



**Management Discussion and Analysis
of Financial Statements
for the second quarter ended 30 June 2020**

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 second quarter ended 30 June 2020 which has been approved by the Board of Directors meeting No. 3/2020 held on 7 August 2020. The details are as follows:

Overview of operating results for the second quarter and Six-month ended 30 June 2020

Operating Results	Year 2020		Year 2019		Change			
	2 nd Quarter	6-Month Period	2 nd Quarter	6-Month Period	2 nd Quarter		6-Month Period	
	Baht Million	Baht Million	Baht Million	Baht Million	Baht Million	%	Baht Million	%
Revenue from Sales and Services	4,127.99	8,860.18	3,614.14	6,700.33	513.85	14.22%	2,159.85	32.23%
Other Income	47.31	76.53	26.00	28.25	21.31	81.96%	48.28	170.90%
Total Revenue	4,175.30	8,936.71	3,640.14	6,728.58	535.16	14.70%	2,208.13	32.82%
Profit Attributable to Owners of the Parent	1,149.43	2,601.48	1,442.44	2,653.16	-293.01	-20.31%	-51.68	-1.95%
EBITDA	2,287.82	4,718.09	2,400.04	4,360.16	-112.22	-4.68%	357.93	8.21%
Basic Earnings per share (Baht per share)	0.31	0.70	0.39	0.71	-0.08	-20.51%	-0.01	-1.41%

**Net Profit**

For the second quarter ended 30 June 2020, the Company earned the net profit of Baht 1,149.43 million, which decreased Baht 293.01 million (or decreased 20.31%) as compared to the same period of last year which incurred the net profit of Baht 1,442.44 million. For the six-month period ended 30 June 2020, the Company earned the net profit of Baht 2,601.48 million, which decreased Baht 51.68 million (or decreased 1.95%) as compared to the same period of last year which incurred the net profit of Baht 2,653.16 million. Taking out effect from currency exchange gain/loss, for the second quarter ended 30 June 2020, the Company earned the net profit of Baht 1,169.51 million, which decreased Baht 173.82 million (or decreased 12.94%) as compared to the same period of last year. For the six-month period ended 30 June 2020, the Company earned the net profit of Baht 2,585.99 million, which increased Baht 108.49 million (or increased 4.38%) as compared to the same period of last year.

**Revenue**

For the second quarter ended 30 June 2020, the Company earned the total revenue of Baht 4,175.30 million, which increased Baht 535.16 million (or increased 14.70%) as compared to the same period of last year which incurred the total revenue of Baht 3,640.14 million. For the six-month period ended 30 June 2020, the Company earned the total revenue of Baht 8,936.71 million, which increased Baht 2,208.13 million (or increased 32.82%) as compared to the same period of last year which incurred the total revenue of Baht 6,728.58 million. The reasons are summarized as follows:

1. Manufacturing and Distributing Biodiesel and Glycerin Products

For the second quarter ended 30 June 2020, the revenue from biodiesel increased Baht 569.36 million (or increased 68.86%). For the six-month ended 30 June 2020, the revenue from biodiesel increased Baht 1,552.14 million (or increased 94.47%). The increase was mainly from price factor which recorded 76.16% and 99.33% increase respectively. Price of raw material increased due to the support by the Ministry of Energy announcing B10 to be used as regular diesel since 1 January 2020 onwards, leading to more CPO and B100 demand and increase in price. Moreover, the supply side was also shrunk from drought in 2019.

The revenue from glycerin, for the second quarter ended 30 June 2020, increased Baht 35.84 million (or increased 61.60%), for the six-month period ended 30 June 2020, increased Baht 17.07 million (or increased 13.41%). The increase was mainly from selling volume which increased by 47.44% and 14.45% respectively as compared to the same period of last year.

In addition, there was other revenue from by-products of Baht 10.02 million for the second quarter ended 30 June 2020 and Baht 21.55 million for the six-month ended 30 June 2020.

