

BEST
BLUE
ENERGY



Energy Absolute

Energy Absolute Public Company Limited
Annual Report 2020

MISSION NO EMISSION

MINE
SMART FERRY

100% First Thai Electric Ferry



The first electric ferry registered for passenger service on the Chao Phraya River.

The vessel structure is aluminum and is a catamaran design with a maximum speed of 18 knots. Its dimension is 7 meters in width and 24 meters Length powered by Lithium-ion battery technology with a capacity of 800 kWh and recharged by EA Anywhere's DC Fast Charge stations by 20 minutes, ready to carry up to 250 passengers

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Vision

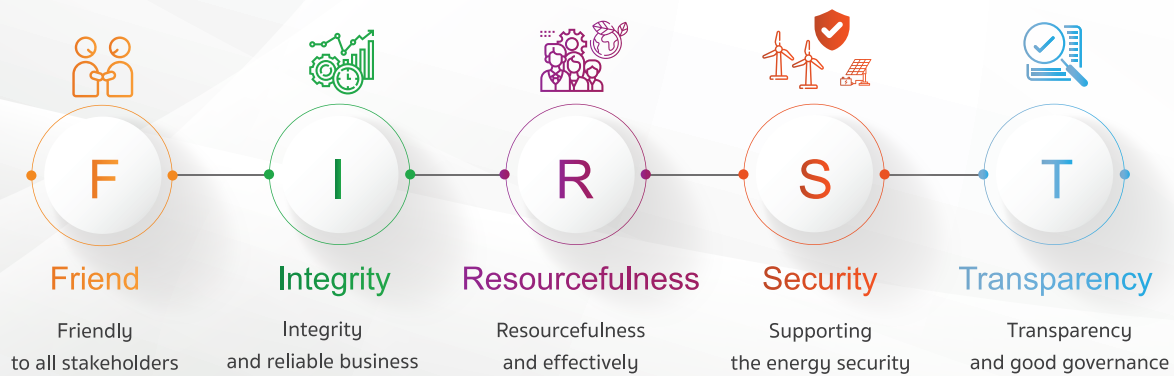
A leader in alternative energy business
by using the modern technology and environmentally friendly
for the best benefit of consumers, shareholders, partners,
and fairness to employees

Mission

1. Promote the utilization of modern technology to increase production efficiency
2. Promote the utilization of energy crops and natural energy to reduce environmental pollution
3. Support the Government policy for energy security of country
4. Operate on the basis of fairness, trustfulness with partners and all shareholders
5. Foundation human resources to grow steadily and sustainably

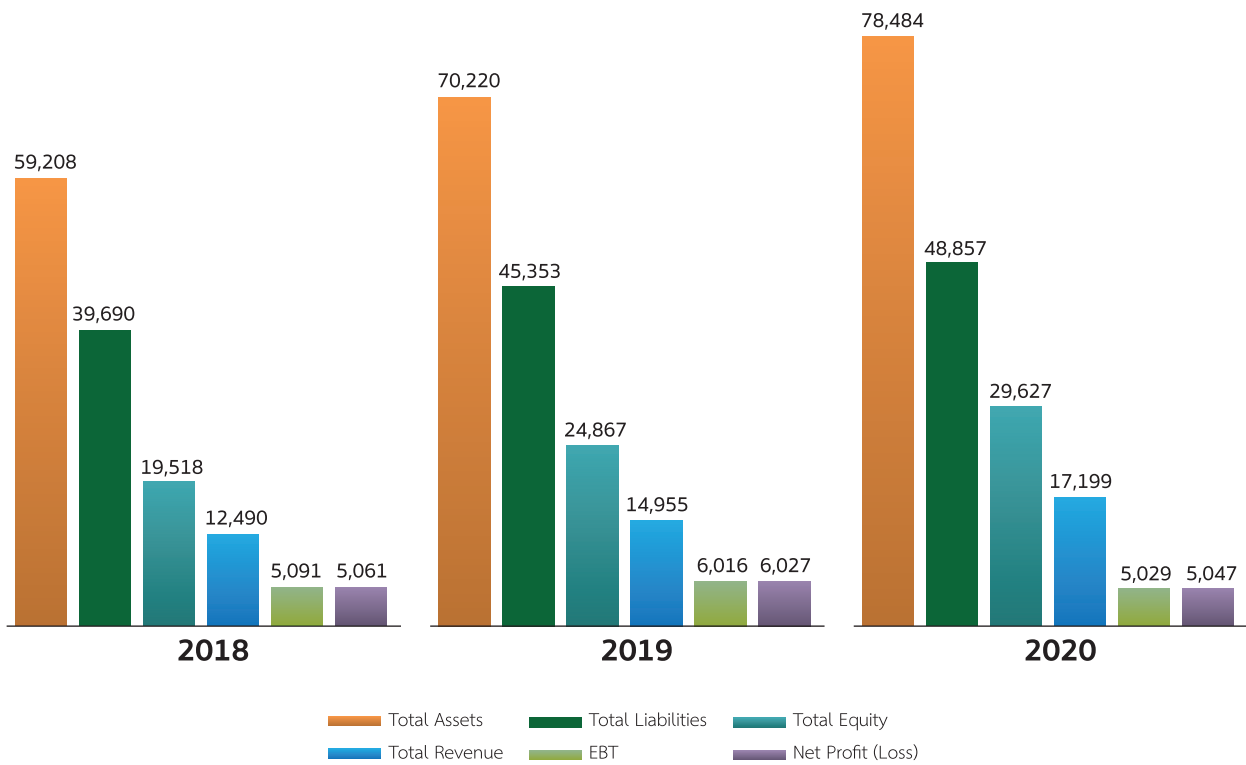


Values

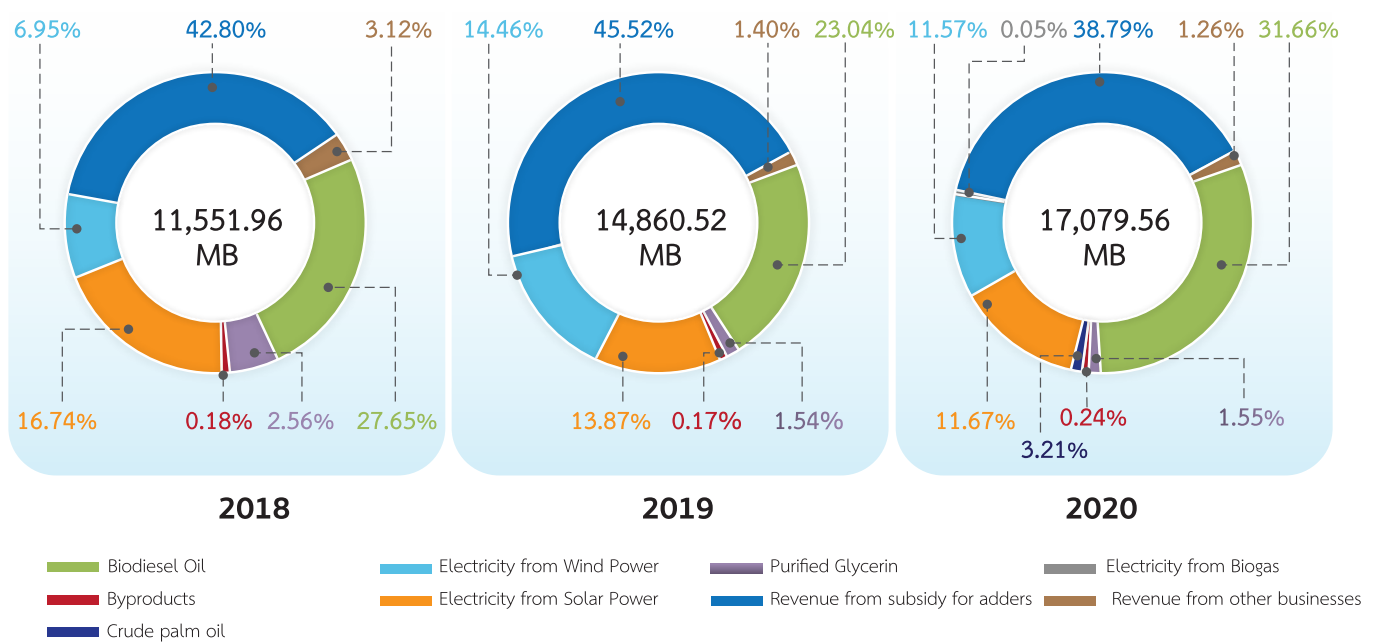


Financial Highlights

(THB Million)



Product Sales and Services



Significant Financial Ratios

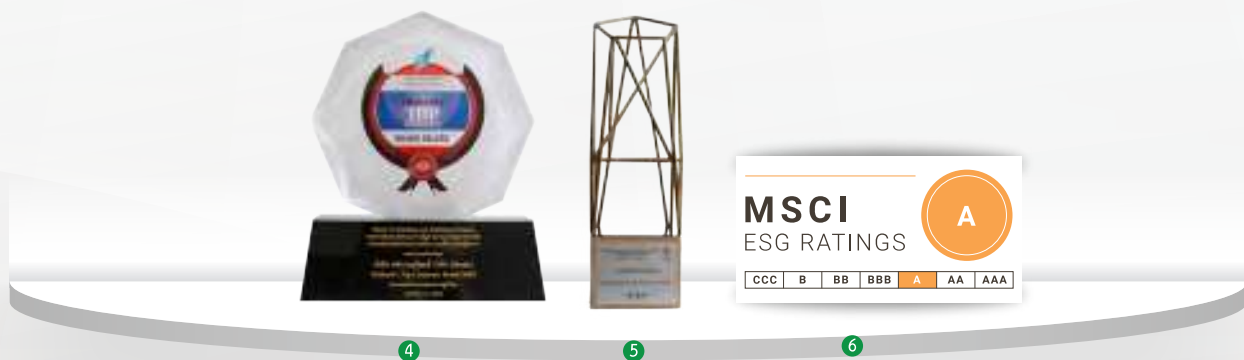
		2018	2019	2020
Liquidity Ratio				
Liquidity Ratio	time	0.65	2.31	0.54
Quick Ratio	time	0.57	2.09	0.42
Cash Flow Current Ratio	time	0.95	0.94	0.94
Receivable Current Ratio	time	6.88	6.90	6.31
Avg. Debt Collection Period	day	53.05	52.92	57.87
Inventory Turnover Period	time	24.76	12.42	11.65
Avg. Selling Period	day	14.74	29.40	31.32
Payable Current Ratio	time	46.92	31.01	28.19
Loan Repayment Period	day	7.78	11.77	12.95
Cash cycle	day	60.01	70.54	76.24
Profitability Ratio				
Gross Profit Margin	%	50.93	54.64	45.73
Operating Profit Margin	%	45.78	49.82	39.39
Cash ratio per profitability	%	136.00	117.35	137.32
Net Profit Margin	%	40.52	40.48	29.55
Return on Equity (ROE)	%	30.86	29.19	20.34
Efficiency Ratio				
Return on Assets	%	11.91	11.44	8.97
Return on Fixed Assets	%	27.90	14.96	12.43
Asset Turnover	time	0.24	0.23	0.23
Financial Policy Ratio				
Debt to Equity Ratio	time	2.19	1.94	1.76
Interest Coverage Ratio	time	8.44	8.07	6.13
Dividend Pay Out Ratio	%	14.74	15.47	22.17



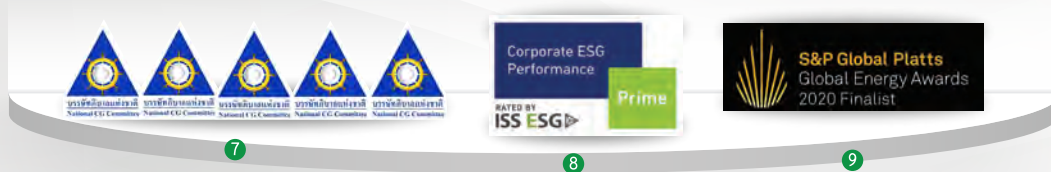
Awards and Achievements



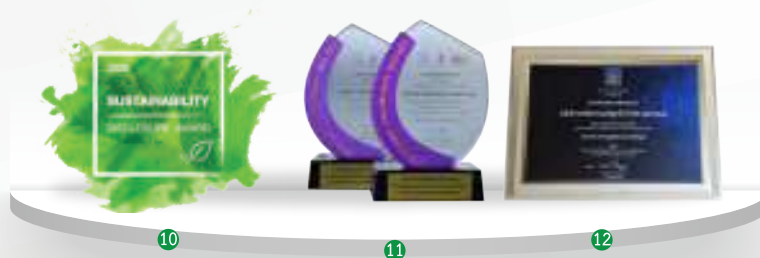
1. Award **Outstanding Company Performance Awards 2020 for listed company with more than 100 billion market capitalization**
by The Stock Exchange of Thailand (SET) and Money & Banking Magazine (TOP5)
2. Award **Outstanding CEO Awards 2020 for listed company**
by The Stock Exchange of Thailand (SET) and Money & Banking Magazine (TOP5)
3. Award **Thailand Sustainability Investment (THSI) Awards 2020 for the 3rd consecutive year**
by The Stock Exchange of Thailand (SET)



4. Award **Thailand's Top Corporate Brand: Thailand Corporate Excellence Awards 2020 for the 3rd consecutive year**
by Chulalongkorn Business School and the Stock Exchange of Thailand (SET)
5. Award **Honorary Award, MINE Smart Ferry : National Innovation Awards 2020**
by National Innovation Agency (NIA)
6. **MSCI ESG Ratings 'A'**
by MSCI



7. **Excellent CG Rating (5 star) for the 3rd consecutive year**
by the Thai Institute of Directors (IOD) and The Stock Exchange of Thailand (SET)
8. **Corporate ESG Performance “Prime” status**
by ISS ESG corporation
9. **Finalist of the 2020 Global Energy Awards in the category of Emerging Technology of the Year**
by S&P Global Platts



10. Award **Sustainability Disclosure Recognition: The State of Corporate Sustainability in 2020**
by Thaipat Institute
11. Award **CSR-DIW Continuous Award 2020 for the 3rd consecutive year**
by Department of Industrial Works, Ministry of Industry
12. Award **Honorable mention, Human Rights Awards 2020**
by Rights and Liberties Protection Department, Ministry of Justice
13. Award **Local Currency Deal of the Year (Green Bond): PFI Asia Awards 2019**
by Project Finance International (PFI)
14. Award **Asia Corporate Excellence & Sustainability Awards (ACES) 2020: Green Innovation Award**
by MORS Group
15. Award **Beyond Success Award: The biZZ Awards 2020**
by World Confederation of Businesses
16. Award **Asia’s Greatest CEO 2019–20 Award 13th Edition of Asian Business & Social Forum (ABSF13) and Pride of the Nation Series Awards & Business Summit**
by AsiaOne Magazine & UWG Media
17. Award **Best Investor Relations Company Thailand 2020: GLOBAL BANKING & FINANCE AWARDS®**
by Global Banking & Finance Review
18. Award **Frost & Sullivan Best Practices Awards: 2020 Thailand Electric Vehicle Charging Company of the Year**
by Frost & Sullivan Limited
19. Award **Best Renewable Energy Company**
by Global Business Outlook
20. Award **Best Investor Relations Company**
by Global Business Outlook

▶▶ Message from Chairman of the Board

Dear Shareholders,

During the year 2020, the coronavirus (COVID-19) has impacted the global. The panic to the pandemic of COVID-19 and the implement a rapid control of the spread of COVID-19 has been conducted and consequently affected the day to day life leading to “New Normal Life Style” and slow down the global economy sharply.

