

BUY (Unchanged)
Change in Numbers

TP: Bt 80.00
Upside : 29.6%

(From: Bt 100.00)

6 SEPTEMBER 2023

Energy Absolute Pcl (EA TB)

The next steps

We see EA's signed MOUs with Chinese battery producers as the next step to grow battery production beyond commercial EVs to much larger demand from the passenger EV market. In this report, we revisit our valuation scenarios for EA's business paths and reaffirm BUY.



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Commercial EVs still offer growth

EA focuses on commercial EV (CEV) as the first market for its battery production business and the source of its earnings growth for the next few years. EA plans to expand its battery plant's capacity to 2/4GWh in 2024-25 to serve captive demand from its 70%-owned CEV manufacturing plant (E-buses and E-trucks) and for emerging E-pickup and E-locomotive production. We expect only Bt6.0bn in capex for this expansion as the key infrastructure is already in place with its Bt5.2bn investment for the first phase of its battery plant with 1GWh of capacity in 2020. EA targets to use more in-house and locally made equipment to reduce capex and plans to include LFP battery production at its factory.

Into the passenger EV market

Having signed MOUs in July with Eve Energy and Sunwoda, EA plans to decide this year on a 51% JV with one of those leading Chinese battery makers to build a new battery factory at its existing complex in Chachoengsao, a province in the EEC area. This is a big improvement to us as the partnership implies access for EA to much larger battery demand for passenger EVs (PEVs). We assume this JV plant starts operation with 2GWh of capacity in 2026F, ramping up to 6GWh in 2028F. As we do not expect its growth to stop there, we assume EA builds another 10GWh of capacity later to serve more EV makers setting up production bases in Thailand for both the local market and exports.

And then an ESS business

EA has been targeting battery demand from Energy Storage System (ESS) applications as its core growth driver since it started its battery production business years ago. We believe ESS will eventually gain scale to reach feasibility, but it is still taking several years. Therefore, we temporarily exclude ESS demand from our numbers until the release of Thailand's new PDP, which we expect to include guidelines and regulations for ESS implementation at renewable plants and the national grid. Release has been delayed from 2022 with no new timeline yet.

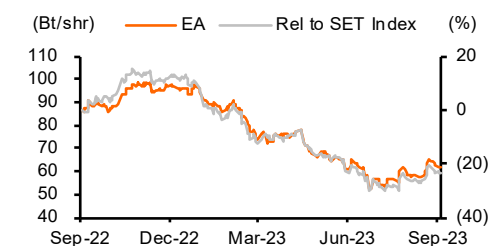
ESS removed from our valuation for now

We reaffirm our BUY rating on EA for the growth story from its CEV-based business and its next step into the PEV market. However, as we conservatively remove the value from the ESS business, our DCF-derived SOTP-based TP (2024F base year) for EA falls to Bt80 (from Bt100), i.e., Bt45 from its existing business (biodiesel, renewable plants, 4GWh battery factory, CEV production), Bt12 from a potential JV for a 6GWh battery plant with a Chinese partner, and Bt23 from a 10GWh potential battery plant expansion for PEV production in Thailand. In a blue-sky scenario with ESS included, we see EA's battery production capacity at 30GWh in 2033F, implying Bt100/share in total value.

COMPANY VALUATION

Y/E Dec (Bt m)	2022A	2023F	2024F	2025F
Sales	25,355	35,115	42,724	49,463
Net profit	7,604	8,932	9,163	10,152
Consensus NP	—	8,507	8,758	9,104
Diff frm cons (%)	—	5.0	4.6	11.5
Norm profit	5,756	8,932	9,163	10,152
Prev. Norm profit	—	9,213	9,511	10,616
Chg frm prev (%)	—	(3.1)	(3.7)	(4.4)
Norm EPS (Bt)	1.5	2.4	2.5	2.7
Norm EPS grw (%)	(4.4)	55.2	2.6	10.8
Norm PE (x)	40.0	25.8	25.1	22.7
EV/EBITDA (x)	27.0	18.9	18.2	16.4
P/BV (x)	5.9	5.0	4.4	3.9
Div yield (%)	0.5	1.2	1.2	1.8
ROE (%)	16.1	21.0	18.6	18.2
Net D/E (%)	115.5	108.5	96.2	79.6

PRICE PERFORMANCE



COMPANY INFORMATION

Price as of 06-Sep-23 (Bt)	61.75
Market Cap (US\$ m)	6,486.6
Listed Shares (m shares)	3,730.0
Free Float (%)	39.9
Avg Daily Turnover (US\$ m)	20.8
12M Price H/L (Bt)	98.50/52.25
Sector	Utilities
Major Shareholder	SPBL Holding Co. 25.1%

Sources: Bloomberg, Company data, Thanachart estimates

ESG Summary Report P10

The next steps

We reaffirm our BUY call with a more conservative TP of Bt80

We reaffirm our BUY rating on shares of Energy Absolute Pcl (EA) for its growth story in the emerging Li-ion battery production and commercial electric vehicle (CEV) manufacturing businesses. Having said that, we lower our DCF-derived SOTP-based 12-month TP (2024F base year) for EA to Bt80 (from Bt100) after changing our valuation approach to better reflect EA's current business progress and to more explicitly show the breakdown of the value from each of its business units.

1) 4GWh battery production for its owned CEV factory

- First*, we factor in the expansion plan of its Amita Technology battery plant in Thailand (71% owned) to 4GWh in 2025F, from 1GWh currently, to support its growing CEV production business (i.e. E-buses, E-trucks, E-pickups, and E-locomotives) within its group. This first stage of EA's battery production business accounts for Bt13/share of our valuation.

2) JV with a Chinese maker for another 6GWh plant

- Second*, after signing MOUs with two potential partners from China to co-invest in another 6GWh battery plant in Thailand, we estimate a Bt12/share value to EA, assuming it holds a 51% stake in this joint-venture business.

