# 15 DECEMBER 2020 THAILAND / UTILITIES - RENEWABLES

# ENERGY ABSOLUTE EA TB





TARGET PRICE	THB56.00
CLOSE	THB47.00
UP/DOWNSIDE	+19.1%
PRIOR TP	THB51.00
CHANGE IN TP	+9.8%
TP vs CONSENSUS	+0.4%

# การเติบโตเปลี่ยนจากโรงไฟฟ้าเป็นรถไฟฟ้า

## ปัจจัยหนุนจากรถไฟฟ้าและโรงไฟฟ้าพลังงานลมในช่วง 4Q20-2021

หลังประกาศกำไรสุทธิที่อ่อนแอใน 3Q20 โดยอยู่ที่ 1.12พัน ลบ. เราเชื่อว่าการเติบโตของกำไร สุทธิของ EA จะเริ่มเร่งตัวขึ้นอีกครั้งใน 4Q20 จนถึงปี 2021 โดยได้แรงหนุนจาก 1) กระแสลม แรงตามธรรมชาติ ซึ่งจะช่วยผลักดันกำไรสุทธิจากโรงไฟฟ้าพลังงานลม; 2) กำไรสุทธิที่ดีขึ้น จากโรงงาน PCM (Phase Change Mmaterial) หลังอัตราการใช้กำลังการผลิตอยู่ในระดับสูง; และ 3) กำไรสุทธิจากโรงงานรถและรถเมล์ไฟฟ้า รวมถึงโรงงานแบตเตอรรี่ขั้นที่ 1 ขนาด 1GWh ที่จะเริ่มดำเนินงานในเร็ววันนี้

### รถเมล์ไฟฟ้าอาจกลายเป็นปัจจัยหนุนการเติบโตหลักในปี 2021

ในขณะที่นักลงทุนส่วนมากมุ่งความสนใจไปที่รถไฟฟ้าจำนวน 4,500 คันของ EA ที่จะส่งมอบ ภายในปี 2021 (เลื่อนจากปี 2020 เนื่องจาก COVID-19) เราเห็นว่าปัจจัยที่จะทำให้ผล ประกอบการดีกว่าคาด (Upside) อย่างแท้จริงอาจมาจากโอกาสที่บริษัทฯ จะขายรถเมล์ไฟฟ้า 3,000 คันในปีหน้า ซึ่งบริษัทฯ คาดว่าจะขายได้ผ่านกิจการร่วมทุนกับ Nex Point (NEX TB, not rated) การซื้อหุ้น 40% รวมมูลค่า 1.2พัน ลบ. ใน NEX ของ EA ในเดือน พ.ค. 20 และ การลงทุนเพิ่มเติมอีก 1.3พัน ลบ. ในโรงผลิตรถเมล์ไฟฟ้ากำลังการผลิตรวม 6,000 คันควรทำ ให้ EA และ NEX มีกำไรเดิบโตดีในปี 2021 เราคาดว่ากำไรดังกล่าวจะอยู่ที่ประมาณ 0.8พัน ลบ. ต่อปีสำหรับยอดขายรถเมล์ไฟฟ้า 3,000 คัน ซึ่งเรายังไม่ได้รวมไว้ในประมาณการของเรา ในปี 2021-2022 เรามองว่ากิจการร่วมทุนระหว่าง EA-NEX จะได้ประโยชน์จากความต้องการ รถเมล์ไฟฟ้าใหม่หลังสำนักงานคณะกรรมการนโยบายรัฐวิสาหกิจ (สคร.) มีแผนปรับโครงสร้าง องค์การขนส่งมวลชนกรุงเทพ (ขสมก) ซึ่งเป็นผู้ให้บริการรถขนส่งสาธารณะหลักในเขต กรุงเทพและปริมณฑล เมื่อวันที่ 8 มิ.ย. 20 ที่ประชุมคณะรัฐมนตรีมีมติอนุมัติแผนในการทยอย ทดแทนรถเมล์ที่ใช้เครื่องยนต์สันดาปภายใต้ด้วยรถเมล์ที่ใช้ก๊าชธรรมชาติและรถเมล์ไฟฟ้าใน ประเทศ ซึ่งใช้ส่วนประกอบที่ผลิตภายในประเทศไม่น้อยกว่า 50%

### การกลับมาของโรงไฟฟ้าพลังงานลม

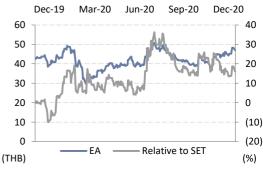
หลังปริมาณขายไฟฟ้าของโรงไฟฟ้าพลังงานลมของบริษัทฯ ลดลง 43% y-y เหลือ 157GWh ใน 3Q20 เนื่องจากลมประจำฤดูมาล่าช้า เราคาดว่ากระแสลมจะแรงขึ้นอย่างเห็นได้ชัดใน 4Q20 ซึ่งจะช่วยผลักดันกำไรสุทธิจากโรงไฟฟ้าพลังงานลมให้เพิ่มขึ้นถึง 30-50% q-q เนื่องจากเราคาดว่าอัตราส่วนความสามารถในการผลิตไฟฟ้าจริงเทียบกับกำลังการผลิต (Capacity Factor) จะเพิ่มเป็น 30-35% ใน 4Q20 จาก 19% ใน 3Q20

### Upsides จากรถไฟฟ้ายังถูกมองข้าม

เราคงคำแนะนำซื้อหลังเราเปลี่ยนราคาเป้าหมายของเราจาก 51 บาทในปี 2020 เป็น 56 บาท ในปี 2021 (SOTP) เราเชื่อว่าตลาดยังคงประเมินความเป็นไปได้ในด้าน Upside จากโครงการ รถเมล์ไฟฟ้า รถไฟฟ้า และPCM ของ EA ไว้ต่ำเกินไป ซึ่งเราเห็นว่าอาจเป็นปัจจัยบวกที่ไม่มี ใครคาดต่อกำไรของบริษัทฯ นับตั้งแต่ปี 2021 เป็นตันไป

### **KFY STOCK DATA**

YE Dec (THB m)	2019	2020E	2021E	2022E
Revenue	14,887	14,527	24,179	33,496
Net profit	6,082	4,795	7,342	8,819
EPS (THB)	1.63	1.29	1.97	2.36
vs Consensus (%)	-	(7.1)	7.2	10.5
EBITDA	9,706	9,058	11,854	14,432
Core net profit	6,082	4,795	7,342	8,819
Core EPS (THB)	1.63	1.29	1.97	2.36
Chg. In EPS est. (%)	-	-	-	-
EPS growth (%)	55.8	(21.2)	53.1	20.1
Core P/E (x)	28.8	36.6	23.9	19.9
Dividend yield (%)	0.5	0.5	0.5	0.5
EV/EBITDA (x)	21.5	23.3	17.4	13.8
Price/book (x)	7.5	6.4	5.2	4.2
Net debt/Equity (%)	128.4	115.6	80.8	50.2
ROE (%)	29.3	19.0	24.1	23.5
				_



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	4.4	14.6	8.0
Relative to country (%)	(5.1)	0.2	13.7
Mkt cap (USD m)			5,829
3m avg. daily turnover (USD m)			12.9
Free float (%)			40
Major shareholder	Mr. So	mphote Ahı	unai (23%)
12m high/low (THB)		5	1.50/27.50
Issued shares (m)			3,730.00

Sources: Bloomberg consensus; FSSIA estimates



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PREPARED BY FSS INTERNATIONAL INVESTMENT ADVISORY SECURITIES CO LTD (FSSIA). ANALYST CERTIFICATION AND IMPORTANT DISCLOSURES CAN BE FOUND AT THE END OF THIS REPORT

### Investment thesis

EA is Thailand's largest green energy player, operating through its three business segments of solar, wind and biodiesel; all touted to be the key pillars of Thailand's energy growth over the next 10 years. A biodiesel producer since 2012 with an 800k litre-per-day (lpd) capacity, EA later ventured into the solar and wind businesses. We believe EA's solar farms will be key earnings growth drivers, as they stand to gain from: 1) a high-margin THB6.5/kWh adder; and 2) a 40% decline in the cost of solar panels since 2010.