Details (Baht Million)	2 nd Quarter				6-Month Period			
	Year 2020	Year 2019	Change		Year 2020	Year 2019	change	
			Baht Million	%			Baht Million	%
Revenue from Biodiesel	1,396.14	826.79	569.35	68.86%	3,195.08	1,642.94	1,552.14	94.47%
- Sales Volume (Mil. Litre)	48.21	50.28	-2.07	-4.12%	97.98	100.45	-2.47	-2.46%
- Average Selling Price (Baht/Litre)	28.96	16.44	12.52	76.16%	32.61	16.36	16.25	99.33%
Explanation of Price Change:								
1. Higher demand of CPO from the government measurement announcing B10 to be used as regular diesel. 2. B100 specification change to Mono Glyceride content at 0.4% caused price to increase.								
Revenue from Glycerin	94.02	58.18	35.84	61.60%	144.40	127.33	17.07	13.41%
- Sales Volume (Mil. Kg)	4.82	3.27	1.55	47.44%	8.09	7.07	1.02	14.45%
- Average Selling Price (Baht/Kg)	19.51	17.82	1.69	9.46%	17.85	18.01	-0.16	-0.89%
Explanation of Price Change:								
Price shifted to upward trend during the second quarter following regional market situation.								

2. Generating and Distributing Electricity

For the second quarter ended 30 June 2020, the revenue decreased Baht 78.67 million (or decreased 2.93%). For the six-month ended 30 June 2020, the revenue increased Baht 566.92 million (or increased 11.79%). Wind power plant projects generated less revenue in the second quarter compared to the same period of last year due to wind power plant projects generated less revenue in the second quarter compared to the same period of last year as second quarter is normally low season for wind and for this year, wind in southern provinces was weaker than previous year. However, wind power plant projects still generated more revenue during the six-month period compared to the same period of last year due to full realization of new projects. However, wind power plant projects still generated more revenue during the six-month period compared to the same period of last year due to full realization of new projects.

Solar power plant projects produced more electricity compared to last year due to less rain and more solar radiation.

Details (Baht Million)	2 nd Quarter				6-Month Period			
	Year 2020	Year 2019	Change		Year 2020	Year 2019	Change	
			Baht Million	%			Baht Million	%
Revenue from Solar Power Plants	1,705.10	1,674.25	30.85	1.84%	3,232.88	3,181.31	51.57	1.62%
- Sales Volume (GWh)	175.07	171.47	3.60	2.10%	329.76	324.99	4.77	1.47%
- Average Selling Price (Baht/Unit)	9.74	9.76	-0.02	-0.20%	9.80	9.79	0.01	0.10%
Explanation: Sales volume slightly increased due to more solar radiation and the average selling price per unit is consistent with previous year.								
Revenue from Wind Power Plants	905.44	1,014.96	-109.52	-10.79%	2,143.41	1,628.06	515.35	31.65%
- Sales Volume (GWh)	146.02	162.51	-16.49	-10.15%	344.62	260.28	84.34	32.40%
- Average Selling Price (Baht/Unit)	6.20	6.25	-0.05	-0.80%	6.22	6.26	-0.04	-0.64%

Details (Baht Million)	2 nd Quarter				6-Month Period			
	Year 2020	Year 2019	Change		Year 2020	Year 2019	Change	
			Baht Million	%			Baht Million	%
<u>Hadkunghan Wind Power 126-MW Plant</u>								
- Sales Volume (GWh)	40.37	57.83	-17.46	-30.19%	123.44	130.58	-7.14	-5.47%
- Average Selling Price (Baht/Unit)	6.30	6.29	0.01	0.16%	6.36	6.31	0.05	0.79%
<u>Hanuman Wind Power 260-MW Plant</u>								
- Sales Volume (GWh)	105.65	104.68	0.97	0.92%	221.18	129.7	91.48	70.53%
- Average Selling Price (Baht/Unit)	6.16	6.22	-0.06	-0.96%	6.14	6.20	-0.06	-0.97%
Explanation of sales volume change:								
<ol style="list-style-type: none"> 1. (For 2nd quarter comparison) Sales volume decreased from weaker wind at Hadkunghan Wind Power at Song Kala and Nakhon Sithammarat. 2. (For 6-month period comparison) Sales volume increased from full revenue realization of Hanuman Wind Power at Chaiyaphum Province. CODs were during the first and second quarter of last year at Chaiyaphum province. 								