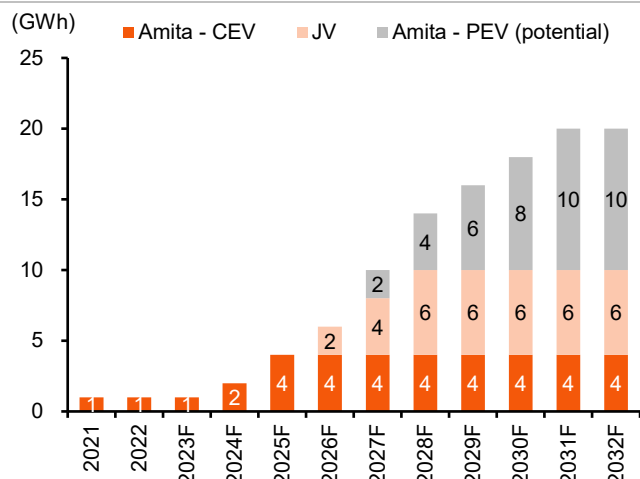
3) We include potential expansion of another 10GWh

- Third*, supported by forming a partnership with a leading global battery maker, which we expect to significantly improve EA's capability to attract new clients amid growing EV production in Thailand, we include 10GWh of potential expansion for the Amita plant to serve the increasing EV battery demand, especially from passenger electric vehicle (PEV) segment. This potential growth comprises Bt23/share of our TP.

We conservatively set aside value from ESS demand

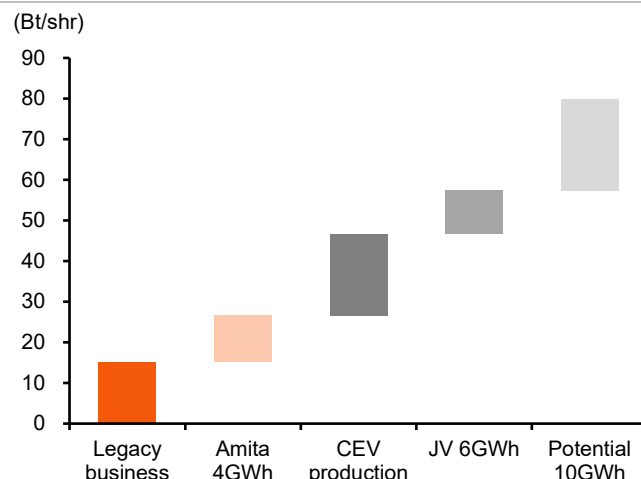
- Lastly*, due to a significant delay in the release of Thailand's new Power Development Plan (PDP), which we expect to include detailed guidelines and regulations for the implementation of energy storage systems (ESS) at renewable power plants and the core national grid, we conservatively remove potential growth from another 10GWh of battery plant capacity (to serve battery demand for ESS solutions) and the value from EA's ESS business from our valuation for now. If we were to add back value from the ESS-related businesses, our valuation of EA would return to Bt100/share.

Ex 1: Our New Forecasts For EA's Battery Plant Capacity



Sources: Company data, Thanachart estimates

Ex 2: New Valuation Better Reflects Business Progress



Source: Thanachart estimates

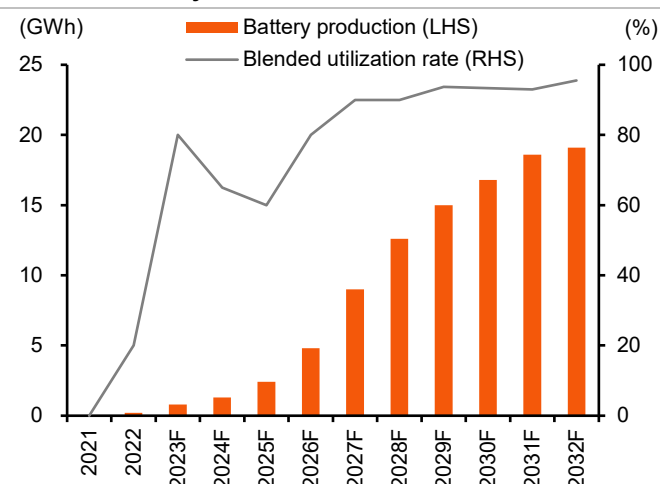
Commercial EV still offers growth

Expanding battery plant's capacity to 4GWh for its owned CEV production

EA is installing more machinery and adding a new production line to raise its battery plant's capacity (at Amita Technology Thailand, 72%-owned) to a planned 2GWh and 4GWh in 2024-25, from 1GWh currently. This is to supply Li-ion batteries for its growing CEV manufacturing business through an 70% effective stake in an E-bus and E-truck factory (Absolute Assembly, AAB) and its 100%-owned E-pickup and E-locomotive production plant (Mine Mobility). EA expects to spend only Bt6.0bn of capex for this expansion vs. the Bt5.2bn investment for its first 1GWh of capacity, given that basic facilities are already in place to share with its existing production line. The company also targets to use more in-house machinery developments and locally made equipment to reduce investment costs further, thanks to the learning curve from its past three years of operations. The second production line (2GWh capacity out of 4GWh) would be for LFP-type batteries. Therefore, EA would be more flexible in offering lower-priced CEVs (based on LFP batteries) to clients with less intense working requirements, i.e., short-distance transport services and light logistics vehicles.

