

Energy Absolute Public Company Limited

Management Discussion and Analysis of Financial Statements

for the fourth quarter and year ended 31 December 2021



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Subject Management Discussion and Analysis of Financial Statements for the fourth quarter and for the year ended 31 December 2020

To The President of the Stock Exchange of Thailand

We, Energy Absolute Public Company Limited (“EA”) would like to report the operating results of the company and subsidiaries (all together as the “Company”) for the fourth quarter and for the year ended 31 December 2020 which has been approved by the Board of Directors meeting No 1/2021 held on 25 February 2021. The details are as follows:-

Overview of operating results for the three-month and for the year ended 31 December 2020

Operating Results (Million Baht)	Year 2020		Year 2019		Increase (Decrease)			
	Three-month Period	For the year	Three-month Period	For the year	Three-month Period		For the year	
	Baht Million	Baht Million	Baht Million	Baht Million	Baht Million	%	Baht Million	%
Revenue from sales and services	4,445.91	17,079.56	4,083.11	14,886.87	362.80	8.89	2,192.69	14.73
Other Income	15.22	119.58	24.90	67.67	(9.68)	(38.88)	51.91	76.71
Total Revenue	4,461.13	17,199.14	4,108.01	14,954.54	353.12	8.60	2,244.60	15.01
Profit attributable to Owners of the parent	1,484.09	5,204.57	1,749.73	6,081.62	(265.64)	(15.18)	(877.05)	(14.42)
Basic earnings per share (Baht per share)	0.40	1.40	0.47	1.63	(0.07)	(14.90)	(0.23)	(14.11)

Net Profit

For the three-month period ended 31 December 2020, the Company earned the net profit of Baht 1,484.09 million, representing the decrease of Baht 265.64 million or decreased by 15.18% as compared to the same period of last year which incurred the total net profit of Baht 1,749.73 million. And for the year ended 31 December 2020, the Company earned the net profit of Baht 5,204.57 million, representing the decrease of Baht 877.05 million or decreased by 14.42% as compared to the same period of last year which incurred the total net profit of Baht 6,081.62 million.

The major cause of decrease in net profit in the fourth quarter attributed the electricity production business unit for which the performance of solar power projects decreased from the average of light intensity in the fourth quarter of 2020 by 15.26% as compared to the same period of last year due to the amount of rainfall is more than the previous year. However, when considering the overall performance for 2020, the electricity units generated from solar power projects was slightly decrease due to the average light intensity was 2.26% less than the same period of the previous year as the result of amount of rainfall more than last year

Project	Solar radiation (kw/m ²)			Solar radiation (kw/m ²)		
	4th Quarter			Year ended		
	Year 2020	Year 2019	% change	Year 2020	Year 2019	% change
Solar	152.88	180.4	(15.26)	163.74	167.52	(2.26)

Nevertheless, the performance of wind power projects increased as compared to the same period of last year due to increase in wind speed for both Hadkunghan project and Hanuman project increased by 2.95% and 0.73%, respectively. However, considering the overall performance of the year 2020, the electricity units generated from the wind power projects decreased in both projects by 3.69% and 7.29%, respectively as shown in the table below:

Project	Average Wind Speed (Metre/Second)			Average Wind Speed (Metre/Second)		
	4th Quarter			Year ended		
	Year 2020	Year 2019	% change	Year 2020	Year 2019	% change
Hadkunghan	5.23	5.08	2.95	5.11	5.3	(3.59)
Hanuman	5.55	5.51	0.73	5.01	5.4	(7.22)

Revenue

For the three-month period ended 31 December 2020, the Company earned the total revenue of Baht 4,461.13 million, representing an increase of Baht 353.12 million or increased by 8.60% as compared to the same period of last year which incurred the total revenue of Baht 4,108.01 million. And for the year ended 31 December 2020, the Company earned total revenue of Baht 17,199.14 million, representing an increase of Baht 2,244.60 million or increased by 15.01% as compared to the same period of last year which incurred the total revenue of Baht 14,954.54 million.

