

Thailand EV

เดินหน้าเกาะกระแสราคาน้ำมันโลกที่ปรับขึ้น

- จากข้อมูลของกรมการขนส่งทางบก (DLT) ตัวเลขยานยนต์ไฟฟ้าจดทะเบียนใน 4M22 โตอย่างเห็นได้ชัด โดยโตในอัตราที่สูงกว่าตัวเลขยานยนต์ที่ใช้เครื่องยนต์สันดาปภายในจดทะเบียนโตเพียง 0.9% y-y ในช่วงดังกล่าว
- จากกระบวนการอนุมัติรถโดยสารไฟฟ้ารุ่นใหม่ที่น่าสนใจมากขึ้น ปัจจุบัน AAB (EA และ NEX) มีกำหนดส่งมอบรถโดยสารไฟฟ้า 1,000 คันใน 3Q22
- เรายังมั่นใจใน EA และ NEX ในฐานะที่เป็นผู้เล่นสำคัญของไทยในตลาดรถโดยสารและรถบรรทุกไฟฟ้า.

ราคาพลังงานที่อยู่ในระดับสูงจะช่วยให้ผู้บริโภคสนใจยานยนต์ไฟฟ้ามากยิ่งขึ้น

เราคิดว่าตลาดยานยนต์ไฟฟ้าของไทยกำลังอยู่ในจุดเปลี่ยนที่จะโตอย่างรวดเร็วในปี 2025 และ 2035 โดยจะเพิ่มจากต่ำกว่า 0.1 ล้านคันในปี 2021 เป็น 1.3 ล้านคันในปี 2025 และ 18.4 ล้านคันในปี 2035 เราเชื่อว่าความน่าสนใจของยานยนต์ไฟฟ้าในกลุ่มผู้บริโภคไทยได้เพิ่มขึ้นอย่างมากในปี 2022 จากราคาน้ำมันและก๊าซที่เพิ่มขึ้นในตลาดโลกจากอุปทานที่ตึงตัวและความต้องการที่เพิ่มขึ้น พร้อมได้แรงหนุนจากนโยบายของรัฐบาลสำหรับยานยนต์ไฟฟ้าอันประกอบด้วยเงินอุดหนุนจำนวน 75,000-150,000 บาทต่อคัน รวมถึงมาตรการลดและยกเว้นภาษียานยนต์นำเข้าหลายประการในปี 2022-23 เพื่อแลกกับการผลิตยานยนต์ไฟฟ้าตั้งแต่ปี 2024 เป็นต้นไป

ยานยนต์ไฟฟ้าโตตามคาดในช่วง 1H22

จากข้อมูลของ DLT ตัวเลขยานยนต์ไฟฟ้าจดทะเบียนใน 4M22 โตอย่างเห็นได้ชัด โดยเพิ่มขึ้น 170% y-y สำหรับยานยนต์ไฟฟ้าที่ใช้แบตเตอรี่ (BEV), 46% สำหรับยานยนต์ไฟฟ้าประเภทลูกผสม (HEV), และ 60% สำหรับยานยนต์ไฟฟ้าประเภทลูกผสมที่สามารถชาร์จไฟโดยใช้ปลั๊ก (PHEV) อัตราการเติบโตดังกล่าวสูงกว่ายานยนต์ที่ใช้เครื่องยนต์สันดาปภายใน (ICE) ซึ่งโตเพียง 0.9% y-y ในช่วงเดียวกัน สำหรับตลาดรถโดยสารใน ช่วง 6M22 ตัวเลขรถโดยสารจดทะเบียนใหม่ลดลง 12.4% y-y เนื่องจากผู้ซื้อเพื่อการพาณิชย์ที่ต้องการเปลี่ยนรถโดยสารและรถบรรทุกจาก ICE เป็นไฟฟ้าเป็นจำนวนมากยังคงรอดู เราคาดว่าตัวเลขรถโดยสารไฟฟ้าจดทะเบียนใหม่จะโตอย่างเห็นได้ชัดในช่วง 2H22 โดยน่าจะเพิ่มเท่าตัว h-h หรือ 1,000-1,200 คันเมื่อเทียบกับ 1,607 คันใน 1H22 จากตัวเลขรถโดยสารไฟฟ้าที่ AAB วางแผนส่งมอบในช่วง 2H22

ส่งมอบรถโดยสารไฟฟ้า 1,000 คันใน 3Q22 หลังไม่มีการส่งมอบเลยใน 2Q22

จากกระบวนการอนุมัติรถโดยสารไฟฟ้ารุ่นใหม่ที่น่าสนใจมากขึ้น ปัจจุบัน AAB (EA และ NEX) วางแผนส่งมอบรถโดยสารไฟฟ้า 1,000 คันใน 3Q22 ในขณะที่เราคาดว่า AAB ไม่ได้ส่งมอบรถโดยสารไฟฟ้าเลยใน 2Q22 แม้ว่าจะผลิตเสร็จ 200 คันในเดือน มิ.ย.-ก.ค. 2022 (รถโดยสารไฟฟ้าขนาดยาว 7 เมตร 50 คันและขนาดยาว 12 เมตรอีก 150 คัน) จากกระบวนการอนุมัติที่ยาวนานเกินคาดของกรมศุลกากร อย่างไรก็ตาม AAB น่าจะส่งมอบรถโดยสารไฟฟ้าไม่เกิน 896 คันให้แก่ Thai Smile Bus ซึ่งเป็นบริษัทย่อยของ BYD ในช่วงเดือน ส.ค.-พ.ย. 2022 ในปี 2023 มีการคาดว่า BYD จะสั่งซื้อรถโดยสารไฟฟ้าเพิ่มอีก 1,459 คันเพื่อให้ครบตัวเลขรถโดยสารไฟฟ้าที่ต้องใช้ดำเนินงานภายใต้สัญญาสัมปทานเส้นทางเดินรถโดยสาร 81 เส้นทางที่ BYD ได้จาก DLT เมื่อประกอบกับคำสั่งซื้อรถบรรทุกและรถโดยสารไฟฟ้าที่อาจได้จากลูกค้ารายอื่น เราคาดว่า AAB จะส่งมอบรถโดยสารและรถบรรทุกไฟฟ้ารวม 2,000 คันในปี 2022 และ 3,000 คันในปี 2023 โดย NEX จะเป็นผู้ทำการตลาดสำหรับคำสั่งซื้อของ AAB ทั้งหมด