3. Revenue from other businesses

For the second quarter and six-month ended 30 June 2020 totaled Baht 12.28 million and Baht 122.87 million respectively mainly from revenue recognition of AMITA battery product business amounting Baht 91.02 million (EA shareholding 65.61%) and ESM consulting business amounting Baht 30.37 million (EA shareholding 99.99%).

4. Other revenue

For the second quarter and six-month ended 30 June 2020 totaled Baht 47.31 million and Baht 76.53 million respectively mainly from claims on impaired equipment amounting Baht 20.86 million and interest income Baht 21.27 million.

 **Cost of Sales and Services**

For the second quarter ended 30 June 2020, cost of sales and services was Baht 2,243.73 million, increasing Baht 582.28 million (or increasing 35.05%) as compared to the same period of last year which incurred the cost of sales and services of Baht 1,661.45 million.

For the six-month ended 30 June 2020, cost of sales and services was Baht 4,912.47 million, increasing Baht 1,766.82 million (or increasing 56.17%) as compared to the same period of last year which incurred the cost of sales and services of Baht 3,145.65 million. The reasons are summarized as follows:

1. Manufacturing and Distributing Biodiesel and Glycerin Products

For the second quarter and six-month ended 30 June 2020, the cost of sales increased Baht 537.06 million and Baht 1,433.86 million respectively as compared to the same period of last year, which was consistent with the increased sales revenue.

2. Generating and Distributing Electricity

For the second quarter and six-month ended 30 June 2020, the cost of sales increased Baht 96.07 million and Baht 295.55 million respectively as compared to the same period of last year. 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 Expense**

Selling expense, for the second quarter and six-month ended 30 June 2020, was Baht 23.58 million and Baht 43.08 million respectively which decreased by Baht 0.04 million and Baht 0.68 million as compared to the same period of last year which incurred the selling expense of Baht 23.62 million and Baht 43.76 million respectively. This was due to slight decrease in sales volume of biodiesel products.

 **Administrative Expense**

Administrative expense, for the second quarter and six-month ended 30 June 2020, was Baht 368.77 million and Baht 637.70 million respectively which increased by Baht 83.70 million and Baht 156.18 million respectively (or increased by 29.36% and 32.43%), as compared to the same period of last year which incurred the administrative expense of Baht 285.07 million and Baht 481.52 million respectively. The main reasons of the six-month period incremental are summarized below.

- Personnel expense increased Baht 45.55 million in accordance with new hiring of employees and executives following the business expansion plan.
- Donation expense increased Baht 23.89 million as the company donated equipment and appliances to support nationwide hospitals during COVID-19 situation.
- Depreciation and amortization increased Baht 34.62 million mainly due to realizing loss from sales of unused equipment amount THB 28.37 million.


 **Financial Cost**

Financial cost, for the second quarter and six-month ended 30 June 2020, was Baht 407.58 million and Baht 840.39 million which increased Baht 67.08 million and Baht 236.80 million (or increased 19.70% and 39.23%) as compared to the same period of last year which incurred the financial cost of Baht 340.50 million and Baht 603.59 million respectively. 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 Asset**

The total asset of the Company as of 30 June 2020, was Baht 75,867.47 million, representing an increase of Baht 5,647.78 million or increased by 8.04% as compared to as of 31 December 2019. This was mainly from the following determinants:

- **Cash and Cash Equivalents** was Baht 4,939.83 million, representing a decrease of Baht 5,089.13 million or decreased by 50.74% mainly from general investment.
- **General Investment** was Baht 5,852.19 million as the company invested in Land Prosperity Holding Company Limited.
- **Property, plant and equipment** as of 30 June 2020 and 31 December 2019, were Baht 53,700.73 million and Baht 51,371.10 million respectively. The increase was Baht 2,329.63 million or by 4.53% mainly from investment in new projects of the Company such as EV project, green diesel project and PCM project.
- **Right-of-Use Assets** were Baht 1,687.46 million from adoption of TFRS 16.