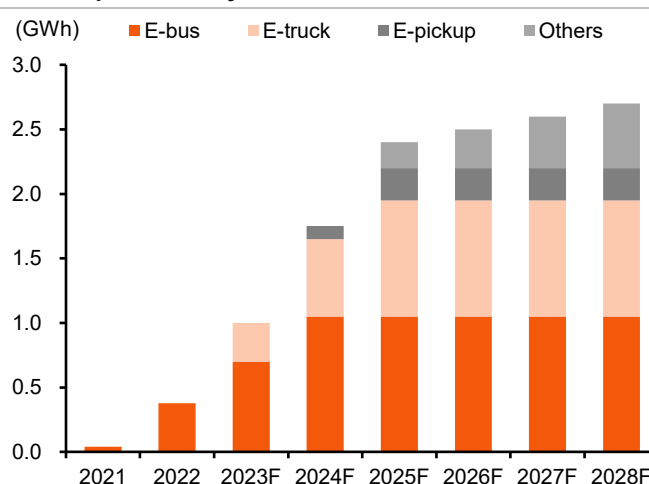
Based on our assumed expansion pace of 1/2/4GWh capacity for Amita's plant in 2023-25F and 80/65/60% utilization rates during those years before reaching an optimized level of a 90% utilization rate in 2027F, this first stage of EA's Li-ion battery production business for captive demand from its owned CEV production accounts for Bt13/share of our TP.

Ex 3: Our Battery Production Forecasts For EA



Sources: Company data, Thanachart estimates

Ex 4: Captive Battery Demand From CEV Business



Sources: Company data, Thanachart estimates

Into the passenger EV market

EA is forming a JV to build another 6GWh battery plant in Thailand

EA plans to build another battery cell manufacturing plant in Thailand with 6GWh of annual production capacity through a joint venture formed with a leading Chinese battery maker. EA is now in talks with two potential partners, EVE Energy (the third-largest battery maker in China with strong expertise in EV and ESS applications) and Sunwoda Mobility (the fifth-largest maker with PHEV and HEV batteries that have fast-charging technology as a product champion), and targets to finalize the partnership with one of them by end-2023. We expect the first phase of this new plant to commence operations with 2GWh of annual capacity in 2026F before ramping up to its targeted 6GWh of capacity in 2028F. Supported by its existing client base from potential partners (i.e., BMW, Daimler, and Hyundai for EVE Energy and Geely, Nissan, and Xpeng for Sunwoda), where some of them have stated an interest to establish an EV production base in Thailand, and technological know-how from the two firms in making Li-ion batteries for consumer electrical devices and ESS, we expect a strong ramp-up pace for the battery plant under this JV with 80% utilization in 2026F,

before rising to 100% in 2029F. We value this JV at Bt12/share of our TP for EA based on those assumptions.

We see this JV helping to accelerate the expansion pace of EA

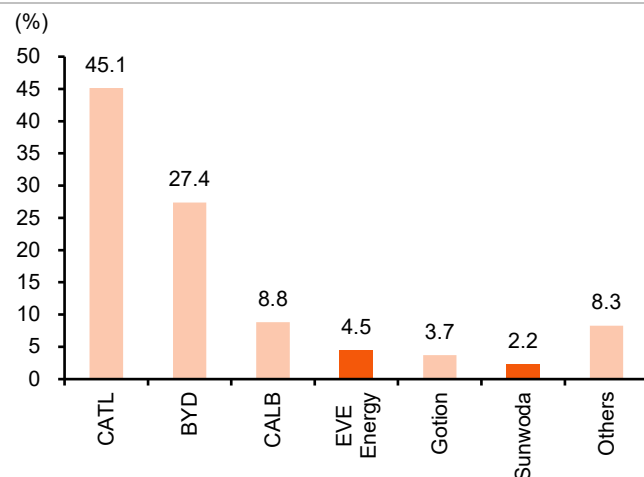
We also see the JV deal as a significant milestone for EA in growing its battery business further. *First*, we believe the partnership formed with a leading player with a global scale will improve confidence of both Chinese and non-Chinese EV makers in EA's production capability and product quality so that EA can secure new customers more easily. *Second*, based on the incentive scheme proposed by the National Electric Vehicle Policy Committee to offer subsidies of Bt600-800/kWh for the production of Li-ion batteries by manufacturers with over 8GWh of plant capacity (only Bt400-600/kWh for those with less than 8GWh of capacity), additional capacity from the JV would qualify EA to obtain the maximum subsidy from the scheme. *Third*, since EA only has a track record in battery production for EV applications, we see the wider product portfolio of its potential partner, which would include Li-ion batteries for ESS solutions (power grid, data centers, and telecommunication) and portable electrical devices (i.e., mobile phone, laptops, and other devices for Internet of Things applications), unlocking the potential for EA to grow its Li-ion battery manufacturing business through non-EV industries.

Ex 5: EA Has Signed MOUs With Two Potential Partners

EVE Energy	Sunwoda
- Reaching 100GWh of capacity by end-2023, with an expansion plan to 300GWh	- Over 100GWh capacity currently, with a target to reach 150GWh production capacity by 2025
- Supplies EV batteries to Daimler, BMW, Hyundai, etc.	- Supplies PHEV and EV batteries to Volvo, VW, Geely, SAIC, and more
- Partnered with US-based 'Powin' to develop a grid-scale ESS project	- Sells Li-ion battery for use in residential and commercial ESS solutions.
- Supplies small Li-ion batteries for use in consumer products	- Supplies Li-ion batteries to leading smartphone brands

Sources: Company data, Thanachart estimates

Ex 6: Chinese EV Battery Market Share (June 2023)



Sources: China Automotive Battery Innovation Alliance (CABIA)

We include growth potential of the 10GWh battery plant for EV applications in our TP