The revenue from normal business operation (excluding accounting gain and other income) for three-month period ended 31 December 2020 was Baht 4,445.91 million, representing an increase of Baht 362.80 million or increased by 8.89%. For the year ended 31 December 2020, the Company earned the total revenue of Baht 17,079.56 million, representing an increase of Baht 2,192.69 million or increased by 14.73%. The reasons are summarized as follows:

1. Manufacturing and distributing Biodiesel Products :

- 1.1 Biodiesel: For the three-month and the year ended 31 December 2020, the revenue increased by Baht 653.21 million and Baht 2,578.52 million or 71.54% and 75.43%, respectively. The main factor attributed from two parts, which were the Department of Energy Business announcement to use B100 type 2 blending for diesel B7, B10 and B20 which led to the increase of average selling price and the promotion to use B10 as Diesel (changed from Diesel B10 to Diesel) since 1 October'2020, led to the demand increase for palm oil, helping to raise the price of domestic palm oil subsequently.
- 1.2 Pure glycerin: For the three-month and the year ended 31 December 2020 increased by Baht 2.71 million and Baht 36.61 million or 4.97% and 15.99%, respectively. The main factor were increase of average selling price by 8.89% when compare with the same period of last year due the pandemic of COVID-19 in early 2020 and the demand for glycerin for gel production was higher than the previous year, resulting in the Glycerin price was higher in the world market.
- 1.3 CPO (Crude Palm Oil) and by product: For the three-month and the year ended 31 December 2020, were Baht 183.72 million and Baht 727.87 million, respectively from the Group acquired two crude palm oil businesses in 2020.

Details	Three-month Period			For the year		
	2020	2019	% Change	2020	2019	% Change
Revenue from Biodiesel	1,566.34	913.13	71.54	5,996.75	3,418.23	75.43
Sales volume (Million Litre)	44.97	43.10	4.34	187.80	193.25	(2.82)
Explanation						
Although there are government measures to promote the use of B10, due to the COVID-19 outbreak at the beginning and end of the year which effect the consumption of B100 volume causing the sales volume to shrink at a rate of about 3%						
AVG Selling price (Baht/Litre)	34.64	21.19	63.47	28.79	17.69	62.75
Explanation						
Selling Price of B100 was increased from the government policy announcement for B10 to be used as the main diesel blending in Thailand. As a result, the demand for B100 has increased together with the palm oil supply, impacting the higher price of palm oil which is the important raw material. In addition, the company had adjusted the parameter to increase biodiesel quality from monoglyceride 0.7% to monoglyceride 0.4% so it can be mixed with diesel to B10 according to the announcement of the Department of Energy Business. This allows the company to sell the B100 at a higher price according to its higher biodiesel quality.						
Revenue from Glycerin	57.22	54.51	4.97	265.54	228.93	15.99
- Sales volume (Million kg.)	3.40	3.88	(12.37)	15.26	14.33	6.49
- AVG Selling price (Baht/kg.)	16.83	14.05	19.79	17.40	15.98	8.89
Explanation						
The sales volume has increased from the same period of last year due to the expanding of domestic customer and the increasing of selling price due to the higher demand for glycerin for the production of alcohol gels than last year. As a result, the price of glycerin in the world market is higher.						
Revenue from Crude palm oil	183.72	-	-	727.87	-	-
- Sales volume (Million kg.)	5.11	-	-	27.58	-	-
- AVG Selling price (Baht/kg.)	35.94	-	-	26.39	-	-
Explanation						
The Company has acquired crude palm oil production factory which is the raw material for biodiesel production which generated crude palm oil sales in 2020.						

2. Generating and distributing Electricity :

For the three-month and for the year ended 31 December 2020, the Company incurred revenues of Baht 2,806.33 million and Baht 10,601.62 million, representing the decrease of Baht 240.31 million and Baht 372.64 million or decreased by 7.89% and 3.40%, respectively as compared to the same periods of last year which incurred the revenue of Baht 3,046.64 million and Baht 10,974.26 million respectively. This is due to solar power plants had low solar irradiation as a result of the total raining days are more than the last year. And the performance of wind power plants which resulted from weaker wind current compared with the same period of last year due to time shift of storm season.