For business of the EA group, the Company has closely monitored the situation of the pandemic of COVID-19 and also adjusted the investment and strategic planning in consistency with the current situation. The measurement to control spread of COVID-19 is slightly affected to the business of Bio-diesel unit and causing the delay of the new projects under construction. Nevertheless, due to the major revenue of group Company is from the renewable power business unit that can run usual operation during such pandemic of COVID-19. Therefore, in overall, the business of the group Company has slightly been affected from COVID-19.

Besides above, during the last year, the group Company continues to strive towards to develop new business to link and enhance the existing business of group Company, such as the development of energy storage system in order to achieve the most effective utilization of energy efficiency of clean energy and the development of Green Diesel and PCM projects, for which it will strengthen the competitiveness of the Company in the region level. Currently, this Green Diesel and PCM projects are able to produce at the pilot plant level, enabling the Company to expand the business into the textile industry.

For the development of good governance and sustainable, the group Company remains committed to conduct the business with good governance. During the last year, the Company has been certified and be the member of the certified companies of Thailand’s private sector collective action coalition against corruption (CAC), and continued on track and was awarded the “Excellent – 5 star” rating for Corporate Governance Report for the third consecutive year, reflecting that the Company’s emphasis on sustainable business growth in line with good governance and transparency. Moreover, the Company has been selected for inclusion in the THIS index which reflect the sustainable business operations in line with responsibility to the environment and to society according to the principle of good governance (Environmental, Social and Governance or “ESG”) and this will attract investors looking to invest in accordance with responsible investment approaches (Responsible Investment).



By succession of the previous year, the Company would like to express the appreciation to the management and all employees for your dedication, effort and being the important part in achieving success and business growth. This consideration also goes to the business operation that is adhering to transparency, compliance with corporate governance and social responsibility. The Company believes that these will robust foundation of work will bring to the group of Company the sustainable growth together with continual social responsibility to the future.

On behalf of the Board of Directors, I would like to express my appreciation to all shareholders, customers, business partners, public and private agencies from central and regional or even local territories, as well as all stakeholders for your ongoing confidence and trust in our potential, and hopefully to receive such a support in the future.

Sincerely Yours,

Mr. Somchainuk Engtrakul

Chairman of the Board of Directors

▶▶ Message from the CEO

Dear Shareholders,

Since January 13, 2020, the first COVID-19 case was found in Thailand, the management of the company has closely monitored the situation, assessed the risks and potential outcomes in preparation for the all operation. It was found that the epidemic had little impact on the business operation. However, the company has provided support and raised hygiene care of employees and stakeholders in order to build confidence in our workplaces. Therefore no one appears to be infected, and all business units operated continually. Moreover, “**Chuaygun Group**”, a volunteer project was launched aiming to support the operation of medical personnel, government agencies, and the general public in solving national problems. Our philanthropic activities were conducted, such as giving hygiene products and medical equipment to eliminate virus and germs, converting a normal room to a negative pressure room, sharing knowledge, funding support, and also participating in developing and promoting the use of “**Mor Chana**” application as part of handling with the situation.

In terms of business management to conform to the abnormal situation, the company has applied its Business Continuity Plan (BCP), adjusted the work process, adjusted the investment plan, as well as studied businesses with growth potential. Through the collaboration of the board of directors, executives, employees, and business partners, the company can operate the business continues without interruption. As a result, the company has achieved the highest revenue generation at THB 17,199.14 million and has a net profit of THB 5,047.38 million. It is our pride to receive awards and recognition for outstanding performance and sustainable development from various organizations both in the country and abroad, enhancing confidence in operations and the reputation of the company. Details are as follows.

Renewable Power Energy From the total contractual power generation capacity of solar power and wind power at 664 megawatts, it can operate normally without any effect from the COVID-19. Total electricity was produced 1,354.06 million kilowatt-hours less than the previous year 2.52% due to the weaker wind speed that was less than the previous year 5.42%, while the solar power generation was relatively stable. The company also seeks new opportunities to expand the solar power generation business to promote the use of clean energy that can also reduce costs, which received good feedback from important partners.

• **Floating Solar System Project** The Company has partnered with Thai Foods Group Public Company Limited (TFG) to undertake the construction and installation of a floating solar power generation system in 4 provinces with a total production capacity of 13.78 megawatts and successfully commercialized all projects in December 2020.



• **Solar Rooftop Project** From our collaboration with Buriram United Football Club, we carried out a project to install solar power on the roof of Chang Arena Football Stadium Castle Commercial Area and Amari Hotel. The total production capacity is 621.56 kW and can be fully commercialized since February 2021.

For renewable energy power projects in other countries, the Company has studied and sought opportunities to expand investment in order to generate returns along with risk management. Lastly, on 24 July 2020, the Company and 3 other partners signed a Memorandum of Understanding (MOU) with the Government of the Lao People’s Democratic Republic (Lao PDR) to conduct a 2-years period study the feasibility of the development of natural water sources of the Lao PDR to build hydropower generation for domestic use and export two projects abroad. It is expected to benefit both electricity generation and water management for agricultural areas as well.

Biodiesel business According to the Ministry of Energy’s policy to reduce the excess supply of crude palm oil by encouraging to increase the mixture of biodiesel in base diesel from 7% (or B7) to 10% (or B10), caused the demand for crude palm oil and biodiesel to rise, affect the aggregate price. However to control the COVID-19 epidemic over all areas the government announced travel restriction, therefore, the growth of the biodiesel market was limited. The production volume and distribution of biodiesel and glycerin were lower than expected and less than the previous year 2.82%. Thanks to the policy of the government, there is an effect on the increase in the selling price, that is, the company has adjusted the product properties at the Mono Glyceride content 0.4% to be used as B10, increasing the selling price 62.75%

From our achievement in research and development strategy to create higher value to palm oil, led to our investment in building a Green Diesel and Phase Change Material (PCM) plant located in Rayong Province which started commercial production for export market since the 4th quarter. We still develop new target market along with the application continuously in order to create good and stable returns throughout the supply chain in the future.

Energy Storage System or Battery business It is a technology of the future that the company has invested and developed for over 5 years. The major purpose is to be used to extend the renewable energy power business by installing the ESS in combination with both renewable and traditional power generation systems. As a result, the electricity generation and distribution will be more stable, efficient, costs reduction and enrich the stability of the nation's power generation and distribution system.

Another great application of lithium ion battery is to use as a power source to drive all types of electric vehicles. Throughout the past year, the company has accelerated investment in building a lithium-ion battery factory, Phase 1, with a capacity of 1 gigawatt hour per year, located at Bangpakong District, Chachoengsao Province. In addition, we continuously develop technology in cooperation with the government, leading institutes with advanced technology both in Thailand and Taiwan. We have been carrying activities to receive technology transfer and develop together continuously in terms of enhancing efficiency, reducing costs, finding alternative materials, recycling, testing, as well as preparing personnel to support the production from collaboration with educational institutions and relevant government agencies. It is expected that the first phase of the battery factory will begin commercial production from the second quarter of 2021 onwards.

Electric Vehicle Business The Company has achieved success in the design, development and production of electric vehicles including

- **Electric ferry** : MINE Smart Ferry. It was registered as the country's first electric ferry for traveling in the Chao Phraya River and then has started trial service from December 2020.

- **Electric bus** The trial project has been carried out and can clearly prove the benefits in energy cost savings together with low maintenance. In addition, it also demonstrates no exhaust and emissions-free. Therefore, it was very well recognized by the potential customer and the general public. Accordingly, the factory was built at Chachoengsao Province with expected production and distribution to start from the second quarter of 2021.

Electric cars The prototype EV was designed, produced, and passed the standard test. Further development is undertaken continuously.

Charging station EA Anywhere Starting the service in 2018, technology has been developing until able to bring modern technology covering AC Normal charge, DC Super-fast charge, and Ultra-fast charge. There are EA Anywhere charging stations in every region across the country covering over 70% of the market share, become the largest service provider. It is an important strategy to support the plan in stimulation our electric vehicle business especially the commercial electric vehicle.

Despite the effect of the COVID-19 epidemic both to the country and abroad, the company keen to develop its business and maintains its position as a leader in the renewable energy business, promoting a good environment by building a business platform until becoming a concrete ecosystem. We are leading to stable growth according to the strategy and long-term plans laid out and also moving towards human development goals for Community and Society as well as conservation and restoration of vegetation, water sources, soil quality enrichment to create the balance of the surrounding ecosystems. Subsequently, the company is well recognized and received awards and recognition from international organizations and national level in sustainability development, innovation, performance, and many other areas.

I would like to thank all those who have contributed to the success and pride of the Company, including the Board of Directors, Employees, Customers, Business Partners, Shareholders, Financial Institutions, Government Agencies, and community enterprises, as well as related persons. I also would like to confirm our mission in developing various technologies within our group that are continuously linked to an ecosystem especially energy technology, energy storage system and battery as well as a variety of electric vehicles. Moreover, the EV charging technology has developed to the level of Ultra-Fast Charge that is more advance and is going to generate higher operating results from 2021 onwards. The company has always upheld in having modern technology and good innovation, specially developed for the benefit of the environment and increases the quality of living. This will be a very important strategy to differentiate and enhance the competitiveness of the company, maintain leadership in the alternative energy business including stimulating sustainable growth.

Sincerely Yours,



Mr. Somphote Ahunai
Chief Executive Officer

Enhance the quality of life by traveling with no emissions

- ✓ Environmental friendly
- ✓ Mitigate noise pollution
- ✓ Save fuel and maintenance costs

High safety



Supports fast charging
in just 15-20 minutes



 **MINEBUS**

Thai Battery Electric buses 

Board of Directors



Mr. Somchainuk Engtrakul

**Independent Director/Chairman of the Board of Directors
(Non-Executive Director)**

Date of Appointment: 12 March 2008

Age: 76 years

Education

- Ph.D. (Honorary Degree) in Public Administration, Sripatum University
- Bachelor of Laws, Sripatum University
- Bachelor of Arts in Economics, UPSALA College New Jersey, U.S.A.
- Diploma, National Defense Course Class 35, National Defense College (NDC)

Training

By Thai Institute of Directors (IOD)

- Role of the Chairman Program (RCP) Class 9/2006
- Director Accreditation Program (DAP) Class 98/2012

Work Experiences during 5 years

Position in the Company

- 2017 - Present Independent Director
- 2008 - Present Chairman of the Board of Directors

Position in Subsidiary of the Company

-None-

Position in Other Listed Companies

- 2004 - Present Chairman of the Board of Directors / Independent Director
Major Cineplex Group PCL.
- 1995 - Present Chairman of the Board of Directors,
Dhipaya Insurance PCL.

Position in Non Listed Companies/ Other Organizations

- 2020 - Present Chairman of the Board of Directors,
Dhipaya Group Holdings PCL.
- 2008 - Present Chairman of the Board of Directors,
Vejthani PCL.
- 2008 - Present Director, Siam Piwat Co., Ltd.
- 2000 - Present Director, Siam Piwat Holding Co., Ltd.

Shareholding in EA

(including spouse / minor children)

- Shareholding as of 6 January, 2020 : -None-
 - Shareholding as at the end of 2020 : -None-
 - Share Increase / (Decrease) during the year : -None-
- (Please refer to "Report of Securities Holding" Section, Page 114)

Relationship with other Directors and Management

-None-

Meeting Attendance in 2020

- Board of Directors Meeting : 8/8 Meetings



Mr. Somphote Ahunai

**Director (Authorized Director) / Vice Chairman of the Board /
Chairman of Strategic Planning Committee / Member of Risk
Management Committee / Chairman of Executive Committee /
Chief Executive Officer**

Date of Appointment: 12 March 2008

Age: 53 years

Education

- Master of Business Administration, University of Pittsburgh, USA
- Bachelor of Engineering, Chulalongkorn University

Training

By Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP) Class 60/2006

Other Training

- Top Executive Program in Industrial Development and Investment
Class 2 by Institute of Business and Industrial Development (IBID)
- Ultra Wealth – Invest Like a Master Class 1
by Economics Association Chulalongkorn University
- The Executive Program in Energy Literacy for a Sustainable
Future Class 9 by Thailand Energy Academy (TEA)
- Public Lecture on Technology and Energy business, IBID Talk
Seminar by Institute of Business and Industrial Development (IBID)
- Public Lecture on "Electric Vehicle Trends and how to adapt after
COVID-19 Crisis", ASE Webinar by Electric Vehicle Association
of Thailand
- Public Lecture on "Future Energy Trend in Thailand"
by Ministry of Energy
- Academic Webinar "New Normal for Energy Industry in Thailand"
by The Institute of Industrial Energy
- Public Lecture on "EV Transformation in Thai Way"
by Chulalongkorn Engineering Alumni

Work Experiences during 5 years

Position in the Company

- Feb 2020 – Present Vice Chairman of the Board of Director
- May 2020 – Present Chairman of Strategic Planning Committee
- 2014 – Present Member of Risk Management Committee
- 2009 – Present Chief Executive Officer
- 2008 – Present Director / Chairman of Executive Committee

Position in Subsidiary of the Company

Subsidiaries No. 1, 3-5, 7-10, 14-16, 18-20, 22-23, 25, 28, 31, 37-38 and 50
(Refer to the Information of companies which EA holds shares more than 10 percent of total paid up capital)

Position in Other Listed Companies

Jul 2020 – Present Director,
Nex Point PCL.