EA has evolved from being a pure biodiesel player to emerge as one of Thailand's key players in renewable energy. While its biodiesel segment has been struggling at a mere 50% utilisation rate due to the country's oversupply. EA's solar and wind farm businesses have benefited from high-margin electricity tariffs and the declining cost of solar panels.

# Company profile

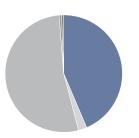
Energy Absolute (EA) is a leading green energy company in Thailand with business interests in biodiesel, solar and wind energy. EA has expanded into the battery storage and electricity vehicle (EV) businesses, which we expect to be key earnings growth drivers post 2019.

www.energyabsolute.co.th

# Principal activities (revenue, 2019)

- Methyl ester Biodiesel products -44.1 %
- Pure glycerine products 2.4 %
- Electricity from solar and wind power - 53.4 % ■ Head office and others - 0.7 %
- Project consultation regarding

alternative electric energy - -0.6 %

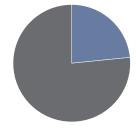


Source: Energy Absolute

# **Major shareholders**

Mr. Somphote Ahunai - 23.4 %

■ Others - 76.6 %



Source: Energy Absolute

# Catalyst

Higher utilisation rates of power plants and rising demand for electricity in Thailand are key potential growth drivers.

### Risk to our call

Downside risks to our SoTP-based TP include: 1) lower-thanexpected demand for electricity in Thailand; 2) lower crude prices; and 3) lower-than-expected demand for batteries.

### **Event calendar**

Date	Event
Feb 2021	4Q20/2020 results announcement

# Key assumptions

	2020E	2021E	2022E
Dispatched power (GWh)	9,229	9,715	9,715
Capacity factor - wind farms (%)	25	26	26
Battery sales volume (GWh)	0.0	0.7	3.1
EV car sales (cars)	0	5,000	5,500
EV boat sales (boats)	0	50	50
EV charging stations (stations)	0	1,000	1,000
Green diesel & PCM (tpd)	10	61	124

Source: FSSIA estimates

### Earnings sensitivity

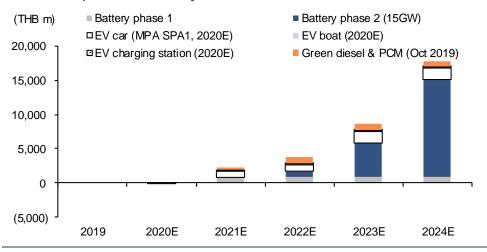
- For every 1% increase in utilisation rate, we estimate 2021 earnings would rise by 1.3%, and vice versa, all else being equal.
- For every 1% increase in interest rate, we estimate 2021 earnings would decline by 1.3%, and vice versa, all else being equal.

Source: FSSIA estimates

# From utility to mobility growth

After a weak 3Q20 NP of THB1.12b, we believe EA's NP growth will start to accelerate again in 4Q20 into 2021, backed by 1) the seasonally high wind speed to drive up the NPs from wind farms; 2) improving NPs from its PCM plant due to a high utilisation rate; and 3) NPs from the soon-to-operate EV, E-bus, and battery phase 1 (1GWh) plants.

Exhibit 1: Net profit breakdown by business from EA's new S-curve ventures



Sources: EA; FSSIA estimates

After a 43% y-y lower electricity sales volume for its wind farms to 157GWh in 3Q20 due to delayed seasonal winds, we project the wind speed to sharply recover in 4Q20, driving up the NPs from wind farms by 30-50% q-q, given our projected higher capacity factor to 30-35% in 4Q20, up from 19% in 3Q20.

Exhibit 2: Electricity sales volume and ASP for wind farms

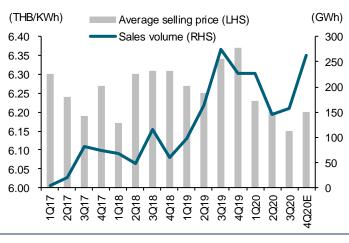
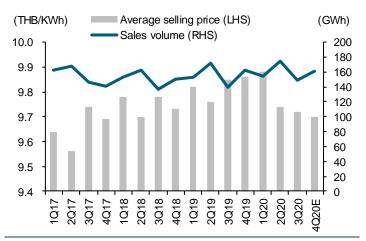


Exhibit 3: Electricity sales volume and ASP for solar farms



Sources: EA; FSSIA estimates

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# EV cars and E-buses are key growth engines

While most investors are focused on EA's 4,500 EV cars to be delivered within 2021 – a delay from 2020 due to COVID-19 – we think the real upside could come from the 3,000 potential E-bus sales next year that management expects to achieve via its JV with NEX. EA's THB1.2b acquisition of a 40% stake in NEX in May-20, and the additional THB1.3b investment cost for its E-bus manufacturing plant with a total capacity of 6,000 E-buses annually, should allow EA and NEX to see strong NP growth in 2021. We estimate it to be in the range of 0.8b annually for 3,000 E-bus sales, and is still excluded in our NP forecasts for 2021-22.

### Exhibit 4: EV bus by EA



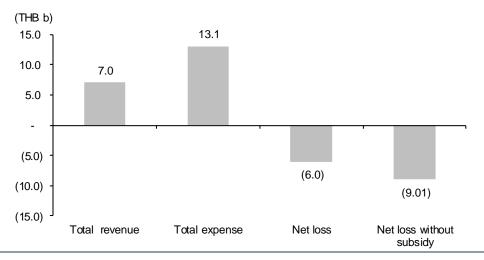
Exhibit 5: EA's SPA1 model



Source: EA Source: EA

A game changer for Thailand's bus industry. Under the rehabilitation plan led by the State Enterprise Policy Office committee to restructure BMTA, the main operator of public buses within the greater Bangkok area, the Thai cabinet on 8 Jun-20 approved a plan to gradually replace all internal combustion engine buses with NGV and EV buses domestically, assembled from not less than 50% local content.

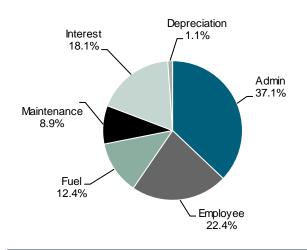
Exhibit 6: BMTA incurred a net loss of THB6b in 2019



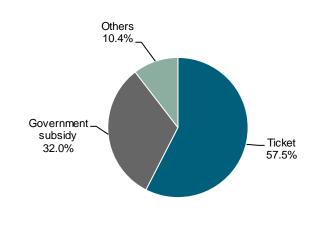
Source: BMTA

In the past 40 years since 1976, BMTA has accumulated net losses of up to THB120b, with a reported net loss of THB6b in 2019. Its total operating expense of THB5.9b and interest expense of THB2.9b far exceeded its total revenue of THB7b. The main factors were the high employee expense of THB3.6b and the maintenance expense of THB1.4b vs a fuel expense of only THB2b.

Exhibit 7: BMTA's expense breakdown (2019)



**Exhibit 8: Revenue breakdown** 



Source: BMTA Source: BMTA

One of the main reasons for BMTA's large operating losses is its high maintenance expenses as a result of its aging bus fleet with an average of 22 working years, based on our estimate as of Feb-20. Most of BMTA's common buses have over 26 working years, leading to high maintenance costs.

Exhibit 9: Average age of BMTA's buses

As of Feb-20	Number of buses	Working years
Common bus	1,520	29
Air-conditioned common bus	179	26
NGV bus	201	22
Air-conditioned NGV bus	175	19
NGV bus (second phase)	489	2
Others	441	22
Total	3,005	22

Source: BMTA

The key points under the rehabilitation plan to turnaround BMTA by 2030 are as follows:

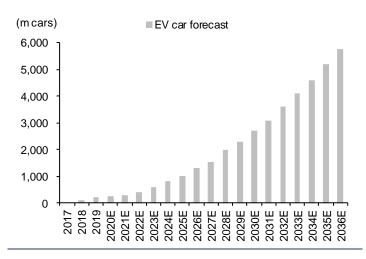
- Lease and rent 2,511 EV buses to reduce maintenance and operating expenses;
- Outsource the operation of 1,500 buses to private companies (on already approved routes) using only EV or NGV buses manufactured in Thailand with a minimum of 50% local content;
- A fixed and flat rate bus fare of THB30/person per day without any restriction for the distance and number of rides;
- Reduce the number of operating routes from the current 269 routes down to 162 routes (BMTA operates 108 routes and private firms operate 54 routes).