Details	Three-month Period			For the Year		
	2020	2019	% Change	2020	2019	% Change
Revenue from Solar power plants	1,369.76	1,598.65	(14.32)	6,050.25	6,159.96	(1.78)
Sales volume (GWh)	142.30	162.13	(12.23)	621.00	627.26	(1.00)
Avg. Selling Price (Baht/kWh)	9.63	9.86	(2.33)	9.74	9.82	(0.81)
Explanation The decrease of sales volume was caused by the intensity of the sunlight decreased from the amount of rainfall is more than the prior year.						
Revenue from Wind power plants	1,430.09	1,447.99	(1.24)	4,541.35	4,814.30	(5.67)
Sales volume (GWh)	231.12	227.28	1.69	733.06	761.77	(3.77)
Avg. Selling Price (Baht/kWh)	6.19	6.37	(2.83)	6.20	6.32	(1.90)
Hadkunghan wind power : 126-MW Plant						
Sales volume (GWh)	73.69	71.43	3.16	254.69	292.88	(13.04)
Avg.Selling Price (Baht/kWh)	6.24	6.43	(2.95)	6.29	6.34	(0.79)
Hanuman wind power : 260-MW Plant						
Sales volume (GWh)	157.43	155.85	1.01	478.37	468.89	2.02
Avg.Selling Price (Baht/kWh)	6.16	6.34	(2.84)	6.15	6.29	(2.23)
Explanation The increase of electricity unit generated from wind power was due to stronger wind in 4 th quarter. However, considering the full year result, the wind current is weaker than the last year.						
Revenue from Bio Gas power	6.48	-	-	10.02	-	-

3. **Revenue from other businesses** : For the year ended 31 December 2020, the revenue of Baht 215.64 million contributed from Amita's battery product amounting of Baht 163.66 million (EA shareholding 65.61%) ,and from ESM's consulting fees amounting of Baht 36.84 million (EA shareholding 99.99%)
4. **Other revenue** : For the year ended 31 December 2020, the revenue of Baht 119.58 million was mainly from claims on impaired equipment of Baht 43.59 million, the interest income of Baht 48.67 million and revenue from disposal of unused assets of Baht 29.82 million.

Cost of sales and services

For the three-month and for the year ended 31 December 2020, cost of sales were Baht 2,315.07 million and Baht 9,271.42 million, increased by Baht 522.65 million or 29.16% and Baht 2,519.03 million or increased 37.31%, respectively as compared to the same periods of last year which incurred the total cost of sales of Baht 1,792.42 million and Baht 6,752.39 million, respectively. The reasons are summarized as follows:

1. Manufacturing and distributing Biodiesel Product: For the three-month and for the year ended 31 December 2020, the cost of sales increased by Baht 511.88 million and Baht 2,118.64 million or increased 55.98% and 58.42%, respectively as compared to the same periods of last year, which increased according to the increased sales price of raw material.
2. Generating and distributing Electricity: For the three-month and for the year ended 31 December 2020, cost of sales increased by Baht 50.40 million and Baht 387.77 million or increased 7.23% and 15.31%, respectively. This is due to the wind power plants (with an aggregate capacity of 260-MW) commenced the commercial operation on 25 January, 22 March, 30 March and 13 April 2020, resulting to the cost of sales (i.e., depreciation, administrative and maintenance expenses) increased as compared to the same periods last year.

Selling expense

For the three-month period and for the year ended 31 December 2020, the selling expenses were Baht 18.14 million and Baht 79.84 million, increased by Baht 2.39 million and decreased by Baht 1.45 million or 15.17% and 1.78%, respectively, as compared to the same periods of last year which incurred the selling expenses of Baht 15.75 million and Baht 81.29 million, respectively. The major cost of selling expense were the manufacturing and distributing of Biodiesel, which was in line with the fluctuating of biodiesel's sales volume.

Administrative expenses

For the three-month and for the year ended 31 December 2020, the administrative expenses were Baht 336.13 million and Baht 1,198.58 million, increased by Baht 120.53 million and Baht 334.04 million or 55.90% and 38.64%, respectively, as compared to the same periods of last year which incurred the administrative expenses of Baht 215.60 million and Baht 864.55 million. The main reasons of the incremental are summarized as below.

- Personnel expense increased by Baht 91.46 million as compared with the same period of last year. This is due to the increasing of new hiring of employees and executives following to the business expansion plan.
- Plant office expense increased by Baht 68.50 million as compared to the same period of last year. This is due to service to new factory businesses at the beginning of the construction of the plants that have not been completed in 2020 such as the PCM plant, assembly of cars and batteries.
- Research and development expense increased by Baht 46.21 million as compared to the same period of last year. This is due to research of new development project such as Lao dam contraction.
- Donation expense increased by Baht 64.36 million as compared to the same period of last year due to the impact of COVID-19, the Company donated the sterilization equipment to hospitals across the country.
- Depreciation and amortization increased by Baht 35.59 million as compared to the same period of last year, mainly due to realizing loss from sales of unused equipment.