EA และ NEX เป็นผู้เล่นอย่างชัดเจน

จากความต้องการยานยนต์ไฟฟ้าที่อยู่ในระดับสูงในช่วงปี 2022-24 โดยเฉพาะอย่างยิ่งในตลาดเพื่อการพาณิชย์ (รถโดยสารและรถบรรทุกไฟฟ้า) EA และ NEX ยังเป็นหุ้นเด่นในฐานะที่เป็นเพียง 2 ผู้เล่นที่จะได้คำสั่งซื้อรถโดยสารและรถบรรทุกไฟฟ้าในประเทศไทย ในขณะที่การเลื่อนการส่งมอบอาจทำให้เกิด Downside ระยะสั้นใน 2Q22 ความต้องการที่อันไวและสภาพเกือบผูกขาดในตลาดยานยนต์ไฟฟ้าเพื่อการพาณิชย์ของไทย (อย่างน้อยจนถึงปี 2024) ทำให้ EA และ NEX เป็นผู้เล่นอย่างไร้คู่แข่งในความเห็นของเรา



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EA and NEX ready to ride the commercial EV market

Despite the delay in e-bus deliveries from the manufacturing plant Absolute Assembly (AAB), owned by Energy Absolute (EA TB, BUY) (60%) and Nex Point (NEX TB, BUY) (40%), due to the Thai Customs Tax Department's approval of the new e-bus models taking a longer time than expected, we think EA and NEX are now ready to deliver up to 1,000 e-buses in 3Q-4Q22, mostly for the orders from Beyond Securities (BYD TB, not rated).

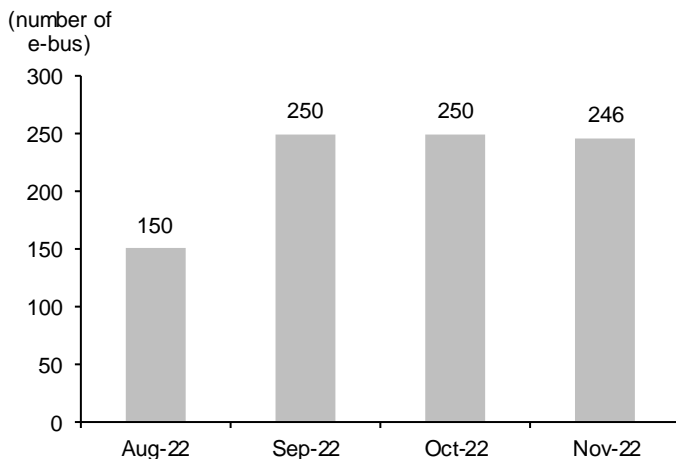
Exhibit 1: Number of bus routes and buses to be in operation under BYD

Number of bus routes	Number of e-buses	Type of bus route	Delivery timeline	Grace period
8	96	existing	Nov-22	none
71	758	new	Oct-22	60
2	42	additional	Oct-22	60
81	896			

Sources: BYD; EA

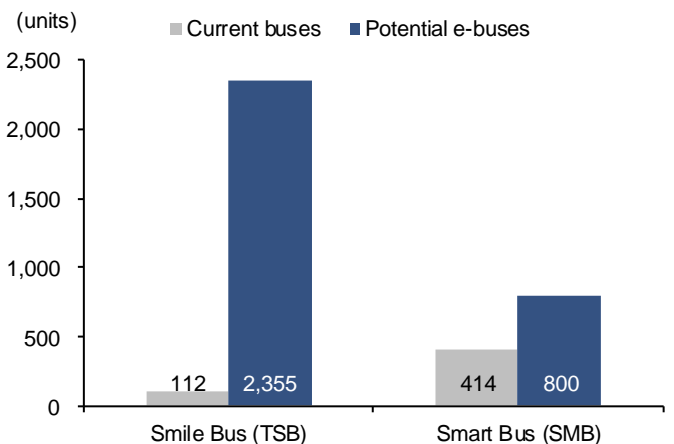
Up to 896 e-buses delivered to BYD's Thai Smile Bus in 2H22. Based on EA's management's guidance, AAB is scheduled to deliver up to 896 12m-long, large-size e-buses to BYD during Aug-Nov 2022. In 2023, BYD is expected to order an additional 1,459 e-buses to fulfil the total number of e-buses to be operated under BYD's 81 bus route concession from the DLT.

Exhibit 2: BYD's e-bus delivery schedule in 2H22



Sources: BYD; EA

Exhibit 3: Number of operating buses and potential new buses under the bus route concession from DLT



Sources: BYD; EA; FSSIA estimates

For EA, after its acquisition of Thai Smart Bus (SMB) in 1H22, EA plans to deliver a total of 1,214 e-buses within 2023, comprising 800 e-buses for new bus routes and 414 e-buses to replace the existing diesel-based buses currently in operation. We estimate that these e-bus orders from Thai Smile Bus (TSB) and SMB alone will total 3,569 e-buses (2,355 for TSB and 1,214 for SMB) worth THB21.5b for AAB.

Exhibit 4: Potential e-bus orders from TSB and SMB

Company	Major shareholder	Current type of buses in operations	Current buses	Potential e-buses	No. of bus lines currently in operation	No. of bus lines	Price of e-bus	Total order value	Size of e-bus
Smile Bus (TSB)	BYD	EV	112	2,355	8	81	6.8	16,014	Large size at 12m length
Smart Bus (SMB)	EA	NGV, Diesel, EV	414	1,214	8	37	6.8	5,440	Large size at 12m length
Total			526	3,569	16	118		21,454	

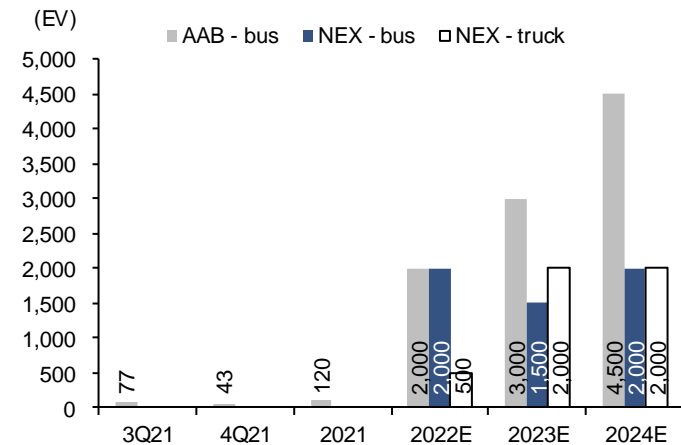
Sources: BYD; EA; FSSIA estimates

Coupled with potential e-bus and e-truck orders from other customers, we expect AAB to deliver a combined 2,000 e-buses and e-trucks in 2022 and 3,000 in 2023, with all of AAB's orders to be marketed and delivered under NEX.