Position in Non Listed Companies/ Other Organizations

- President of Institute of Industrial Energy,
The Federation of Thai Industries
- Director, T Health Products Co., Ltd.
- Director, AekYingKrit Holding Co., Ltd. / Eternity Holding Co., Ltd. /
SPBL Holding Co., Ltd.

Shareholding in EA

(including spouse/ minor children/ nominee)

• Shareholding as of 6 Jan, 2020 : 1,534,189,993 shares (41.1310%)

Held personally : 876,436,386 shares (23.4969%)
Held by trustee : 632,770,000 shares (16.9643%)
Held by spouse : 24,983,607 shares (0.6698%)

• Shareholding as at the end of 2020 : 1,534,189,993 shares (41.1310%)

Held personally : 876,436,386 shares (23.4969%)
Held by trustee : 632,770,000 shares (16.9643%)
Held by spouse : 24,983,607 shares (0.6698%)

• Share Increase / (Decrease) : -None-

(Please refer to "Report of Securities Holding" Section, Page 114)

Relationship with other Directors and Management

- Brother of Mr.Somboon Ahunai
(Director, Member of Executive Committee)
- Brother of Ms.Supaporn Ahunai (Vice President – Quality, Health,
Safety and Environment Department)

Meeting Attendance in 2020

• Board of Directors Meeting :	5/8	Meetings
• Risk Management Committee Meeting :	3/3	Meetings
• Strategic Planning Committee Meeting :	2/2	Meetings
• Executive Committee Meeting :	5/12	Meetings

**Mr. Amorn Sapthaweekul**

**Director (Authorized Director) / Member of Risk
Management Committee / Member of Remuneration Committee
/ Member of Strategic Planning Committee / Member of
Executive Committee / Deputy CEO / Acting Vice President -
Quality Control Department**

Date of Appointment: 30 March 2012

Age: 46 years

Education

- Master of Science in Finance, Chulalongkorn University
- Bachelor of Business Administration (Finance and Banking),
Thammasat University

Training**By Thai Institute of Directors (IOD)**

- Director Accreditation Program (DAP) Class 98/2012

Other Training

- Top Executive Program in Industrial Development and Investment
Class 3 by Institute of Business and Industrial Development (IBID)
- The Executive Program in Energy Literacy for a Sustainable
Future Class 14 by Thailand Energy Academy (TEA)
- TFRS 9 Training by Pricewaterhouse Coopers ABAS Co., Ltd.
- Research, Development and Intangible Assets Workshop
by Pricewaterhouse Coopers ABAS Co., Ltd.

Work Experiences during 5 years**Position in the Company**

May 2020 – Present	Member of Strategic Planning Committee
2015-Present	Acting Vice President - Quality Control Department
2014-Present	Member of Risk Management Committee / Member of Remuneration Committee / Deputy CEO
2012-Present	Director / Member of Executive Committee

Position in Subsidiary of the Company

Subsidiaries No. 1-5, 7-10, 14-16, 18-39, 41-42, 44-46 and 49-53
(Refer to the Information of companies which EA holds shares more than 10 percent of total paid up capital)

Position in Other Listed Companies

Jul 2020 – Present Director / Member of Executive Committee
Nex Point PCL.

Position in Non Listed Companies/ Other Organizations

2020 - 2022	Vice Chairman of Energy Storage System of Renewable Energy Industry Club, The Federation of Thai Industries
Oct 2020 - Present	Chairman of the Board of Directors, TF Tech Holding Co., Ltd.
Dec 2019 - Present	Directors, TF Tech Co., Ltd.
2019 - Present	Director, Advance Finance PCL.
2014 - Present	Director, Watabak Wind Co., Ltd.

Shareholding in EA

(including spouse/ minor children/ nominee)

• Shareholding as of 6 January, 2020 : 123,201,103 shares (3.303%)

Held personally	: 74,968,316 Shares (2.0099%)
Held by custodian	: 25,000,000 Shares (0.6702%)
Held by spouse	: 23,232,787 Shares (0.6229%)

• Shareholding as at the end of 2020 : 125,791,403 shares (3.3724%)

Held personally	: 74,968,316 Shares (2.0099%)
Held by custodian	: 25,000,000 Shares (0.6702%)
Held by spouse	: 25,823,087 Shares (0.6923%)

• Share Increase / (Decrease) : 2,590,300 shares (0.0694%)

Held personally	: -None-
Held by custodian	: -None-
Held by spouse	: 2,590,300 Shares (0.0694%)

(Please refer to "Report of Securities Holding" Section, Page 114)

Relationship with other Directors and Management

-None-

Meeting Attendance in 2020

• Board of Directors Meeting :	7/8 Meetings
• Risk Management Committee Meeting :	3/3 Meetings
• Remuneration Committee Meeting :	2/2 Meetings
• Strategic Planning Committee Meeting :	2/2 Meetings
• Executive Committee Meeting :	11/12 Meetings



Mr. Wutthilerd Chiannilkulchai

Director (Authorized Director) / Member of Risk Management Committee / Member of Executive Committee (Non-Executive Director)

Date of Appointment: 12 March 2008

Age: 50 years

Education

- Master of Science in Computer and Engineering Management, Assumption University
- Bachelor of Accountancy, Chulalongkorn University

Training

- By Thai Institute of Directors (IOD)
- Director Accreditation Program (DAP) Class 71/2008

Work Experiences during 5 years

Position in the Company

2014-Present	Member of Risk Management Committee
2008-Present	Director / Member of Executive Committee

Position in Subsidiary of the Company

Subsidiaries No. 1, 8-9, 14-16, 22-24, 28, 33-38, 47-48 and 50-53
(Refer to the Information of companies which EA holds shares more than 10 percent of total paid up capital)

Position in Other Listed Company

-None-

Position in Non Listed Companies/ Other Organizations

2020-Present	Director, Window Asia Co., Ltd.
2004-Present	Director, Perfect Oil Co., Ltd.
2001-Present	Director, Power 10 Co., Ltd. / Double 10 Co., Ltd. / Famous 10 Co., Ltd. / Mitsiamoil Co., Ltd.
1995-Present	Director, Chalee Trading Co., Ltd. / Ma Jarearn Co., Ltd. / Sueb Nueng Karn Kha Co., Ltd. / Two Plus One Oil Co., Ltd.
1994-Present	Director, Malee Oil Co., Ltd. / C.C. Oil Co., Ltd.

Shareholding in EA

(including spouse and minor children)

• Shareholding as of 6 Jan, 2020 : 15,332,849 shares (0.4111%)

Held personally	: 15,332,849 shares (0.4111%)
Held by spouse	: -None-

• Shareholding as at the end of 2020 : 15,332,849 shares (0.4111%)

Held personally	: 15,332,849 shares (0.4111%)
Held by spouse	: -None-

• Share Increase / (Decrease) : -None-

(Please refer to "Report of Securities Holding" Section, Page 114)

Relationship with other Directors and Management

-None-

Meeting Attendance in 2020

• Board of Directors Meeting	: 8/8 Meetings
• Risk Management Committee Meeting	: 3/3 Meetings
• Executive Committee Meeting	: 11/12 Meetings



Mr. Sutham Songsiri

Director /Member of Risk Management Committee / Member of Remuneration Committee / Member of Corporate Governance Committee / Member of Strategic Planning Committee / Member of Executive Committee (Non-Executive Director)

Date of Appointment: 12 March 2008

Age: 82 years

Education

- Master of Economics, San Francisco State University
- Bachelor of Economics, Lincoln University
- Strategy Formulation and Execution, Columbia University, USA
- Kaplan -Norton Master Class to Mastering New Management System Boston, USA
- Change Management Course Massachusetts Institute of Technology USA

Training

By Thai Institute of Directors (IOD)

- Directors Certification Program (DCP) Class 97/2007
- Role of the Chairman Program (RCP) Class 22/2009
- Role of the Nomination and Governance Committee (RNG) Class 1/2001

Other Training

- Internal control and Risk management / Value adding support strategic management held by Energy Absolute PCL.

Work Experiences during 5 years

Position in the Company

May 2020-Present	Member of Strategic Planning Committee
Feb 2020-Present	Member of Risk Management Committee
2015-Present	Member of Corporate Governance Committee
2014-Present	Member of Remuneration Committee
2008-Present	Director / Member of Executive Committee

Position in Subsidiary of the Company

Subsidiaries No. 33-36, 38 and 50

(Refer to the Information of companies which EA holds shares more than 10 percent of total paid up capital)

Position in Other Listed Company

-None-

Position in Non Listed Companies/ Other Organizations

Dec 2020-Present	Member of Corporate Governance and Social Responsibility Committee, Thai Public Broadcast Service (Thai PBS)
2019- Present	Director, Public Policy for Social Governance Foundation

Shareholding in EA

(including spouse and minor children)

• Shareholding as of 6 Jan, 2020 : 1,650,000 shares (0.0442 %)

Held personally : 1,650,000 shares (0.0442 %)

Held by spouse : -None-

• Shareholding as at the end of 2020 : 1,300,000 shares (0.0349 %)

Held personally : 1,300,000 shares (0.0349 %)

Held by spouse : -None-

• Share Increase / (Decrease) : (350,000) shares (0.0093 %)

Held personally : (350,000) shares (0.0093 %)

Held by spouse : -None-

(Please refer to "Report of Securities Holding" Section, Page 114)

Relationship with other Directors and Management

-None-

Meeting Attendance in 2019

• Board of Directors Meeting :	8/8 Meetings
• Risk Management Committee Meeting :	1/3 Meetings
• Remuneration Committee Meeting :	2/2 Meetings
• Corporate Governance Committee Meeting :	4/4 Meetings
• Strategic Planning Committee Meeting :	2/2 Meetings
• Executive Committee Meeting :	11/12 Meetings



ACM. Chainan Thumasujarit

**Independent Director / Chairman of Audit Committee /
Chairman of Risk Management Committee / Member of
Nomination Committee / Member of Remuneration Committee /
Member of Corporate Governance Committee
(Non- Executive Director)**

Date of Appointment: 7 August 2012

Age: 71 years

Education

- Bachelor of Engineering (the 2nd Class Honors), Chulalongkorn University
- Bachelor of Arts in Political Science, Ramkhamhaeng University
- Bachelor of Business Administration (General Managements), Ramkhamhaeng University
- Bachelor of Business Administration (the 1st Class Honors), Sukhothai Thammarathirak Open University
- Diploma, The National Defence College Class 2003, National Defence College (NDC)
- Naval Command and staff college, Institute of Advanced Naval Studies
- M. Eng. Asian Institute of Technology (A.I.T.)
- D. Eng. (Candidate) Asian Institute of Technology (A.I.T.)

Training

By Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP) Class 67/2007
- Audit Committee Program (ACP) Class 22/2008
- Monitoring of the Quality of Financial Reporting (MFR) Class 16/2012
- Risk Management Program for Corporate Leader (RCL) class 13/2018

Other Training

- Drafting, Negotiating & Managing, Successful Construction Contracts" Summit 2015 held by Omega World Class Research Institute
- AC HOT UPDATE - Prepare for Next Generation CG and Sustainability held by Federation of Accounting Professions Under The Royal Patronage of His Majesty The King
- Forensic Data Analytics: Fighting Fraud with Big Data held by PricewaterhouseCoopers ABAS Co., Ltd.
- Intelligent City and Information Center organized held by Institute of Electrical and Electronics Engineers of Thailand
- Internal control and Risk management / Value adding support strategic management held by Energy Absolute PCL.
- The side nobody knows EV transformation in Thai way held by Chulalongkorn University Engineering Alumni
- Electric Vehicles (EVs): Technology, Design, Infrastructure and Applications held by IEEE Thailand Section, IEEE Power & Energy Society –Thailand Chapter and Electric Vehicle Association of Thailand

Work Experiences during 5 years

Position in the Company

- 2016-Present Member of Remuneration Committee
- 2015-Present Member of Corporate Governance Committee
- 2014-Present Chairman of Audit Committee /
Chairman of Risk Management Committee /
Member of Nomination Committee
- 2012-Present Independent Director
- 2012-2014 Member of Audit Committee

Position in Subsidiary of the Company

-None-

Position in Other Listed Company

-None-

Position in Non Listed Companies/ Other Organizations

- 2019-Present Chairman of the Board of Directors, Gold Shores Co., Ltd.
- 2018-Present Chairman of the Board of Directors,
Asia waste management Co., Ltd. /
Universal Waste Management Co., Ltd.
Director, Asia recycle Technology Co., Ltd.
- 2006-Present Retired Government Official, Office of the Permanent Secretary, Ministry of Defence
- 1974-Present Freelance Structural Engineer, Office of the Permanent Secretary, Ministry of Defence

Shareholding in EA

(including spouse and minor children)

- Shareholding as of 6 January, 2020 : -None-
- Shareholding as at the end of 2020 : -None-
- Share Increase / (Decrease) : -None-

(Please refer to "Report of Securities Holding" Section, Page 114)

Relationship with other Directors and Management

-None-

Meeting Attendance in 2020

- Board of Directors Meeting : 8/8 Meetings
- Audit Committee Meeting : 13/13 Meetings
- Remuneration Committee Meeting : 2/2 Meetings
- Nomination Committee Meeting : 5/5 Meetings
- Corporate Governance Committee Meeting : 4/4 Meetings
- Risk Management Committee Meeting : 3/3 Meetings



M.R. Bravochat Chatchai

Independent Director / Member of Audit Committee / Chairman of Nomination Committee / Chairman of Corporate Governance Committee / Chairman of Remuneration Committee / Member of Risk Management Committee (Non- Executive Director)

Date of Appointment: 26 November 2010

Age: 60 years

Education

- Master of Arts, Phranakhon Rajabhat University
- Bachelor of Laws, Ramkhamhaeng University

Training

By Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP) Class 98/2012
- Audit Committee Program (ACP) Class 41/2012
- Role of Nomination and Governance Committee (RNG) Class 7/2015
- Risk Management Program for Corporate Leader (RCL) Class 13/2018

Other Training

- AC HOT UPDATE - Prepare for Next Generation CG and Sustainability held by Federation of Accounting Professions Under The Royal Patronage of His Majesty The King
- Forensic Data Analytics: Fighting Fraud with Big Data held by PricewaterhouseCoopers ABAS Co., Ltd.
- Internal control and Risk management / Value adding support strategic management held by Energy Absolute PCL.