 **Total Liabilities**

As of 30 June 2020, the total liabilities of the Company were Baht 48,860.68 million, representing an increase of Baht 3,507.44 million or increased by 7.73% from 31 December 2019. The increase was mainly from the adoption of TFRS 16.

 **Total Equity**

As of 30 June 2020, the total shareholders' equity of the Company, was Baht 27,006.79 million, representing an increase of Baht 2,140.33 million or increased by 8.61% from 31 December 2019. This resulted from net profit of the first half of the year 2020.

 **Progress in major investment projects** **Lithium-ion Battery Project**

Amita Thailand project, the 50GWh capacity factory has been divided into 2 phases, which the 1st phase 1GWh is under the construction of factory buildings. Also, the project will begin installing large machinery for the production of batteries which takes approximately 2 months including commissioning tests before real production. It is expected to start the 1st phase production within 2020 and then it will gradually ramp up the commercial production to achieve the company's target.

In the meantime, the company uses batteries manufactured from Amita Technologies Inc. Taiwan to be used in the assembly of electric vehicles and electric ferries according to the company's plans.

EV Charging Station Project : EA Anywhere

Development of charging technology for EA Anywhere, an electric charging service, comprises of 2 types; DC Fast Charge and Normal Charge to support all EV models including Thai EV designed and produced by the group company under MINE Mobility brand and Electric Ferries and Electric Buses that can charge batteries at a quick rate (4C-Rate) within 20 minutes. All users can reserve charging EVs and pay for charging service via EA Anywhere mobile application.

As of 10 July 2020, 395 stations were installed completely across 53 provinces, and 107 stations are in progress. Besides, the company has AC and DC charging supply over 2,000 heads (40 percent is DC Fast Charger) which accounts for 70 percent of market share. The company has also invested in charging stations with major partners and look for other partnerships following the business plan.

Electric Vehicle (EV): MINE Mobility

MINE Mobility is the 100 percent Thailand-made EV brand which is to produce and distribute by the company. The 1st commercial model is the MINE SPA1, a medium-sized multi-purpose vehicle or family size car (MPV), which can speed up to 140 kilometers per hour with a 30 kWh lithium-ion battery running over 200 kilometers per one fast charge (15 minutes) which EA Anywhere has already invested in installing charging stations.

On 4 July 2020, the company delivered the prototype electric vehicle chassis MINE SPA1 to Chonburi Technical College to use in education, learning, and human resource development. It is following the intention of the cooperation agreement in MOU that the company had signed on 29 November 2019 with 10 educational institutions to promote the education of electric vehicle technology of educational institutions. It is also to prepare for the advancement into the high technology business of the group company investing in the lithium-ion battery manufacturing industry, electric vehicles, and related businesses which has a production base in Chachoengsao province.

The company is constructing the EV assembly factory to deliver MINE SPA 1 to customers who reserved the EVs, especially Suvannabhumi Pattana taxi union, who signed MOU to reserve 3,500 EVs. In this regard, both entities have discussed together to adjust the delivery plan to start from the 4th quarter of 2020 and complete the delivery by 2021 which is the consequence of the pandemic situation of COVID-19.


Currently, the construction of the EV assembly factory is almost complete and it is installing some machinery and preparing the painting room which will be the last part of the construction of this EV assembly plant. The EV factory is expected to be completed by the 3rd quarter and will be able to start producing electric vehicles including MINE SPA1 and other electric vehicles for commercial distribution by 2020 as planned.