No e-bus delivery in 2Q22. Given the longer-than-expected approval process for the new models of e-buses, AAB (EA and NEX) is now scheduled to deliver 1,000 e-buses in 3Q22 with an additional upside of 50 7m-long, small-size e-buses to be delivered to Lotte Transportation as a part of a total 87 e-bus order.

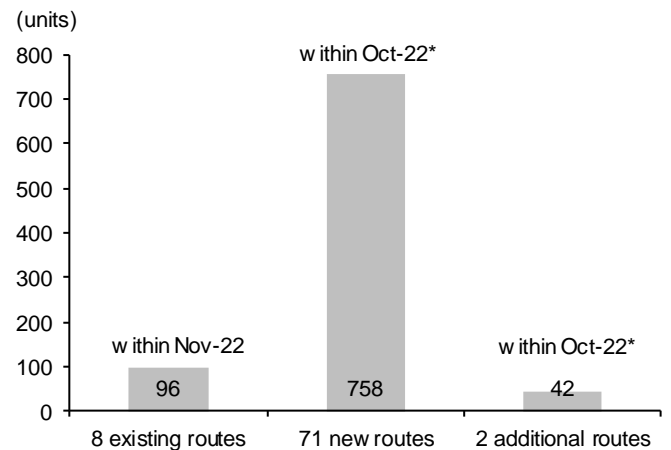
In 2Q22, we now expect AAB to deliver no e-buses despite the complete production of 200 e-buses in Jun-Jul 2022 (50 7m-long e-buses and 150 12m-long e-buses) due to the longer-than-expected approval process by the Customs Department.

Exhibit 5: Projected EVs delivered by AAB and NEX in 2022-24



Sources: BYD; EA; NEX

Exhibit 6: BYD's e-bus delivery in 2H22



*Could be delayed for 60 days
Source: BYD

EV growth is now on track. According to the DLT, the number of registered EVs in 4M22 grew markedly, rising by 170% y-y for BEVs, 46% for HEVs, and 60% for PHEVs, far outpacing the number of registered ICE vehicles which grew by only 0.9% y-y in 4M22.

Thanks to the government's favorable campaign for EVs which includes the subsidy of THB75,000-150,000 per EV and a number of tax reductions and exemptions for the imported EVs in 2022-23 which require the importers to set up new EV manufacturing plants in Thailand to produce EVs in 2024 onward in exchange for the imported EVs in 2022-23.

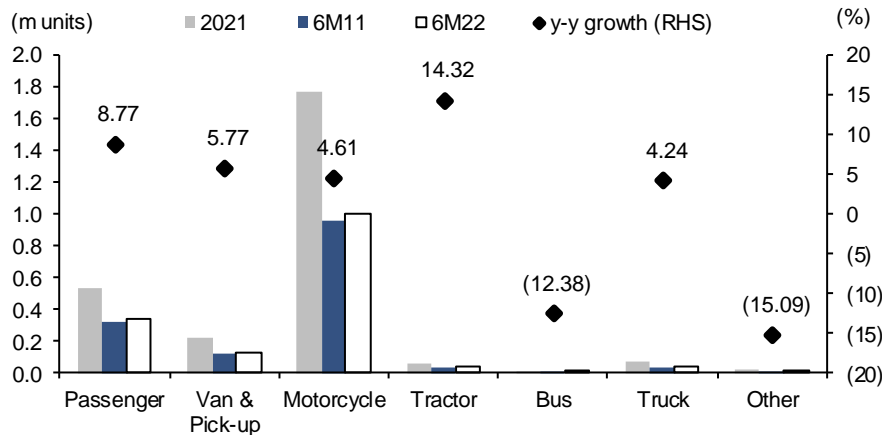
Exhibit 7: Growth of registered EVs vs ICE vehicles in 4M22

	2021	4M22	% change y-y (RHS)
BEV	470	1,270	170.2
HEV	11,569	16,928	46.3
PHEV	1,853	2,969	60.2
ICE	247,697	249,939	0.9

Source: DLT

In Thailand, the number of newly registered vehicles in 6M22 was 1.57m, growing by 15% y-y. The number of passenger vehicles grew by 8.8% y-y, the second highest rate after tractors, indicating that the government's campaign has been highly effective in prompting Thai consumers to decide to purchase EVs as their new vehicles in replacement of ICE vehicles.

Exhibit 8: Number of newly registered vehicles in 6M22 in Thailand

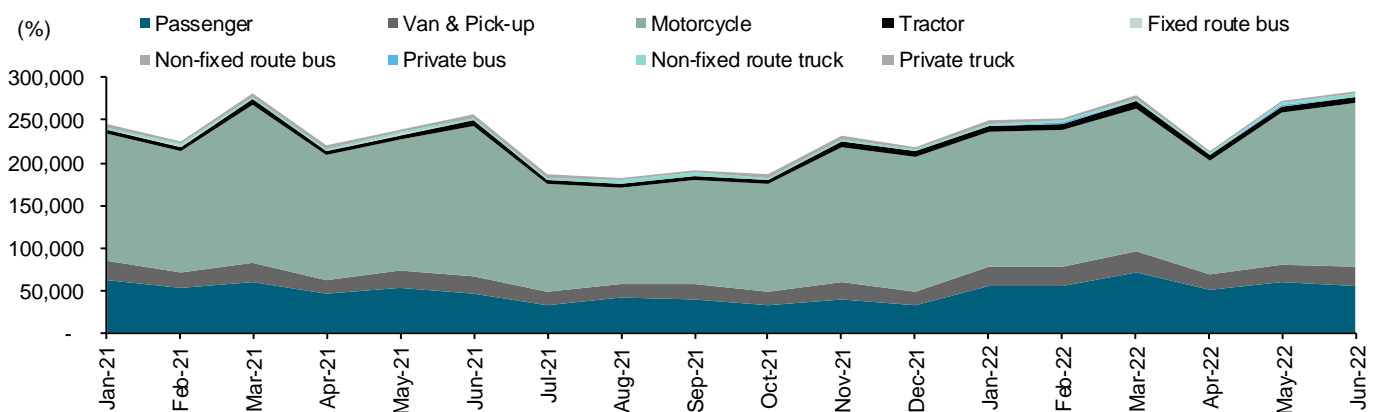


Source: DLT

For the bus market, in 6M22, the number of newly registered buses dropped 12.4% y-y as a result of the wait-and-see strategy pursued by commercial buyers who wish to switch their commercial vehicle fleets (buses and trucks) from ICE to electric. We think the delayed e-bus delivery of up to 200 units (12% of 1,607 units in 6M22) by AAB also played a significant role in the y-y drop in the number of newly registered buses in 6M22.