Work Experiences during 5 years

Position in the Company

2020-Present	Chairman of Remuneration Committee / Chairman of Corporate Governance Committee
2014-Present	Chairman of Nomination Committee / Member of Risk Management Committee
2010-Present	Independent Director / Member of Audit Committee
2016-2020	Member of Remuneration Committee
2015-2020	Member of Corporate Governance Committee

Position in Subsidiary of the Company

-None-

Position in Other Listed Company

-None-

Position in Non Listed Companies/ Other Organizations

1999- Present Director, M.R. Bravochat Chatchai
Laws Office

Shareholding in EA

(including spouse and minor children)

- Shareholding as of 6 January, 2020 : -None-
- Shareholding as at the end of 2020 : -None-
- Share Increase / (Decrease) : -None-

(Please refer to "Report of Securities Holding" Section, Page 114)

Relationship with other Directors and Management

-None-

Meeting Attendance in 2020

- Board of Directors Meeting : 8/8 Meetings
- Audit Committee Meeting : 13/13 Meetings
- Remuneration Committee Meeting : 2/2 Meetings
- Nomination Committee Meeting : 5/5 Meetings
- Corporate Governance Committee Meeting : 4/4 Meetings
- Risk Management Committee Meeting : 3/3 Meetings



Pol.Gen. Phatcharavat Wongsuwan

Independent Director / Member of Risk Management Committee (Non- Executive Director)

Date of Appointment: 18 April 2014

Age: 71 years

Education

- Master of Arts (Social Development), Kasetsart University
- Royal Police Cadet Academy Class 25
- Diploma, The National Defence College, The State, Private Sector and Political Sectors Class 2, National Defence College

Training

By Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP)

Work Experiences during 5 years

Position in the Company

2014-Present Independent Director

2014-Present Member of Risk Management Committee

Position in Subsidiary of the Company

-None-

Position in Other Listed Company

2019-Present Member of the Corporate Social Responsibility and Sustainable Development Committee, Charoen Pokphand Foods PCL.

2017-Present Vice Chairman of the Board of Director, Country Group Development PCL.

2016-Present Independent Director/ Chairman of the Remuneration and Nominating Committee, Charoen Pokphand Foods PCL.

2013-Present Independent Director/ Chairman of the Remuneration and Nominating Committee / Member of Sustainability and Corporate Governance Committee, CP ALL PCL.

Position in Non Listed Companies / Other Organizations

-None-

Shareholding in EA

(including spouse and minor children)

• Shareholding as of 6 Jan, 2020 : 1,140,000 shares (0.0305%)

Held personally : 1,140,000 shares (0.0305%)

Held by spouse : -None-

• Shareholding as at the end of 2020 : 1,140,000 shares (0.0305%)

Held personally : 1,140,000 shares (0.0305%)

Held by spouse : -None-

• Share Increase / (Decrease) : -None-

(Please refer to "Report of Securities Holding" Section, Page 114)

Relationship with other Directors and Management

-None-

Meeting Attendance in 2020

- Board of Directors Meeting : -/8 Meetings
- Risk Management Committee Meeting : -/3 Meetings



Mr. Somboon Ahunai

Director / Member of Executive Committee (Non-Executive Director)

Date of Appointment: 22 April 2015

Age: 65 years

Education

- Master of Business Administration, Jacksonville State University
- Bachelor of Science (cum laude) in Chemical Engineering, University of Alabama

Training

By Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP) Class 47/2005
- Audit Committee Program (ACP) Class 12/2006

Other Training

- Internal control and Risk management / Value adding support strategic management held by Energy Absolute PCL.

Work Experiences during 5 years

Position in the Company

2017-Present Member of Executive Committee

2015-Present Director

Position in Subsidiary of the Company

-None-

Position in Other Listed Company

-None-

Position in Non Listed Companies/ Other Organizations

2000-Present Director, Songphon Co., Ltd.

1983-Present Director, Ruammit Panich Co., Ltd.

2004-2015 Executive Vice President (Director), Small and Medium Enterprise Development Bank of Thailand

Shareholding in EA

(including spouse and minor children)

• Shareholding as of 6 Jan, 2020 : 10,093,951 shares (0.2706%)

Held personally : 10,093,951 shares (0.2706%)

Held by spouse : -None-

• Shareholding as at the end of 2020 : 8,293,951 Shares (0.2224%)

Held personally : 8,293,951 Shares (0.2224%)

Held by spouse : -None-

• Share Increase / (Decrease) : (1,800,000) Shares (0.0482%)

Held personally : (1,800,000) Shares (0.0482%)

Held by spouse : -None-

(Please refer to "Report of Securities Holding" Section, Page 114)

Relationship with other Directors and Management

- Brother of Mr.Somphote Ahunai (Director / Vice Chairman of the Board / Chairman of Strategic Planning Committee / Member of Risk Management Committee / Chairman of Executive Committee / Chief Executive Officer)

- Brother of Ms.Supaporn Ahunai (Vice President – Quality, Health, Safety and Environment Department)

Meeting Attendance in 2020

- Board of Directors Meeting : 7/8 Meetings
- Executive Committee Meeting : 12/12 Meetings



Mr. Amornsuk Noparumpa

Independent Director (Non- Executive Director)

Date of Appointment: 27 April 2017

Age: 75 years

Education

- Barrister-at-Law, Lincoln's Inn, London
- Barrister-at-Law, Council of Legal Education Thailand
- Bachelor of Laws (Honors), Thammasat University
- Diploma, The National Defence College Class 399

Training

By Thai Institute of Directors (IOD)

- Director Certification Program (DCP) Class 30/2003
- Audit Committee Program (ACP) Class 23/2008
- Role of Compensation Committee Program (RCC) Class 9/2009
- Role of the Chairman Program (RCP) 36/2015

Other Training

- Security Psychology Program Class 31
- Senior Management Program Class 7

Work Experiences during 5 years

Position in the Company

2017-Present Independent Director

Position in Subsidiary of the Company

-None-

Position in Other Listed Company

2005-Present Chairman of the Board of Directors / Independent Director
L.P.N. Development PCL.

1998-Present Chairman of the Audit Committee / Independent Director / Member of Nomination Remuneration and Corporate Governance Committee / Regional Container Lines PCL.

Position in Non Listed Companies / Other Organizations

-None-

Shareholding in EA

(including spouse and minor children)

- Shareholding as of 6 January, 2020 : -None-
- Shareholding as at the end of 2020 : -None-
- Share Increase / (Decrease) : -None-

(Please refer to "Report of Securities Holding" Section, Page 114)

Relationship with other Directors and Management

-None-

Meeting Attendance in 2020

- Board of Directors Meeting : 3/8 meetings



Mr. Somphop Keerasuntonpong

Independent Director / Member of Audit Committee / Member of Nomination Committee / Member of Remuneration Committee / Member of Corporate Governance Committee (Non-Executive Director)

Date of Appointment: 23 April 2020

Age: 53 years

Education

- Bachelor of Engineering (Mechanical Engineering), King Mongkut's University of Technology Thonburi
- MBA, General Administration, Pittsburg State University, U.S.A.

Training

By Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP) Class 16/2004
- Corporate Governance Program for Capital Market Intermediaries (CGI) Class 3/2015

Other Training

- Executive Course Class 9/2009 Capital Market Academy, the Stock Exchange of Thailand
- Program for Senior Executive on Justice Administration, Class 23, National Justice Academy, Office of the Judiciary, 2019

Work Experiences during 5 years

Position in the Company

April 2020-Present Independent Director / Member of Audit Committee / Member of Nomination Committee / Member of Remuneration Committee / Member of Corporate Governance Committee

Position in Subsidiary of the Company

-None-

Position in Other Listed Company

2009-Present Director (Authorized Director) / President, Finansia Syrus Securities PCL.

Position in Non Listed Companies/ Other Organizations

2018-Present Chairman of Investment Banking Club, Association of Thai Securities Companies

Shareholding in EA

(including spouse and minor children)

- Shareholding as of 23 April, 2020 : -None-
- Shareholding as at the end of 2020 : -None-
- Share Increase / (Decrease) : -None-

(Please refer to "Report of Securities Holding" Section, Page 114)

Relationship with other Directors and Management

-None-

Meeting Attendance in 2020*

- Board of Directors Meeting : 4/8 Meetings
- Audit Committee Meeting : 8/13 Meetings
- Remuneration Committee Meeting : 1/2 Meetings
- Nomination Committee Meeting : 3/5 Meetings
- Corporate Governance Committee Meeting : 2/4 Meetings

Remark: * Appointed as Director on April 23, 2020

Executives



Mr. Somphote Ahunai
Chief Executive Officer



Mr. Amorn Saphaweeikul
Deputy CEO /
Acting Vice President -
Quality Control Department



Ms. Ailada Ounchareonpornphat
Assistant to Chief Executive Officer Support /
Acting Head of Accounting and
Finance Department /
Acting Vice President - Information Technology
and System Development Department



Mr. Anuparp Leelaratsameephanit
Senior Vice President -
Accounting and Finance



Mr. Vasu Klomkliang
Senior Vice President -
Strategy Development
and Investment Planning Department



Ms. Nopamas Choomklang
Vice President - Accounting

Ms. Supaporn Ahunai

Special Assistant to CEO /
Vice President - Quality, Health, Safety and
Environment Department

Ms. Yaowalug Pukpikul

Corporate Secretary /
Secretary of the Board of Directors /
Secretary of Executive Committee /
Secretary of Risk Management Committee /
Secretary of Corporate Governance Committee /
Secretary of Strategic Planning Committee /
Vice President - Corporate Secretary,
Compliance and Contract Management

Ms. Omsin Siri

Vice President -
Corporate Communication Department

Ms. Wimolmas Wongmakornpan

Vice President -
Creating Shared Value Department

Mrs. Porntip Sangchan

Vice President - Human Resource and
Administration Department /
Secretary of the Remuneration Committee

Mr. Narawut Tantanurak

Vice President - Internal Audit
and Risk Management Department /
Secretary of Audit Committee

Mr. Kitiphong Tuesataya

Vice President - Purchasing
and Procurement Department

Mr. Cheerapan Panyanan

Vice President - Factory Department

Mr. Kawin Kaewkong

Vice President -
Sales and Marketing Department

Mr. Chatrapon Sripratum

Vice President - Strategy Development
and Investment Planning Department

Mr. Saranyoo Sornkamnerd

Acting Vice President - Facility and
Asset Management Department



BIO Diesel - PCM



Solar Farm



Wind Farm



Charging Station

ENERGY ABSOLUTE

Energy for the Future



Energy Storage System



MINE SPA1



MINE Smart Ferry



MINE Bus

General and other important information

General information

Company Name : Energy Absolute Public Company Limited

Security Name : EA

Company Registration Number : 0107551000061

Head Office : No. 89 AIA Capital Center Building, 16th Floor, Ratchadapisek Road, Din Daeng Sub-district, Din Daeng District, Bangkok 10400

Tel : +66 2248 2488-92, +66 2002 3667-9

Fax: +66 2248 2493

Website : www.energyabsolute.co.th

: Corporate Communications Department

Tel : +66 2248 2488-92, +66 2002 3667-9 # 19531

Fax : +66 2248 2493

Email : ir@energyabsolute.co.th

Nature of Business : 1.) Biodiesel Business (through the Company and Subsidiaries)

- Produces and Distributes biodiesel (B100), purified glycerin and byproducts
- Produces and Distributes Phase Change Material: PCM

2.) Renewable Power Plant Business (through Subsidiaries)

- Produces and Distributes solar electric power
- Produces and Distributes wind electric power

3.) Other Businesses (through Subsidiaries)

- Develop, Produces and Distributes of batteries
- Electric Charging Station Business (for electric vehicle), Electronic transaction
- Research and Development Business
- Others

Registered Capital : THB 373,000,000.- (3,730,000,000 ordinary shares, with a par value of THB 0.10 per share)

Paid-up Capital : THB 373,000,000.- (3,730,000,000 ordinary shares, with a par value of THB 0.10 per share)
(as of December 31, 2020)

Plant Location / Project Office

Biodiesel Business

- Biodiesel (B100), Purified Glycerin and Byproducts Plant

Project Office / Project Location:

507, Moo 9, Soi 7, Kabinburi Industrial Estate, Kabin Buri - Nakhon Ratchasima Road, Km.12, Nong Ki Sub-district, Kabin Buri District, Prachin Buri 25110

- Phase Change Material (PCM) Plant:

Project Office / Project Location:

WHA Eastern Industrial Estate (Map Ta Phut), 88, Soi G5, Pakorn Songkrohraj Road, Map Ta Phut sub-district, Muang Rayong district, Rayong 21150

Renewable Power Plant Business

- **Solar Power Plant 8 megawatts /**
Lopburi Province
Project Office / Project Location:
188, 188/2, Moo 3, Khok Tum - Pa Sak River Road
(Highway No. 3333) Km.21, Phatthana Nikhom sub-
district, Phatthana Nikhom District, Lop Buri Province
15140
- **Solar Power Plant 90 megawatts /**
Nakhon Sawan Province
Project Office / Project Location:
99/9, 99/10, Moo 5, Huawai Sub-District, Takhli
district, Nakhon Sawan 6014
- **Solar Power Plant 90 megawatts /**
Lampang Province
Project Office:
333, Moo 1, Ban-uam Sub-district, Mueang Lampang
District, Lampang 52100
Project Location:
Located at Ban-uam sub-district, Ban-Pao district,
Mueang Lampang district and Nonglom sub-district,
Hangchat district, Lampang
- **Solar Power Plant 90 megawatts /**
Phitsanulok Province
Project Office / Project Location:
88, Moo 11, Matong Sub-district, Phrom Phiram District,
Phitsanulok 65180
- **Wind Power Plant 126 megawatts /**
Nakhon Si Thammarat and Songkhla province
Project Office:
212, Moo 2, Hua Sai sub-district, Hua Sai district,
Nakhon Sithammarat 80170
Project Location: Located at Hua Sai district, Pak
Panang District, Nakhon Si Thammarat and Ranot
district, Songkhla
- **Wind Power Plant 260 megawatts /**
Chaiyaphum province
Project Office:
8/8, Moo 8, Tako Thong sub-district, Sap Yai district,
Chaiyaphum 36130
Project Location:
Located at Thep Sathit district, Nong Bua Ra haew
district and Bamnet Narong district, Chaiyaphum

Information of companies which the Company holds shares more than 10 percent of total paid up capital.

