



# Energy Absolute Public Company Limited

Management Discussion and Analysis

For Operating Results

of the fourth quarter and year ended 31 December 2023



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Subject Management Discussion and Analysis and operating result for the fourth quarter and year ended 31 December 2023

To The President of the Stock Exchange of Thailand

We, Energy Absolute Public Company Limited (“EA”) would like to report the operating results of EA and its subsidiaries (all together as the “Company”) for the fourth quarter and year ended 31 December 2023 as approved by the meeting of the Board of Directors No. 1/2024 held on 23 February 2024. The details are as follows:

## Overview of operating results for the fourth quarter and year ended 31 December 2023

Operating Results	Fourth quarter				For the year ended			
	2023 THB Million	2022 THB Million	Increase (Decrease)		2023 THB Million	2022 THB Million	Increase (Decrease)	
			THB Million	%			THB Million	%
Revenue from sales and services	5,995.42	9,526.39	(3,530.97)	(37.07)	30,074.44	25,354.61	4,719.83	18.62
Other income	176.35	142.99	33.36	23.33	333.55	354.29	(20.74)	(5.85)
Total revenue from ordinary operations	6,171.77	9,669.38	(3,497.61)	(36.17)	30,407.99	25,708.90	4,699.09	18.28
Net profit from ordinary operations	1,163.20	2,172.25	(1,009.05)	(46.45)	7,144.54	5,766.38	1,378.16	23.90
Non-recurring items	-	-	-	-	461.63	1,837.91	(1,376.28)	(74.88)
Net profit for owners of the parent	1,163.20	2,172.25	(1,009.05)	(46.45)	7,606.17	7,604.29	1.88	0.02
Basic earnings per share (THB per share)	0.31	0.58	(0.27)	(46.55)	2.04	2.04	-	-

### Net profit from ordinary operations

In Q4/23, net profit from ordinary operations of EA and its subsidiaries amounted to THB 1,163.20 million decreased by THB 1,009.05 million or 46.54% compared to Q4/22 (Q4/22: THB 2,172.25 million.) The reasons for this are (1) Customers to buy electric cars postpone the delivery due to there is finding the new electric charging stations because the old number of stations was not enough, and some stations were delayed because they had to wait for Low Priority approval from relevant government agencies, (2) In Q4/22 had a large delivery of electric buses to order from the Q3/22 totaling to 909 buses, (3) Higher financial costs amounted to THB 874.69 million, due to an increase in debentures and the average interest rate on the Group's loans. In accordance with the interest rate increase of the Bank of Thailand. As a result, sales in Q4/22 were higher

than the normal sales. For the year ended 31 December 2023, the net profit from ordinary operations of EA and its subsidiaries amounted to THB 7,144.54 million, an increase of THB 1,378.16 million or 23.90% from the previous year. Net profit from ordinary operations amounted to THB 5,766.38 million, the highest profit in the company's history and an increase mainly due to the electric bus and commercial vehicle business and the operation of the renewable energy power plants, although the biodiesel business is declining.

## Net profit for the owner of the parent company

For the year ended 31 December 2023, net profit for the owner of the parent company amounted to THB 7,606.17 million, an increase of THB 1.88 million which is slightly as compared to the same period last year. The Company and its subsidiaries realized a net profit from the special transaction (non-recurring) of THB 1,376.28 million in 2023. In 2023, The Company and its subsidiaries realized gain on reclassification of investment amount of THB 461.63 million and in 2022, the company realized gain on Entire Business Transfer ("EBT") of THB 1,837.91 million.

## Revenue

In Q4/23, the total revenue of EA and its subsidiaries amounted to THB 6,171.77 million, a decrease of THB 3,497.61 million or 36.17% compared to the same period last year (Q4/22: THB 9,669.38 million) This is the same reason as the net profit that decreased as mentioned in the topic of net profit from operations above but looking the operation in the year ended 31 December 2023, the total revenue of EA and its subsidiaries amounted to THB 31,597.76 million, an increase of THB 4,050.95 million or 14.71% compared to the same period last year (The Year 2022: THB 27,546.81 million), as summarized below.

