



Management Discussion and Analysis
of Financial Statements
for the first quarter ended 31 March 2020

Ref : EA6305/014LT

15 May 2020

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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 first quarter ended 31 March 2020 which has been approved by the Board of Directors meeting No 2/2020 held on 14 May 2020. The details are as follows:

Overview of operating results for the three-month ended 31 March 2020

Operating Results	Year 2020	Year 2019	Change	
	Million Baht	Million Baht	Million Baht	%
Revenue from Sales and Services	4,732.19	3,086.20	1,645.99	53.33%
Other Income	29.22	2.25	26.97	1198.67%
Total Revenue	4,761.41	3,088.45	1,672.96	54.17%
Profit Attributable to Owners of the Parent	1,452.06	1,210.72	241.34	19.93%
Basic Earnings per share (Baht per share)	0.39	0.32	0.07	21.88%

Net Profit

For the three-month period ended 31 March 2020, the Company earned the net profit of Baht 1,452.06 million, which increased Baht 241.34 million (or increased 19.93%) as compared to the same period of last year which incurred the net profit of Baht 1,210.72 million. The reasons are as follows:

Revenue

For the three-month period ended 31 March 2020, the Company earned the total revenue of Baht 4,761.41 million, which increased Baht 1,672.96 million (or increased 54.17%) as compared to the same period of last year which incurred the total revenue of Baht 3,088.45 million. The reasons are summarized as follows:

1. Manufacturing and Distributing Biodiesel Products

For the three-month ended 31 March 2020, the revenue from biodiesel increased Baht 982.79 million (or increased 120.42%). The increase was mainly from price factor which recorded a 122.19% increase. Price of raw material increased due to the support using B100 by the Ministry of Energy which announced B10 to be used as regular diesel instead of B7 since 1 January 2020 onwards, leading to more CPO and B100 demand and effect the price. Moreover, the supply side was also shrunk from drought in 2019.

The revenue from glycerin, for the three-month ended 31 March 2020, decreased Baht 18.77 million (or decreased 27.14%). The decrease was mainly from selling price which decreased by 26.49% as compared to the same period of last year due to oversupply in the regional market causing price competition.

In addition, there was other revenue from by-products of Baht 11.53 million for the three-month ended 31 March 2020.

Details	Three-Month Period			
	Year 2020	Year 2019	Change	% Change
Revenue from Biodiesel (Million Baht)	1,798.94	816.15	982.79	120.42%
- Sales Volume (Million Litre)	49.77	50.18	-0.41	-0.82%
- Average Selling Price (Baht/Litre)	36.15	16.27	19.88	122.19%
Explanation of Price Change				
1. Higher demand of CPO from the government measurement announcing B10 to be used as regular diesel while there was shrunk from drought in 2019.				
2. B100 specification change to Mono Glyceride content at 0.4% for use as B10 caused price to increase.				

Details	Three-Month Period			
	Year 2020	Year 2019	Change	% Change
Revenue from Glycerin (Million Baht)	50.38	69.15	-18.77	-27.14%
- Sales Volume (Million kg)	3.77	3.80	-0.03	-0.79%
- Average Selling Price (Baht/kg)	13.36	18.18	-4.82	-26.51%
Explanation of Price Change				
Oversupply in the regional market caused price competition.				

2. Generating and Distributing Electricity

For the three-month ended 31 March 2020, the revenue increased Baht 645.59 million (or increased 30.45%). This is mainly due to the wind power plant projects of subsidiaries (260-MW Hanuman wind power projects) which commenced operation. COD were on 25 January 2019 (90-MW), 22 March 2019 (48-MW), 30 March 2019 (42-MW) and 13 April 2019 (80-MW), resulting higher revenue recognition for this quarter compared to the same quarter last year. There were also increased of power production of solar power plants from higher solar irradiation and power production of existing wind power plants in Songkhla and Nakhon Si Thammarat Province from stronger wind.

Details	Three-Month Period			
	Year 2020	Year 2019	Change	% Change
Revenue from Solar Power Plants (Million Baht)	1,527.78	1,507.06	20.72	1.37%
- Sales Volume (GWh)	154.69	153.52	1.17	0.76%
- Average Selling Price (Baht/kWh)	9.88	9.82	0.06	0.61%
Explanation: Slight increase of power production was due to higher solar radiation.				
Revenue from Wind Power Plants (Million Baht)	1,237.97	613.10	624.87	101.92%
- Sales Volume (GWh)	226.13	97.77	128.36	131.29%
- Average Selling Price (Baht/kWh)	6.23	6.27	-0.40	-0.64%
Hadkunghan Wind Power 126-MW Plant in Songkhla and Nakhon Si Thammarat Province				
- Sales Volume (GWh)	83.07	72.75	10.32	14.19%
- Average Selling Price (Baht/kWh)	6.39	6.33	0.06	0.95%

Details	Three-Month Period			
	Year 2020	Year 2019	Change	% Change
Hanuman Wind Power 260-MW Plant in Chaiyaphum Province				
- Sales Volume (GWh)	115.53	25.01	90.52	361.94%
- Average Selling Price (Baht/kWh)	6.12	6.10	0.02	0.33%
Explanation- the result of increase in sales volume due to 1. Revenue was fully recognized from Hanuman wind power project at Chaiyaphum province which commenced operation in the end of 1 st and 2 nd quarter 2019. 2. Increase of power production from Hadkunghan wind power plant at Songkhla and Nakhon Si Thammarat province due to strong wind compare to the last year.				