As of December 31, 2020, The Company had 49 subsidiaries (comprising 21 Direct Subsidiaries and 28 Indirect Subsidiaries) 3 associated companies and 1 Joint Venture. Details are as follows:

Company Name	Abbrev.	Registered Capital (THB)	Number of Share sold (Share)	Par Value (THB/Share)	Number of Shareholding (Share)	Shareholding (Direct / Indirect) (%)	Office Location
Biodiesel Business							
Subsidiaries (Direct)							
1. EA Bio Innovation Co., Ltd.	EBI	400,100,000	40,010,000	10	40,009,997	99.99	89 AIA Capital Center Building, 16 th Floor, Din Dang Sub-District, Din Dang District, Bangkok 10400 Tel : +66 2248 2488-92, +66 2002 3667-9 Fax : +66 2248 2493
2. EA Palm Network Co., Ltd.	EPN	1,200,000,000	120,000,000	10	119,999,997	99.99	
Subsidiaries (Indirect)							
3. Combine Energy Tech Co., Ltd.	CET	181,000,000	1,810,000	100	Held by EPN : 1,267,000	70.00	
4. Larp Pakdee Palm Co., Ltd.	LPD	310,000,000	3,100,000	100	Held by EPN : 2,324,999	74.99	No. 456 Moo 3 Khao Khen Sub-district, Plai Phraya District, Krabi Province 81160 Tel : 075 656 598 Fax : 075 6569 597
5. Kanjanadit Palm Oil Co., Ltd.	KJD	195,000,000	1,950,000	100	Held by EPN : 1,462,500	75.00	No. 179/1 Tha U Thae Sub-district, Kanchanadit District, Suratthani Province 84160 Tel : 077 953 012 Fax : 077 953 012

Company Name	Abbrev.	Registered Capital (THB)	Number of Share sold (Share)	Par Value (THB/Share)	Number of Shareholding (Share)	Shareholding (Direct / Indirect) (%)	Office Location
Renewable Power Plant Business							
Subsidiaries (Direct)							
6. Surachai (1997) Co., Ltd.	SU97	190,500,000	190,500	1000	190,300	99.90	89 AIA Capital Center Building, 16 th Floor, Din Dang Sub-District, Din Dang District, Bangkok 10400
7. EA Renewable Holding Co., Ltd.	ERH	7,429,200,000	742,920,000	10	742,919,997	99.99	
8. EA Solar Nakornawan Co., Ltd.	ESN	5,590,000,000	559,000,000	10	558,999,998	99.99	
9. Thepsathit Wind Farm Co., Ltd.	TWFF	2,000,000	20,000	100	19,998	99.99	Tel : +66 2248 2488-92, +66 2002 3667-9 Fax : +66 2248 2493
10. Wind Nayaengklak Co., Ltd.	WNYK	1,879,500,000	187,950,000	10	187,949,997	99.99	
11. Wind Progressive Co., Ltd.	WPGS	1,879,500,000	187,950,000	10	187,949,997	99.99	
12. Wind Tossaphum Co., Ltd.	WTSP	1,670,000,000	167,000,000	10	166,999,997	99.99	
Subsidiaries (Indirect)							
13. EA Solar Co., Ltd.	ESLO	550,000,000	Common Stock 4,480,000 Preferred Stock 1,020,000	Common Stock 100 Preferred Stock 100	Held by EA(Common Stock) : 2,694,999 Held by SUSO : 2,805,000 (Common Stock : 1,785,000 Preferred Stock : 1,020,000)	Direct : 49.00 Indirect : 51.00	89 AIA Capital Center Building, 16 th Floor, Din Dang Sub-District, Din Dang District, Bangkok 10400 Tel : +66 2248 2488-92, +66 2002 3667-9 Fax : +66 2248 2493
14. Surachai Solar (1997) Co, Ltd.	SUSO	179,500,000	179,500	1,000	Held by SU97 : 179,498	99.99	
15. EA Solar Lampang Co., Ltd.	ESL	2,125,000,000	212,500,000	10	Held by ERH : 212,499,997	99.99	
16. EA Solar Phitsanulok Co., Ltd.	ESP	2,125,000,000	212,500,000	10	Held by ERH : 212,499,997	99.99	
17. EA Wind Hadkugphan 2 Co., Ltd.	EWHK 2	123,065,000	12,306,500	10	Held by ERH : 12,306,497	99.99	
18. EA Wind Hadkugphan 3 Co., Ltd.	EWHK 3	3,120,000,000	312,000,000	10	Held by ERH : 311,999,997	99.99	
19. Nayaengklak Development Co., Ltd.	NYKD	939,000,000	93,900,000	10	Held by WNYK : 93,899,997	99.99	
20. Nayaengklak Wind Power Co., Ltd.	NWP	939,000,000	93,900,000	10	Held by WNYK : 93,899,997	99.99	
21. Benjarat Development Co., Ltd.	BJRD	876,000,000	87,600,000	10	Held by WPGS : 87,599,997	99.99	
22. Pongnok Development Co., Ltd.	PND	1,002,000,000	100,200,000	10	Held by WPGS : 100,199,997	99.99	
23. Banchuan Development Co., Ltd.	BCD	1,669,000,000	166,900,000	10	Held by WTSP : 166,899,997	99.99	
24. Subyai Wind Farm(1) Co., Ltd.	SWF	2,000,000	20,000	100	Held by ERH : 19,997	99.99	

Company Name	Abbrev.	Registered Capital (THB)	Number of Share sold (Share)	Par Value (THB/Share)	Number of Shareholding (Share)	Shareholding (Direct / Indirect) (%)	Office Location
Other Businesses							
Subsidiaries (Direct)							
25. Energy Mahanakorn Co., Ltd.	EMN	200,000,000	20,000,000	10	Held by EA : 9,999,997 Held by EBI : 422,222	Direct : 50.00 Indirect : 2.11	No. 518, 5 th Floor, Ratchadapisek Road, Samsen Nok Sub-District, Huai Khwang district, Bangkok 10310 Tel : +66 2087 6300, +66 2087 6311
26. Energy Solution Management Co., Ltd.	ESM	530,000,000	5,300,000	100	5,299,995	99.99	89 AIA Capital Center Building, 16 th Floor, Din Dang Sub-District, Din Dang District, Bangkok 10400 Tel : +66 2248 2488-92, +66 2002 3667-9 Fax : +66 2248 2493
27. Emma Corporation Co., Ltd.	EMMA	100,000	1,000	100	500	50.00	
28. Green Technology Research Co., Ltd.	GTR	112,000,000	11,200,000	10	11,199,997	99.99	
29. Mine Mobility Research Co., Ltd.	MMR	400,000,000	40,000,000	10	39,999,997	99.99	
30. Energy Beyond Research Co., Ltd.	EBR	20,000,000	2,000,000	10	1,999,997	99.99	
31. EA Mobility Holding Co., Ltd.	EMH	3,348,470,000	334,847,000	10	334,846,997	99.99	
32. Smart Waste Management Co., Ltd.	SWM	10,000,000	1,000,000	10	999,997	99.99	
33. EA Waste Management Co., Ltd.	EWM	100,000	10,000	10	9,997	99.97	
34. Anita Technologies Inc.	Anita Taiwan	2,000,000,000 ^{1/}	147,249,406	10 ^{1/}	Held by EA : 96,609,821 Held by EA BV 1 : 8,929,000 Held by EA BV 2 : 4,465,000	Direct : 65.61 Indirect : 9.10	No.6, Chazhuan Rd., Gueishan, Taoyuan County 33349, Taiwan Tel : +886-3-2631212 #133 Fax : +886-3-3200638 Website : www.amititech.com
35. EA CON DAO (SG) PTE. LTD.	EA Con Dao	10,000 ^{2/}	10,000	1 ^{2/}	9,500	95.00	No. 8 MARINA BOULEVARD #05-02 MARINA BAY FINANCIAL CENTRE SINGAPORE (018981)
36. EA BV Holding Limited	BVI Holding	500,000 ^{3/}	50,000	10 ^{3/}	50,000	100	Tortola Pier Park, Building 1 Second Floor, Wickhams Cay I, Road Town, Tortola, British Virgin Islands

Remark: ^{1/} Taiwan Dollar ^{2/} Singapore Dollar ^{3/} United States Dollar

Company Name	Abbrev.	Registered Capital (THB)	Number of Share sold (Share)	Par Value (THB/Share)	Number of Shareholding (Share)	Shareholding (Direct / Indirect) (%)	Office Location
Subsidiaries (Indirect)							
37. Amita Technology (Thailand) Co., Ltd.	Amita-TH	2,400,000,000	240,000,000	10	Held by Amita-SG : 239,999,997	99.99	89 AIA Capital Center Building, 16 th Floor, Din Dang Sub-District, Din Dang District, Bangkok 10400
38. EV Now Co., Ltd.	EV Now	50,000,000	5,000,000	10	Held by EMH : 3,749,497	74.99	
39. E Smart Transport Co., Ltd.	EST	201,000,000	20,100,000	10	Held by EMH : 20,099,997	99.99	
40. Mine Mobility Corporation Co., Ltd.	MMC	550,000,000	55,000,000	10	Held by EMH : 54,999,997	99.99	Tel : +66 2248 2488-92, +66 2002 3667-9 Fax : +66 2248 2493
41. Absolute Assembly Co., Ltd.	AAB	1,500,000,000	150,000,000	10	Held by EMH : 82,499,998	54.99	
42. Associate Infinity Co., Ltd.	AI	10,000,000	100,000	100	Held by EWHK2 : 99,998	99.99	
43. EA Station Co., Ltd.	EAST	500,000	50,000	10	Held by EMN : 49,970	99.94	
44. Paypop Co., Ltd.	POP	100,000	10,000	10	Held by EMN : 9,997	99.97	No. 518, 5 th Floor, Ratchadapisek Road, Samsen Nok Sub-District, Huai Khwang district, Bangkok 10310
45. Chaophraya River Line Co., Ltd.	CRL	65,000,000	650,000	100	Held by EST : 649,998	99.99	Tel : +66 2087 6300, +66 2087 6311 No. 72 CAT Telecom Building, Wat Muang Alley (Charoenkrung), Bangrak Sub-District, Bangrak district, Bangkok 10500
46. AMITA NEW TECHNOLOGY PTE.LTD.	Amita-SG	71,366,279 ¹ / ₃	71,366,279	1 ¹ / ₃	Held by Amita -Taiwan : 71,366,279	100	Tel : +66 2105 4762 No.1 Robinson Road #17-00
47. Sun Field Investment Co., Ltd.	Sun Field	10,000,000 ¹ / ₃	10,000,000	1 ¹ / ₃	Held by Amita -Taiwan : 10,000,000	100	AIA Tower Singapore (048542) Equity Trust Chambers, P.O. Box 3269, Apia, Samoa
48. EA (BVI) 1 Limited	BVI 1	8,230,000 ¹ / ₃	823,000	10 ¹ / ₃	Held by BVI Holding : 823,000	100	Tortola Pier Park, Building 1
49. EA (BVI) 2 Limited	BVI 2	30,000 ¹ / ₃	3,000	10 ¹ / ₃	Held by BVI Holding : 3,000	100	Second Floor, Wickhams Cay I, Road Town, Tortola, British Virgin Islands

Remark: ¹ Taiwan Dollar ² Singapore Dollar ³ United States Dollar

Company Name	Abbrev.	Registered Capital (THB)	Number of Share sold (Share)	Par Value (THB/Share)	Number of Shareholding (Share)	Shareholding (Direct / Indirect) (%)	Office Location
Associates							
50. Wan Meng Automatic Precision Co., Ltd.	Wan Meng	100,000,000 / ¹	3,596,000	10 / ¹	Held by Amita Taiwan : 1,296,000	36.04	58-1, Alley 289, Lane 68, Ming Fu Rd. Sec. 3, Yangmaysi, Taoyuan, Taiwan
51. NEX Point PLC.	NEX	1,897,833,514	1,674,452,510	1	Held by ERH : 670,000,000	40.01	No. 999/999 Moo 4, Bangchalong Sub-district, Bang Phli District, Samutprakra Province Tel : +66 2026 3599 Fax : +66 2116 4878
52. TF Tech Holding Co., Ltd.	TFTH	200,000,000	2,000,000	100	Held by ERH : 800,000	40.00	No. 1010 Shinawatra Tower 3, 12 th Floor, Vibhavadi Rangsit Road, Chatuchak Sub-district, Charuchak District, Bangkok 10900 Tel : +66 2513 8989 Fax : +66 2513 9060
Joint Venture							
53. Shenzhen Atess Power Technology Co., Ltd.	Atess Power	3,600,000 / ³	The Company's investment amount is 1,387,500 USD			38.58	Room 203, 2 nd Floor, Building 5, Jiayu Industry Park, No. 28, Guangming, Xibianling, Shangwu Village, Shiyan Street, Baoan District, Shenzhen, China