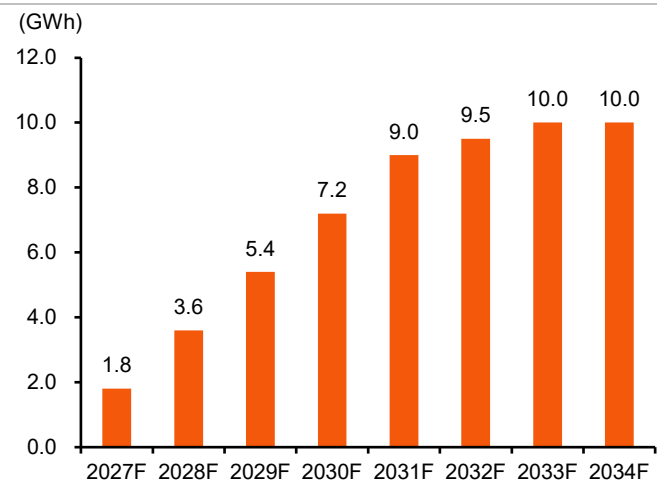
Given the increasing number of EV makers committing to set up production bases in Thailand while EA has established a strong competitive edge by being the first mover in the battery cell manufacturing industry in Thailand with scale benefits, we don't believe EA's growth prospects will just stop at its owned 4GWh of captive demand and another 6GWh capacity from the JV. We, therefore, include in our numbers potential growth for EA to expand its battery cell production capacity by another 10GWh to supply Li-ion batteries to EV makers coming to Thailand. EA plans investment models of dedicated production lines for each EV maker based on the client's battery design (original equipment manufacturer, OEM) and shared production lines among groups of customers with smaller production scales based on EA's standard battery design (original design manufacturer, ODM).

This implies EA delivers batteries for 150k units of PEV production in 2031F

We assume in our valuation the beginning of this potential expansion with 2GWh of capacity in 2027F, ramping up to 10GWh in 2031F. Our projection of a 90% utilization rate in those years implies that EA delivers Li-ion batteries for the production of 30k units of PEVs in 2027F, based on an average battery installation of 60kWh per unit, increasing to 150k units in 2031F. We don't see this as overly aggressive, given that the Thai government targets the country to produce 725k units of PEVs in 2030. Note that larger-sized vehicles (i.e., pickups and SUVs) will likely require larger amounts of installed batteries per unit. EA also targets electric motorbike manufacturers as potential clients, and Thailand manufactured

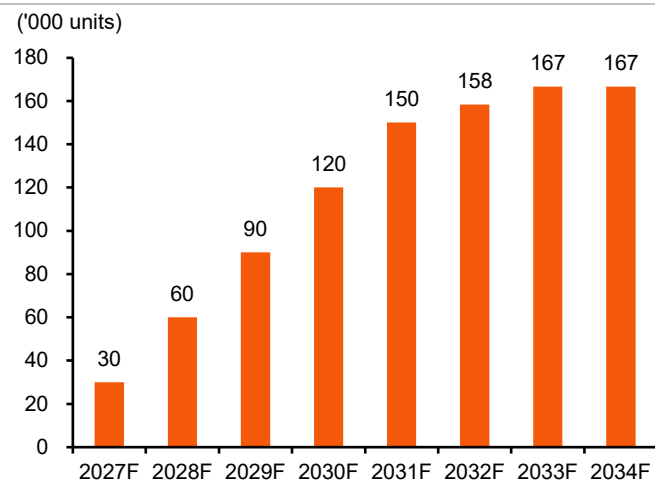
over 2m motorcycles in 2022. This 10GWh of potential battery plant expansion comprises Bt23 of our valuation.

Ex 7: Our Forecasts For EA's OEM Battery Sales Volume



Source: Thanachart estimates

Ex 8: Implied Units Of PEVs That EA Provides Batteries To



Source: Thanachart estimates

And then an ESS business

EA is keen to provide batteries for ESS applications in the future

We see ESS as critical for Thailand to reach its 50% renewable goal

ESS can also significantly improve efficiency of the core national electricity grid

Batteries for ESS applications have been EA's key focus since the initial development of its Li-ion battery production business in 2018. Supported by its strong expertise in operating solar and wind power plants since 2012, EA believes ESS are a mandatory component for renewables to become reliable power sources for the core national power grid. To reach the Thai government's target of having 50% of the country's electricity generation coming from renewables, we expect over 50GWh of Li-ion batteries will need to be installed into more than 20GW renewable projects nationwide. There is also likely to be battery demand from ESS for off-the-grid renewable power generation, i.e., solar rooftops. Household solar rooftop owners could save on their electricity bills by storing electricity output from solar panels during the daytime to be consumed later at night when they are at home. On a larger scale, excess electricity from solar farms in the summer or from wind farms on very windy days could be stored in batteries to be used later when their productivity drops, thereby allowing the grid to install fewer spare conventional power plants to plug the gap during periods with less favorable conditions for electricity generation from renewables. This offers higher potential to raise the renewable portion of total electricity generation.

We also expect the implementation of ESS directly into the national electricity grid to stabilize load and supply for the grid, or so-called load balancing. One factor driving the need for ESS in the grid is the unpredictable demand from EVs, which may cause difficulties for the grid in matching electricity production and transmission with less predictable localized electricity demand in real time. By having spare electricity stored in ESS, the grid could react better to electricity demand spikes while keeping its conventional power plants running at optimized levels or even reducing the required reserve margin to save on investment costs for additional power plants for the country. We believe these ESS solutions will eventually become feasible with further falls in battery costs or with subsidies from the government in the years ahead, driving significant battery demand growth for EA.

Ex 9: Micro-Scale Solar Plus ESS Hybrid System



Source: BanpuNEXT

Ex 10: Grid-Scale ESS Solution In California



Source: Hecate Grid

ESS solutions service, on top of battery sales to ESS applications

EA not only expects to sell batteries for ESS applications, as discussed in the previous section, but also to establish an ESS solutions service as its new business unit. We believe the next Power Development Plan (PDP) for Thailand will include guidelines for the deregulation of the electricity market by allowing third-party access for either individuals or corporates to sell their self-generated electricity through the central transmission system either in the form of private-PPA contracts (B2B) or peer-to-peer (P2P) electricity trading. Since we believe a sizable portion of off-the-grid electricity generation will be from renewable sources, ESS will likely become much more necessary to stabilize the increasing fluctuations in the grid. Having its own battery plant and batteries returned from its EVs for recycling, we see EA having a strong cost advantage in offering those solutions for both the government's projects and those of industrial clients.