Total Revenue	Fourth quarter				For the year ended			
	2023	2022	Increase (Decrease)		2023	2022	Increase (Decrease)	
	THB Million	THB Million	THB Million	%			THB Million	THB Million
Biodiesel business	1,695.88	1,368.67	327.21	23.91	5,647.37	7,422.27	(1,774.90)	(23.91)
Renewable power plant business	2,876.97	3,040.05	(163.08)	(5.36)	12,728.81	11,181.66	1,547.15	13.84
Electric bus and commercial Vehicle Business	1,112.46	5,072.26	(3,959.80)	(78.07)	11,376.63	6,788.80	4,587.83	67.58
Lithium-ion Battery Business	644.36	1,839.38	(1,195.02)	(64.97)	4,709.15	2,748.97	1,960.18	71.31
Other Businesses	332.50	57.03	275.47	483.03	814.61	304.26	510.35	167.73
Less: Inter-segment revenue	(666.75)	(1,851.00)	1,184.25	(63.98)	(5,202.13)	(3,091.35)	(2,110.78)	68.28
Total Revenue from sales and services	5,995.42	9,526.39	(3,530.97)	(37.07)	30,074.44	25,354.61	4,719.83	18.62
Other Incomes	176.35	142.99	33.36	23.33	333.55	354.29	(20.74)	(5.85)

Total Revenue	Fourth quarter				For the year ended			
	2023	2022	Increase (Decrease)		2023	2022	Increase (Decrease)	
	THB Million	THB Million	THB Million	%	THB Million	THB Million	THB Million	%
Total revenue from ordinary operations	6,171.77	9,669.38	(3,497.61)	(36.17)	30,407.99	25,708.90	4,699.09	18.28
Other Incomes (non-recurring items)	-	-	-	-	1,189.77	1,837.91	(648.14)	(35.27)
<b>Total Revenue</b>	<b>6,171.77</b>	<b>9,669.38</b>	<b>(3,497.61)</b>	<b>(36.17)</b>	<b>31,597.76</b>	<b>27,546.81</b>	<b>4,050.95</b>	<b>14.71</b>

However, revenue from sales and services in Q4/23 amounted to THB 5,995.42 million, a decrease of THB 3,530.97 million or 37.07% from 2022 because of the reason for delivery of electric buses. In Q3/22 and Q4/22 will be described before and the operation for the year ended 31 December 2023, revenue amounted to THB 30,407.99 million, an increase of 4,699.09 million or 18.28% from 2022, mainly due to growth in the electric bus and commercial vehicle business, lithium-ion battery business, and renewable power plant business which are summarized as follows:

## 1. Revenue from biodiesel business:

In Q4/23, revenues from the biodiesel business increased by THB 327.21 million or 23.91%. For the year ended 31 December 2023, revenues from the biodiesel business decreased by THB 1,774.90 million or 23.91% compared to the same period last year, due to the following reasons.

**1.1 Production and distribution of biodiesel fuel products:** In Q4/23, revenue increased by THB 724.59 million or 95.23%. This was mainly due to an increase in sales volume from the recovery in fuel usage demand from the transportation section. For the year ended 31 December 2023, revenue decreased by THB 452.97 million or 10.27%. This was mainly due to the price of biodiesel (B100). This was in line with the prices of crude palm oil (CPO). In 2023 the global market and the domestic market decreased by 25% compared to the year 2022. However, the Company continues to look for new opportunities through new research and development for the biodiesel from used vegetable oil to be exported overseas.

Descriptions	Fourth quarter				For the period ended			
	2023	2022	Increase (Decrease)		2023	2022	Increase (Decrease)	
	THB Million	THB Million	THB Million	%	THB Million	THB Million	THB Million	%
Revenue from biodiesel fuel (B100)	1,485.44	760.85	724.59	95.23	3,957.45	4,410.42	(452.97)	(10.27)
- Sales volume (Million liters)	48.71	24.75	23.96	96.81	128.69	107.41	21.28	19.81

Descriptions	Fourth quarter				For the period ended			
	2023	2022	Increase (Decrease)		2023	2022	Increase (Decrease)	
	THB Million	THB Million	THB Million	%	THB Million	THB Million	THB Million	%
- Average selling price (Bah/liter)	30.50	30.74	(0.24)	(0.78)	30.75	41.06	(10.31)	(25.11)
- Biodiesel mandates	B7	B5,B7			B7	B5,B7		

**1.2 Production and distribution of pure glycerin product:** In Q4/23, revenues increased by THB 2.80 million or 5.49%, this is mainly due to an increase in biodiesel sales volume up to 83.87% because the glycerin is the by-product of the increased biodiesel fuel production and distributions in Q4/23. For the year ended 31 December 2023, revenues fell by THB 245.07 million or 60.22%. This is mainly due to the price of glycerin has fallen in the global and domestic markets compared to the year 2022.

