



บริษัท พลังงานบริสุทธิ์ จำกัด (มหาชน)  
Energy Absolute Public Company Limited

89 อาคารเอไอเอ แคปิตอล เซ็นเตอร์ ชั้น 16 ถนนรัชดาภิเษก แขวงดินแดง เขตดินแดง กรุงเทพฯ 10400  
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24<sup>th</sup> February 2020

Subject Management Discussion and Analysis of Financial Statements for the fourth quarter and for the year ended 31<sup>st</sup> December 2019

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<sup>st</sup> December 2019 which has been approved by the Board of Directors meeting No 1/2020 held on 21<sup>st</sup> February 2020. The details are as follows:-

Overview of operating results for the three-month and for the year ended 31<sup>st</sup> December 2019

	Year 2019		Year 2018		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	4,083.11	14,886.87	2,756.08	11,551.95	1,327.03	48.15	3,334.92	28.87
Other Income	24.90	67.67	16.94	43.69	7.96	46.99	23.98	54.89
Accounting gain on business combination achieved in stages, net	-	-	-	894.58	-	-	(894.58)	100
<b>Total Revenue</b>	<b>4,108.01</b>	<b>14,954.54</b>	<b>2,773.02</b>	<b>12,490.22</b>	<b>1,334.99</b>	<b>48.14</b>	<b>2,464.32</b>	<b>19.73</b>
Profit attributable to Owners of the parent	1,749.73	6,081.62	941.28	5,147.54	808.45	85.89	934.08	18.15
Basic earnings per share (Baht per share)	0.47	1.63	0.25	1.33	0.22	88.00	0.30	22.56

**Note:** According to Financial Statements for the year ended 31<sup>st</sup> December 2019, there is significant circumstance from the classification of the investment in Amita Technologies Inc. (“Amita”) from an associate company to be a subsidiary company. Therefore, the financial statements of Amita have been fully consolidated to the Group’s financial statements from the date on which control is transferred to EA. As a result, this consequently caused accounting gain on business combination achieved without the transfer of consideration (AMITA), net of Baht 894.58 million in accordance with Thai Financial Reporting Standard 3 (revised 2017) Business Combination, from recognizing as an associate company to be a subsidiary company.



### Net Profit

For the three-month period ended 31<sup>st</sup> December 2019, the Company earned the net profit of Baht 1,749.73 million, increased Baht 808.45 million (or increased 85.89%) as compared to the same period of last year which incurred the total net profit of Baht 941.28 million. And for the year ended 31<sup>st</sup> December 2019, the Company earned the net profit of Baht 6,081.62 million, increased Baht 934.08 million (or increased 18.15 %) as compared to the same period of last year which incurred the total net profit of Baht 5,147.54 million.

To be considered, net profit from normal business operation (excluding accounting gain, unrealized gain from FX and other income) for three-month period ended 31<sup>st</sup> December 2019 was Baht 1,679.90 million, increased by Baht 790.19 million (or increased 88.81%) and the net profit for the year ended 31<sup>st</sup> December 2019, the Company earned the net profit of Baht 5,904.29 million, increased Baht 1,999.93 million (or increased 51.22%) as compared to the same period of last year which incurred the total net profit of Baht 3,904.36 million. The reasons are as follows:

### Revenue

For the three-month period ended 31<sup>st</sup> December 2019, the Company earned the total revenue of Baht 4,108.01 million, increased Baht 1,334.99 million (or increased 48.14%) as compared to the same period of last year which incurred the total revenue of Baht 2,773.02 million. And for the year ended 31<sup>th</sup> December 2019, the Company earned total revenue of Baht 14,954.54 million, increased Baht 2,464.32 million (or increased 19.73%) as compared to the same period of last year which incurred the total revenue of Baht 12,490.22 million.

To be considered, revenue from normal business operation (excluding accounting gain and other income) for three-month periods ended 31<sup>st</sup> December 2019 was Baht 4,083.11 million, increased Baht 1,327.03 million (or increased 48.15%) and the year ended 31<sup>st</sup> December 2019, the Company earned the total revenue of Baht 14,886.87 million, increased Baht 3,334.92 million (or increased 28.87 %). The reasons are summarized as follows:

#### 1. Manufacturing and distributing Biodiesel Products :

For the three-month and the year ended 31<sup>st</sup> December 2019, the revenues increased Baht 186.70 million and Baht 224.00 million (or increased 25.70% and increased 7.01%), respectively. The sales volumes increased 4.10% and 22.03%, respectively as compared to the same periods of last year whereas the revenue slightly increased. This is the result of lower of selling price by 12.30% due to oversupply of palm product in market and surplus of B100 capacity from B100 producers causing high price competition in order to increase the market share.



