaluation	(640)	0	0	0	0
Chg In other assets & liabilities	(331)	(5,103)	1,377	580	512
Cash flow from investments	(328)	(7,558)	586	(120)	(1,088)
Debt financing	197	7,825	(1,808)	(464)	193
Capital increase	1,795	(432)	(0)	0	0
Dividends paid	0	0	(431)	(1,032)	(1,371)
Warrants & other surplus	4	264	0	0	0
Cash flow from financing	1,996	7,657	(2,239)	(1,497)	(1,177)
Free cash flow	(1,297)	(2,297)	997	1,617	1,265

VALUATION

FY ending Dec	2019A	2020A	2021F	2022F	2023F
Normalized PE (x)	528.5	72.5	46.0	33.0	25.8
Normalized PE - at target price (x)	528.5	72.5	46.0	33.0	25.8
PE (x)	640.5	49.3	46.0	33.0	25.8
PE - at target price (x)	640.5	49.3	46.0	33.0	25.8
EV/EBITDA (x)	81.9	36.4	25.8	20.1	16.5
EV/EBITDA - at target price (x)	81.9	36.4	25.8	20.1	16.5
P/BV (x)	35.0	21.4	15.9	12.5	9.8
P/BV - at target price (x)	35.0	21.4	15.9	12.5	9.8
P/CFO (x)	(89.0)	(212.4)	53.0	37.5	28.7
Price/sales (x)	5.2	3.5	2.9	2.6	2.2
Dividend yield (%)	0.0	0.0	1.1	1.5	1.9
FCF Yield (%)	(1.6)	(2.9)	1.3	2.0	1.6
(Bt)					
Normalized EPS	0.0	0.1	0.1	0.2	0.2
EPS	0.0	0.1	0.1	0.2	0.2
DPS	0.0	0.0	0.1	0.1	0.1
BV/share	0.1	0.2	0.3	0.4	0.5
CFO/share	(0.1)	(0.0)	0.1	0.1	0.2
FCF/share	(0.1)	(0.1)	0.1	0.1	0.1

Sources: Company data, Thanachart estimates

Stark Corporation Pcl

FINANCIAL RATIOS

FY ending Dec	2019A	2020A	2021F	2022F	2023F
Growth Rate					
Sales (%)	(2.7)	46.2	19.8	15.3	14.2
Net profit (%)	(76.4)	1,198.1	7.3	39.3	28.1
EPS (%)	(76.4)	1,198.1	7.3	39.3	28.1
Normalized profit (%)	(66.9)	629.2	57.5	39.3	28.1
Normalized EPS (%)	(66.9)	629.2	57.5	39.3	28.1
Dividend payout ratio (%)	0.0	0.0	50.0	50.0	50.0
Operating performance					
Gross margin (%)	12.4	17.7	20.0	21.5	22.5
Operating margin (%)	7.1	12.6	14.5	16.2	17.5
EBITDA margin (%)	8.8	14.7	17.0	18.8	19.9
Net margin (%)	2.3	6.5	8.6	10.4	11.6
D/E (incl. minor) (x)	2.1	3.2	2.0	1.5	1.2
Net D/E (incl. minor) (x)	1.5	2.9	1.8	1.3	1.0
Interest coverage - EBIT (x)	1.7	3.2	4.4	6.1	7.7
Interest coverage - EBITDA (x)	2.1	3.8	5.2	7.1	8.7
ROA - using norm profit (%)	1.1	5.5	6.2	8.3	9.8
ROE - using norm profit (%)	9.2	36.7	39.6	42.3	42.6
DuPont					
ROE - using after tax profit (%)	16.3	36.9	39.9	42.5	42.8
- asset turnover (x)	0.9	0.8	0.7	0.8	0.8
- operating margin (%)	7.8	12.9	14.8	16.5	17.8
- leverage (x)	8.1	6.7	6.4	5.1	4.3
- interest burden (%)	45.7	69.8	77.8	83.9	87.1
- tax burden (%)	64.6	72.5	75.0	75.0	75.0
WACC (%)	7.7	7.7	7.7	7.7	7.7
ROIC (%)	10.1	26.6	15.0	19.8	23.8
NOPAT (Bt m)	529	1,539	2,195	2,836	3,499
invested capital (Bt m)	5,785	14,681	14,323	14,730	16,131

Sources: Company data, Thanachart estimates

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Recommendations are based on absolute upside or downside, which is the difference between the target price and the current market price. If the upside is 10% or more, the recommendation is BUY. If the downside is 10% or more, the recommendation is SELL. For stocks where the upside or downside is less than 10%, the recommendation is HOLD. Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on the market price and the formal recommendation.

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