Financial cost

For the three-month and for the year ended 31 December 2020, financial cost were Baht 375.00 million and Baht 1,636.80 million, decreased by Baht 25.16 million or 6.29% and increased by Baht 250.53 million or 18.07%, respectively, as compared to the same periods of last year which incurred the finance costs of Baht 400.16 million and Baht 1,386.27 million. This is due to the interest payments on loans from financial institutions are due in the year 2020.

Financial Status

Total Asset

As of 31 December 2020, the total asset of the Company was Baht 78,483.77 million, increased by Baht 8,264.08 million or 11.77%. This was mainly from the following determinants:

- **Cash and cash equivalents**

Cash and cash equivalents was Baht 2,950.67 million, representing the decrease of Baht 7,078.28 million or 70.58% from 31 December 2019. This is mainly from investment in new business project during the year 2020.

Financial Asset at Fair Value through Profit or Loss

Financial Asset at Fair Value through Profit or Loss was Baht 5,526.61 million as the Company invested in Land Prosperity Holding Company Limited.

- **Investments in associate and Joint Venture**

As of 31 December 2020, the Investments in associate was Baht 1,529.47 as the Company invested in NEX Point Public Company Limited amounting of Baht 1,468.22 million.

- **Property, plant and equipment**

As of 31 December 2020 and 31 December 2019, the Property, plant, and equipment Property, plant, and equipment, were Baht 55,856.94 million and Baht 51,371.09 million, respectively, increased by Baht 4,485.85 million or 8.73%. Mainly from investment in new projects such as the Li-ion Battery Project, Green Diesel Project and PCM.

- **Goodwill**

As of 31 December 2020, Goodwill was Baht 1,337.33 million, representing an increase of Baht 447.52 million or 50.29% from 31 December 2019. The increase was from measuring the fair value of net assets such as Crude palm oil business of Baht 334.69 million.

Total Liabilities

As of 31 December 2020, the total liabilities of the Company were Baht 48,856.89 million, representing an increase of Baht 3,503.66 million or 7.73% from 31 December 2019. The increase was mainly from the adoption of TFRS 16.

Total Equity

As of 31 December 2020, the total shareholder' equity of the Company were Baht 29,626.88 million, representing an increase of Baht 4,760.42 million or 19.14% from 31 December 2019. This is due to the total net profit for the year 2020 deducted by dividends paid and discount from changes in shareholding in subsidiaries.

Key Financial Ratios		Year 2020
Current ratio	time	0.54
Interest coverage ratio : ICR	time	6.13
Interest bearing debt to EBITDA ratio	time	4.84
Debt service coverage ratio : DSCR	time	0.89
Debt to equity : D/E ratio	time	1.76
Interest bearing debt to equity : IBD/E ratio	time	1.61
Interest bearing debt due within one year to Interest bearing debt	%	27.01
Borrowing loan from Financial institutions to interest bearing debt	%	59.88

Progress in major investment projects

Li-ion Battery Plant

The construction of the 1st phase of the 1GWh Li-ion battery factory of subsidiary, i.e. Amita Technologies (Thailand) Co.,Ltd., is currently almost complete the construction works and under the installation of machinery as well as commissioning and testing to prepare for commercial production. This factory will produce battery supply to EV business units of EA group, comprise of, electric buses, electric ferries, and electric cars. The factory is scheduled to commence the 1st phase production around early of year 2021 and shall gradually ramp up production to meet the market demands.

In the meantime, the company takes batteries produced from Amita Technologies Inc., Taiwan for EV business units to achieve the company's plan.



EV charging stations - EA Anywhere

The company has signed a 1.5 billion Thai baht (\$47.62 million) green loan with Asian Development Bank (ADB) which is a 3-year unsecured loan. The interest rate under this loan agreement is lower than the company's current average interest rate. The loan will finance ongoing renewable power projects in order to increase the efficiency, and to EV charging unit in order to deploy Ultra-Fast Charge (DC 300 kW), Super-Fast Charge (DC 150 kW), and Normal Charge technology for a countrywide electric vehicle charging network according to meet electric vehicles businesses' expansion plan.