Descriptions	Fourth quarter				For the period ended			
	2023	2022	Increase (Decrease)		2023	2022	Increase (Decrease)	
	THB Million	THB Million	THB Million	%	THB Million	THB Million	THB Million	%
Revenue from pure glycerin	53.82	51.02	2.80	5.49	161.92	406.99	(245.07)	(60.22)
- Sales volume (Million Kg)	3.42	1.86	1.56	83.87	9.22	9.03	0.19	2.10
- Average selling price (Baht/Kg)	15.74	27.43	(11.69)	(42.62)	17.56	45.09	(27.53)	(61.05)

**1.3 Production and distribution of Crude Palm Oil (CPO) Product:** In Q4/23, revenue decrease amounted to THB 257.57 million or 66.02%. For the year ended 31 December 2023, revenue decrease amounted to THB 926.62 million or 44.60%. This is due to the decline in sales volume in Q4/23 due to lower domestic demand. CPO prices in Q4/23 and 12M/23 declined because the SPOT price in Malaysia was lower than the price of refineries in southern Thailand. Therefore, the refineries cannot export CPO. Consequently, exporters are competing for domestic sales. As a result, the price of CPO in the country has fallen.

Descriptions	Fourth quarter				For the period ended			
	2023 THB Million	2022 THB Million	Increase (Decrease)		2023 THB Million	2022 THB Million	Increase (Decrease)	
			THB Million	%			THB Million	%
Revenue from crude palm oil (CPO)	132.56	390.13	(257.57)	(66.02)	1,150.84	2,077.46	(926.62)	(44.60)
- Sales volume (Million Kg)	4.44	12.21	(7.77)	(63.64)	37.38	50.19	(12.81)	(25.52)
- Average Selling Price (Baht/Kg)	29.86	31.95	(2.09)	(6.54)	30.79	41.39	(10.60)	(25.61)

**1.4 Production and distribution of PCM Product:** in Q4/23, the decrease in sales amounted to THB 16.30 million or 79.71%. For the year ended 31 December 2023, decreased by THB 63.55 million or 60.98%. This is because the company is in the process of upgrading its green diesel and PCM facilities in order to continue producing Sustainable Aviation Fuel (SAF) and Bio Naphtha in the future, which will result in the factory being shut down regularly throughout the year for improvements to the machinery. The project is expected to be completed in Q2/24. The improvement of the factory to produce SAF will result in the company being able to realize higher revenues in the future, in line with the demand for SAF in the global market. For PCM products, the company is looking for new markets in the US and EU, as well as new channels for the application of PCM in the chemical ingredients, household, solvents, and cold chain sectors, in addition to the use of PCM in the textile and construction industries.

Descriptions	Fourth quarter				For the period ended			
	2023 THB Million	2022 THB Million	Increase (Decrease)		2023 THB Million	2022 THB Million	Increase (Decrease)	
			THB Million	%			THB Million	%
Revenue from PCM	4.15	20.45	(16.30)	(79.71)	40.66	104.21	(63.55)	(60.98)
- Sales volume (Million Kg)	0.03	0.15	(0.12)	(80.00)	0.33	0.91	(0.58)	(63.74)
- Average Selling Price (Baht/Kg)	138.33	136.33	2.00	1.47	123.21	114.52	8.69	7.59

**1.5 Production and distribution of green diesel product:** The Company produced and distributed green diesel (GD) or Hydrogenated Vegetable Oil (HVO). For the year ended 31 December 2023, the revenue to THB 137.20 million, increased by THB 61.59 million or 81.46% compared to the same period last year (The Year 2022: 75.61 million), the green diesel or Hydrogenated Vegetable Oil is a product accepted by the customers in Europe and Asia. It is provided through fuel companies and companies with bio-jet fuel distributors. The company first started selling green diesel in Q4/22 and

in the year 2023 to be exported continuously. The company also approved the investment for construction and installation of the isomerization process to improve the properties of the green diesel for use in cold environments with sub-zero temperatures, which will increase the quality and selling prices of the product and improve competitiveness in the market, the development of this investment resulted in the company not being able to produce green diesel to the market in Q4/23. The project is expected to be completed in Q2/24 and commercialized in Q3/24.