Remark: /¹ Taiwan Dollar /² Singapore Dollar /³ United States Dollar

Other References

Securities Registrar

Name : Thailand Securities Depository Company limited (TSD)
Location : The Stock Exchange of Thailand Building
93 Ratchadaphisek Road, Din Daeng sub-district,
Din Daeng district Bangkok 10400
Telephone : +66 2009 9999
Website : www.set.or.th/tsd
E-mail : SETContactCenter@set.or.th

Debenture Registrar / Debenture Holders Representative

1.) Debenture No. 1/2016 (Tranche 3)

Debenture Registrar

Name : Siam Commercial Bank Public Company Limited
Location : Head Office No. 9, Ratchadapisek Road,
Chatuchak sub-district, Chatuchak district,
Bangkok 10900

Debenture Holder Representative

Name : Bank of Ayudhya Public Company Limited
Location : Head Office No. 1222, Rama 3 Road, Bang
Phong Pang sub-district, Yan Nawa district,
Bangkok 10120

2.) Debentures No. 1-3/2019 (Tranche 1, 2, 3)

Debenture Registrar

Name : Bank of Ayudhya Public Company Limited
Location : Head Office No. 1222, Rama 3 Road, Bang
Phong Pang sub-district, Yan Nawa district,
Bangkok 10120

Debenture Holder Representative

Name : Kiatnakin Bank Public Company Limited
Location : Head Office No. 209 KKP Tower Khwang
Khlontoe Nuea, Khet Watthana, Bangkok
10110

3.) Debentures No. 1-3/2020 (Tranche 1, 2, 3)

Debenture Registrar

Name : Kasikorn Thai Bank Public Company Limited
Location : Head Officer No. 1 Soi Rat Burana 27/1, Rat
Burana Road, Rat Burana Sub-district, Rat
Burana District, Bangkok 10140

Debenture Holder Representative

Name : Kiatnakin Bank Public Company Limited
Location : Head Office No. 209 KKP Tower Khwang
Khlontoe Nuea, Khet Watthana, Bangkok
10110

Audit Firm

Name : 1.) Miss Amornrat Permpoonwattanasook
Certified Public Accountant Registration No. 4599
2.) Mr. Boonrueng Lerdwiseswit
Certified Public Accountant Registration No. 6552
3.) Mr. Pongthavee Ratanakoses
Certified Public Accountant Registration No. 7795

PricewaterhouseCoopers ABAS Company Limited

Location : Bangkok City Tower, 15th Floor, No. 179/74-80,
South Sathorn Road, Thung Maha Mek sub-
district, Sathorn district, Bangkok 10120

Tel : +66 2344 1000, +66 2824 5000

Fax : +66 286 5050

Legal Consultant

Name : S.C. Law Office Company Limited

Location : 90/42 16th Floor, Sathorn Thani Building, North
Sathorn Road, Silom sub-district, Bangrak district,
Bangkok 10500

Tel : +66 2696 9696-97

Fax : +66 296 9698

Other information

The Company has been granted by the Securities and Exchange Commission (SEC) for issuance and offering the debentures.
(Refer to the Information of Securities and Shareholders Information-Other Securities)

Policy and Business Overview

Vision, Mission, Goal and Strategy of the Company and Subsidiaries

Vision

A leader in alternative energy business by using the modern technology and environmentally friendly for the best benefit of consumers, shareholders, partners, and fairness to employees

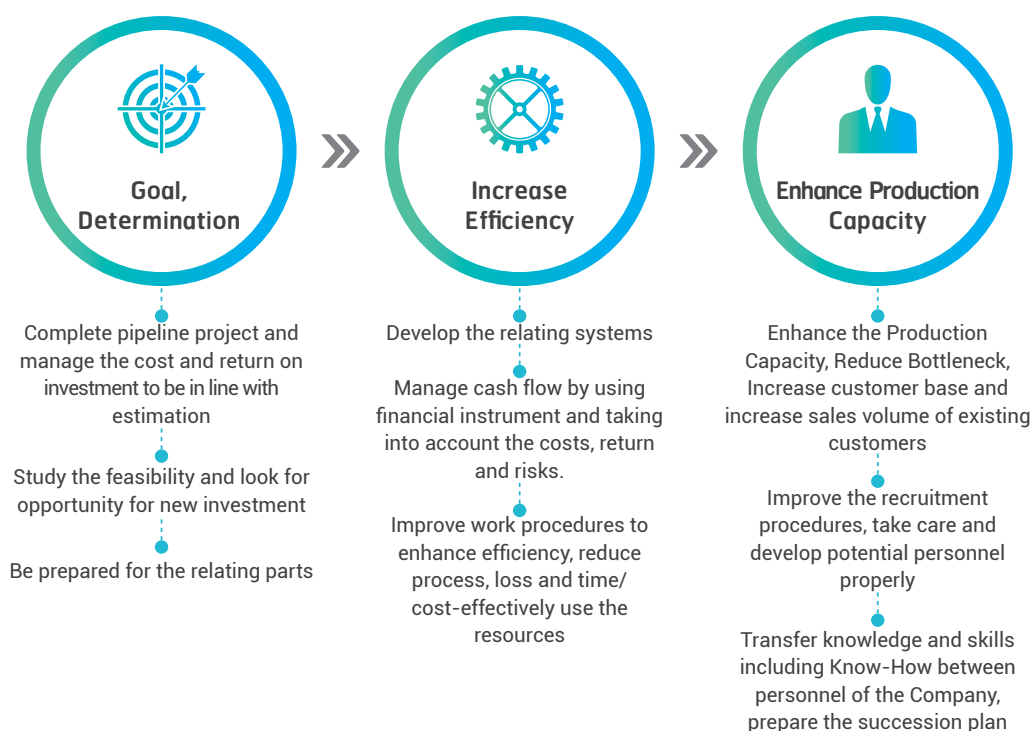
Mission

1. Promote the utilization of modern technology to increase production efficiency
2. Promote the utilization of energy crops and natural energy to reduce environmental pollution
3. Support the Government policy for energy security of country
4. Operate on the basis of fairness, trustfulness with partners and all shareholders
5. Foundation human resources to grow steadily and sustainably

Values



Goal / Strategy



History

Energy Absolute Public Company Limited (“the Company” or “EA”) was first incorporated on 6 March 2006 in original name Suntech Palm Oil Company Limited, with registered capital of THB 50 million. In 2008, the Company was converted into a public company limited and renamed as Energy Absolute Public Company Limited. The registered capital was added from THB 50 to 250 million. In 2009, registered capital increased to THB 360 million. After that, in 2012, the registered capital decreased to THB 305 million by share amount reduction from deducting of the unpaid shares, then increase the capital to THB 373 million by issuing new ordinary share of 680 million shares with a par value of THB 0.10 per share in order to initial public offering with the number of IPO 560 million shares at a IPO price of THB 5.50 per share and offer to the existing shareholders in proportion to their shareholding amount to 120 million shares at a price of THB 1.50 per share during 21-23 January 2013. As a result, the Company’s registered and paid-up capital was added to THB 373 million.

In 2013, the Company registered 3,730 million shares, at the par value of Baht 0.10 per share, total value of Baht 373 million to the “Market for Alternative Investment (mai)” and since 6 January 2017 onwards, the Company submitted a request to the Stock Exchange of Thailand to approve the trading of EA’s securities in the Stock Exchange of Thailand (SET) (from mai to SET). The ordinary shares were allocated in the Resources category, Energy and Utilities section. The abbreviation for securities trading remained “EA” as before since 6 January 2017 onwards. As for the current business operation, Nature of business can be divided to 3 groups as follows:

- **Biodiesel Business**
: Operates through the Company and Subsidiaries
- **Renewable Power Plant Business**
: Operates through Subsidiaries
- **Other Businesses**
: Operates through Subsidiaries

Biodiesel Business, The Company operated business relating to Biodiesel products, namely Produces and Distributes biodiesel (B100), purified glycerin and byproducts (which has been granted a license of Oil Trader pursuant to Section 7 of the Fuel Trade B.E. 2543).

Renewable Power Plant Business, starting from solar power plants and wind power plants to distribute to the Provincial Electricity Authority (PEA) and the Electricity Generating Authority of Thailand (EGAT). At present, the Company has 4 solar power plants with total production capacity 278 megawatts, and wind power plants with total production capacity 386 megawatts. For Other Businesses, The Company has expanded its business operation to development and manufacture of Lithium-Ion Polymer batteries. Initially, the Company invested in Amita Technologies Inc. (“Amita-Taiwan”), the company incorporated under the law of the Republic of China (Taiwan) and also listed in the Emerging Stock Market (ESM) of the Stock Exchange of Taiwan. The aim of the said investment is to expand and enhance the competitiveness of the Company including to be in conformity with the business policy that thrive for environmental-friendly concept.

Furthermore, the Company has broadened the scope of operation by establishing electric charging station for electric vehicles under the trademark “EA Anywhere”. The aim is to utilize the clean energy in automotive industry and to reduce the emission of carbon dioxide gas and to promote the use of environmental-friendly energy. In addition, the Company expands the business through electric vehicle projects such as electric car, electric ferry and electric bus.

Development and Significant Changes during the past 3 years

Development and Significant Changes of the Company and Subsidiaries

2018

Biodiesel Business

- Throughout the year 2018, the Company maintained management system as follows; RSPO standard, ISO 9001:2015, ISO 14001: 2015, OHSAS 18001:2007, Kosher, Green System (GI3).
- The Company received a certification for the operating premise that meet the environment governance criteria to certify that the Company determined to apply environmental governance to its business operation, in order to be consistent with the criteria set forth and to focus on prevention and conservation of environment together with the community and society. The Company complied with the following criteria
 - ❖ Allow communities to have access to the correct information of environmental management.
 - ❖ Allow the public to take part in expressing their opinions and give suggestions on the environmental issues.
 - ❖ Disclose facts, information with transparency and accountability.
 - ❖ Show responsibility in case of the impact occurred to communities. Provide a channel to receive complaints.
 - ❖ Adhere to the juristic prudence for the environmental management to be in conformity with the law.
 - ❖ Maintain the justice in appropriate procurement of resources and bring about benefits to society.
 - ❖ Operate business with consciousness, not causing impacts to communities and environment.
- The Company attended the Energy Conservation Project with the Department of Alternative Energy Development and Conservation as follows:

- ❖ The Company received investment support in changing, improving or implementing automated control system to enhance the efficiency of the compressed air system. The support is provided under the improvement of energy management in compressed air system with the automated system under Thailand 4.0 Policy.
- ❖ Expanding the enhancement of boiler efficiency pilot project by boiler engineer or energy engineer under funding by Energy Conservation Promotion for the year 2018, to leverage efficiency of the boiler that use liquid as a thermal conductivity in the industry.

Renewable Power Plant Business

- Solar Power Plant Project (Project 2, located at Lampang and Project 3, located at Phitsanulok) received a certificate for the operating premise that passed the Environmental Governance by the Ministry of Industry. This is to certify that the projects are an operating premise that proceed under the Environmental Governance Criteria and also certified by URS Thailand (United Registrar of Systems (Thailand) Co., Ltd.) for its Quality System Management and Environmental Management as follow:
 - ❖ International Quality Management System “ISO 9001: 2015”
 - ❖ The Environmental Management System “ISO 14001: 2015”
- Solar Power Plant for EA Solar Farm project and Project 1 maintained the management system including the work operation and environment certified by URS Thailand (United Registrar of Systems (Thailand) Co., Ltd., Regarding the Quality and Environmental Management System throughout the year 2018 as follows:
 - ❖ EA Solar Farm Project / Lopburi province certified to the International Quality Management System ISO 9001: 2015 which has been improved from ISO 9001:2008 and the Environmental Management

System ISO 14001: 2015 which has been improved from ISO 14001: 2004

- ❖ Project 1 / Nakhon Sawan province (“ESN”) certified to the International Quality Management System ISO 9001: 2015 and the Environmental Management System ISO 14001: 2015
- Solar Power Plant (Project 1, 2, 3) maintained the certification for reducing the amount of greenhouse gases for the second year in a row by the Thailand Greenhouse Gas Management Organization (“TGO”) the amount of greenhouse gases reduced for Project 1 and Project 2 during December 2016 to November 2017 and for Project 3 during October 2016 to September 2017 is 343,804 tons of carbon dioxide equivalent (tCO₂e) as follows:

Project Name	Certified amount*
Project 1 Takhli district / Nakhon Sawan	104,543
Project 2 Mueang Lampang District / Lampang	112,548
Project 3 Phrom Phiram District / Phitsanulok	126,713

Remark : * tons of carbon dioxide equivalent (tCO₂e)

- Wind Power Plant (Hadjkunghan Project 1, 2, 3) at Songkhla and Nakhon Si Thammarat has been approved for listing in the Thailand Voluntary Emission Reduction Program: T-VER by TGO under the project name “Wind Power Plant at Songkla and Nakhon Si Thammarat, Thailand” the amount of greenhouse gases reduced during March 2017 to September 2017 is 63,907 tons of carbon dioxide equivalent (tCO₂e).

Other Businesses

- The Company introduced the Electric Charging Station for electric automobiles, using the charging technology that certified for international safety standard from IEC. The Company has marked its ground to drive the major revolution by expanding the number of charging stations, as a part that motivates the use of electric vehicles within the country.
- Launched “Smart Move” platform for renting service of electric automobiles 100 percent on 12 February 2018 fulfills the creation of the ecosystem of electric vehicles in Thailand. Users can search for the charging stations using EA Anywhere application on the mobile phone through Smart Move platform. The charging stations were installed in Sansiri projects with DC Super Charge to support the charging. This is the first time and first device installed in the real estate project.
- The Company launched the charging station service together with its alliances throughout the route from Bangkok-Hua Hin within the distance of over 380 km, total 8 spots, marking the first spot in Thailand on 4-5 July 2018.
- Signed MOU with the vehicle importer and the official dealers to allow Energy Mahanakorn Co., Ltd. To become the official service provider and facilitate the convenient about charging stations and electric charging device to the customers including signed MOA to expand the number of electric charging station.
- The Company acquired more ordinary shares in Amita-Taiwan. After the acquisition, the Company held total 76,109,821 shares, representing 77.21 percent of the issued and paid-up ordinary shares in Amita-Taiwan. Hence, at present, Amita-Taiwan becomes a subsidiary of the Company.