3. Revenue from other businesses

For the three-month ended 31 March 2020 totaled Baht 105.58 million mainly from revenue recognition of AMITA battery product business amounting Baht 95.67 million (EA shareholding 74.71%) and ESM consulting business amounting Baht 8.87 million (EA shareholding 99.99%).

4. Other revenue

For the three-month ended 31 March 2020 totaled Baht 29.22 million mainly from claims on impaired equipment amounting Baht 20.86 million.

Cost of Sales and Services

For the three-month ended 31 March 2020, cost of sales and services was Baht 2,668.74 million, increasing Baht 1,184.54 million (or increasing 79.81%) as compared to the same period of last year which incurred the cost of sales and services of Baht 1,484.20 million. The reasons are summarized as follows:

1. Manufacturing and Distributing Biodiesel Products

For the three-month ended 31 March 2020, the cost of sales increased Baht 896.80 million (or increased 102.71%) as compared to the same period of last year, which was consistent with the increased sales revenue.

2. Generating and Distributing Electricity

For the three-month ended 31 March 2020, the cost of sales increased Baht 199.48 million (or increased 40.62%). This was mainly due to wind power plant (with an aggregate capacity of 260-MW)'s CODs on 25 January 2019, 22 March 2019, 30 March 2019 and 13 April 2019, resulting cost of sales (e.g. depreciation, administrative and maintenance expenses) to increase as compared to the same period of last year.


Selling Expenses

Selling expenses, for the three-month ended 31 March 2020, was Baht 19.50 million which decreased by Baht 0.64 million as compared to the same period of last year which incurred the selling expense of Baht 20.14 million. This was due to slightly decrease in sales volume of biodiesel products.

Administrative Expenses

Administrative expenses, for the three-month ended 31 March 2020, was Baht 268.92 million which increased by Baht 72.47 million (or increased by 36.89%), as compared to the same period of last year which incurred the administrative expense of Baht 196.46 million. The main reasons of the incremental are summarized below.

- Personnel expenses increased Baht 40.59 million in accordance with new hiring of employees and executives of EA and subsidiaries following to the business expansion plan.
- Office expenses increased Baht 23.70 million as compared to the same period of last year due to new businesses such as office rentals and utilities.


 **Financial Cost**

Financial cost, for the three-month ended 31 March 2020, was Baht 432.80 million which increased Baht 169.71 million (or increased 64.51%) as compared to the same period of last year which incurred the finance cost of Baht 263.09 million. This was due to drawdown of long-term loan from financial institutions and issuance of green bonds in order to repay some part of supplier credits in Hanuman wind power plant project which were due.

 **Financial Status** **Total Assets**

The total assets of the Company as of 31 March 2020, was Baht 74,040.77 million, representing an increase of Baht 3,821.08 million or increased by 5.44% as compared to as of 31 December 2019. This was mainly from the following:

- **Cash and Cash Equivalents** was Baht 10,556.21 million, representing an increase of Baht 527.26 million or increased by 5.26%. This was mainly from operating result, which will be reserved for current investment projects and new business projects of year 2020.
- **Current Assets** were Baht 3,861.94 million. The decrease was Baht 141.98 million
- **Property, plant and equipment** as of 31 March 2020 and 31 December 2019, were Baht 52,676.56 million and Baht 51,371.10 million respectively. The increase was Baht 1,305.46 million or by 2.54% mainly from investment in new projects of the Company such as EV project, green diesel project and PCM project.
- **Other Non-Current Assets** as of 31 March 2020 and 31 December 2019 were Baht 6,946.06 million and Baht 4,815.72 million respectively. The significant increase of Baht 2,130.34 million or by 44.24% was mainly from the adoption of TFRS 16 and increase in rights of intangible assets from research and development for the MINE Mobility project.

 **Total Liabilities**

As of 31 March 2020, the total liabilities of the Company were Baht 47,618.97 million, representing an increase of Baht 2,265.73 million or increased by 5% from 31 December 2019. The increase was mainly from the adoption of TFRS 16.

 **Total Equity**

As of 31 March 2020, the total shareholders' equity of the Company, was Baht 26,421.81 million, representing an increase of Baht 1,555.35 million or increased by 6.25% from 31 December 2019. This resulted from net profit of the first quarter of the year 2020.