Electric Ferry Project

The company invested in the electric ferry business under a subsidiary company, E-Smart Transport Co., Ltd. Currently, the prototype ferry has been completed and was named "MINE SMART FERRY 1". On 30 July 2020, the vessel was registered as the first electric ferry in the country after it had passed the electrical design inspection and the safety standard testing and voyage system from the Marine Department. This electric vessel is 100 percent designed and manufactured by Thai craftsmanship and installed 800 kWh lithium-ion battery manufactured by a subsidiary company which can be fully charged only 20 minutes with EA Anywhere's DC Fast Charge and have a sailing range not less than 80 kilometers per one charging time. MINE SMART FERRY 1 will provide travel services along the Chao Phraya River from Pak Kret Pier to Wat Ratcha Singkhon Pier over the 20 kilometers route. This water transportation will connect with public land transportation as well, with affordable fares to the public, spacious design and air-conditioned cabin, convenient and safe hop-on/off, and can accommodate more than 200 passengers including silent and smooth sailing.

At present, the remaining electric ferries are in production process of several shipyards to prepare for the passenger service by 2020.



Electric Bus Project

On 15 May 2020, the company's board of directors had approved EA Mobility Holding Co., Ltd. ("EMH"), a subsidiary company, to acquire 40 percent of the newly issued shares of Nex Point Public Co., Ltd., ("NEX") which is an investment in a strategic business partner to joint develop manufacturing, auto part assembly, and distribution including sales and after-sales service regarding bus products, commercial vehicles, and personal cars especially the large bus category. The company will take a major role in battery production and development to apply with electric buses.

The electric bus factory will be located nearby the EV factory in Chachoengsao province to assembly and test driving standards. The company will disclose the progress of this project intermittently.



Green Diesel & Bio-PCM Project

With excellent R&D in biodiesel business, the company innovated and has already been granted a patent of high-value products made from palm oil-based substances (1) Green Diesel (GD) to be used as an additive of diesel fuel to enhance the efficiency of the engine and (2) Bio-PCM (Bio Phase Change Material) to be applied in construction materials, textiles and others to help adsorb, maintain, control, and release temperature, which Bio-PCM is in extensive demand in countries with the extreme weather. Previously, the company produced Bio-PCM from a pilot plant to distribution and marketing foreign customers that received good market responses according to its high standard and quality.

Presently, newly built Green Diesel and Bio-PCM plant, invest values of Baht 1,100 million, at Rayong province is already completed construction, machinery installation and testing. The plant is starting 1st phase Bio-PCM production which is gradually ramping up with the target to run at full capacity, 65 tons per day, by 2020 and then will start 2nd phase of another 65 tons per day consecutively.

Palm Oil and Related Business Project

Recently EA Palm Network Co., Ltd. (EPN), a subsidiary company, has invested 75 percent of shares of Larp Pakdee Palm Co., Ltd. (LPD) to expand the business into palm oil mills and also to prepare for biomass and biogas power project in Krabi province.

Later on 2 July 2020, EPN has invested 75 percent of shares of Kanjanadit Palm Oil Co., Ltd. (KJD) with identical investment objective as the previous investment. It is the implementation of the company's business plan to commit being an upstream producer to develop and expand the biodiesel business to operate comprehensively and can also manage the amount and source of important raw materials.

Other Projects

On 24 July 2020, the company joined with 3 other partners which are (1) Chaleun Sekong Energy Co., Ltd., Laos PDR (2) Vega Digital Co., Ltd., Thailand and (3) PSL Service Sole Co., Ltd., Laos PDR. in the memorandum of understanding (MOU) signing with the government of the Lao People's Democratic Republic to study the feasibility of developing natural water resources of Lao PDR. to build dams generate electricity for domestic use and sell electricity to neighbor countries including Thailand consisting of 2 projects, that are

(1) Saravan Downstream Hydropower Project and

(2) Phamong Hydropower Project

From the initial assessment, the potential to develop those areas into hydroelectricity dams may not less than 2,500 megawatts. The MOU of the feasibility study is due within 2 years. The co-developer will conduct joint exploration, study the environmental impact and assess the feasibility of the project under the scope of study and development determined by Laos PDR government.

The company will report progress of the feasibility study and the project further.

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