Descriptions	Fourth quarter				For the period ended			
	2023 THB Million	2022 THB Million	Increase (Decrease)		2023 THB Million	2022 THB Million	Increase (Decrease)	
			THB Million	%			THB Million	%
Revenue from Green Diesel (GD)	-	75.61	(75.61)	(100.00)	137.20	75.61	61.59	81.46
- Sales volume (Million Kg)	-	1.15	(1.15)	(100.00)	2.23	1.15	1.08	93.91
- Average selling price (Baht/Kg)	-	65.75	(65.75)	(100.00)	61.52	65.75	(4.23)	(6.43)

**1.6 Byproducts:** In Q4/23, revenue decreased amounted to THB 50.70 million or 71.80%. For the year ended 31 December 2023, revenue decreased amounted to THB 148.28 million or 42.66%. This was mainly due to lower sales prices for palm kernels, which were in line with the lower sales prices for crude palm oil (CPO). (Palm kernels are by-products of crude palm oil production).

Descriptions	Fourth quarter				For the period ended			
	2023 THB Million	2022 THB Million	Increase (Decrease)		2023 THB Million	2022 THB Million	Increase (Decrease)	
			THB Million	%			THB Million	%
Revenue from byproducts	19.91	70.61	(50.70)	(71.80)	199.30	347.58	(148.28)	(42.66)

## 2. Revenue from renewable energy power plant business:

In Q4/23, the revenue to THB 2,876.97 million, decreased by THB 163.08 million or 5.36% compared to the same period last year (Q4/22: THB 3,040.05 million). For the year ended 31 December 2023, the revenue to THB 12,728.81 million, increased THB 1,547.15 million or 13.84% compared to the same period last year (The Year 2022: THB 11,181.66 million). But if looking at the production capacity of both wind energy and solar energy. It can be seen that the group can produce more electrical energy throughout 2023, with the ability to produce electrical energy from solar energy increasing from 659.70 MkwH to 666.95 MkwH or an increase of 1.10% as a result of the decision to change the solar cell wound. Of the company that results in better performance and the company was able to produce electricity from wind power up from 659.51 MkwH to 791.46 MkwH, an increase of up to 20.01%. The reasons are summarized as follows:

# Energy Absolute Public Company Limited

Management Discussion and Analysis for operating results of the fourth quarter and year ended 31 December 2023



Descriptions	Fourth quarter				For the period ended			
	2023 THB Million	2022 THB Million	Increase (Decrease)		2023 THB Million	2022 THB Million	Increase (Decrease)	
			THB Million	%			THB Million	%
<b>Revenue from Solar power plants</b>	1,587.69	1,707.66	(119.97)	(7.03)	7,023.66	6,732.57	291.09	4.32
- Sales volume (Million KWh)	163.13	160.33	2.80	1.75	666.95	659.70	7.25	1.10
- Average selling price (Baht/Unit)	9.73	10.65	(0.92)	(8.64)	10.53	10.21	0.32	3.13
<b>Describes below:</b>								
In Q4/23 the revenue was decreased. Mainly, it was because the decreased selling price caused by the decreased FT price in September 2023, as a result the selling price was decreased in Q4/23. For the year ended 31 December 2023 the revenues increased due to the replacement of solar panels in the power plant projects. This helped to increase the efficiency of power generation compared to the same period last year. Although the decreased FT price but the average selling price it was still higher as compared to the last year.								
<b>Revenue from Wind power plants</b>	1,286.64	1,327.93	(41.29)	(3.11)	5,692.77	4,432.03	1,260.74	28.45
- Sales volume (Million KWh)	194.40	183.67	10.73	5.84	791.46	659.51	131.95	20.01
- Average selling price (Baht//Unit)	6.62	7.23	(0.61)	(8.44)	7.19	6.72	0.47	6.99
<b>Describes below:</b>								
In Q4/23 the revenue was decreased. Mainly, it was because the decreased selling price caused by the decreased FT price in September 2023, as a result the selling price was decreased in Q4/23. For the year ended 31 December 2023 the revenue increased due to the increased wind speed. Although the decreased FT price but the average selling price it was still higher as compared to the last year.								
<b>Hanuman wind power 260-MW Project</b>								
- Sales volume (Million KWh)	134.91	138.25	(3.34)	(2.42)	523.79	433.02	90.77	20.96
- Average selling price (Baht/Unit)	6.59	7.19	(0.60)	(8.34)	7.17	6.69	0.48	7.17
<b>Hadkanghan wind power 126-MW Project</b>								
- Sales volume (Million KWh)	59.49	45.42	14.07	30.98	267.67	226.49	41.18	18.18
- Average selling price (Baht/Unit)	6.69	7.34	(0.65)	(8.86)	7.23	6.77	0.46	6.79
<b>Revenue from Biogas power</b>	2.64	4.46	(1.82)	(40.81)	12.38	17.06	(4.68)	(27.43)
- Sales volume (Million KWh)	0.30	0.97	(0.67)	(69.07)	2.01	4.07	(2.06)	(50.61)
- Average selling Price (Baht/Unit)	8.80	4.60	4.20	91.30	6.16	4.19	1.97	47.02