We expect the number of newly registered e-buses to grow markedly in 2H22, likely doubling h-h by 1,000-1,200 vs 1,607 in 1H22, based on AAB's projected number of e-buses to be delivered in the same period.

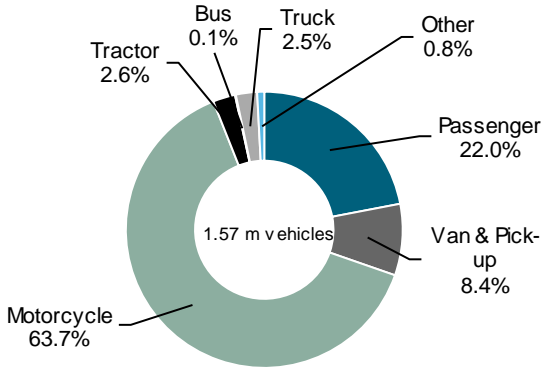
Exhibit 9: Number of newly registered vehicles – breakdown by vehicle type



Source: DLT

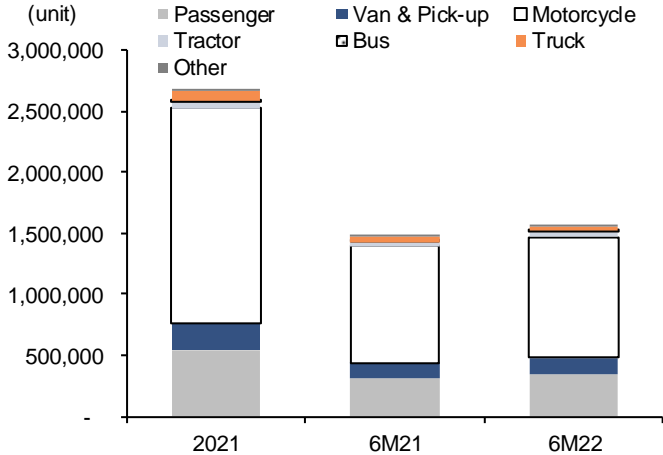
In 6M22, the number of newly registered commercial buses remained tiny at only 0.1% of the total 1.57m vehicles, while the number of passenger vehicles accounted for 22.2% of total newly registered vehicles in 1H22, up slightly from 21.6% in 1H21. However, the proportion of EVs in the passenger number jumped from 1.4% to 2.1% of total newly registered vehicles, increasing by 52% y-y or 7,275 EVs, in 1H22.

Exhibit 10: Number of registered vehicle breakdown by vehicle type in 6M22



Source: DLT

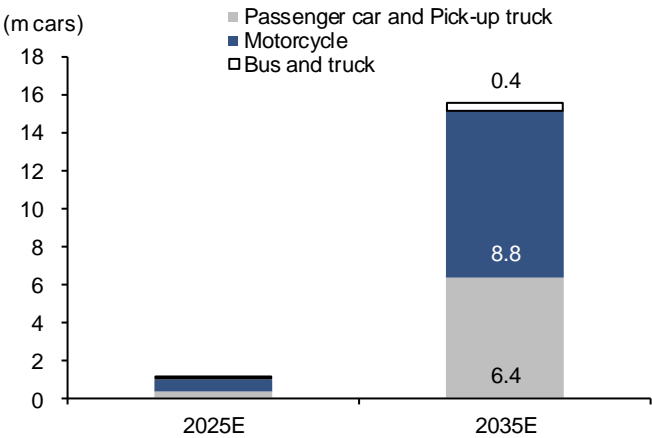
Exhibit 11: Number of registered vehicle breakdown by vehicle type (2021 vs 6M22)



Source: DLT

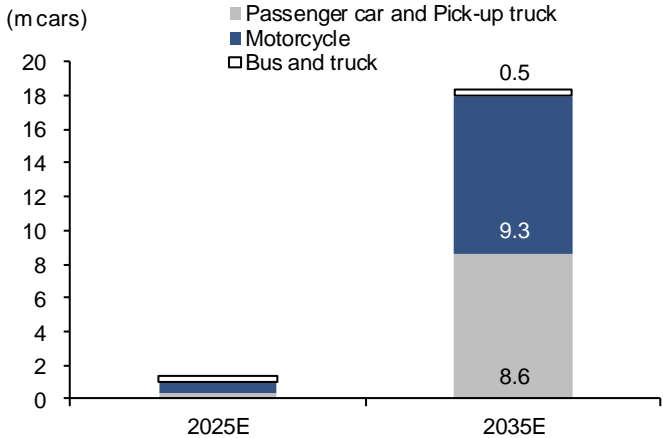
On track to reach the government’s EV target. We believe that in 2H22-24 Thailand is likely to see significant growth in the number of newly registered EVs to reach the targets set by the Thai government of 1.3m in 2025 and 18.4m in 2035.

Exhibit 12: EV usage target breakdown by vehicle type



Source: Energy Policy and Planning Office (EPPO)

Exhibit 13: EV production target breakdown by vehicle type



Source: EPPO

More cost savings for EVs over ICE vehicles

Thanks to the global spikes in the oil and gas prices due to the tight supply and rising demand, we believe the attractiveness of EVs for Thai consumers has greatly increased in 2022. Coupled with the government's EV incentive campaign, we think Thailand's EV market is now at an inflection point to grow at a fast rate in 2025 and 2035, rising from sub-0.1m in 2021 to 1.3m in 2025 and 18.4m in 2035.