Coupled with the projected increase in EV cars in Thailand under the Power Development Plan 2018 (PDP 2018), we think the EA-NEX JV will be a key beneficiary from the new demand for E-buses, which we estimate to be 3,000-10,000 E-buses annually.

Exhibit 10: Analysis of E-bus financials and profitability

Analysis of EA's E-bus financials	Unit	Value
Estimated number of buses sold annually	bus	3,000
Price range	THB m	3-6
Average selling price	THB m	5
Estimated net margin	%	15
Net profit	THB m	2,025
EA's stake	%	40
EA's net profit from E-buses	THB m	810
Net profit per E-bus	THB m	0.68

Exhibit 11: EV car projections under PDP 2018



Sources: EA; NEX; FSSIA estimates

Source: PDP 2018

For EA, we estimate that the E-bus JV could generate an NP of up to THB0.8b in 2021, based on 1) 3,000 buses sold annually; 2) an average selling price per bus of THB5m; 3) an estimated NP margin of 15%; and 4) EA's stake of 40% in NEX.

In addition, if NEX wins the maintenance contract for the E-buses sold to BMTA, we estimate that EA could add an additional NP of up toTHB0.4b annually from the maintenance income.

Exhibit 12: EA-NEX JV for E-bus growth opportunity



Source: https://hoonsmart.com/archives/125510

# Maintain BUY; TP raised to THB56

We maintain BUY and raise our SOTP-based target price from THB51 to THB56 to reflect our valuation rollover to 2021. We believe the market continues to underestimate the potential upsides from EA's E-bus, EV car, and PCM ventures, which we think could be surprising earnings catalysts for the company in 2021 onward.

# Exhibit 13: One-year forward P/E without EPS from battery, green diesel & PCM

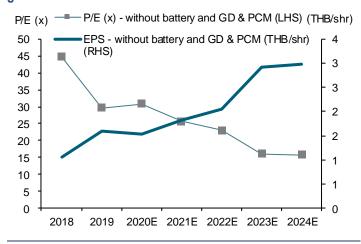
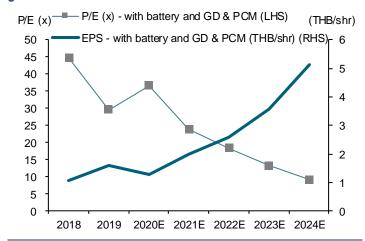


Exhibit 14: One-year forward P/E with EPS from battery, green diesel & PCM



Sources: EA; FSSIA estimates Sources: EA; FSSIA estimates

# **Exhibit 15: SoTP valuation**

EA's DCF valuation				
Cost of equity assumptions	(%)		Cost of debt assumptions	(%)
Risk free rate	2.3		Pretax cost of debt	4.6
Market risk premium	8.5		Marginal tax rate	20.0
Stock beta	0.40			
DCF assumptions				
Cost of equity, Ke	5.7		Net cost of debt, Kd	3.4
Weight applied	25.0		Weight applied	75.0
WACC (%)	4.0			
SoTP valuation estimate	(THB m)	(THB/share)	Valuation methodology	
Biodiesel	4,417	1.2	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Solar				
Lop buri	1,331	0.4	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Nakornsawun	12,119	3.2	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Lumpang	18,979	5.1	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Pisanuloak	19,270	5.2	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Total solar	51,699	13.9		
Wind				
- Southern (COD 2017)				
Had Gunghun 1	4,175	1.1	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Had Gunghun 2	5,087	1.4	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Had Gunghun 3	5,103	1.4	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Had Gunghun 4	6,301	1.7	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Total wind farms Southern	14,365	5.5		
- Northeastern (COD 2018)				
Hanuman 1	8,160	2.2	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Hanuman 5	8,682	2.3	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Hanuman 8	8,139	2.2	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Hanuman 9	7,596	2.0	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Hanuman 10	14,507	3.9	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Total wind farms Northeastern	47,084	12.6		
EV and battery				
Battery phase 1 (1GWh)	8,360	2.2	DCF with WACC 7%, Risk free rate 5.3%, Risk premium 8.5%	
Battery phase 2 (15GWh)	72,881	19.5	DCF with WACC 7%, Risk free rate 5.3%, Risk premium 8.5%	
EV cars (MPA SPA1, 1Q21E)	11,124	3.0	FY21E P/E at 12x	
EV boats (1Q21E)	779	0.2	FY21E P/E at 12x	
EV charging stations (2020)	1,085	0.3	DCF with WACC 4.0%, Risk free rate 2.3%, Risk premium 8.5%	
Total EV and battery	94,228	25.3		
Green diesel & PCM (3Q20)	5,616	1.5	FY20E P/E at 15x	
Net debt	(28,887)	(9.0)		
Minorities	2,133	5.0		
Residual ordinary equity	190,656	56.0		

Sources: EA; FSSIA estimates

# **Financial Statements**

Energy Absolute

Profit and Loss (THB m) Year Ending Dec	2018	2019	2020E	2021E	2022E
Revenue	11,552	14,887	14,527	24,179	33,496
Cost of goods sold	(3,835)	(4,235)	(4,452)	(10,633)	(16,719)
Gross profit	7,717	10,652	10,075	13,546	16,777
Other operating income	-,	-	-	-	-
Operating costs	(805)	(946)	(1,017)	(1,693)	(2,345)
Operating EBITDA	6,912	9,706	9,058	11,854	14,432
Depreciation	(1,833)	(2,517)	(2,416)	(2,494)	(3,694)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	5,079	7,189	6,642	9,360	10,738
Net financing costs	(920)	(1,226)	(1,631)	(1,743)	(1,645)
Associates	(6)	(14)	0	0	0
Recurring non operating income	(140)	53	100	101	101
Non recurring items	1,072	0	0	0	0
Profit before tax	5,091	6,016	5,111	7,718	9,194
Tax	(29)	11	(5)	(55)	(45)
Profit after tax	5,061	6,027	5,106	7,662	9,149
Minority interests	(86)	55	(311)	(320)	(330)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	4,975	6,082	4,795	7,342	8,819
Non recurring items & goodwill (net)	(1,072)	0	0	0	0
Recurring net profit	3,904	6,082	4,795	7,342	8,819
Per share (THB)					
Recurring EPS *	1.05	1.63	1.29	1.97	2.36
Reported EPS	1.33	1.63	1.29	1.97	2.36
DPS	0.20	0.25	0.25	0.25	0.25
Diluted shares (used to calculate per share data)	3,730	3,730	3,730	3,730	3,730
Growth					
Revenue (%)	(0.2)	28.9	(2.4)	66.4	38.5
Operating EBITDA (%)	8.1	40.4	(6.7)	30.9	21.8
Operating EBIT (%)	4.4	41.5	(7.6)	40.9	14.7
Recurring EPS (%)	2.3	55.8	(21.2)	53.1	20.1
Reported EPS (%)	30.3	22.2	(21.2)	53.1	20.1
Operating performance					
Gross margin inc depreciation (%)	50.9	54.6	52.7	45.7	39.1
Gross margin of key business (%)	50.9	54.6	52.7	45.7	39.1
Operating EBITDA margin (%)	59.8	65.2	62.4	49.0	43.1
Operating EBIT margin (%)	44.0	48.3	45.7	38.7	32.1
Net margin (%)	33.8	40.9	33.0	30.4	26.3
Effective tax rate (%)	0.6	-0.2	0.1	0.7	0.5
Dividend payout on recurring profit (%)	19.1	15.3	19.4	12.7	10.6
Interest cover (X)	5.4	5.9	4.1	5.4	6.6
Inventory days	21.8	46.9	63.7	46.3	53.4
Debtor days	74.0	67.1	90.6	71.7	70.3
Creditor days	56.8	70.3	85.9	62.4	72.0
Operating ROIC (%)	10.5	12.1	9.3	(3.1)	(3.4)
ROIC (%) ROE (%)	9.5 23.8	11.2	8.7	(2.9) 24.1	(3.2) 23.5
ROA (%)	9.1	29.3 10.8	19.0 8.9	9.0	10.0
* Pre-exceptional, pre-goodwill and fully diluted	9.1	10.6	6.9	9.0	10.0
	2010				
Revenue By Division (THB m)	2018	2019	2020E	2021E	2022E
Methyl ester Biodiesel products	3,213	6,570	6,570	6,570	6,570
Pure glycerine products	298	350	360	361	361
Electricity from solar and wind power	7,692	7,957	7,231	8,252	15,759
Head office and others	341	100	100	101	101
Project consultation regarding alternative electric energy	50	(90)	(90)	(89)	(89)
Battery and EV	(42)	0	356	8,984	10,794
Sources: Energy Absolute; FSSIA estimates					