For pure glycerin: The revenues, for the three-month and for the year ended 31<sup>st</sup> December 2019, decreased Baht 5.71 million and Baht 67.23 million (or decreased 9.48 % and 22.70%), respectively. This is the result of lower of selling price by 36.05% as compared to the same periods of last year due to oversupply in the regional market causing high price competition, though sales volumes increased from the same periods last year by 47.10% and 20.93%, respectively due to the expansion of domestic customer base.

Details	Three-month Period			For the year		
	2019	2018	% Change	2019	2018	% Change
Revenue from Biodiesel	913.13	726.43	25.70%	3,418.23	3,194.23	7.01%
Sales volume (Million Litre)	43.10	41.60	3.60%	193.25	160.97	20.05%
<b>Explanation</b>						
The sales volume of B100 was increased due to the government scheme to promote B20, in order to reduce the oversupply of palm product in market. Due to the announcement that B10 shall be the main Diesel blending of country instead of B7 with effective on 1 <sup>st</sup> January 2020, as such, all B100 manufacturers have to supply. This measure has increased the volume of B100 and created the Crude Palm Oil (CPO) Demand & Supply balance in the country.						
AVG Selling price (Baht/Litre)	21.19	18.63	13.74%	17.69	20.17	(12.30%)
<b>Explanation</b>						
Selling Price of B100 was decreased from oversupply of Crude Palm Oil as raw material and price competition in order to increase the market share. However in Q4 of 2019, the price was on the rising trend because of government policy announced B10 to be main diesel blending of country. This policy has increased B100 demand from refineries.						

Revenue from Glycerin	54.51	60.22	(9.48%)	228.93	296.16	(22.70%)
- Sales volume (Million kg.)	3.88	2.87	35.19%	14.33	11.85	20.93%
- AVG Selling price (Baht/kg.)	14.05	20.99	(33.06%)	15.98	24.99	(36.05%)
<b>Explanation</b>						
Having compared to the same period of last year, the sale volume is increased due to the expansion of domestic customer base whereas the average selling price is slightly declined. This is due to the surplus of Glycerin in regional market caused by B100 producers in Indonesia accelerating B100 production to enhance its government's policy for using B20.						



## 2. Generating and distributing Electricity :

For the three-month and for the year ended 31<sup>st</sup> December 2019, the revenues increased Baht 1,208.08 million and Baht 3,293.45 million (or increased 65.71% and 42.88%), respectively. This is due to the wind power plant projects of subsidiaries (260-MW Hanuman wind power projects in Chaiyaphum Province) were commenced operation, i.e. on 25<sup>th</sup> January 2019 (90-MW), 22<sup>nd</sup> March 2019 (48-MW), 30<sup>th</sup> March 2019 (42-MW) and 13<sup>th</sup> April 2019 (80-MW), respectively resulting to revenue recognition gradually adding up in 1<sup>st</sup> quarter for this year and fully resulting to revenue recognition in 2<sup>nd</sup> quarter. This is also due to the increase of revenue generated from solar power plants as the result of the high solar irradiation since this year reflecting from the total raining days are less than the previous year. In addition, the average selling price per unit has increased 1.34% due to the higher ft.