Exhibit 14: Energy cost comparison between gasoline, diesel, and EV

Fuel	Gasoline		Diesel		EV		Savings to gasoline	Savings to diesel
Retail price	47.46	(THB/litre)	34.94	(THB/litre)	6	(THB/kWh)	(%)	(%)
	litre per km	THB per km	Average consumption	THB per km	Average consumption	THB per km		
Average consumption	5 litres per 100 km	2.4	5 litres per 100 km	1.7	15kWh per 100 km	0.9	61.9	48.0
	10 litres per 100 km	4.7	10 litres per 100 km	3.5	20kWh per 100 km	1.2	74.6	65.5
	15 litres per 100 km	7.1	15 litres per 100 km	7.1	25kWh per 100 km	1.5	78.9	78.8
	20 litres per 100 km	9.5	20 litres per 100 km	7.0	30kWh per 100 km	1.8	81.0	74.2

Sources: EPPO; FSSIA estimates

EA and NEX are clear winners

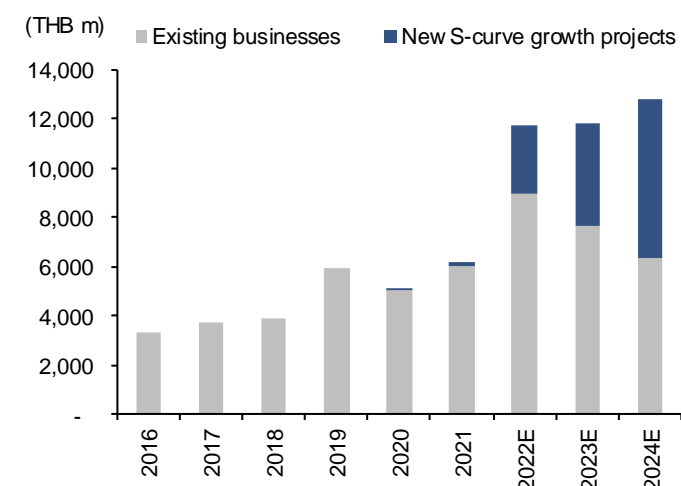
Under the high EV demand growth we project in 2022-24, particularly for the commercial segment (e-buses and e-trucks), EA and NEX remain our top picks as the only two players to win orders for e-buses and e-trucks in Thailand.

While the delivery delay may lead to a short-term downside in 2Q22, the pent-up demand backed by cost savings and the government's favorable campaign, along with EA and NEX's near-monopoly position in Thailand's commercial EV market – at least until 2024 when we expect a number of new manufacturing plants for EVs to mushroom in Thailand – should lead to strong growth.

EA: 3Q22 should be the first quarter to remember for significant EV earnings

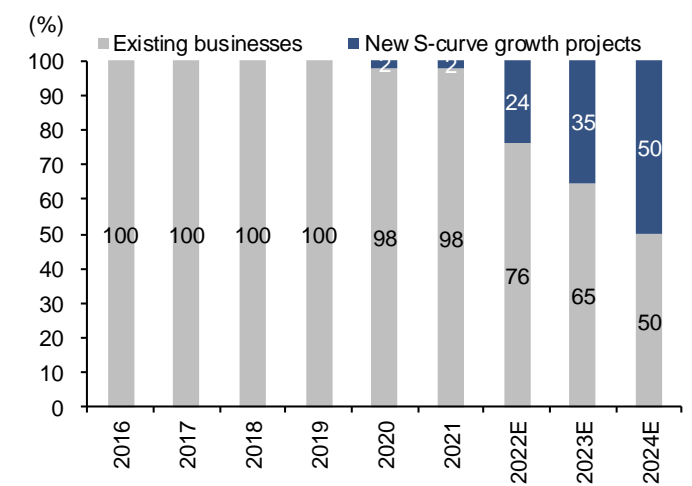
growth. In 3Q22, we project that EA could book up to THB1.2b in net profit from the 1,000 e-bus delivery, in line with our projection that EA will see net profits generated from its S-curve ventures, including its 100%-owned battery manufacturing plant, 60%-owned AAB (manufacturing), and 40%-owned NEX (marketer).

Exhibit 15: EA's projected net profit breakdown by existing and new businesses



Sources: EA; FSSIA estimates

Exhibit 16: EA's projected net profit breakdown by existing and new businesses (%)

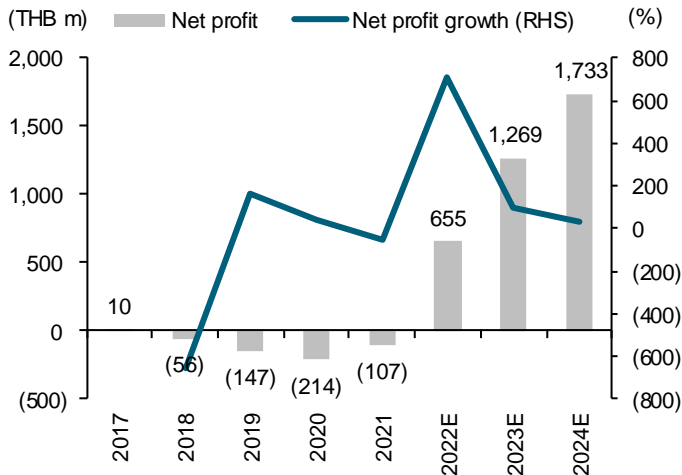


Sources: EA; FSSIA estimates

NEX: 3Q22 should not only turn around but see a net profit of THB0.4b. Based on the 1,000 e-buses to be delivered in 3Q22, we estimate that NEX will not only see its first quarterly turnaround but also a strong net profit of THB0.4b in 3Q22, based on THB0.5m net profit per e-bus, coming from THB0.2m as a marketer and THB0.4m via its 40% stake in AAB.