Sources: Energy Absolute; FSSIA estimates

# **Financial Statements**

Energy Absolute

Cash Flow (THB m) Year Ending Dec	2018	2019	2020E	2021E	2022
Recurring net profit	3,904	6,082	4,795	7,342	8,81
Depreciation	1,833	2,517	2,416	2,494	3,69
Associates & minorities	(6)	(14)	0	0	
Other non-cash items	7 000	(0.054)	(0.40)	(4.020)	(4.50)
Change in working capital	7,992	(9,651)	(846)	(1,039)	(1,596
cash flow from operations	13,722	(1,067)	6,366	8,797	10,91
Capex - maintenance	(1,833) (12,368)	(2,517)	(2,416) (4,984)	(2,494) (1,006)	(3,69 <sup>4</sup> (19 <sup>4</sup>
capex - new investment let acquisitions & disposals	922	(3,784) (68)	(4,964)	(1,000)	(192
Other investments (net)	(984)	(49)	0	0	
Cash flow from investing	(14,263)	(6,418)	(7,400)	(3,500)	(3,88
Dividends paid	(746)	(746)	(933)	(933)	(93
Equity finance	0	0	0	0	(00)
Debt finance	1,525	12,725	(180)	5,946	(10,99
Other financing cash flows	734	56	311	321	71
Cash flow from Financing	1,513	12,035	(801)	5,334	(11,20
Non-recurring cash flows	-	-	-	-	, ,
Other adjustments	0	0	0	0	
let other adjustments	0	0	0	0	
Novement in cash	972	4,550	(1,836)	10,632	(4,17
ree cash flow to firm (FCFF)	545.96	(6,098.64)	596.16	7,040.44	8,673.9
ree cash flow to equity (FCFE)	1,718.50	5,296.19	(903.17)	11,564.31	(3,243.20
er share (THB)					
CFF per share	0.15	(1.64)	0.16	1.89	2.3
CFE per share	0.46	1.42	(0.24)	3.10	(0.8
Recurring cash flow per share	1.54	2.30	1.93	2.64	3.3
Balance Sheet (THB m) Year Ending Dec	2018	2019	2020E	2021E	2022
angible fixed asset (gross)	53,646	59,819	67,219	70,719	74,21
ess: Accumulated depreciation	(6,059)	(8,448)	(10,864)	(13,359)	(17,05
angible fixed assets (Net)	47,587	51,371	56,355	57,361	57,16
ntangible fixed assets (Net)	937	3,683	3,683	3,683	3,68
ong-term financial assets	-	-	-	-	0,00
nvest. In associates & subsidiaries	33	100	100	100	10
Cash & equivalents	5,479	10,029	8,193	18,825	14,64
VC receivable	2,295	3,175	4,034	5,464	7,44
nventories	330	758	796	1,902	2,99
Other current assets	47	71	69	115	16
Current assets	8,150	14,033	13,093	26,306	25,24
Other assets	2,501	1,033	1,033	1,033	1,03
otal assets	59,208	70,220	74,264	88,483	87,22
Common equity	18,139	23,365	27,227	33,637	41,52
finorities etc.	1,379	1,502	1,813	2,133	2,46
otal Shareholders' equity	19,518	24,866	29,040	35,770	43,98
ong term debt	26,139	36,977	36,798	42,744	31,75
Other long-term liabilities	1,049	2,306	2,306	2,306	2,30
ong-term liabilities	27,187	39,283	39,103	45,049	34,05
VC payable	611	1,021	1,073	2,563	4,03
Short term debt	3,081	4,968	4,968	4,968	4,96
Other current liabilities	8,810	81	79	132	18
Current liabilities	12,503	6,070	6,120	7,663	9,18
otal liabilities and shareholders' equity	59,208	70,220	74,264	88,483	87,22
let working capital	(6,750)	2,902	3,748	4,787	6,38
nvested capital	44,308	59,089	64,918	66,963	68,36
Includes convertibles and preferred stock which is being	g treated as debt				
Per share (THB)					
Book value per share	4.86	6.26	7.30	9.02	11.1
angible book value per share	4.61	5.28	6.31	8.03	10.1
inancial strength					
Net debt/Equity (%)	121.6	128.4	115.6	80.8	50
Net debt/total assets (%)	40.1	45.5	45.2	32.6	25
Current ratio (x)	0.7	2.3	2.1	3.4	2
CF interest cover (x)	16.3	8.4	3.5	8.2	(0.
/aluation	2018	2019	2020E	2021E	2022
Recurring P/E (x) *	44.9	28.8	36.6	23.9	19
	53.5	34.3	43.6	28.4	23
Recurring P/E @ target price (x) *	35.2	28.8	36.6	23.9	19
• • • • • •	00.2		0.5	0.5	0
Recurring P/E @ target price (x) * Reported P/E (x) Dividend yield (%)	0.4	0.5			
Reported P/E (x) Dividend yield (%)		0.5 7.5	6.4	5.2	4
Reported P/E (x)	0.4			5.2 5.9	4 4
Reported P/E (x) Dividend yield (%) Price/book (x) Price/tangible book (x)	0.4 9.7	7.5	6.4		4
Reported P/E (x) Dividend yield (%) Price/book (x)	0.4 9.7 10.2	7.5 8.9	6.4 7.4	5.9	