Grid deregulation could also open up an opportunity for EA to revisit its business plan of developing solar-plus-ESS projects for islands or other remote locations where the cost of grid connection is high due to the lengthy distances from the main transmission system. Localized ESS solutions include private ESS power plants that store electricity from the grid into batteries before feeding it to end-users instead of direct electricity consumption from the grid to prevent shortages, leakages, or spikes, and thus minimize the potential impacts on critical manufacturing processes or other heavy electricity-reliant operations.

As it may take years to materialize, we leave out value from ESS for now

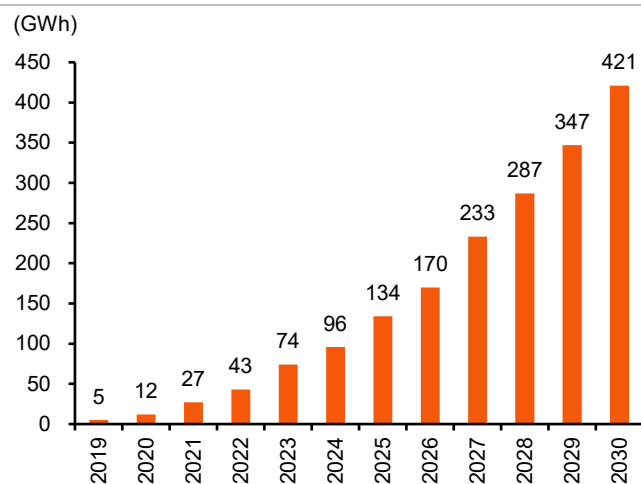
Having said that, those potential businesses are highly dependent on the release of the new PDP for Thailand, which has been delayed significantly from the initial schedule of 2022. Without a clear timeline ahead, we conservatively decide to temporarily remove the value from 1) EA's battery sales to ESS applications and 2) EA's ESS solutions service business from our valuation. After we eventually see the details of the ESS industry in Thailand in the new PDP or if EA comes up with a more solid business plan for its ESS solutions business unit, we will revisit the valuation of this business opportunity. Note that if we were to include the value from the ESS-related businesses now, we would see EA being worth Bt100/share.

Ex 11: EA's Pilot Solar-ESS Project At Amita Factory



Source: Company data

Ex 12: Forecasted Annual ESS Installation Globally



Source: BloombergNEF

Ex 13: Sum-Of-The-Parts Valuation

Renewables & Green energy	Value (Bt/Share)
Biodiesel	3.1
Solar farms	6.1
Wind farms	5.9
Subtotal	15.2
Battery production	
Amita 4GWh plant	12.5
JV on 6GWh plant	11.6
Potential 10GWh plant	23.4
Subtotal	47.6
E-Vehicle Solutions	
CEV production (AAB, NEX, Mine Mobility)	17.0
EV charging station (EA Anywhere)	4.0
Subtotal	21.0
+ Net debt, HQ, and others	(3.8)
Grand total	80.0

Source: Thanachart estimates

Valuation Comparison

Ex 14: Comparison With Regional Peers

Name	BBG code	Country	EPS growth		— PE —		— P/BV —		—EV/EBITDA—		— Div yield —	
			23F	24F	23F	24F	23F	24F	23F	24F	23F	24F
			(%)	(%)	(x)	(x)	(x)	(x)	(x)	(x)	(%)	(%)
China Longyuan	916 HK	Hong Kong	34.0	18.6	6.5	5.5	0.7	0.6	9.1	8.0	3.0	3.6
China Suntien Green Energy	956 HK	Hong Kong	0.2	20.1	5.2	4.3	0.5	0.5	10.0	8.5	6.9	8.1
China Resources Power	836 HK	Hong Kong	45.8	18.8	6.1	5.1	0.8	0.7	6.2	5.3	6.7	8.0
Geely Automobile Holdings	175 HK	Hong Kong	(2.9)	37.8	19.8	14.4	1.2	1.1	5.9	4.9	1.9	2.5
Great Wall Motor	2333 HK	Hong Kong	(42.2)	35.1	16.1	12.0	1.2	1.1	18.5	15.2	3.0	3.7
BYD	1211 HK	Hong Kong	70.0	36.1	28.1	20.7	5.4	4.3	11.2	9.0	0.5	0.7
LG Chem	051910 KS	S. Korea	(14.0)	89.8	21.4	11.3	1.3	1.2	8.2	5.4	1.7	2.1
SK Innovation	096770 KS	S. Korea	(71.4)	172.3	23.9	8.8	0.8	0.7	9.9	6.3	2.0	2.0
Panasonic	6752 JP	Japan	(14.9)	89.0	19.6	10.4	1.2	1.0	7.8	6.0	1.8	2.0
NIO Inc.	NIO US	USA	(51.2)	43.3	na	na	1.6	3.2	na	na	0.0	0.0
Tesla Inc.	TSLA US	USA	(16.0)	42.7	76.0	53.2	15.6	12.0	48.0	33.8	0.0	0.0
BCPG Pcl *	BCPG TB	Thailand	(29.7)	34.2	20.1	14.9	1.0	0.9	14.3	14.1	3.6	3.6
CK Power Pcl *	CKP TB	Thailand	(30.4)	11.7	17.2	15.4	1.1	1.0	11.8	11.3	2.4	2.4
Energy Absolute Pcl *	EA TB	Thailand	55.2	2.6	25.8	25.1	5.0	4.4	18.9	18.2	1.2	1.2
Electricity Generating *	EGCO TB	Thailand	(23.7)	(3.2)	7.2	7.4	0.5	0.5	14.3	14.6	4.9	4.9
Global Power Synergy *	GPSC TB	Thailand	2,756.5	17.1	23.2	19.8	1.3	1.3	13.8	12.6	2.4	3.0
Gulf Energy Dev. Pcl *	GULF TB	Thailand	40.0	30.5	33.4	25.6	4.6	4.3	28.3	23.3	1.8	2.3
Gunkul Engineering *	GUNKUL TB	Thailand	47.8	9.2	17.5	16.0	2.1	1.9	16.8	14.9	2.3	2.5
RATCH Group Pcl *	RATCH TB	Thailand	0.7	33.0	10.9	8.2	0.7	0.7	18.1	16.9	4.1	5.5
Average			(0.2)	38.9	21.0	15.5	2.5	2.2	15.1	12.7	2.6	3.1