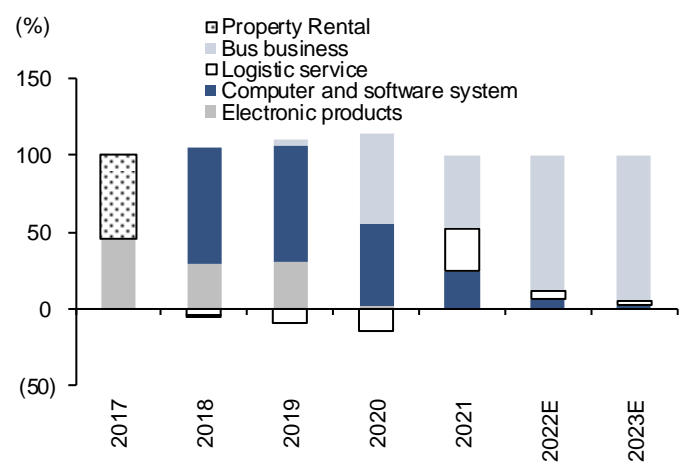
However, we note that NEX's 2Q22 is likely to see another quarterly net loss of THB30m-50m due to no e-buses being delivered, with the delivery delayed from 2Q22 to 3Q22.

Exhibit 17: NEX's net profit should turn around in 2022



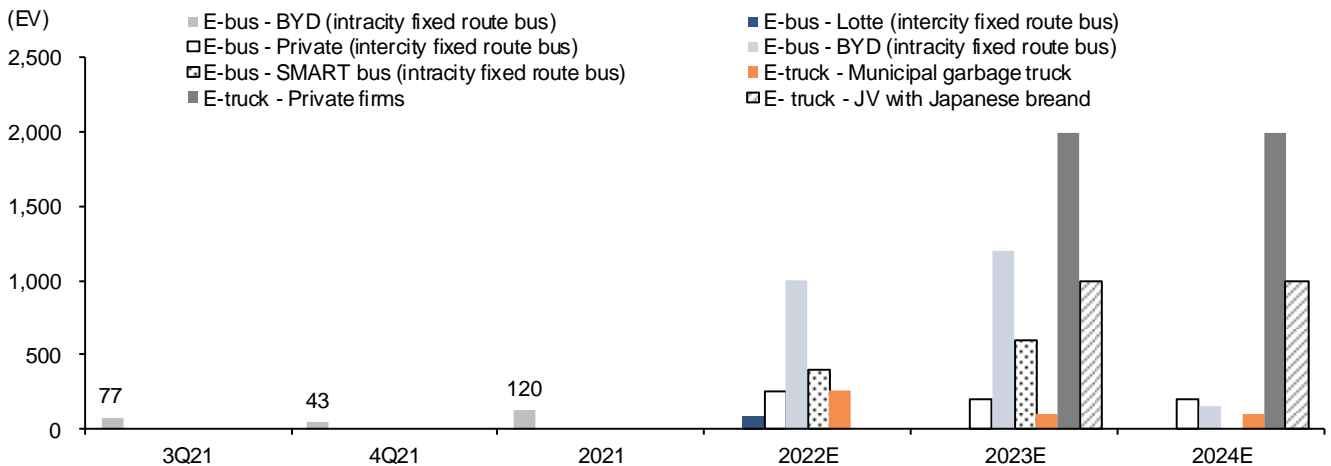
Sources: NEX; FSSIA estimates

Exhibit 18: Gross profit breakdown by segment



Sources: NEX; FSSIA estimates

Exhibit 19: NEX's number of EVs delivered – breakdown by clients



Sources: NEX; FSSIA estimates

Corporate Governance report of Thai listed companies 2021

EXCELLENT LEVEL – Score range 90-100										
AAV	BCPG	CPALL	GCAP	K	MSC	PLANET	SAMART	SPI	THRE	TVD
ADVANC	BDM5	CPF	GFPT	KBANK	MST	PLAT	SAMTEL	SPRC	THREL	TVI
AF	BEM	CPI	GGC	KCE	MTC	PORT	SAT	SPVI	TIPCO	TVO
AH	BGC	CPN	GLAND	KKP	MVP	PPS	SC	SSSC	TISCO	TWPC
AIRA	BGRIM	CRC	GLOBAL	KSL	NCL	PR9	SCB	SST	TK	U
AKP	BIZ	CSS	GPI	KTB	NEP	PREB	SCC	STA	TKT	UAC
AKR	BKI	DDD	GPSC	KTC	NER	PRG	SCCC	STEC	TMT	UBIS
ALT	BOL	DELTA	GRAMMY	LALIN	NKI	PRM	SCG	STI	TNDT	UV
AMA	BPP	DEMCO	GULF	LANNA	NOBLE	PROUD	SCGP	SUN	TNITY	VGI
AMATA	BRR	DRT	GUNKUL	LH	NSI	PSH	SCM	SUSCO	TOA	VIH
AMATAV	BTS	DTAC	HANA	LHFG	NVD	PSL	SDC	SUTHA	TOP	WACOAL
ANAN	BTW	DUSIT	HARN	LIT	NWR	PTG	SEAFECO	SVI	TPBI	WAVE
AOT	BWG	EA	HMPRO	LPN	NYT	PTT	SEAOL	SYMC	TQM	WHA
AP	CENTEL	EASTW	ICC	MACO	OISHI	PTTEP	SE-ED	SYNTEC	TRC	WHAUP
ARIP	CFRESH	ECF	ICHI	MAJOR	OR	PTTGC	SELIC	TACC	TRU	WICE
ARROW	CHEWA	ECL	III	MAKRO	ORI	PYLON	SENA	TASCO	TRUE	WINNER
ASP	CHO	EE	ILINK	MALEE	OSP	Q-CON	SHR	TCAP	TSC	ZEN
AUCT	CIMBT	EGCO	ILM	MBK	OTO	QH	SIRI	TEAMG	TSR	
AWC	CK	EPG	INTUCH	MC	PAP	QTC	SIS	TFMAMA	TSTE	
AYUD	CKP	ETC	IP	MCOT	PCSGH	RATCH	SITHAI	TGH	TSTH	
BAFS	CM	FPI	IRPC	METCO	PDG	RS	SMK	THANA	TTA	
BANPU	CNT	FPT	ITEL	MFEC	PDJ	S	SMPC	THANI	TTB	
BAY	COM7	FSMART	IVL	MINT	PG	S & J	SNC	THCOM	TTCL	
BBL	COMAN	GBX	JSP	MONO	PHOL	SAAM	SONIC	THG	TTW	
BCP	COTTO	GC	JWD	MOONG	PLANB	SABINA	SPALI	THIP	TU	
VERY GOOD LEVEL – Score range 80-89										
2S	ASIMAR	CHOW	FLOYD	IT	LOXLEY	OCC	RPC	SKY	TCC	TVT