Sources: Energy Absolute; FSSIA estimates

# Corporate Governance report of Thai listed companies 2019

AAV         ADVANC         AIRA         AKP         AKR         AMA         AMATA         AMATAV         ANAN           ARROW         BAFS         BANPU         BAY         BCP         BCPG         BOL         BRR         BTS           CFRESH         CHEWA         CHO         CK         CKP         CM         CNT         COL         COM           CPI         CPN         CSS         DELTA         DEMCO         DRT         DTAC         DTC         EA           EGCO         GBX         GC         GCAP         GEL         GFPT         GGC         GOLD         GPSC           JSP         K         KBANK         KCE         KKP         KSL         KTB         KTC         KTIS           LIT         LPN         MAKRO         MALEE         MBKET         MC         MCOT         MTTUCH         IRPC           JSP         K         KBANK         KCE         KKP         KSL         KTB         KTC         KTIS           LIT         LPN         MAKRO         MALEE         MBKET         MC         MCOT         MTTUCH         IRPC         MCOT         MTTUCH         IRPC         MTTUCH         IRPC         MTTUCH<	BTW BWG  CPALL CPF EASTW ECF GRAMMY GUNKUL IVL JKN LH LHFG MINT MONO* PAP PCSGH PREB PRG N QH QTC SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
CFRESH         CHEWA         CHO         CK         CKP         CM         CNT         COL         COM/CPI           CPI         CPN         CSS         DELTA         DEMCO         DRT         DTAC         DTC         EA           EGCO         GBX         GC         GCAP         GEL         GFPT         DTAC         DTC         EA           HANA         HARN         HMPRO         ICC         ICHI         III         ILINK         INTUCH         IRPC           JSP         K         KBANK         KCE         KKP         KSL         KTB         KTC         KTIS           LIT         LPN         MAKRO         MALEE         MBK         MBKET         MC         MCOT         MFEC           MTC         NCH         NCL         NKI         NSI         NVD         NYT         OISHI         OTO           PPM         PS         PHOL         PJW         PLANB         PLANET         PORT         PPS         PP	AN CPALL CPF EASTW ECF GRAMMY GUNKUL IVL JKN LH LHFG MINT MONO* PAP PCSGH PREB PRG N QH QTC SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
CPI         CPN         CSS         DELTA         DEMCO         DRT         DTAC         DTC         EA           EGCO         GBX         GC         GCAP         GEL         GFPT         GGC         GOLD         GPSC           HANA         HARN         HMPRO         ICC         ICHI         III         ILINK         INTUCH         IRPC           JSP         K         KBANK         KCE         KKP         KSL         KTB         KTC         KTIS           LIT         LPN         MAKRO         MALEE         MBK         MBKET         MC         MCOT         MFEC           MTC         NCH         NCL         NKI         NSI         NVD         NYT         OISHI         OTO         DPT         PPS	EASTW ECF GRAMMY GUNKUL IVL JKN LH LHFG MINT MONO* PAP PCSGH PREB PRG N QH QTC SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
EGCO         GBX         GC         GCAP         GEL         GFPT         GGC         GOLD         GPSC           HANA         HARN         HMPRO         ICC         ICHI         III         ILINK         INTUCH         IRPC           JSP         K         KBANK         KCE         KKP         KSL         KTB         KTC         KTIS           LIT         LPN         MAKRO         MALEE         MBK         MBKET         MC         MCOT         MFEC           MTC         NCH         NCL         NKI         NSI         NVD         NYT         OISHI         OTO           MTC         NCH         NCL         NKI         NSI         NVD         NYT         OISHI         OTO           PDJ         PG         PHOL         PJW         PLANB         PLANET         PORT         PPS         PR9         PRP         PPLON         Q-CO         ASA         SSE         J         SABINA         SAMART         SAMTEL         SAT         SSEC         SCC         SCC         SCC         SC         SC <t< td=""><td>GRAMMY GUNKUL IVL JKN LH LHFG MINT MONO* PAP PCSGH PREB PRG N QH QTC SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&amp;E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC</td></t<>	GRAMMY GUNKUL IVL JKN LH LHFG MINT MONO* PAP PCSGH PREB PRG N QH QTC SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
HARN	IVL JKN LH LHFG MINT MONO* PAP PCSGH PREB PRG N QH QTC SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
SP	LH LHFG  MINT MONO* PAP PCSGH PREB PRG N QH QTC SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
LIT LPN MAKRO MALEE MBK MBKET MC MCOT MFECT MTC NCH NCL NKI NSI NVD NYT OISHI OTO PDJ PG PHOL PJW PLANB PLANET PORT PPS PR9 PR9 PRM PSH PSL PTG PTT PTTEP PTTGC PYLON Q-CO RATCH ROBINS** RS S S \$ \$ J SABINA SAMART SAMTEL SAT SCC SCCC SCN SDC SEAFCO SEAOIL SE-ED SELIC SENA SNC SORKON SPALI SPI SPRC SSSC STA STEC SVI TOAP THAI THANA THANI THCOM THIP THREL TIP TISCC TAP THAI THANA THANI THCOM THIP THREL TIP TISCC TAP THAI TTCL TTW TU TVD TVO U UAC UV WACOAL WAVE WHA WHAUP WICE WINNER  VERY GOOD LEVEL  2S ABM ADB AF AGE AH AHC AIT ALLA AMARIN APCO APCS AQUA ARIP ASAP ASIA ASIAN ASIMM ASP ATP30 AUCT AYUD B BA BBL BDMS BEC GGH CHG CHOTI CHOW CI CIMBT CNS COLOR COM7 CSG CSP DCC DCON DDD DOD EASON ECL EE SETAR ETE FLOYD FN FNS FORTH FPI FPT FSMA SENCO GJS GL GLOBAL GLOW** GUIF HPT HTC HYDR NET INSURE IRC IRCP IT ITD*** ITEL J JAS** MACOAL MAND INSURE IRC IRCP IT ITD*** ITEL J JAS** MACOAL MAND INSURE IRC IRCP IT ITD**** ITEL J JAS** MACOAL MAND ALE IRC IRCP IT ITD**** ITEL J JAS** MACOAL MAND ALE IRC IRCP IT ITD**** ITEL J JAS** MACOAL MAND ALE IRC IRCP IT ITD**** ITEL J JAS** MACOAL MAND ALE IRC IRCP IT ITD**** ITEL J JAS** MACOAL MAND ALE IRC IRCP IT ITD**** ITEL J JAS** MACOAL MAND ALE IRC IRCP IT ITD**** ITEL J JAS** MACOAL MECOAL ME	MINT MONO* PAP PCSGH PREB PRG N QH QTC SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
MTC         NCH         NCL         NKI         NSI         NVD         NYT         OISHI         OTO           PDJ         PG         PHOL         PJW         PLANB         PLANET         PORT         PPS         PRS           PRM         PSH         PSL         PTG         PTT         PTTEP         PTTGC         PYLON         Q-CO           RATCH         ROBINS**         RS         S         S \$ J         SABINA         SAMTRT         SAMTEL         SAT           SCC         SCCC         SCN         SDC         SEAFCO         SEAGIL         SE-ED         SELIC         SENA           SNC         SORKON         SPALI         SPI         SPRC         SSSC         STA         STEC         SVI           TCAP         THAI         THANA         THANI         THCOM         THIP         THREL         TIP         TISC           TTM         TTCA         TTW         TU         TVD         TVO         U         UAC         UV           WACOAL         WAVE         WHA         WHAUP         WICE         WINNER         WINNER         VERY GOOD LEVEL         22         SABM         ADB         AF         AGE         AH<	PAP PCSGH PREB PRG N QH QTC SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
PDJ         PG         PHOL         PJW         PLANB         PLANET         PORT         PPS         PR9           PRM         PSH         PSL         PTG         PTT         PTTEP         PTTGC         PYLON         Q-CO           RATCH         ROBINS**         RS         S         S & J         SABINA         SAMART         SAMTEL         SAT           SCC         SCCC         SCN         SDC         SEAFCO         SEAOIL         SE-ED         SELIC         SENA           SNC         SORKON         SPALI         SPI         SPRC         SSSC         STA         STEC         SVI           TCAP         THAI         THANA         THANI         THCOM         THIP         THREL         TIP         TISCC           TMB         TMILL         TNDT         TOA         TOP         TRC         TRU         TRUE         TSC           TTA         TTCL         TTW         TU         TVD         TVO         U         UAC         UV           WACOAL         WAVE         WHA         WHAUP         WICE         WINNER         WINNER         VERY GOOD LEVEL         22         25         ABM         ADB         AF         AG	PREB PRG N QH QTC SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E NEP NETBAY OSP PATO PRINC PSTC