Details	Three-month Period			For the Year		
	Y2019	2018	% Change	2019	2018	% Change
Revenue from Solar power plants	1,598.65	1,465.98	9.05%	6,159.96	5,865.70	5.02%
Sales volume (GWh)	162.13	150.62	7.64%	627.25	601.75	4.24%
Avg. Selling Price (Baht/kWh)	9.86	9.73	1.34%	9.82	9.75	0.72%
<b>Explanation</b> The increase of sales volume resulted from the intensity of the sunlight increases from the amount of rainfall is less than the prior year. In addition, average selling price per kWh increase 1.34% due to the increase of ft.						
Revenue from Wind power plants	1,447.99	372.58	288.64%	4,814.30	1,815.11	165.23%
Sales volume (GWh)	227.28	59.00	285.22%	761.77	289.32	163.30%
Avg. Selling Price (Baht/kWh)	6.37	6.31	0.95%	6.32	6.27	0.80%
<b>Hadkunghan wind power</b>						
<b>126-MW Plant</b>						
Sales volume (GWh)	71.43	59.00	21.07%	292.88	289.32	1.23%
Avg. Selling Price (Baht/kWh)	6.43	6.31	1.90%	6.34	6.27	1.12%
<b>Hanuman wind power</b>						
<b>260-MW Plant</b>						
Sales volume (GWh)	155.85	-	100%	468.89	-	100%
Avg. Selling Price (Baht/kWh)	6.34	-	100%	6.29	-	100%
<b>Explanation</b> During Q1 of 2019, the wind power plants of subsidiaries, i.e. Hanuman 1, 8, 5, 9 wind power plants with the aggregate capacity of 180-MW, have COD on 25 <sup>th</sup> January, 22 <sup>nd</sup> March and 30 <sup>th</sup> March, respectively. Consequently, the revenue generated from the aforesaid wind power plants were added in 1 <sup>st</sup> quarter of this year, while the remaining of 80-MW Hanuman 10 has COD on 13 <sup>th</sup> April 2019. Resulting to revenue recognition gradually adding up in 1 <sup>st</sup> quarter for this year and fully resulting to revenue recognition in 2 <sup>nd</sup> quarter of the year 2019.						



3. Other revenue for the year ended 31<sup>st</sup> December 2019, total Baht 234.90 million from revenue recognition from Amita sales battery product amounting Baht 208.56 million (EA shareholding 74.71%) and ESM for consulting fee Baht 23.39 million (EA shareholding 99.99%)
4. Accounting gain on business combination achieved in stages Amita, net of Baht 894.58 million in accordance with Thai Financial Reporting Standard 3 (revised 2017) Business Combination. This is resulted from increasing in controlling power in board level and management level of Amita since the first quarter of year 2018. Therefore, the company has to record and present the investment in Amita as a subsidiary company, changing from associate company. Moreover, the company has to consider and compare fair value of investment in Amita with net investment cost and appeared that, the fair value of investment in Amita is higher than the net investment cost, so the company recognized gain on business combination.

#### Cost of sales and services

For the three-month and for the year ended 31<sup>st</sup> December 2019, cost of sales were Baht 1,706.21 million and Baht 6,752.39 million, increased Baht 238.39 million (or increased 16.24 %) and increased Baht 1,084.10 million (or increased 19.13 %) respectively, as compared to the same period of last year which incurred the total cost of sales of Baht 1,467.83 million and Baht 5,668.29 million respectively. The reasons are summarized as follows:

1. Manufacturing and distributing Biodiesel Products and pure glycerin: For the three-month and for the year ended 31<sup>st</sup> December 2019, the cost of sales increased Baht 151.33 million and Baht 327.06 million (or increased 19.83 % and 9.91 %) respectively as compared to the same period of last year, which increased according to the increased sales volume of products.
2. Generating and distributing Electricity: For the three-month and for the year ended 31<sup>st</sup> December 2019, cost of sales increased Baht 117.98 million and Baht 739.16 million (or increased 23.95% and 41.22%), respectively. This is due to a wind power plants (with an aggregate capacity of 260-MW) of the subsidiaries were commenced commercial operation on 25<sup>th</sup> January, 22<sup>nd</sup> March, 30<sup>th</sup> March and 13<sup>th</sup> April 2019, resulting cost of sales (i.e., depreciation, administrative and maintenance expenses) increased as compared to the same periods last year.

#### Selling expense

Selling expenses, for the three-month period and for the year ended 31<sup>st</sup> December 2019, were Baht 39.37 million and Baht 81.29 million, increased by Baht 20.48 million and Baht 12.10 million (or increased by 108.40 % and 17.49 %), respectively, as compared to the same periods of last year which incurred the selling expenses of Baht 18.89 million and Baht 69.19 million. This is due to the increment of selling expense which mainly is a major cost of manufacturing and distributing Biodiesel, which was in line with increasing of sales volume of biodiesel.