7UP	ASK	CI	FN	ITD	LRH	OGC	RT	SLP	TCMC	TWP
ABICO	ASN	CIG	FNS	J	LST	PATO	RWI	SMIT	TEAM	UEC
ABM	ATP30	CMC	FORTH	JAS	M	PB	S11	SMT	TFG	UMI
ACE	B	COLOR	FSS	JCK	MATCH	PICO	SA	SNP	TFI	UOBKH
ACG	BA	CPL	FTE	JCKH	MBAX	PIMO	SAK	SO	TIGER	UP
ADB	BAM	CPW	FVC	JMART	MEGA	PJW	SALEE	SORKON	TITLE	UPF
AEONTS	BC	CRD	GEL	JMT	META	PL	SAMCO	SPA	TKN	UPOIC
AGE	BCH	CSC	GENCO	KBS	MFC	PM	SANKO	SPC	TKS	UTP
AHC	BEC	CSP	GJS	KCAR	MGT	PMTA	SAPPE	SPCG	TM	VCOM
AIT	BEYOND	CWT	GYT	KEX	MICRO	PPP	SAWAD	SR	TMC	VL
ALL	BFIT	DCC	HEMP	KGI	MILL	PPPM	SCI	SRICHA	TMD	VPO
ALLA	BJC	DCON	HPT	KIAT	MTSIB	PRIME	SCN	SSC	TMI	VRANDA
ALUCON	BJCHI	DHOUSE	HTC	KISS	MK	PRIN	SCP	SSF	TMILL	WGE
AMANAH	BLA	DOD	HYDRO	KOOL	MODERN	PRINC	SE	STANLY	TNL	WIJK
AMARIN	BR	DOHOME	ICN	KTIS	MTI	PSG	SFLEX	STGT	TNP	WP
APCO	BROOK	DV8	IFS	KUMWEL	NBC	PSTC	SFP	STOWER	TOG	XO
APCS	CBG	EASON	IMH	KUN	NCAP	PT	SFT	STPI	TPA	XPG
APURE	CEN	EFORL	IND	KWC	NCH	QLT	SGF	SUC	TPAC	YUASA
AQUA	CGH	ERW	INET	KWM	NETBAY	RBF	SIAM	SWC	TPCS	
ASAP	CHARAN	ESSO	INSET	L&E	NEX	RCL	SINGER	SYNEX	TPS	
ASEFA	CHAYO	ESTAR	INSURE	LDC	NINE	RICHY	SKE	TAE	TRITN	
ASIA	CHG	ETE	IRC	LEO	NRF	RML	SKN	TAKUNI	TRT	
ASIAN	CHOTI	FE	IRCP	LHK	NTV	ROJNA	SKR	TBSP	TSE	
GOOD LEVEL – Score range 70-79										
A	BGT	CITY	GIFT	JTS	MDX	PK	SGP	SUPER	TQR	YGG
AI	BH	CMAN	GLOCON	JUBILE	MJD	PLE	SICT	SVOA	TTI	ZIGA
AIE	BIG	CMO	GREEN	KASET	MORE	PPM	SIMAT	TC	TYCN	
AJ	BLAND	CMR	GSC	KCM	MUD	PRAKIT	SISB	TCCC	UKEM	
ALPHAX	BM	CPT	GTB	KK	NC	PRAPAT	SK	THMUI	UMS	
AMC	BROCK	CRANE	HTECH	KKC	NDR	PRECHA	SMART	TNH	UNIQ	
APP	BSBM	CSR	HUMAN	KWI	NFC	PTL	SOLAR	TNR	UPA	
AQ	BSM	D	IHL	KYE	NNCL	RJH	SPACK	TOPP	UREKA	
ARIN	BTNC	EKH	IIG	LEE	NOVA	RP	SPG	TPCH	VIBHA	
AS	BYD	EMC	INGRS	LPH	NPK	RPH	SQ	TPIPL	W	
AU	CAZ	EP	INOX	MATI	NUSA	RSP	SSP	TIPIPP	WIN	
B52	CCP	F&D	JAK	M-CHAI	PAF	SABUY	STARK	TPLAS	WORK	
BEAUTY	CGD	FMT	JR	MCS	PF	SF	STC	TPOLY	WPH	

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. 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

Sources: Thai Institute of Directors Association (IOD); FSSIA's compilation; data as of 26 October 2021