PRM         PSH         PSL         PTG         PTT         PTTEP         PTTGC         PYLON         Q-CO           RATCH         ROBINS**         RS         S         S & J         SABINA         SAMART         SAMTEL         SAT           SCC         SCC         SCN         SDC         SEAFCO         SEAOIL         SE-ED         SELIC         SENA           SNC         SORKON         SPALI         SPI         SPRC         SSSC         STA         STEC         SVI           ITCAP         THAI         THANA         THANI         THCOM         THIP         THREL         TIP         TISCC           ITCAP         THAI         THANA         THANI         THCOM         THIP         THREL         TIP         TISCC           ITCAP         THAI         THANA         THANI         THCOM         THIP         THREL         TIP         TISCC           ITCAP         THAI         THANA         THANI         THCOM         THCOM         THAI         THREL         TIP         TISCC           ITCAP         THAI         THAI         THAIN         THAIN         THAIN         THAIN         THAIN         THAIN         THAIN         THAIN	N QH QTC SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
RATCH   ROBINS**   RS   S   S & J   SABINA   SAMART   SAMTEL   SAT   SCC   SCCC   SCN   SDC   SEAFCO   SEAOIL   SE-ED   SELIC   SENA   SNC   SORKON   SPALI   SPI   SPRC   SSSC   STA   STEC   SVI   TCAP   THAI   THANA   THANI   THCOM   THIP   THREL   TIP   TISCC   TTA   TTCL   TTW   TU   TVD   TVO   U   UAC   UV   WACOAL   WAVE   WHA   WHAUP   WICE   WINNER   WINNER   WHAUP   WICE   WINNER   WINNER   WHAUP   WICE   WINNER	SC SCB SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
SCC SCCC SCN SDC SEAFCO SEAOIL SE-ED SELIC SENA SNC SORKON SPALI SPI SPRC SSSC STA STEC SVI TCAP THAI THANA THANI THCOM THIP THREL TIP TISCO TIMB TMILL TNDT TOA TOP TRC TRU TRUE TSC TTA TTCL TTW TU TVD TVO U UAC UV WACOAL WAVE WHA WHAUP WICE WINNER  VERY GOOD LEVEL 2S ABM ADB AF AGE AH AHC AIT ALLA AMARIN APCO APCS AQUA ARIP ASAP ASIA ASIAN ASIMA ASP ATP30 AUCT AYUD B BA BBL BDMS BEC CGH CHG CHOTI CHOW CI CIMBT CNS COLOR COM7 CSC CSP DCC DCON DDD DOD EASON ECL EE ESTAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR SIMPAT JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACO MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NET INSURE IRC IRCP IT ITD*** ITEL J JAS* MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NET UANNA LDC LHK LOXLEY LRH LST M MACO MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NET UANNA LDC LHK LOXLEY LRH LST M MACO MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NET UANNA LDC LHK LOXLEY LRH LST M MACO MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NET UANNA LDC LHK LOXLEY LRH LST M MACO MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI PB PDG PDI PL PLAT PM PPP PRECHA PRIN PT QLT RCL RICHY RML RWI S11 SAAM SALEI SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGI	SIS SITHAI SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
SNC         SORKON         SPALI         SPI         SPRC         SSSC         STA         STEC         SVI           TCAP         THAI         THANA         THANI         THCOM         THIP         THREL         TIP         TISCO           TIMB         TMILL         TNDT         TOA         TOP         TRC         TRU         TRUE         TSC           TITA         TTCL         TTW         TU         TVD         TVO         U         UAC         UV           WACOAL         WAVE         WHA         WHAUP         WICE         WINNER         WINNER           VERY GOOD LEVEL           22S         ABM         ADB         AF         AGE         AH         AHC         AIT         ALLA           AMARIN         APCO         APCS         AQUA         ARIP         ASAP         ASIA         ASIAN         ASIMN           ASP         ATP30         AUCT         AYUD         B         BA         BBL         BDMS         BEC           BGC         BGRIM         BIZ         BJC         BJCHI         BLA         BPP         BROOK         CBG           CGH         CHG         CHOTI         CHOW <td>SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&amp;E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC</td>	SYNTEC TASCO TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
TCAP THAI THANA THANI THCOM THIP THREL TIP TISCO TIMB TMILL TNDT TOA TOP TRC TRU TRUE TSC TTA TTCL TTW TU TVD TVO U UAC UV WACOAL WAVE WHA WHAUP WICE WINNER  VERY GOOD LEVEL 2S ABM ADB AF AGE AH AHC AIT ALLA AMARIN APCO APCS AQUA ARIP ASAP ASIA ASIAN ASIMN ASP ATP30 AUCT AYUD B BA BBL BDMS BEC BGC BGRIM BIZ BJC BJCHI BLA BPP BROOK CBG CGH CHG CHOTI CHOW CI CIMBT CNS COLOR COM7 CSC CSP DCC DCON DDD DOD EASON ECL EE ESTAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR NET INSURE IRC IRCP IT ITD*** ITEL J JAS** JMART JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACC MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI DEN DO SEP PRECHA PRIN PPP PRECHA PRIN PSAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	TK TKT TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
TMB TMILL TNDT TOA TOP TRC TRU TRUE TSC TTA TTCL TTW TU TVD TVO U U UAC UV WACOAL WAVE WHA WHAUP WICE WINNER  VERY GOOD LEVEL  2S ABM ADB AF AGE AH AHC AIT ALLA AMARIN APCO APCS AQUA ARIP ASAP ASIA ASIAN ASIMA ASP ATP30 AUCT AYUD B BA BBL BDMS BEC BGRIM BIZ BJC BJCHI BLA BPP BROOK CBG CGH CHG CHOTI CHOW CI CIMBT CNS COLOR COM7 CSC CSP DCC DCON DDD DOD EASON ECL EE ESTAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR INET INSURE IRC IRCP IT ITD*** ITEL J JAS* JMART JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACC MEGA METCO MFC MK MODERN MOONG MPG MSC MTI MARX NINE NOBLE NOK NTV NWR OCC OGC OR PB PDG PDI PL PLAT PM PPP PRECHA PRIN SAAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	TSR TSTH VGI VIH  ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
TTA TTCL TTW TU TVD TVO U UAC UV WACOAL WAVE WHA WHAUP WICE WINNER  VERY GOOD LEVEL  2S ABM ADB AF AGE AH AHC AIT ALLA AMARIN APCO APCS AQUA ARIP ASAP ASIA ASIAN ASIMA ASP ATP30 AUCT AYUD B BA BBL BDMS BEC BGC BGRIM BIZ BJC BJCHI BLA BPP BROOK CBG CGH CHG CHOTI CHOW CI CIMBT CNS COLOR COM7 CSC CSP DCC DCON DDD DOD EASON ECL EE ESTAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR INET INSURE IRC IRCP IT ITD*** ITEL J JAS* JMART JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACC MEGA METCO MFC MK MODERN MOONG MPG MSC MTI MEGA METCO MFC MK MODERN MOONG MPG MSC MTI PRESAMPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
WACOAL WAVE WHA WHAUP WICE WINNER  VERY GOOD LEVEL  2S ABM ADB AF AGE AH AHC AIT ALLA AMARIN APCO APCS AQUA ARIP ASAP ASIA ASIAN ASIM/ ASP ATP30 AUCT AYUD B BA BBL BDMS BEC BGC BGRIM BIZ BJC BJCHI BLA BPP BROOK CBG CGH CHG CHOTI CHOW CI CIMBT CNS COLOR COM7 CSC CSP DCC DCON DDD DOD EASON ECL EE ESTAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR INET INSURE IRC IRCP IT ITD*** ITEL J JAS* JMART JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACC MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI PB PDG PDI PL PLAT PM PPP PRECHA PRIN SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	ALT AMANAH AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
VERY GOOD LEVEL  2S ABM ADB AF AGE AH AHC AIT ALLA AMARIN APCO APCS AQUA ARIP ASAP ASIA ASIAN ASIMA ASP ATP30 AUCT AYUD B BA BBL BDMS BEC BGC BGRIM BIZ BJC BJCHI BLA BPP BROOK CBG CGH CHG CHOTI CHOW CI CIMBT CNS COLOR COM7 CSC CSP DCC DCON DDD DOD EASON ECL EE ESTAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR NET INSURE IRC IRCP IT ITD*** ITEL J JAS* JMART JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACC MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI PB PDG PDI PL PLAT PM PPP PRECHA PRIN SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
ABM ADB AF AGE AH AHC AIT ALLA AMARIN APCO APCS AQUA ARIP ASAP ASIA ASIAN ASIAN ASIAN ASP ATP30 AUCT AYUD B BA BA BBL BDMS BEC BGC BGRIM BIZ BJC BJCHI BLA BPP BROOK CBG CGH CHG CHOTI CHOW CI CIMBT CNS COLOR COMT CSC CSP DCC DCON DDD DOD EASON ECL EE STAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR NET INSURE IRC IRCP IT ITD*** ITEL J JAS* JMART JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACC MEGA METCO MFC MK MODERN MOONG MPG MSC MTI MEGA METCO MFC MK MODERN MOONG MPG MSC MTI COME ASAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGESAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGESAME SAWAD SCG SCI SCP SE SFP SIAM SINGESAME SINCESAME SINCES	AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