### Administrative expenses

Administrative expenses, for the three-month and for the year ended 31<sup>st</sup> December 2019, were Baht 215.60 million and Baht 864.55 million, increased by Baht 86.16 million and increased by Baht 129.20 million (or increased by 66.56% and increased by 17.57 %), respectively, as compared to the same periods of last year which incurred the administrative expenses of Baht 129.44 million and Baht 735.35 million. The main reasons of the incremental are summarized below.

- Personnel expense increased Baht 105.30 million in accordance with new hiring of employee and executive following to the business expansion plan.
- Office expense increased Baht 20 million as compared to the same period of last year. This is due to service to new businesses, such as office rental, utility and administrative cost.

### Financial cost

Financial costs, for the three-month and for the year ended 31<sup>st</sup> December 2019, were Baht 396.35 million and Baht 1,386.26 million, increased Baht 180.79 million and Baht 299.83 million (or increased 83.87% and 27.60%), respectively, as compared to the same periods of last year which incurred the finance costs of Baht 215.56 million and Baht 1,086.43 million. This is due to long term loan from financial institutions and the issuance of debenture bonds in order to repay some part of supplier credits of Hanuman wind power plants project that was due.

## Financial Status

### Total Asset

The total asset of the Company as of 31<sup>st</sup> December 2019, was Baht 70,219.69 million, representing an increase of Baht 11,012.10 million or increased by 18.60%. This was mainly from the following determinants:

- Cash and cash equivalents

Cash and cash equivalents was Baht 10,028.95 million, representing an increase of Baht 4,550.38 million or increased by 83.06% from 31<sup>st</sup> December 2018. This is mainly from operating result, which will be reserved for current investment project and new business project in next year 2020.

- Account Receivable

Account receivable net was Baht 2,665.76 million, representing an increase of Baht 1,014.91 million or increased by 61.48% from 31<sup>st</sup> December 2018. This is mainly due to increasing of account receivable from the Hanuman wind power plant that started its commercial operation.



- **Investments in associate and Joint Venture**

Investments in associate as of 31<sup>st</sup> December 2019, was Baht 100.20 million because of the subsidiary company invested in 2 companies in Taiwan and a company in China, which related of design development and EV assembly.

- **Property, plant and equipment**

Property, plant, and equipment Property, plant, and equipment, as of 31<sup>st</sup> December 2019 and 31<sup>st</sup> December 2018, were Baht 51,371.09 million and Baht 47,587.21 million respectively, increased Baht 3,783.88 million or increased 7.95%. Mainly, due to the investment of Hanuman wind power plant that started its commercial operation and the remaining is assets increased from investment in new projects of the company such as the Li-ion Battery Project, Green Diesel Project and PCM.

- **Intangible assets**

Intangible assets as of 31<sup>st</sup> December 2019 and 31<sup>st</sup> December 2018 were Baht 2,792.78 million and Baht 1,941.13 million, respectively which increase of Baht 851.65 million or 43.87 %. The significant increase is from the recognition patents of power transmission system for wind power plants projects and the increase in rights of intangible assets from research and development for the MINE Mobility project.

**Total Liabilities**

As of 31<sup>st</sup> December 2019, the total liabilities of the Company were Baht 45,353.23 million, representing an increase of Baht 5,663.26 million or increased by 14.27% from 31<sup>st</sup> December 2018. The increase was mainly from Short term loan. Long term loan from financial institutions and the issuance of debenture bonds in order to repay construction payable for the Hanuman wind power plants projects that was due.

**Total Equity**

As of 31<sup>st</sup> December 2019, the total shareholder' equity of the Company, were Baht 24,866.46 million, representing an increase of Baht 5,348.83 million or increased by 27.41 % from 31<sup>st</sup> December 2018. This resulted from total net profit for the year 2019 deducted by dividends paid and discount from changes in shareholding in subsidiaries.



## Progress in Major Investment Project

### 1. Lithium-ion Battery Project

According to the Company investment plan in a 50 GWh lithium-ion battery factory, the investment budget for Phase I at 1 GWh capacity worth approximately Baht 5 billion has already prepared by capital injection through Amita Technologies Inc. (“Amita”) Taiwan to invest in Amita Technology (Thailand) Company Limited. Currently, the total shareholding in Amita Technologies Inc. in Taiwan is 74.71%, held by EA 65.61% and held by EA’s subsidiaries 9.10%.