 **Progress in Major Investment Projects** **Lithium-ion Battery Project**

According to the Company investment plan in a 50 GWh lithium-ion battery factory, the investment plan comprises of 2 phases. The phase I, for the production capacity at 1 GWh/year, currently, the construction for foundation and building has started, after that the machines will be installed and started commissioning which will take approximately 2 months. It is expected that the Phase I real production will be started by the end of 2020 then the investment for next Phase will follow accordingly to complete total full scale as planned.

In the meantime, the company has utilized production capacity from Amita Technologies Inc., in Taiwan, to produce and supply batteries to be used in electric vehicles both for EV Car and electric ferry as per company's schedule.

In the situation of the COVID-19 epidemic, the company has taken measures for good health and safety of all staffs including measure body temperature before entering to working place, risk assessment by using application "Mor Chana", providing face mask to wear during work all times, preparing alcohol sprays and gels to clean hands, and hygiene product to clean all the working area etc. Consequently, the operation still proceeds as normal and be able to run as planned.

EV Charging Station Project : EA Anywhere

The Company has been working with all business partners to install electric chargers on their areas across the country with modern charging technology, consisting of 2 types of chargers including Quick Charger (DC Charge) and Normal Charger (AC Charge) to support the use of every EVs and Hybrid cars model including our Thai EVs, MINE Mobility and Electric Ferry. EA Anywhere application is provided to facilitate our customer to reserve, charge and pay charging service fee.

As of 11 May 2020, installing 385 Stations are completed and 130 stations are on progress. Moreover, the company keeps expanding EA Anywhere charging network under collaboration with its partners. The progress will be disclosed accordingly.

Electric Vehicle (EV): MINE Mobility

The Electric Vehicle cars, called “MINE Mobility”, the first Thai EV project is to start commercial launch MINE SPA1, a 5-seats MPV, can speed up to 140 kilometers per hour and it uses a 30 kWh lithium-ion battery with a high-safety technology. MINE SPA1 can run at a distance over 200 kilometers per 15 minutes-charges with the fast charging of EA Anywhere that is already available.

In the situation of the COVID-19 epidemic, the Bangkok International Motor Show 2020 has been postponed, therefore, the plan to start commercial launch of MINE SPA1 to general target customer is postponed accordingly. However, the electric vehicle assembly factory is continuing construct as plan to preparing the production and delivering MINE SPA1 to the taxi union, Cooperative Credit Union Suvarnabhumi Pattana Limited which the company had signed a memorandum of understanding with. By discussing to adjust the delivery plan in accordance with the situation and market demand, the delivery is planned to gradually start from the 4 quarter of 2020 until the 4 quarter of 2021.

Currently, the electric vehicle assembly factory is under construction and finalizes interior decoration. This factory is expected to be completed by June and will be able to start producing both MINE SPA1 and other types of electric vehicles for commercial by 2020 as planned.

Green Diesel & Bio-PCM Project

From our success in R&D under the biodiesel business unit to initiate new two products based from crude palm oil, the company has registered patent in many countries. Those new products are (1) Normal Paraffin or Green Diesel (GD), to be used as diesel fuel supplement or Cetane Booster which help increase efficiency of the engines and (2) Bio-PCM (Bio Phase Change Material), to be used as components of building construction materials or mix in fabric etc. to absorb, store, and release heat in order to control temperature. The Bio-PCM is well applied and highly demanded in countries with high range of temperature changes. Previously, the company had produced Bio-PCM from our pilot plant for distribution and marketing to foreign customers and received good feedback from high quality standards.

Currently, the new Green Diesel and Bio-PCM factory in Rayong Province with total investment at approximately Baht 1.1 billion is under commissioning and testing the machinery and equipment. The Phase I production is expected to be completed and start producing 65 tons of Bio-PCM per day within June 2020. After that, the company will start investing in Phase II to produce Normal Paraffin (or Green Diesel) and Bio-PCM for the additional of 65 tons per day onwards.

Electric Ferry Project

According to the company's business plan, EA is expanding application of lithium-ion batteries with safety technology, to be used in electric ferry, promoting environmentally friendly transportation, no dust, no pollution, safe and well equipped with air-condition. This electric ferry will be served along the Chao Phraya River from the Pak-Kred Pier to Wat Rajsingkorn Pier, for total distance around 20 kilometers. Currently, the structure of the first two electric ferries has been completed and they are under testing of electrical system and battery system along with interior decoration. After completion of the running test, the commercial operation will be started by the middle of 2020.

Palm Oil and Relative Business Project

On February 4, 2020, the Company's subsidiary **EA Palm Network Co., Ltd.** ("EPN") has invested in Larp Pak Dee Palm Company Limited ("LPD") at 75% of total shares to expand the business into palm oil mill as well as the biomass power and biogas power project in Krabi province.

This project is to develop, expand and secure the biodiesel business to complete the chain operations and be able to well manage all the major resources.

For more information, please contact Investor Relation at T. 0 2248 2488-92 or ir@energyabsolute.co.th