EA Anywhere's charging stations has been developed with modern technology in various models according to the charging power that can serve with all EV battery sizes and models including the company's electric vehicles, electric buses, and electric ferries with high charging speed at a 4-C Rate (Charging speeds vary between vehicles and battery sizes). There are three charger models as follows.



- Ultra-Fast Charge: DC 300 kW, the fastest charger that can serve large battery electric vehicles such as electric ferries, electric buses. Recently, the company invested in the largest charging stations installed for electric ferries in a total of 14 charging stalls with 28 charging outlets.



- Super-Fast Charge: DC 150 kW chargers can serve mid battery electric vehicles (BEV) only, for example, electric buses and electric vehicles.



- Normal Charge: AC normal chargers can serve EV cars both Plug-in Hybrid (PHEV) and Battery Electric Vehicle (BEV).

Users can make a reservation and payment for service through EA Anywhere application. Currently, charging stations have been installed covering all regions across countrywide. The company is expanding investment in charging stations with major partners and also opening collaboration with other partners according to the company's business plan continuously.

Electric Ferry Project – MINE Smart Ferry

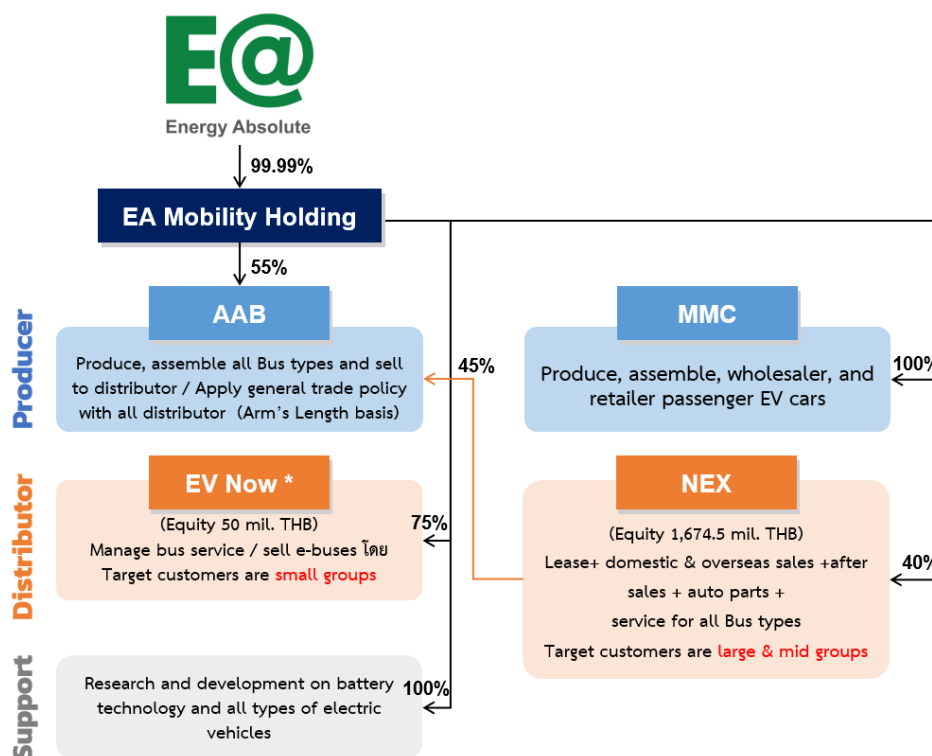
The company has started an electric ferry service under the name MINE SMART FERRY. The electric ferry is 100% made in Thailand, designed by EA group and produced by Thai companies, and installed 800 kWh lithium-ion battery that supports the highest speed (4C-Rate) charging with EA Anywhere's Ultra-Fast Charge. The largest charging station was installed to support MINE SMART FERRY equipped with a total of 14 charging stalls, 28 charger outlets. The electric ferry can travel for up to 100 kilometers per single charge. Moreover, it is well furnished with air-conditioning, air purifiers, life jackets, CCTV, and digital signage. It can accommodate more than 200 passengers, traveling from Phra Nangklao Bridge Pier to Wat Ratcha Singkhon, Sathorn Pier, over the 20 kilometers route in the Chao Phraya River.