### 3. Revenue from electric bus and commercial vehicle business:

In Q4/23, revenue amounted to THB 1,112.46 million, a decrease of THB 3,959.80 million compared to the same period last year (Q4/22: THB 5,072.26 million). This was mainly because in Q4/22 there was a large delivery of electric buses left order from the original orders from the previous quarter. As a result, revenue in Q4/22 was higher than Q4/23 (The Company started distributing electric vehicles in Q3/22). For



the year ended 31 December 2023, revenue amounted to THB 11,376.63 million, an increase of THB 4,587.83 million compared to the same period last year (The Year 2022: THB 6,788.80 million). For the years 2023 and 2022, the company sold 2,264 and 1,160 electric buses and commercial vehicles respectively.

#### 4. Revenue from the lithium-ion battery business:

In Q4/23, revenue amounted to THB 644.36 million, a decrease of THB 1,195.02 million compared to the same period last year (Q4/22: THB 1,839.38 million) which aligns with a decrease in electric buses and commercial vehicle sales volume. For the year ended 31 December 2023, revenue amounted to THB 4,709.15 million, an increase of THB 1,960.18 million compared to the same period last year (The Year 2022: THB 2,748.97 million), (Amita Technology (Thailand) Company Limited as commercially operated and produced lithium-ion batteries for the electric vehicle industry and energy storage system in Q2/23, currently has a capacity of 1 GWh per year and distributing products to its subsidiary companies)

#### 5. Revenues from other business:

In Q4/23, revenue amounted to THB 332.50 million, an increase of THB 275.47 million compared to the same period last year (Q4/22: THB 57.03 million). For the year ended 31 December 2023, revenue amounted to THB 814.61 million, an increase of THB 510.35 million compared to the same period last year (The Year 2022: THB 304.26 million). This is mainly due to the increase in revenue from the electric vehicle charging station business.

#### 6. Other income and non-recurring income items:

In Q4/23, other income amounted to THB 176.35 million, a decrease of THB 33.36 million compared to the same **period** last year (Q4/22: THB 142.99 million). For the year ended 31 December 2023, other income amounted to THB 1,532.32 million, a decrease of THB 668.88 million compared to the same period last year (The Year 2022: THB 2,192.20 million). In 2023, the company realizes a gain from the reclassification of investments in associates to financial assets measured at fair value through OCI in the amounting to 1,189.77 million. In 2022, the Company realized a gain from the transfer of the entire business operations (“EBT”) of E Transport Holding Company Limited or ETH, a subsidiary of EA, to Thai Smile Bus Co, Ltd (“TSB”) amounting to THB 1,837.91 million.