Sources: Bloomberg, * Thanachart estimates

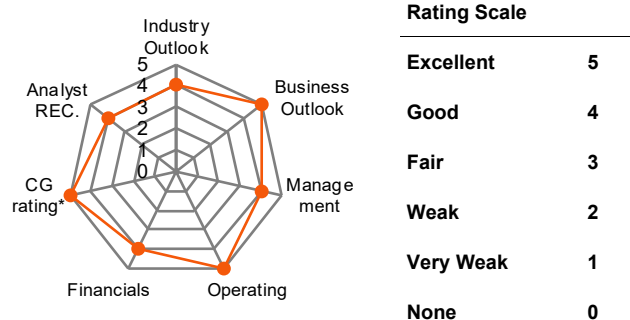
Based on 6 September 2023 closing prices

COMPANY DESCRIPTION

Established in 2006 as a biodiesel business operator, Energy Absolute Pcl (EA) has become one of Thailand's major renewable plant operators with an installed capacity of 784MW of subsidized solar and wind projects. EA started investing in the Li-ion battery production business by acquiring Amita Technologies in 2016 with a plan to build up to 50GWh Li-ion battery factory in Thailand to serve battery demand from electric vehicle (EV) and energy storage system (ESS) markets.

Source: Thanachart

COMPANY RATING



Source: Thanachart; * CG Rating

THANACHART'S SWOT ANALYSIS

S — Strength

- Management has a strong financial background with what we regard as well-thought-out plans for expansion.
- Being the first mover in battery and CEV production industries in Thailand.

O — Opportunity

- Electricity industry gearing towards renewable energy.
- EV industry is still in an early stage, therefore plenty of room for EV battery demand to grow.
- Energy storage could be mandatory for the national grid and private off-the-grid power system in the future.

W — Weakness

- In a heavy capex cycle due to scheduled new capacity expansion, but gearing is still below its threshold.
- Still high uncertainties in its emerging Li-ion battery and CEV production, i.e. changes of technology and regulations.

T — Threat

- New capacity tendered through power purchase contracts by the government will likely see lower returns.
- Regulations from both domestic and overseas power markets on both electricity generation and EV businesses.

CONSENSUS COMPARISON

	Consensus	Thanachart	Diff
Target price (Bt)	70.59	80.00	13%
Net profit 23F (Bt m)	8,507	8,932	5%
Net profit 24F (Bt m)	8,758	9,163	5%
Consensus REC	BUY: 5	HOLD: 3	SELL: 1

HOW ARE WE DIFFERENT FROM THE STREET?

- Our 2023-24F earnings are 5% above the Bloomberg consensus numbers, which we believe is due to us assuming stronger wind power output for EA in these years.
- However, our SOTP-based TP is 13% higher, likely because we foresee stronger long-term growth potential for its battery production business.

RISKS TO OUR INVESTMENT CASE

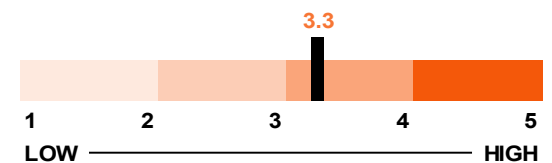
- If investment costs required for its new S-curve businesses are higher than we presently anticipate, this would represent a downside risk to our valuation for EA.
- If EA cannot secure enough orders, for either battery or CEV sales, to match our expectations, that would present another major downside risk to our numbers.
- Less favorable natural conditions for electricity generation from its renewable power plants represent the key downside risk to our near-term earnings forecasts.

Sources: Bloomberg consensus, Thanachart estimates

Source: Thanachart

EA runs three major business units: a biodiesel refinery, renewable power plants, and a Li-ion battery factory. Despite it already being a net-negative carbon emissions company, it targets to cut its emissions further. We like its strong commitment to social aspects, especially its contributions to surrounding communities. We assign an ESG score of 3.3.

Thanachart ESG Rating



	SETTHSI Index	THSI Index	DJSI Index	MSCI (CCC-AAA)	ESG Book (0-100)	Refinitiv (0-100)	S&P Global (0-100)	Moody's (0-100)	CG Rating (0-5)
EA	YES	YES	-	A	58.89	56.91	73.00	-	5.0

Sources: SETTRADE, SETTHSI Index, Thailand Sustainability Investment (THSI), The Dow Jones Industrial Average (DJSI), MSCI ESG Research LLC, ESG Book, Refinitiv ESG Information, S&P Global Market Intelligence, Moody's ESG Solutions, Thai IOD (CG rating)

Note: Please see third party on "terms of use" toward the back of this report.