- The Company established new subsidiaries (direct and indirect) as follows:
 - ❖ EA CON DAO (SG) PTE. LTD., Singapore (“EA Con Dao”).
The purpose is to invest in the renewable energy.
 - ❖ AMITA NEW TECHNOLOGY PTE. LTD., Singapore (“Amita-SG”). The purpose is to be an investing and holding company.
 - ❖ Amita Technology (Thailand) Co., Ltd. (“Amita-TH”).
The purpose is to manufacture and distribute Lithium-Ion Polymer batteries and high-capacity electricity storage system.
 - ❖ MINE Mobility Corporation Co., Ltd. (“MMC”). The purpose is to produce and distribute electric vehicle.
 - ❖ EA Station Co., Ltd. (“EA Station”). The purpose is to become a hub station and logistic.

2019

Biodiesel Business

- Improve Biodiesel production to be consistent with the notification of the nature and quality of biodiesel type of fatty acid methyl esters 2019 which effective on 1 December 2019.

Renewable Power Plant Business

- Wind Power Plant (Hanuman Project) at Chaiphaphum has already commercial operated. Details are as follows:

Projects	Production Capacity	Started Commercial Operation
Hanuman 1	45 megawatts	25 January 2019
Hanuman 5	48 megawatts	22 March 2019
Hanuman 8	45 megawatts	25 January 2019
Hanuman 9	42 megawatts	30 March 2019
Hanuman 10	80 megawatts	13 April 2019

- Study the solution to increase the efficiency of electricity generation of solar power plant at Nakhon Sawan by using solar panel cleaning robot to mitigate the impact of dust on solar panels. The study result in 2019 showed that using cleaning robot can increase the

efficiency of electricity generation up to 2.5 percent. The Company planned to use solar panel cleaning robot within the year 2020.

- Develop Backtrack Function to decrease shade cast upon solar panels. The tracking system will increase the efficiency of backtrack function on a steep and sloping ground. The expecting result is to increase electricity generation up to 0.77 percent.
- Solar Power Plant (Project 1, 2, 3) maintained the certification for reducing the amount of greenhouse gases for the third year by the Thailand Greenhouse Gas Management Organization (“TGO”) the amount of greenhouse gases reduced for Project 1 and Project 2 during December 2017 to December 2018 and for Project 3 during October 2017 to December 2018 is 376,568 tons of carbon dioxide equivalent (tCO₂e) as follows:

Project Name	Certified amount*
Project 1 Takhli district / Nakhon Sawan	108,540
Project 2 Mueang Lampang District / Lampang	119,009
Project 3 Phrom Phiram District / Phitsanulok	149,019

Remark : * tons of carbon dioxide equivalent (tCO₂e)

- Wind Power Plant (Hadjkunghan Project 1, 2, 3) maintained the certification for reducing the amount of greenhouse gases for the second year in a row by TGO during October 2017 to December 2018 is 205,065 tons of carbon dioxide equivalent (tCO₂e).
- Wind Power Plant (Hanuman Project 1, 5, 8, 9, 10) at Chaiphaphum has been approved for listing in the Thailand Voluntary Emission Reduction Program: T-VER by TGO under the project name “Wind Power Plant at Chaiphaphum, Thailand” The credit term is calculated from 1 January 2019 - 31 December 2025.

- Wind Power Plant (Hanuman Project 1, 5, 8, 9, 10) certified by TUV NORD (Thailand) Ltd. for its Quality System Management and Environmental Management as follow:
 - ❖ International Quality Management System “ISO 9001: 2015”
 - ❖ The Environmental Management System “ISO 14001: 2015”

Other Businesses

- MOU for charging network development to support MG vehicles through i-Smart function technology.
- Decreased the proportion of the investment in joint venture with Shenzhen Ates Power Technology Co., Ltd. (Former name is Shenzhen Growatt Power Technology Co., Ltd.) from 44 percent to 36.67 percent due to Shenzhen Ates Power Technology Co., Ltd. received contribution from another joint venture party.
- The Company acquired 96,609,821 newly-issued ordinary shares of Amita-Taiwan, as a result, the Company held 65.61 percent of issued and paid-up share capital.
- The Company established new subsidiaries (direct and indirect) as follows:
 - ❖ EA BVI Holding Limited (“**BVI Holding**”). The purpose is to invest and do business in Taiwan.
 - ❖ EA (BVI 1) Limited (“**BVI 1**”), British Virgin Islands with the purpose of investing in Taiwan.
 - ❖ EA (BVI 2) Limited (“**BVI 2**”), British Virgin Islands with the purpose of investing in Taiwan.
 - ❖ E Smart Transport Co., Ltd (“**EST**”). The purpose is to provide public boat transportation services and public boat tour.
 - ❖ Smart Waste Management Co., Ltd. (“**SWM**”) with the purpose of operating waste disposal.
 - ❖ EV Now Co., Ltd. (“**EV Now**”). The purpose is to manufactures and distributes electric buses, trucks and other vehicles including public transportation business.
- The investment of affiliated companies
 - ❖ **BVI Holding** invested in Zept Inc. (**Zept**) the company incorporated under the law of the Republic of China (Taiwan) which operated the business in designs, developing and assembly related to EV powertrain systems. The purpose is to expand and increase the competitiveness.
 - ❖ **AMITA -Taiwan** invested in Wan Meng Automatic Precision Co., Ltd. (“Wan Meng”), the company incorporated under the law of the Republic of China (Taiwan) which operated the business in Automatic control equipment engineering. The purpose is to expand and increase the competitiveness of Amita-Taiwan.
 - ❖ **AMITA – Taiwan** invested in Sun Field Investments Co., Ltd. (“Sun Field”), the company incorporated under the law of the Independent State of Samoa which operated the investment and holding business. The purpose is to expand and increase the competitiveness of AMITA-Taiwan Signed MOU in Motor show 2019 event during MMC and Suvarnabhumi Pattana Credit Union Cooperative,
- Signed MOU in Motor show 2019 event during MMC and Suvarnabhumi Pattana Credit Union Cooperative, Limited, taxi service operator for a subscription of 3,500 units with a taxi union, Cooperative Credit Union Suvarnabhumi Pattana Limited, to pre-order of 3,500 EVs including spare parts. Those EVs are going to sell to its member to be used as EV taxi and also agree to use charging stations services.

2020

Biodiesel Business

- Developed B100 production according to “the notification of the nature and quality of biodiesel type of fatty acid methyl esters 2019” to increase the production from 650,000 Liter per day to 800,000 Liter per day as well as investment in production process of biodiesel from

byproducts (Palm Fatty Acid Distillate) to reduce production cost and increase the competitiveness.

- The Company operates new product research and development under the biodiesel business to innovate the product using crude palm oil (CPO) as a substrate which has been patented already by EA Bio Innovation Co., Ltd. to operate manufacturing and distributing such 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.) PCM (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. PCM is popular and in high demand in weather variability countries.

The Green Diesel and PCM plant located at Rayong province which now successfully completed machinery installation and commissioning testing. The 1st phase commercial operation has been started mainly for PCM products and it will gradually increase production capacity to the fullest of 65 tons per day and then the next phase of 65 tons per day will start later on. In the meantime, the Company research and develop continuously to expand the market opportunity to use PCM in other industries to further expand added value.

Renewable Power Plant Business

- Solar Power Plant (Project 1, 2, 3) maintained the certification for reducing the amount of greenhouse gases for the fourth year in a row by TGO. The amount of greenhouse gases reduced during January 2019 to December 2019 is 344,922 tons of carbon dioxide equivalent (tCO₂e) as follows:

Project Name	Certified amount*
Project 1 Takhli district / Nakhon Sawan	101,947
Project 2 Mueang Lampang District / Lampang	115,285
Project 3 Phrom Phiram District / Phitsanulok	127,690

Remark : * tons of carbon dioxide equivalent (tCO₂e)

- Wind Power Plant (Hadjkunghan Project 1, 2, 3) maintained the certification for reducing the amount of greenhouse gases for the third year in a row by TGO. The amount of greenhouse gases reduced during January 2019 to December 2019 is 164,873 tons of carbon dioxide equivalents (tCO₂e).
- Wind Power Plant (Hanuman Project 1, 5, 8, 9, 10) received a certificate for reducing the amount of greenhouse gases for the first year by TGO. The amount of greenhouse gases reduced during February 2019 to December 2019 is 263,871 tons of carbon dioxide equivalent (tCO₂e) as follows;

Project Name	Certified amount*
Hanuman 1 Thep Sathit District, Chaiyaphum	46,829
Hanuman 5 Thep Sathit District, Chaiyaphum	52,635
Hanuman 8 Thep Sathit District, Chaiyaphum	47,756
Hanuman 9 Thep Sathit District, Nong Bua Rawe District, Chaiyaphum	41,213
Hanuman10 Bamnet Narong district, Chaiyaphum	75,438

Remark : * tons of carbon dioxide equivalent (tCO₂e)

- Solar Power Plant and Wind Power Plant are in the certification process during January 2020 to December 2020 the Company has been submitted the reduced amount of greenhouse gases 756,998 tons of carbon dioxide equivalent (tCO₂e) as follows:

Project Name	Certified amount*
Project 1 Takhli district / Nakhon Sawan	99,629
Project 2 Mueang Lampang District / Lampang	116,525
Project 3 Phrom Phiram District / Phitsanulok	124,960
Hadkunghan Project 1, 2, 3 Ranod District, Songkhla Huasai District, Pak Panang District / Nakhon Si Thammarat	143,270
Hanuman 1 Thep Sathit District, Chaiyaphum	43,164
Hanuman 5 Thep Sathit District, Chaiyaphum	60,089
Hanuman 8 Thep Sathit District, Chaiyaphum	43,457
Hanuman 9 Thep Sathit District, Nong Bua Rawe District, Chaiyaphum	43,260
Hanuman10 Bamnet Narong district, Chaiyaphum	82,644

Remark : * tons of carbon dioxide equivalent (tCO₂e)

- The investment of affiliated companies
 - ❖ ERH invested in Subyai Wind Farm (1) Co., Ltd. (“SWF”). The purpose is to increase the competitiveness in Manufacturing and distributing electricity from wind power.

- ❖ ERH invested in TF Tech Holding Co., Ltd. (“TFTH”). The purpose is to produce electricity generated from floating and rooftop solar power.

Other Businesses

- The Company established new subsidiaries (direct and indirect) as follows:
 - ❖ EA Palm Network Co., Ltd. (“EPN”). The purpose is to produce and distribute crude palm oil.
 - ❖ EA Waste Management Co., Ltd. (“EWM”). The purpose is to Invest in assets of the Company Group relates to waste management including produces and distributes electricity generated from waste.
 - ❖ Absolute Assembly Co., Ltd. (“AAB”). The purpose is to produces and distributes of electric vehicles including Assembly and Services for electric vehicles.
- The investment of affiliated companies.
 - ❖ EPN invested in Larp Pak Dee Palm Co., Ltd. (“LPD”). The purpose is to expand and increase the competitiveness in manufacturing and distributing crude palm oil with the total investment after capital increasing value is of 150 million baht representing 75 percent of issued and paid-up share capital of LPD.
 - ❖ EPN invested in Combine Energy Tech Co., Ltd. (“CET”). The purpose is to expand and increase the competitiveness in Shore Tank business including plan to build the Green Diesel and Bio-PCM plant with the total investment value of 285.51 million baht representing 70 percent of issued and paid-up share capital of CET.
 - ❖ EPN invested in Combine Kanjanadit Palm Oil Co., Ltd. (“KJD”). The purpose is to expand and increase the competitiveness in manufacturing and distributing crude palm oil with the total investment value is of 37.53 million baht representing 75 percent of issued and paid-up share capital of KJD.
 - ❖ EMH acquired ordinary shares in Nex Point PLC. (“NEX”). The investments aimed to jointly develop

the manufacturing, assembly, and distribution as well as sales and after-sales service for passenger buses, commercial vehicles, and passenger cars. The company group will take a major role in manufacturing and developing of batteries and relevant technologies to be applied in electric buses and electric vehicles. The total investment value is of 1,474 million baht representing 40.01 percent of issued and paid-up share capital of NEX.

❖ EST invested in Chaophraya River Line Co., Ltd. (“CRL”). The purpose is to expand the electric ferry business and provide travel services along the Chao Phraya River. The total investment value is of 55.70 million baht representing 99.99 percent of issued and paid-up share capital of CRL.

- Addition investments in a joint venture (Shenzhen Ateess Power Technology Co., Ltd.) from other joint venture party. As a result, the investment proportion increased from 36.67 percent to 38.58 percent.
- The Company introduced the first Electric Charging Station for electric ferry at the minimum power of 4,000 kW by installing 14 chargers of 300 kW DC Fast Charge which can be fully charged only 15-20 minutes according to the qualification of electric vehicle and battery capacity. This is to support all types and models of electric passenger ferries. The first electric charging station located at Pu Chao Saming Phrai side on the bank of Chao Phraya River, Bhumibol 2 Bridge, Phra Pradaeng district, Samut Prakan province. However, for the charging stations in other areas still keep installation continuously to support electric passenger ferries along the Chao Phraya River.
- DC Fast Charger 150 kW is ready to service for electric car which installed in outdoor areas such as petrol station, department stores, 7-Eleven and 24hours locations that can accommodate full capacity of electric car users.
- Amita Technologies (Thailand) Co., Ltd. (“**Amita-TH**”), a subsidiary company operating the lithium-ion battery

plant project in Thailand, has signed MOU with Chulalongkorn University to jointly research the recycling of lithium-ion batteries. Amita-TH will apply the study results from this program within a period of 3 years. This is the extension of investment in the battery industry of the Company comprehensively from battery cell manufacturing to use in the electric vehicle industry and utility industry as well as recycling lithium-ion batteries at the end-of-life. The success of this project will make Thailand the first country in ASEAN to be the investment hub in the energy storage systems industry and electric vehicles that can compete with other countries in the global market.