#### Cost of sales and services

In Q4/23 and year 2023, the cost of sales and services amounted to THB 4,277.23 million, a decrease of THB 2,378.82 million or 35.74% and THB 19,694.80 million, an increase of THB 2,300.67 million or 13.23% respectively compared to the same period last year. The reasons are summarized as follows:

- 1. Manufacture and distribution of biodiesel:** In Q4/23 the cost of sales increased by THB 305.44 million or 21.59% compared to the same period last year. Mainly due to an increase in biodiesel sale volume in Q4/23. For the year ended 31 December 2023, the cost of sales decreased by THB 1,889.50 million or 24.68% compared to the same period last year. The decline is mainly due to the fall in the price of palm fruit, which is the key raw material for biodiesel production, although the annual sales volume increased.
- 2. Generation and distribution of electricity from renewable energy power:** In Q4/23 and the year 2023, the cost of sales increased by THB 53.47 million or 6.64% and increased by THB 102.36 million or 3.29% respectively compared to the same period last year. This was mainly due to increased depreciation due to the replacement of solar panels in the power plant projects. This helped to increase the efficiency in the provinces of Lampang, Nakhon Sawan, and Phitsanulok.
- 3. Manufacture and distribution of electric buses and commercial vehicles:** In Q4/23, the cost of sales decreased by THB 3,315.73 million compared to the same period last year. Mainly due to a decrease in electric buses sales volume in Q4/23. For the year ended 31 December 2023, the cost of sale increased by THB 3,601.25 million compared to the same period last year in line with the increase in revenue in this business segment.
- 4. Manufacture and distribution of lithium-ion battery:** In Q4/23 the cost of sales decreased by THB 890.89 million compared to the same period last year. Mainly due to a decrease in lithium-ion battery sales volume in Q4/23. For the year ended 31 December 2023, the cost of sales increased by THB 2,129.00 million compared to the same period last year in line with the increase in revenue from the sales volume of lithium-ion batteries increased.
- 5. Other businesses** In Q4/23 and the year 2023, the cost of sales increased by THB 186.66 million and increased by THB 439.30 million respectively compared to the same period last year in line with the increase in revenue from the electric vehicle charging station business.

In Q4/23 inter-segment cost decreased by THB 1,283.23 million compared to the same period last year. Mainly due to a decrease in lithium-ion battery sales volume in Q4/23. For the year ended 31 December 2023 inter-segment cost increased by THB 2,081.74 million compared to the same period last year. The main reason for the increase is the sales of lithium-ion batteries to support the expansion of the electric bus and commercial vehicle business.

## Selling Expense

For Q4/23 and the year 2023, selling expenses amounted to THB 16.15 million, an increase of THB 1.61 million or 11.05%, and THB 70.38 million, an increase of THB 9.80 million or 16.17%, respectively, compared to the same period last year. The main reason for the increase is the transport of crude palm oil (CPO) in line with the increased sales to customers in front of the factory.

## Administrative Expense

For Q4/23 and the year 2023, administrative expenses amounted to THB 311.20 million, a decrease of THB 48.69 million, and THB 1,316.69 million, a decrease of THB 49.50 million respectively compared to the same period last year the decrease was mainly due to expenses about FIFA World Cup sponsorship in year 2022 amount to THB 46.78 million.

## Finance cost

For Q4/23 and the year 2023, finance costs amounted to THB 652.17 million, an increase of THB 253.43 million or 63.56%, and THB 2,287.47 million, an increase of THB 874.69 million or 61.91% respectively compared to the same period last year. This was mainly due to an increase in bonds and the increase in the Group's average interest rate according to the Bank of Thailand's announcement.

## Financial Status

### Total Asset

The total assets of EA and its subsidiaries as of 31 December 2023 amounted to THB 114,229.34 million, an increase of THB 10,864.99 million from 31 December 2022. The reasons are summarized as follows:

- Cash and cash equivalents

Cash and cash equivalents as of 31 December 2023 amounted to THB 2,463.73 million, a decrease of THB 747.00 million. This is due to the normal operation results.

- Trade accounts receivable and other receivable net

Trade accounts receivable and other receivable as of 31 December 2023 amounted to THB 21,886.28 million, an increase of THB 7,423.95 million from the year 2022 increase from trade accounts receivable and finance lease receivables from the sale of electric buses and commercial vehicles in line with the increase in revenue.

- Inventory

Inventory as of 31 December 2023 amounted to THB 7,412.18 million, increased by THB 1,895.77 million from the end of 2022, this is mainly due to finished goods awaiting delivery to electric buses and commercial vehicles plants.