Anti-corruption Progress Indicator

CERTIFIED										
2S	BCH	CPALL	GC	K	MFC	PE	QLT	SNP	THCOM	TU
7UP	BCP	CPF	GCAP	KASET	MFEC	PG	QTC	SORKON	THIP	TVD
ADVANC	BCPG	CPI	GEL	KBANK	MILL	PHOL	RATCH	SPACK	THRE	TVI
AF	BE8	CPN	GFPT	KBS	MINT	PK	RML	SPALI	THREL	TVO
AI	BEYOND	CSC	GGC	KCAR	MONO	PL	RWI	SPC	TIDLOR	TWPC
AIE	BGC	DCC	GJS	KCE	MOONG	PLANB	S & J	SPI	TIPCO	U
AIRA	BGRIM	DELTA	GPI	KGI	MSC	PLANET	SAAM	SPRC	TISCO	UBE
AKP	BJCHI	DEMCO	GPSC	KKP	MST	PLAT	SABINA	SRICHA	TKS	UBIS
ALPHAX	BKI	DIMET	GSTEEL	KSL	MTC	PM	SAPPE	SSF	TKT	UEC
AMA	BLA	DRT	GUNKUL	KTB	MTI	PPP	SAT	SSP	TMD	UKEM
AMANAHA	BPP	DTAC	HANA	KTC	NBC	PPPM	SC	SSSC	TMILL	UOBKH
AMATA	BROOK	DUSIT	HARN	KWC	NEP	PPS	SCB	SST	TMT	UPF
AMATAV	BRR	EA	HEMP	KWI	NINE	PR9	SCC	STA	TNITY	UV
AP	BSBM	EASTW	HENG	L&E	NKI	PREB	SCCC	STOWER	TNL	VGI
APCS	BTS	ECL	HMPRO	LANNA	NMG	PRG	SCG	SUSCO	TNP	VIH
AQUA	BWG	EGCO	HTC	LH	NNCL	PRINC	SCN	SVI	TNR	WACOAL
ARROW	CEN	EP	ICC	LHFG	NOBLE	PRM	SEAOL	SYMC	TOG	WHA
AS	CENTEL	EPG	ICHI	LHK	NOK	PROS	SE-ED	SYNTEC	TOP	WHAUP
ASIAN	CFRESH	ERW	IFEC	LPN	NSI	PSH	SELIC	TAE	TOPP	WICE
ASK	CGH	ESTAR	IFS	LRH	NWR	PSL	SENA	TAKUNI	TPA	WIJK
ASP	CHEWA	ETE	ILINK	M	OCC	PSTC	SGP	TASCO	TPP	XO
AWC	CHOTI	FE	INET	MAKRO	OGC	PT	SINGER	TBSP	TRU	ZEN
AYUD	CHOW	FNS	INSURE	MALEE	ORI	PTG	SIRI	TCAP	TRUE	
B	CIG	FPI	INTUCH	MATCH	PAP	PTT	SITHAI	TCMC	TSC	
BAFS	CIMBT	FPT	IRC	MBAX	PATO	PTTEP	SKR	TFG	TSTE	
BAM	CM	FSMART	IRPC	MBK	PB	PTTGC	SMIT	TFI	TSTH	
BANPU	CMC	FSS	ITEL	MC	PCSGH	PYLON	SMK	TFMAMA	TTA	
BAY	COM7	FTE	IVL	MCOT	PDG	Q-CON	SMPC	TGH	TTB	
BBL	COTTO	GBX	JKN	META	PDJ	QH	SNC	THANI	TTCL	
DECLARED										
AJ	CHG	DDD	ETC	JR	MAJOR	NUSA	RS	SSS	TQM	YUASA
ALT	CPL	DHOUSE	FLOYD	JTS	NCAP	NYT	SAK	STECH	TSI	ZIGA
APCO	CPR	DOHOME	GULF	KEX	NCL	OR	SCGP	STGT	VARO	
B52	CPW	ECF	III	KUMWEL	NOVA	PIMO	SCM	TKN	VCOM	
BEC	CRC	EKH	INOX	LDC	NRF	PLE	SIS	TMI	VIBHA	

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)

Disclaimer:

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 26 October 2021) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

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

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Suwat Sinsadok, CFA, FRM, ERP FSS International Investment Advisory Securities Co., Ltd

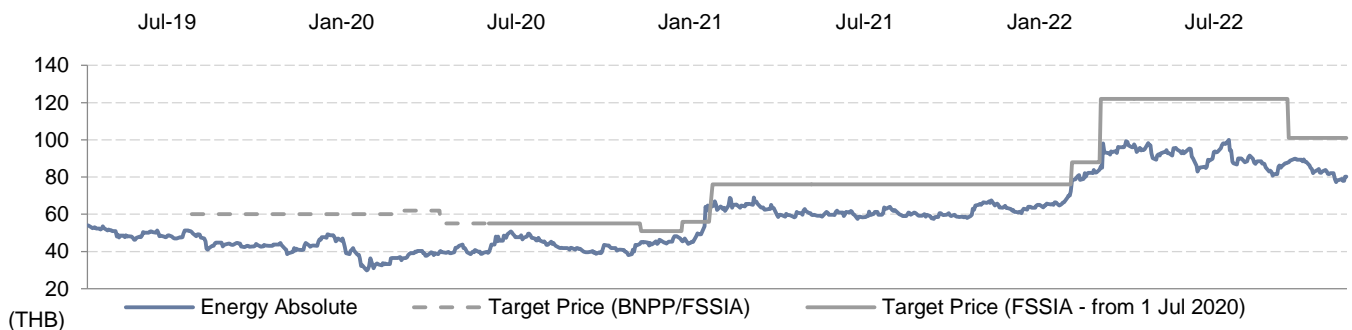
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s) 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

Energy Absolute (EA TB)



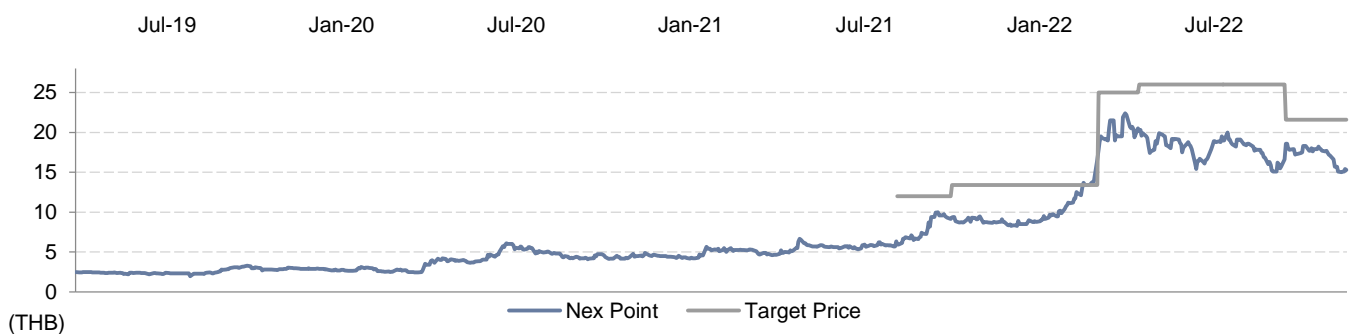
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
17-Oct-2019	BUY	60.00	09-Nov-2020	BUY	51.00	18-Nov-2021	BUY	88.00
16-Apr-2020	BUY	62.00	15-Dec-2020	BUY	56.00	13-Dec-2021	BUY	122.00
20-May-2020	BUY	55.00	08-Jan-2021	BUY	76.00	25-May-2022	BUY	101.00

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 09-Jul-2020

Price and TP are in local currency

Source: FSSIA estimates

Nex Point (NEX TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
23-Jun-2021	BUY	12.00	13-Dec-2021	BUY	25.00	23-May-2022	BUY	21.60
09-Aug-2021	BUY	13.40	17-Jan-2022	BUY	26.00			

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 23-Jun-2021

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
Energy Absolute	EA TB	THB 80.00	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.
Nex Point	NEX TB	THB 15.50	BUY	Downside risks to our SoTP-based TP include: 1) a lower-than-expected bus sales volume; 2) delays in bus deliveries; and 3) risk from regulatory changes.

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 18-Jul-2022 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.