Currently, the construction for foundation and building has started, after that the machines will be installed and commissioning which will take approximately 2 months. It is expected that the Phase I production will be started by the end of 2020 and the investment for next Phase for an additional capacity of 49 GWh will follow accordingly to complete total full scale.

In this regard, the company also plans to utilize the production capacity of Amita in Taiwan, to produce and supply batteries that will be used in electric vehicles both for EV Car and electric ferry as per company's schedule.

### 2. 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 EV and Hybrid car model including our Thai EVs, MINE Mobility. EA Anywhere application is provided to facilitate our customer to reserve, charge and pay charging service fee.

As at December 31<sup>st</sup>, 2020, 988 charging heads are opened for customer service. The company is also preparing to build charging station for our Electric Ferry which is scheduled to start operation in Q2 this year. Moreover, the company keeps expanding EA Anywhere charging network under collaboration with its partners. The progress will be disclosed accordingly.





3. Electric Vehicle (EV): MINE Mobility

In the Bangkok International Motor Show 2019, the company signed a memorandum of understanding with Suvarnabhumi Pattana Credit Union Cooperative, which is a union of taxi service providers for subscriptions of MINE SPA1 model 3,500 units and also got registration of 1,058 units from general public. The electric vehicle assembly factory with total capacity to produce 10,000 EVs per year worth approximately Baht 1.7 billion is under construction. The project is scheduled to complete and start delivery MINE SPA 1 model in Q2/2020 onwards.

In addition, the company has established a subsidiary company namely EV Now Company Limited, to produce and distribute electric buses, electric truck and the others including public transport business to expand the further business opportunity.

4. Green Diesel & Bio-PCM Project

From our success in R&D under the biodiesel business unit to initiate new two products by using 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.

The company is investing in building a new Green Diesel and Bio-PCM factory in Rayong Province with total investment at approximately Baht 1.1 billion for production capacity of 130 tons feed per day. Currently, the factory is under construction then the machinery and equipment will be installed. The Phase I production is expected to be completed and start producing 65 tons of Bio-PCM per day within the middle of 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.



Moreover, the company launched “Palm Yung Yuen” application which is developed on Blockchain technology to support palm trading transactions with the process of registering to record personal information, trading information and the quality of raw materials in order to check the source and record the transaction correctly. This mechanism also can help distribute the additional benefits back to the key suppliers when the quality of raw material is good and enhance our capability to produce high quality of Bio-PCM. This model can create motivation for farmers to produce and control quality of raw materials. The pricing will be set by market mechanism transparently, fair, verifiable in every step. The profit sharing to farmers can be made quickly by transfer additional benefit to bank account registered in the system. This application and Blockchain system will also prevent illegal trading of Palms and can apply to many others as well.

5. Electric Ferry Project

According to the company's business plan, EA is expanding application of lithium-ion batteries with safety technology namely STObA, to be used in electric ferry, promoting environmental 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 Rajasingkorn Pier, for total distance around 20 kilometers and carry up to 250 passengers. The total investment budget is set at Baht 1 billion to produce 42 electric ferries.

Currently, the structure of the first 2 prototype electric ferries has been completed and they are under testing of electrical system and battery system along with interior decoration. After the running test will be started and to be completed before commercial operation by the middle of 2020, the remaining 40 electric ferries are also gradually started assemble with our target to finish within this year

6. Floating Solar Project

On December 12<sup>nd</sup>, 2019, the Company signed a Memorandum of Understanding (MOU) with Thai Foods Group Public Company Limited (TFG) to invest in a new set up company, TF Tech Company Limited. (TFT) with Baht 200 million capital, to produce and distribute electricity from renewable power. The company plans to invest in 2 projects, which are floating solar and solar rooftop project.



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Currently, the first floating solar project, with total capacity of 13.78 MW worth Baht 360 million, is under construction. This project is including installation of floating solar in 4 places including Chicken Slaughterhouse in 2 provinces (Kanchanaburi and Kabin Buri) and Feed mill in 2 provinces (Suphanburi and Kabinburi). This project will be completed in May 2020 and will gradually begin construction on the remaining places to be completed within the year 2022.

Kindly be informed accordingly.

Yours faithfully,

(Mr. Amorn Saphaweekul)

Deputy CEO