Factors

Our Comments

ENVIRONMENT

- Environmental Policies & Guidelines
- Energy Management
- Carbon Management
- Water Management
- Waste Management

- EA emitted 66,831 tonnes of CO2 equivalent of greenhouse gas (scope 1 and scope 2) in 2022, beating its target by 4%. The emissions increased 26% from last year due to the start-up of its battery and commercial EV manufacturing plants.
- EA implements reuse, reduce, and recycle (3R) principles to reduce water consumption (mainly in its biodiesel business) and achieved a water consumption reduction of over 5% in 2022 compared to the previous year.
- EA has set up a battery recycling business and laid out hazardous waste protocols for the start of its new S-curve businesses (battery and EV), which produce much more waste than its legacy business of renewable power plants.
- EA is providing strong support to build a low-carbon society community and helping set up carbon credit trading standards for Thailand to speed the country up in reaching its carbon neutrality and net-zero targets.

SOCIAL

- Human Rights
- Staff Management
- Health & Safety
- Product Safety & Quality
- Social Responsibility

- EA is committed to global human rights standards and guidelines. It has also implemented a PDPA protocol in its normal operations and working procedures among its stakeholders.
- EA's staff turnover rate was 21% in 2022, improving from 26% in 2021. The company said its change of business focus may not have suited some of its staff. We will track this issue since the turnover still looks high to us.
- EA has reported no major accidents causing severe injuries or business disruptions over the past five years. It also received no complaints from its customers about product quality.
- EA provides strong support to communities surrounding its battery plant and CEV factory in Chachoengsao province, i.e., educational support, professional training, and local hiring, and quality of life improvement through infrastructure and utility facilities development.

GOVERNANCE &
SUSTAINABILITY

- Board
- Ethics & Transparency
- Business Sustainability
- Risk Management
- Innovation

- EA's board of directors comprises 11 members. Six of the board members are independent directors. However, all of them are male, which may raise flags over gender diversity and equality at the company.
- EA has faced negative news related to stock trading and internal auditing over the past few years, but we are satisfied with management's swift response to clear up these issues.
- We like EA's business strategy to fully take care of the supply chain in its new S-curve business to ensure smooth operations and strong procurement. It supplements its battery production plant with an in-house commercial EV factory and downstream investment in public transport. It also plans to invest upstream more in the battery business.
- EA has invested heavily in R&D for product innovations ranging from its acquisition of a Li-ion battery research team from Amita Group to the development of an ultra-fast charging platform and the self-development of commercial EV products.

Sources: Thanachart, Company data

INCOME STATEMENT

FY ending Dec (Bt m)	2021A	2022A	2023F	2024F	2025F
Sales	20,174	25,355	35,115	42,724	49,463
Cost of sales	11,893	17,394	21,993	28,932	34,213
Gross profit	8,280	7,961	13,121	13,792	15,250
% gross margin	41.0%	31.4%	37.4%	32.3%	30.8%
Selling & administration expenses	1,437	1,427	1,667	1,752	1,957
Operating profit	6,843	6,534	11,454	12,040	13,293
% operating margin	33.9%	25.8%	32.6%	28.2%	26.9%
Depreciation & amortization	2,896	3,767	3,518	3,602	3,924
EBITDA	9,739	10,301	14,972	15,642	17,217
% EBITDA margin	48.3%	40.6%	42.6%	36.6%	34.8%
Non-operating income	384	365	176	214	247
Non-operating expenses	0	0	0	0	0
Interest expense	(1,388)	(1,413)	(2,064)	(2,192)	(2,159)
Pre-tax profit	5,840	5,486	9,565	10,061	11,382
Income tax	3	145	48	50	57
After-tax profit	5,837	5,341	9,517	10,011	11,325
% net margin	28.9%	21.1%	27.1%	23.4%	22.9%
Shares in affiliates' Earnings	14	218	234	770	1,120
Minority interests	171	198	(820)	(1,618)	(2,293)
Extraordinary items	79	1,848	0	0	0
NET PROFIT	6,100	7,604	8,932	9,163	10,152
Normalized profit	6,021	5,756	8,932	9,163	10,152
EPS (Bt)	1.6	2.0	2.4	2.5	2.7
Normalized EPS (Bt)	1.6	1.5	2.4	2.5	2.7

*Emerging CEV business
is the key earnings driver
for 2023-25F*

BALANCE SHEET

FY ending Dec (Bt m)	2021A	2022A	2023F	2024F	2025F
ASSETS:					
Current assets:	11,650	22,527	24,884	28,350	30,642
Cash & cash equivalent	2,944	3,272	3,061	2,061	1,061
Account receivables	3,690	6,330	8,658	10,535	12,196
Inventories	1,483	5,516	7,231	8,719	9,373
Others	3,532	7,410	5,934	7,036	8,011
Investments & loans	0	0	0	0	0
Net fixed assets	58,421	54,221	53,425	58,321	60,789
Other assets	15,406	26,616	36,544	37,176	37,821
Total assets	85,476	103,364	114,853	123,847	129,252
LIABILITIES:					
Current liabilities:	12,676	26,475	25,516	25,970	24,453
Account payables	358	4,801	3,013	3,171	2,812
Bank overdraft & ST loans	1,877	11,225	11,279	11,422	10,756
Current LT debt	7,580	8,320	9,023	9,137	8,605
Others current liabilities	2,860	2,129	2,201	2,240	2,280
Total LT debt	33,777	31,417	36,093	36,550	34,420
Others LT liabilities	3,921	4,168	4,088	4,104	4,116
Total liabilities	50,375	62,060	65,696	66,623	62,988
Minority interest	2,601	2,375	3,195	4,813	7,106
Preferreds shares	0	0	0	0	0
Paid-up capital	373	373	373	373	373
Share premium	3,681	3,681	3,681	3,681	3,681
Warrants	0	0	0	0	0
Surplus	(720)	(777)	(777)	(777)	(777)
Retained earnings	29,167	35,653	42,685	49,134	55,881
Shareholders' equity	32,501	38,929	45,961	52,410	59,158
Liabilities & equity	85,476	103,364	114,853	123,847	129,252