AMARIN APCO APCS AQUA ARIP ASAP ASIA ASIAN ASIAN ASP ASP ATP30 AUCT AYUD B BA BA BBL BDMS BEC BGC BGRIM BIZ BJC BJCHI BLA BPP BROOK CBG CGH CHG CHOTI CHOW CI CIMBT CNS COLOR COMT CSC CSP DCC DCON DDD DOD EASON ECL EE STAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR NET INSURE IRC IRCP IT ITD*** ITEL J JAS* JMART JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACC MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NOEX NINE NOBLE NOK NTV NWR OCC OGC ORI PB PDG PDI PL PLAT PM PPP PRECHA PRIN SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	AR ASK ASN BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
ASP ATP30 AUCT AYUD B BA BA BBL BDMS BEC BGC BGRIM BIZ BJC BJCHI BLA BPP BROOK CBG CGH CHG CHOTI CHOW CI CIMBT CNS COLOR COM7 CSC CSP DCC DCON DDD DOD EASON ECL EE ESTAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR NET INSURE IRC IRCP IT ITD*** ITEL J JAS* JMART JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACC MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI PB PDG PDI PL PLAT PM PPP PRECHA PRIN SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	BEM BFIT CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
BGC BGRIM BIZ BJC BJCHI BLA BPP BROOK CBG CGH CHG CHOTI CHOW CI CIMBT CNS COLOR COM7 CSC CSP DCC DCON DDD DOD EASON ECL EE ESTAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR NET INSURE IRC IRCP IT ITD*** ITEL J JAS* JMART JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACC MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI PB PDG PDI PL PLAT PM PPP PRECHA PRIN PT QLT RCL RICHY RML RWI S11 SAAM SALEI SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	CEN CENTEL COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
CGH         CHG         CHOTI         CHOW         CI         CIMBT         CNS         COLOR         COM7           CSC         CSP         DCC         DCON         DDD         DOD         EASON         ECL         EE           ESTAR         ETE         FLOYD         FN         FNS         FORTH         FPI         FPT         FSMA           GENCO         GJS         GL         GLOBAL         GLOW**         GULF         HPT         HTC         HYDR           INET         INSURE         IRC         IRCP         IT         ITD****         ITEL         J         JAS*           JMART         JMT         JWD         KBS         KCAR         KGI         KIAT         KOOL         KWC           LALIN         LANNA         LDC         LHK         LOXLEY         LRH         LST         M         MACC           MEGA         METCO         MFC         MK         MODERN         MOONG         MPG         MSC         MTI           NEX         NINE         NOBLE         NOK         NTV         NWR         OCC         OGC         OR           PB         PDG         PDI         PL         PLAT	COTTO CRD EPG ERW RT FSS FVC O ICN IFS JCK JCKH KWM L&E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
CSC CSP DCC DCON DDD DOD EASON ECL EE ESTAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR NET INSURE IRC IRCP IT ITD*** ITEL J JAS* JMART JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACC NEGA METCO MFC MK MODERN MOONG MPG MSC MTI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI PB PDG PDI PL PLAT PM PPP PRECHA PRIN PT QLT RCL RICHY RML RWI S11 SAAM SALEI SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	EPG ERW  RT FSS FVC  O ICN IFS  JCK JCKH  KWM L&E  O MAJOR MBAX  NEP NETBAY  OSP PATO  PRINC PSTC
ESTAR ETE FLOYD FN FNS FORTH FPI FPT FSMA GENCO GJS GL GLOBAL GLOW** GULF HPT HTC HYDR NET INSURE IRC IRCP IT ITD*** ITEL J JAS* IMART JMT JWD KBS KCAR KGI KIAT KOOL KWC LALIN LANNA LDC LHK LOXLEY LRH LST M MACC MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI PB PDG PDI PL PLAT PM PPP PRECHA PRIN PT QLT RCL RICHY RML RWI S11 SAAM SALEI SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	RT FSS FVC O ICN IFS
GENCO         GJS         GL         GLOBAL         GLOW**         GULF         HPT         HTC         HYDR           NET         INSURE         IRC         IRCP         IT         ITD****         ITEL         J         JAS*           IMART         JMT         JWD         KBS         KCAR         KGI         KIAT         KOOL         KWC           ALIN         LANNA         LDC         LHK         LOXLEY         LRH         LST         M         MACC           MEGA         METCO         MFC         MK         MODERN         MOONG         MPG         MSC         MTI           NEX         NINE         NOBLE         NOK         NTV         NWR         OCC         OGC         ORI           PB         PDG         PDI         PL         PLAT         PM         PPP         PRECHA         PRIN           PT         QLT         RCL         RICHY         RML         RWI         S11         SAAM         SALEI           SAPPE         SAWAD         SCG         SCI         SCP         SE         SFP         SIAM         SINGE	O ICN IFS JCK JCKH KWM L&E O MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
NET         INSURE         IRC         IRCP         IT         ITD***         ITEL         J         JAS*           IMART         JMT         JWD         KBS         KCAR         KGI         KIAT         KOOL         KWC           ALIN         LANNA         LDC         LHK         LOXLEY         LRH         LST         M         MACC           MEGA         METCO         MFC         MK         MODERN         MOONG         MPG         MSC         MTI           NEX         NINE         NOBLE         NOK         NTV         NWR         OCC         OGC         ORI           PB         PDG         PDI         PL         PLAT         PM         PPP         PRECHA         PRIN           PT         QLT         RCL         RICHY         RML         RWI         S11         SAAM         SALEI           SAPPE         SAWAD         SCG         SCI         SCP         SE         SFP         SIAM         SINGE	JCK JCKH KWM L&E ) MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
IMART         JMT         JWD         KBS         KCAR         KGI         KIAT         KOOL         KWC           ALIN         LANNA         LDC         LHK         LOXLEY         LRH         LST         M         MACC           MEGA         METCO         MFC         MK         MODERN         MOONG         MPG         MSC         MTI           NEX         NINE         NOBLE         NOK         NTV         NWR         OCC         OGC         ORI           PB         PDG         PDI         PL         PLAT         PM         PPP         PRECHA         PRIN           PT         QLT         RCL         RICHY         RML         RWI         S11         SAAM         SALEI           SAPPE         SAWAD         SCG         SCI         SCP         SE         SFP         SIAM         SINGE	KWM L&E  MAJOR MBAX  NEP NETBAY  OSP PATO  PRINC PSTC
LALIN LANNA LDC LHK LOXLEY LRH LST M MACCOMEGA METCO MFC MK MODERN MOONG MPG MSC MTI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI PB PDG PDI PL PLAT PM PPP PRECHA PRIN PT QLT RCL RICHY RML RWI S11 SAAM SALEI SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	MAJOR MBAX NEP NETBAY OSP PATO PRINC PSTC
MEGA METCO MFC MK MODERN MOONG MPG MSC MTI NEX NINE NOBLE NOK NTV NWR OCC OGC ORI PB PDG PDI PL PLAT PM PPP PRECHA PRIN PT QLT RCL RICHY RML RWI S11 SAAM SALEI SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	NEP NETBAY OSP PATO PRINC PSTC
NEX NINE NOBLE NOK NTV NWR OCC OGC ORI PB PDG PDI PL PLAT PM PPP PRECHA PRIN PT QLT RCL RICHY RML RWI S11 SAAM SALEI SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	OSP PATO PSTC
PB PDG PDI PL PLAT PM PPP PRECHA PRIN PT QLT RCL RICHY RML RWI S11 SAAM SALEI SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	PRINC PSTC
PT QLT RCL RICHY RML RWI S11 SAAM SALEI SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	
SAPPE SAWAD SCG SCI SCP SE SFP SIAM SINGE	E SAMCO SANKO
SKR SKY SMIT SMK SMPC SMT SNP SONIC SPA	
	SPC SPCG
SPVI SR SRICHA SSC SSF SST STANLY STPI SUC	SUN SUSCO
SUTHA SWC SYMC SYNEX T TACC TAE TAKUNI TBSP	TCC TCMC
TEAM TEAMG TFG TFMAMA THG THRE TIPCO TITLE TIW	TKN TKS
TM TMC TMD TMI TMT TNITY TNL TNP TNR	TOG TPA
TPAC TPBI TPCORP TPOLY TRITN TRT TSE TSTE TVI	TVT TWP
TWPC UBIS UEC UMI UOBKH UP UPF UPOIC UT	UWC VNT
NIIK XO YUASA ZEN ZMICO	
GOOD LEVEL	
A ABICO ACAP*** AEC AEONTS AJ ALUCON AMC APUR	
AU B52 BCH BEAUTY BGT BH BIG BLAND BM	BR BROCK
SSBM BSM BTNC CCET CCP CGD CHARAN CHAYO CITY	CMAN CMC
CMO CMR CPL CPT CSR CTW CWT D DIME	
EPCO ESSO FE FTE GIFT GLAND GLOCON GPI GREE	
HTECH HUMAN IHL INGRS INOX JTS JUBILE KASET KCM	KKC KWG
(YE LEE LPH MATCH MATI M-CHAI MCS MDX META	
MM MVP NC NDR NER NNCL NPK NUSA OCEA	
PICO PIMO PK PLE PMTA POST PPM PROUD PTL	RCI RJH
ROJNA RPC RPH SF SGF SGP SKN SLP SMAR	
SQ SSP STI SUPER SVOA TCCC THE THMUI TIC	TIGER TNH
OPP TPCH TPIPP TPLAS TQM TTI TYCN UTP VCON	M VIBHA VPO
VIN WORK WP WPH ZIGA	
Score Range Number of Logo	Description
90-100	Excellent
80-89	Very Good
70-79	Good
60-69	Satisfactory
50-59	Pass
Less than 50 No logo given	-