- Non-current assets held for sale

Non-current assets held for sale as of 31 December 2023 amounted to THB 548.40 million, a decrease of THB 3,370.24 million from the end of 2022 mainly due to the disposal of the solar panels of the solar power plant in Phitsanulok and Lampang provinces.

- Financial assets measured at fair value through OCI

Financial assets measured at fair value through OCI amounted to THB 9,369.72 million, representing an increase of THB 4,209.14 million from the end of 2022. In September 2023 EA has considered reclassifying the investments in Beyond Securities (Public) Company Limited from investments in associates to financial assets measured at fair value through OCI total amounted to 6,092.61 million and the fair value realized at the ended of period in accordance with market prices.

- Financial assets measured at amortized cost

Financial assets measured at amortized cost as of 31 December 2023 amounted to THB 3,500 million from investments in government bonds of foreign countries.

- Investment in associates

Investment in associates amounted to THB 1,868.70 a decrease of THB 6,682.21 million from the end of 2022. EA has considered reclassifying the investments in Beyond Securities (Public) Company Limited from investments in associates to financial assets measured at fair value through OCI.

- Property, plant, and equipment

Property plant and equipment as of 31 December 2023 amounted to THB 58,675.13 million, an increase of THB 4,453.75 million from the end of 2022 mainly increased due to the replacement of solar panels in the power plant projects in Phitsanulok and Lampang provinces which were **completed** in May 2023. In addition, to support the expansion of the lithium-ion battery factory with a productivity of 1 Gigawatt-hour per year. The company increases productivity to 2 Gigawatt hours per year including an increase in the number of electric vehicle charging stations.

## Total Liabilities

The total liabilities of EA and its subsidiaries as of 31 December 2023 amounted to THB 70,219.72 million, an increase of THB 8,159.73 million from the year end of 2022. Mainly increased due newly issued bonds of THB 17,000 million in order to repayment of bills of exchange, use as working capital for operations, repayment loans in connection with the release of hire-purchase electric vehicles, provision of loans for the hire-purchase of electric vehicles, working capital for the expansion of the lithium-ion battery factory with a productivity of 1 Gigawatt hour per year. The company increases productivity to 2 Gigawatt hours per year, which is expected to

be completed in Q1/2024, and expands it to 4 Gigawatt hours per year, which is expected to be completed in Q4/2024.

## **Total Equity**

The total equity of EA and its subsidiaries as of 31 December 2023 amounted to THB 44,009.61 million, an increase of THB 2,705.26 million compared to the year end 2022, from the total comprehensive profit for the period ended 31 December 2023 and deducted dividend payment, including the fair value of the general investment realized through OCI at the ended of period in accordance with market prices.

## **Progress of organizational projects**

### ▪ **Electric Vehicle Charging Station Business**

#### - **Energy Mahanakhon Company Limited (EMN)**

The Group of Companies expanded its business operations into electric vehicle charging stations under the trademark "EA Anywhere," covering all regions throughout Thailand. This initiative is aimed to create an EV ecosystem and position Thailand as an EV hub in the future. At the end of 2023, the Company had installed and operated a total of 499 charging stations (including both DC and AC chargers) with a total of 2,515 charging heads to meet the rapid growth of the electric vehicle industry in Thailand. In 2024, the Company will focus on growth into 2 parts: 1) Selling large-scale charging stations (Megawatt Charging Stations) to meet the needs of commercial electric vehicle customers. 2) Expanding into markets such as condominiums, parking buildings, and office buildings using Smart Energy Management Systems to ensure the most efficient energy management possible. Additionally, the Company will continue to participate in developing the capabilities of continuous charging station machines and seek potential areas to increase accessibility for users to utilize the company's charging stations in the future.

### ▪ **Lithium-ion battery and Energy Storage Business**

#### - **AMITA Technology (THAILAND) Company Limited (Amita-TH)**

The first lithium-ion battery factory in ASEAN with a production capacity of up to 1 Gigawatt-hour (GWh) per year is operated by AMITA Technology (Thailand) Co., Ltd. also known as Amita-TH. Currently, Amita-TH is engaged in commercial battery production, providing lithium-ion batteries for electric vehicles manufactured by the company's group.

Additionally, Amita-TH is in the process of developing solid-state batteries, which are safer and more efficient in energy storage in order to meet the increasing demand from the electric vehicle industry in the future.