MINE SMART FERRY was registered as the country's first electric ferry for mass transit. It has passed inspection, safety system tests, and navigation according to the standards of the Marine Department. Also, it received the 2020 National Innovation Award from the National Innovation Agency (NIA). The ferry has started a trial service, free of charge, from 23 December 2020 onwards. The affordable fares policy is set to facilitate the public and to promote another convenient solution for traveling by electric transportation that is connected with the public on land mass transit, safe, environmentally-friendly, without generating air pollution, PM 2.5, and noise pollution. It is expected that the full-service with a total of 27 ferries will be complete from the middle of 2021, to provide both mass transit service and tourism service

Electric Bus Project

The Company established a subsidiary, “Absolute Assembly Co., Ltd.” (“AAB”), to operate manufacturing and assembling all types of electric vehicles which EA Mobility Holding Co., Ltd. (“EMH”) (EA holds 99.99% of the total shares) holds 55% of the total shares.

EA's Electric Vehicle Business Structure



Reference to the above structure, AAB is a manufacturer and assembler of all types and various sizes of buses including electric buses, selling to companies in the group such as.

- 1) EV Now Co., Ltd. (EV Now) is a bus service operator and distributor, especially electric buses targeting small size customers.
- 2) Next Point Public Company Limited (NEX), which is a distributor, provides leasing, and after-sales service as well as a maintenance center for all types of buses. Its target customers are large and medium-sized. It also aimed to be a comprehensive bus maintenance service center and the largest in the ASEAN region.

AAB's factory, worth approximately 1,750 million baht, is located in Ban Pho District, Chachoengsao Province, with a production area of approximately 55,000 square meters. It is currently under construction and machinery installation. With a production capacity of 3,000-5,000 units per year, it can support the production of many types of vehicles such as buses, trucks, vans. AAB will import parts from abroad and assemble them with important parts that are designed and manufactured in the country with the automated manufacturing process as well as having a driving test process. It is expected to be completed and started commercial operation in early 2021.

From the business structure in the electric vehicle segment, as a result, it may cause a conflict of interest (COI) according to the regulations of the Stock Exchange of Thailand (SET) and the Securities and Exchange Commission (SEC). Since products are traded between each other in the group and two companies in the group distribute the same product and may compete with each other. In this regard, the meeting of Audit Committee held on January 28, 2021, was acknowledged COI issues and NEX's operational guidelines that had been notified to the SET and the SEC. Consequently, the Audit Committee of the company has assigned the Internal Audit department to perform as follows:

1) Coordinate with relevant parties to ensure understanding and set pricing policies and trading conditions for the sale of goods and services between AAB and NEX, and between AAB and EV Now, to be the price and condition in the manner that the ordinary person should act with the independent general contractors in the same situation with the bargaining power to negotiate the trade without influence (Arm's Length basis). The Internal audit department also has been required to monitor and verify the transactions between AAB and NEX, and between AAB and EV Now that they are following the above policies or not.

2) Track and monitor EV Now and NEX, which have different target customer groups whether there are commercial transactions overlap with the same group of customers that may lead to a conflict of interest (COI).

3) Report results of audits to the Audit Committee for consideration.

Green Diesel and PCM Project

The Company has conducted research and development under the biodiesel business to innovate the product using crude palm oil (CPO) as a substrate which has been patented already. EA established a subsidiary, i.e. EA Bio Innovation Company Limited, to operate, manufacturing and distributing the products, consisting of

(1) Green Diesel (GD) or Bio Hydrogenated Diesel (BHD) products as a mixture of diesel fuel to help increase performance and cleanliness of engines

(2) Bio-PCM (Bio Phase Change Material) to be used in temperature control, such as construction materials components, fibers, etc. to help in absorbing, storing, controlling, and releasing heat to maintain temperature. Bio-PCM is popular and in high demand in weather variability countries.

At present, the Green Diesel and Bio-PCM plant located at Rayong province have a total investment value of 1,100 million THB. It had completed machinery installation and commissioning testing. The 1st phase of the commercial operation has been started mainly for Bio-PCM products and it will gradually increase production capacity to the fullest of 65 tons per days and then the next phase of another 65 tons per days will start later on. In the meantime, the Company research and develop continuously to expand the market opportunity to use Bio-PCM in other industries to further expand added value.

For more information, please contact Investor Relation Tel. 66 2248 2488 to 92 or email: ir@energyabsolute.co.th