#### Disclaimer:

The disclosure of the survey results of the Thai Institute of Directors Association ('IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information.

The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey results may be changed after that date.

Source: Thai Institute of Directors Association (IOD); FSSIA's compilation

FSS International Investment Advisory Company Limited does not confirm nor certify the accuracy of such survey results.

\* CGR scoring should be considered with news regarding wrong doing of the company or director or executive of the company such unfair practice on securities trading, fraud, and corruption SEC imposed a civil sanction against insider trading of director and executive; \*\* delisted

Suwat Sinsadok **Energy Absolute** EA TB

# **Anti-corruption Progress Indicator**

CERTIFIED										_
ADVANC	AIE	AKP	AMANAH	AP	APCS	AQUA	ARROW	ASK	ASP	AYUD
BAFS	BANPU	BAY	BBL	BCH	BCP	BCPG	BGRIM	BJCHI	BKI	BLA
BROOK	BRR	BSBM	BTS	BWG	CEN	CENTEL	CFRESH	CGH	CHEWA	CIG
CIMBT	CM	COM7	CPALL	CPF	CPI	CPN	CSC	DCC	DEMCO	DIMET
DRT	DTAC	DTC	EASTW	ECL	EGCO	FE	FNS	FSS	GBX	GC
GCAP	GEL	GFPT	GGC	GJS	GOLD	GPSC	GSTEEL	GUNKUL	HANA	HARN
HMPRO	HTC	ICC	IFS	INET	INSURE	INTUCH	IRPC	IVL	K	KASET
KBANK	KBS	KCAR	KCE	KGI	KKP	KSL	KTB	KTC	KWC	L&E
LANNA	LHK	LPN	LRH	М	MAKRO	MALEE	MBAX	MBK	MBKET	MC
MCOT	MFC	MINT	MONO	MOONG	MSC	MTI	NBC	NINE	NKI	NMG
NNCL	NSI	OCC	OCEAN	OGC	PAP	PATO	РВ	PCSGH	PDG	PDI
PDJ	PE	PG	PHOL	PL	PLANB	PLANET	PLAT	PM	PPP	PPS
PREB	PRG	PRINC	PSH	PSTC	PT	PTG	PTT	PTTEP	PTTGC	PYLON
Q-CON	QH	QLT	QTC	RATCH	RML	S & J	SABINA	SAT	SC	SCB
SCC	SCCC	SCG	SCN	SE-ED	SELIC	SENA	SGP	SIRI	SIS	SITHAI
SMIT	SMK	SMPC	SNC	SNP	SORKON	SPACK	SPC	SPI	SPRC	SRICHA
SSF	SSI	SSSC	SST	STA	SUSCO	SVI	SYNTEC	TASCO	TCAP	TFG
TFI	TFMAMA	THANI	THCOM	THIP	THRE	THREL	TIP	TIPCO	TISCO	TKT
TMB	TMD	TMILL	TMT	TNITY	TNL	TNP	TNR	TOG	TOP	TPA
TPCORP	TRU	TRUE	TSC	TSTH	TTCL	TU	TVD	TVI	TWPC	U
UBIS	UEC	UKEM	UOBKH	VGI	VIH	VNT	WACOAL	WHA	WICE	WIIK
DECLARED										
2S	ABICO	AF	Al	AIRA	ALT	AMA	AMARIN	AMATA	ANAN	В
BM	BPP	BUI	CHG	CHO	CHOTI	CHOW	CI	CMC	COL	DDD
DELTA	EFORL	EPCO	ESTAR	ETE	FPI	FTE	ICHI	INOX	IRC	ITEL
JAS	JSP	JTS	KWG	LDC	LIT	META	MFEC	MPG	NEP	NOK
NWR	ORI	PRM	PSL	ROJNA	RWI	SAAM	SAPPE	SCI	SEAOIL	SHANG
SKR	SPALI	STANLY	SYNEX	TAE	TAKUNI	TMC	TOPP	TPP	TRITN	TVO
UV	UWC	WHAUP	XO	YUASA	ZEN					

### Level

Certified This level indicates practical participation with thoroughly examination in relation to the recommended procedures from the audit committee or the SEC's

certified auditor, being a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) or already passed examination to ensure independence from external parties.

Declared This level indicates determination to participate in the Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC)

The disclosure of the Anti-Corruption Progress Indicators of a listed company on the Stock Exchange of Thailand, which is assessed by Thaipat Institute, is made in order to comply with the policy and sustainable development plan for the listed companies of the Office of the Securities and Exchange Commission. Thaipat Institute made this assessment based on the information received from the listed company, as stipulated in the form for the assessment of Anti-corruption which refers to the Annual Registration Statement (Form 56-1), Annual Report (Form 56-2), or other relevant documents or reports of such listed company. The assessment result is therefore made from the perspective of Thaipat Institute that is a third party. It is not an assessment of operation and is not based on any inside information. Since this assessment is only the assessment result as of the date appearing in the assessment result, it may be changed after that date or when there is any change to the relevant information. Nevertheless, FSS International Investment Advisory Company Limited does not confirm, verify, or certify the accuracy and completeness of the assessment results.

Note: Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of June 24, 2019) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

Source: The Securities and Exchange Commission, Thailand; \* FSSIA's compilation

### **GENERAL DISCLAIMER**

### ANALYST(S) CERTIFICATION

### Suwat Sinsadok FSS International Investment Advisory Securities Co., Ltd

The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s) was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed herein.

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### History of change in investment rating and/or target price



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
15-Nov-2018 26-Apr-2019 17-Oct-2019	BUY BUY BUY	56.00 66.00 60.00	16-Apr-2020 20-May-2020 09-Jul-2020	BUY BUY BUY	62.00 55.00 55.00	17-Jul-2020 09-Nov-2020	BUY BUY	55.00 51.00

Suwat Sinsadok Started covering this stock from 15-Nov-2018

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
Energy Absolute	ЕА ТВ	THB 47.00	BUY	Downside risks to our SoTP-based TP include: 1) lower-than-expected demand for electricity in Thailand; 2) lower crude prices; and 3) lower-than-expected demand for batteries.

Source: FSSIA estimates

#### **Additional Disclosures**

Target price history, stock price charts, valuation and risk details, and equity rating histories applicable to each company rated in this report is available in our most recently published reports. You can contact the analyst named on the front of this note or your representative at Finansia Syrus Securities Public Company Limited

FSSIA may incorporate the recommendations and target prices of companies currently covered by FSS Research into equity research reports, denoted by an 'FSS' before the recommendation. FSS Research is part of Finansia Syrus Securities Public Company Limited, which is the parent company of FSSIA.

All share prices are as at market close on 14-Dec-2020 unless otherwise stated.

### RECOMMENDATION STRUCTURE

### Stock ratings

Stock ratings are based on absolute upside or downside, which we define as (target price\* - current price) / current price.

BUY (B). The upside is 10% or more.

HOLD (H). The upside or downside is less than 10%.

REDUCE (R). The downside is 10% or more.

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 market price and the formal recommendation.

\* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

### **Industry Recommendations**

Overweight. The analyst expects the fundamental conditions of the sector to be positive over the next 12 months.

**Neutral.** The analyst expects the fundamental conditions of the sector to be maintained over the next 12 months.

Underweight. The analyst expects the fundamental conditions of the sector to be negative over the next 12 months.

### **Country (Strategy) Recommendations**

**Overweight (O).** Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

**Neutral (N).** Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

**Underweight (U).** Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.