At present, Amita-TH is expanding its production capacity from 1 GWh per year to 2 GWh per year and eventually to 4 GWh per year. This expansion is expected to be completed by the year 2024 to accommodate the demand for batteries from the EA group of companies as well as the battery market in Thailand and ASEAN. Currently, Amita-TH is in negotiations with a leading battery manufacturer in the world to develop the company's battery capabilities and expand its customer base. Including planning to establish a manufacturing base in Thailand together.

## ▪ Electric Bus and Commercial Electric Vehicles Business

### - Absolute Assembly Company Limited (AAB)

The Group of Companies operates a commercial electric vehicle manufacturing business under the name of Absolute Assembly Company Limited or AAB. Currently, AAB has a maximum production capacity of commercial electric vehicles of up to 9,000 units per year and can accommodate the production of various types of vehicles, such as buses, trucks, vehicles used in specialized industries, etc. AAB's factory also receives tax benefits from the Board of Investment, enhancing its competitiveness. In 2023, the Company delivered electric vehicles a total of 2,264 units.

In addition, NEX Point Public Company Limited, which is a joint venture capital company of the group, has partnered with Takuni Group Public Company Limited (Takuni). Currently, Takuni has signed a preliminary Memorandum of Understanding (MOU) with PT Powerspark Company Limited, a leading company in Indonesia, to supply and export electric vehicles to Indonesia. This collaboration, starting in early 2024, is expected to create business opportunities for the group in manufacturing electric buses and electric commercial vehicles of the Company Group in the future.

In 2024, the Company will focus on developing and manufacturing electric trucks, including vehicles used in specialized industries such as electric waste trucks. This initiative aims to expand the customer base and align with future commercial electric vehicle support measures.

### - Mine Mobility Research Company Limited (MMR)

Currently, the trend toward using clean energy to reduce global warming is increasing in various sectors, including rail transportation. This trend has led traditional diesel locomotives to the point where there must be change. Mine Mobility Research Company Limited (MMR) is engaged in the development and research of electric vehicles. The Company has collaborated with CRRC Dalian, a major train manufacturer from China, to develop and produce electric locomotives or E-locomotives. These locomotives can travel distances ranging from 120-370 kilometers, depending on usage. Incorporating Ultra-Fast Charge technology from EA Anywhere, it takes only 1 hour to charge and saves energy costs by over 40% compared to diesel-electric locomotives.

In the past, the Company, along with CRRC Dalian and the State Railway of Thailand (SRT), conducted shunting system testing by the State Railway of Thailand at Krung Thep Aphiwat Central Terminal to reduce pollution at the station. Additionally, it also included the testing of towing passenger cars and freight cargo according to SRT requirements from Lat Krabang's Inland Container Depot station to Laem Chabang station, meeting SRT's requirements efficiently. Moreover, it helped to reduce energy consumption significantly. The batteries could be fully charged within 1 hour using a 3 MW charging station. Currently, the use of battery-powered electric locomotives is under consideration for actual service by the SRT.

In addition, to enhance service efficiency, the Company is still preparing to construct Battery Charging and Swapping Stations to reduce service downtime. Instead of waiting for charging for 1 hour to change batteries, be able to swap batteries within 10 minutes.

- **Biodiesel business**

- Sustainable Aviation Fuels Production Project

The Group of Companies continues to progress towards becoming a leader in future clean energy. In 2023, the group developed the Isomerization process, which not only enhances the properties of Green Diesel to be usable in minus temperatures but also extends to the production of Sustainable Aviation Fuels. These fuels help reduce greenhouse gas emissions in the aviation industry. The Company expects to begin testing equipment and the Pre-Commissioning production process for Sustainable Aviation Fuels during the Q2/2024.

- **Other businesses**

The Group of Companies remains committed to continuous business growth to create sustainable value for shareholders. In 2023, the Company entered into the waste management business, starting in Pattaya City, Chonburi province, on the island of Koh Larn. Additionally, the Company initiated a solid waste disposal project using an incinerator system to produce and distribute electricity from solid waste with the Phuket municipality in Phuket province. Both of these projects serve as prototypes supporting the transformation of these areas into sustainable tourist destinations. Furthermore, these projects increase opportunities to introduce environmentally friendly products, such as the Company's electric waste trucks, to these areas and pave the way for new business opportunities for the Group of Companies in the future.