*Healthy balance sheet
despite a rapid business
expansion plan*

Sources: Company data, Thanachart estimates

CASH FLOW STATEMENT

FY ending Dec (Bt m)	2021A	2022A	2023F	2024F	2025F
Earnings before tax	5,840	5,486	9,565	10,061	11,382
Tax paid	(3)	(145)	(48)	(50)	(57)
Depreciation & amortization	2,896	3,767	3,518	3,602	3,924
Chg In working capital	(1,604)	(2,230)	(5,831)	(3,207)	(2,674)
Chg In other CA & CL / minorities	(39)	(3,562)	1,782	(292)	184
Cash flow from operations	7,089	3,316	8,986	10,114	12,758
Capex	(5,332)	552	(2,635)	(8,410)	(6,303)
Right of use	(83)	4	(20)	(20)	(20)
ST loans & investments	7	(852)	0	0	0
LT loans & investments	0	0	0	0	0
Adj for asset revaluation	0	0	0	0	0
Chg In other assets & liabilities	(484)	(9,264)	(10,075)	(684)	(702)
Cash flow from investments	(5,891)	(9,561)	(12,730)	(9,114)	(7,025)
Debt financing	194	7,749	5,432	714	(3,329)
Capital increase	0	0	0	0	0
Dividends paid	(1,119)	(1,119)	(1,899)	(2,714)	(3,405)
Warrants & other surplus	(292)	(58)	0	0	0
Cash flow from financing	(1,216)	6,572	3,533	(2,000)	(6,733)
Free cash flow	1,757	3,868	6,351	1,704	6,455

*Capex plan is supported
mainly by hefty cashflow
from renewable plants*

VALUATION

FY ending Dec	2021A	2022A	2023F	2024F	2025F
Normalized PE (x)	38.3	40.0	25.8	25.1	22.7
Normalized PE - at target price (x)	49.6	51.8	33.4	32.6	29.4
PE (x)	37.8	30.3	25.8	25.1	22.7
PE - at target price (x)	48.9	39.2	33.4	32.6	29.4
EV/EBITDA (x)	27.8	27.0	18.9	18.2	16.4
EV/EBITDA - at target price (x)	34.8	33.6	23.5	22.6	20.4
P/BV (x)	7.1	5.9	5.0	4.4	3.9
P/BV - at target price (x)	9.2	7.7	6.5	5.7	5.0
P/CFO (x)	32.5	69.5	25.6	22.8	18.1
Price/sales (x)	11.4	9.1	6.6	5.4	4.7
Dividend yield (%)	0.5	0.5	1.2	1.2	1.8
FCF Yield (%)	0.8	1.7	2.8	0.7	2.8
(Bt)					
Normalized EPS	1.6	1.5	2.4	2.5	2.7
EPS	1.6	2.0	2.4	2.5	2.7
DPS	0.3	0.3	0.7	0.7	1.1
BV/share	8.7	10.4	12.3	14.1	15.9
CFO/share	1.9	0.9	2.4	2.7	3.4
FCF/share	0.5	1.0	1.7	0.5	1.7

Sources: Company data, Thanachart estimates

FINANCIAL RATIOS

FY ending Dec	2021A	2022A	2023F	2024F	2025F
Growth Rate					
Sales (%)	18.1	25.7	38.5	21.7	15.8
Net profit (%)	17.2	24.7	17.5	2.6	10.8
EPS (%)	17.2	24.7	17.5	2.6	10.8
Normalized profit (%)	17.4	(4.4)	55.2	2.6	10.8
Normalized EPS (%)	17.4	(4.4)	55.2	2.6	10.8
Dividend payout ratio (%)	18.3	14.7	30.0	30.0	40.0
Operating performance					
Gross margin (%)	41.0	31.4	37.4	32.3	30.8
Operating margin (%)	33.9	25.8	32.6	28.2	26.9
EBITDA margin (%)	48.3	40.6	42.6	36.6	34.8
Net margin (%)	28.9	21.1	27.1	23.4	22.9
D/E (incl. minor) (x)	1.2	1.2	1.1	1.0	0.8
Net D/E (incl. minor) (x)	1.1	1.2	1.1	1.0	0.8
Interest coverage - EBIT (x)	na	na	na	na	na
Interest coverage - EBITDA (x)	na	na	na	na	na
ROA - using norm profit (%)	7.3	6.1	8.2	7.7	8.0
ROE - using norm profit (%)	20.0	16.1	21.0	18.6	18.2
DuPont					
ROE - using after tax profit (%)	19.4	15.0	22.4	20.4	20.3
- asset turnover (x)	0.2	0.3	0.3	0.4	0.4
- operating margin (%)	35.8	27.2	33.1	28.7	27.4
- leverage (x)	2.7	2.6	2.6	2.4	2.3
- interest burden (%)	80.8	79.5	82.2	82.1	84.1
- tax burden (%)	99.9	97.4	99.5	99.5	99.5
WACC (%)	5.0	5.0	5.0	5.0	5.0
ROIC (%)	10.1	8.7	13.2	12.1	12.3
NOPAT (Bt m)	6,839	6,361	11,397	11,980	13,227
invested capital (Bt m)	72,792	86,620	99,295	107,459	111,878

Sources: Company data, Thanachart estimates

*Profitability trending up as
new businesses are
reaching critical scale*

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ESG risk combines the concepts of management and exposure to arrive at an absolute assessment of ESG risk. We identify five categories of ESG risk severity that could impact a company's enterprise value

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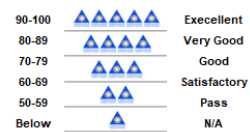
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