- the Company agreed to collaborate with the Ministry of Higher Education, Science, Research and Innovation (MHESI) by signing an MOU with the National Science and Technology Development Agency (NSTDA) in a collaboration project for research and development of raw materials to increase the efficiency of the high-capacity energy storage systems or high efficiency and safety battery in a period of 5 years (2020 - 2025) including the high efficiency and safety battery management system. This gives significance to be more dependence on using domestic resources and production to reduce imports from abroad and to be environmentally friendly including supporting and strengthening the sustainable industrial development in the country.
- As of 31 December 2020, the installation of 410 stations has been completed. It can be categorized into DC Charger for 266 chargers and AC Charger for 592 chargers to support all types and models of electric vehicles including Thai electric vehicles designed and manufactured by the EA Group such as Electric cars, Electric passenger buses, and electric passenger ferries. The charging technology is developed to be charged with high charging rate (4C-Rate) within 15-20 minutes. Customers can reserve and accommodate power via

mobile application “EA Anywhere”. The Company is investing in installation charging stations with major partners and also opening collaboration with other partners according to the Company's business plan continuously.

- The Company Group started launching electric ferry under “MINE SMART FERRY” which is 100% manufactured and operated by Thailand. On 22 December 2020, the Company had the opening ceremony for the trial launch of an electric ferry on the Chao Phraya River and expected to enable full-service in 2021. MINE SMART FERRY received the 2020 National Innovation Award from the National Innovation Agency (NIA) and on 30 July 2020, it was registered as the country's first electric ferry for mass transit from the Marine Department to provide travel services along the Chao Phraya River from Phra Nangklao Bridge Pier to Wat Ratcha Singkhon, Sathorn Pier, over the 20 kilometers route. This water transportation will connect with public land transportation as well, with low and affordable fares to facilitate the

public. Also, it is part of promoting options to the public for traveling by electric water transportation with convenience and safety, environmentally-friendly, without generating air pollution, PM 2.5 and noise pollution.

- The AAB plant is located in Chachoengsao province, close to electric vehicle plant, and is under construction. It will have a production capacity of 3,000 units per year and it can produce various types of vehicles such as buses and trucks. The construction project value is approximately 1,750 million THB, consisting of factory construction, equipment, and machinery costs. AAB will import some parts from abroad to assemble but the important parts are designed and manufactured domestically with its the automated manufacturing process as well as having a drive test facility. Expectedly, the commercial operation will start in early 2021.

Controlling power of the Company, changes in shareholding structure and the management

Since the Company has established, Mr. Somphote Ahunai is the major shareholder. Shareholding of 30 December 2020 is 40.4612 percent of total registered shares (exclude the shares held by spouse). Mr. Somphote Ahunai disposed 632.77 million shares (16.9643%) in EA to Sotus & Faith #1 Limited and Sotus & Faith #2 Limited (“Sotus”) to establish the trust and reported the change of securities holding to the Securities and Exchange Commission. Since Mr. Somphote Ahunai is entitled to vote together with another two members of Protector Committee, therefore, in order to have an anonymous resolution, Mr. Somphote Ahunai will be entitled to vote to oppose the two members from the Protector Committee only. However, Mr. Somphote Ahunai

However, after the consideration by the Securities and Exchange Commission, Sotus is the ultimate beneficiary owner, Mr. Somphote Ahunai must count in the said shares to the shares in EA of which he holds from the

beginning until the disposal to Sotus. This includes the consideration on the duty to report the acquisition or disposal of securities or the duty to prepare the tender offer pursuant to the Security and Stock Exchange Act B.E. 2535 as well.

The Management

There is no significant change in the management of the Company and the Company Group. In other word, since the establishment of the Company until present, Mr. Somphote Ahunai still hold the positions in the Company as follows:

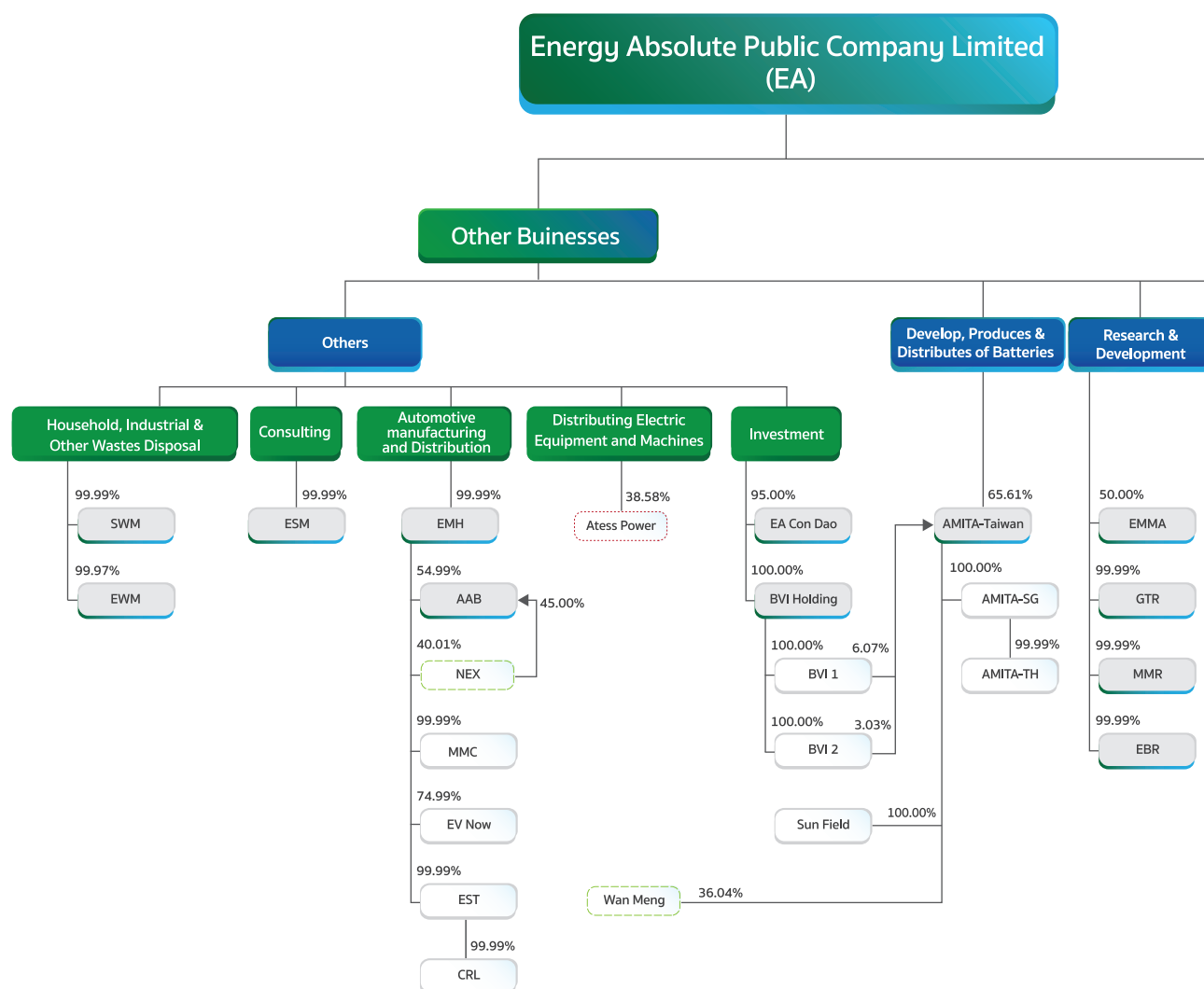
The Management

There is no significant change in the management of the Company and the Company Group. In other word, since the establishment of the Company until present, Mr. Somphote Ahunai still holds the positions in the Company as follows:

- 1.) An authorized signatory director
- 2.) Vice Chairman or the Board of Directors
- 3.) Chairman of the Executive Committee
- 4.) Chief Executive Officer

Group's Shareholding Structure

(As of 31 December 2020)

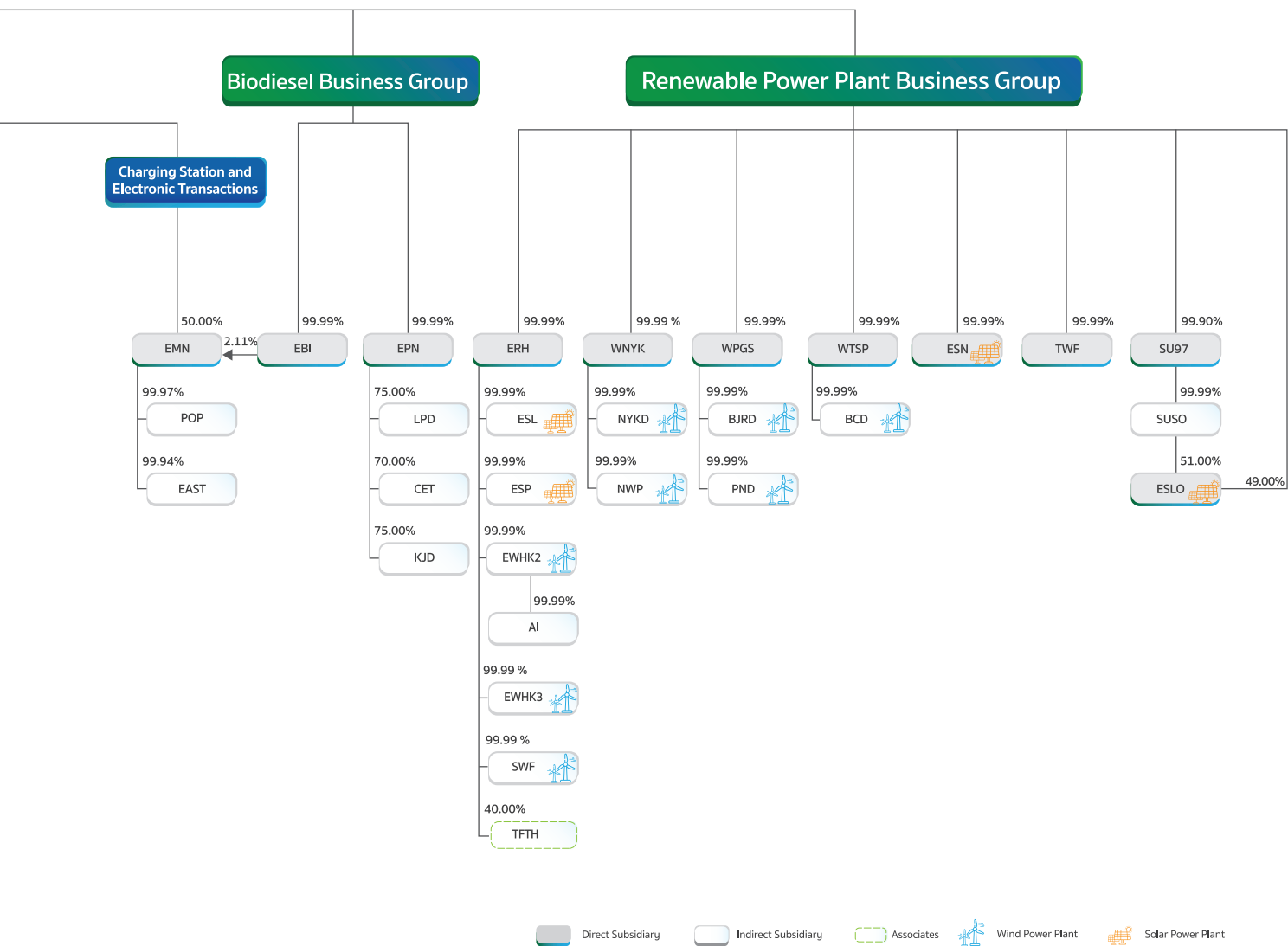


Direct Subsidiary
Indirect Subsidiary
Associates
Joint Venture

SWM : Smart Waste Management Co., Ltd.
EWM : EA Waste Management Co., Ltd.
ESM : Energy Solution Management Co., Ltd.
EMH : EA Mobility Holding Co., Ltd.
AAB : Absolute Assembly Co., Ltd.
NEX : NEX Point PLC.
MMC : Mine Mobility Corporation Co., Ltd.
EV Now : EV Now Co., Ltd.

EST : E Smart Transport Co., Ltd.
CRL : Chaophraya River Line Co., Ltd.
Atess Power : Shenzhen Atess Power Technology Co., Ltd.
Wan Meng : Wan Meng Precision Co., Ltd.
EA Con Dao : EA Con Dao (SG) PTE. LTD.
BVI Holding : EA BVI Holding Limited
BVI 1 : EA (BVI) 1 Limited
BVI 2 : EA (BVI) 2 Limited

Sun Field : Sun Field Investment Co., Ltd.
AMITA-Taiwan : AMITA TECHNOLOGIES INC.
AMITA-SG : Amita New Technology PTE.LTD.
AMITA-TH : Amita Technology (Thailand) Co., Ltd.
EMMA : Emma Corporation Co., Ltd.
GTR : Green Technology Research Co., Ltd.
MMR : Mine Mobility Research Co., Ltd.
EBR : Energy Beyond Research Co., Ltd.



EMN : Energy Mahanakhon Co., Ltd.

POP : Paypop Co., Ltd.

EAST : EA Station Co., Ltd.

EBI : EA Bio Innovation Co., Ltd.

EPN : EA Palm Network Co., Ltd.

LPD : Larp Pakdee Palm Co., Ltd.

CET : Combine Energy Tech Co., Ltd.

KJD : Kanjanadit Palm Oil Co., Ltd.

ERH : E A Renewable Holding Co., Ltd.

ESL : EA Solar Lampang Co., Ltd.

ESP : EA Solar Phitsanulok Co., Ltd.

EWHK 2 : EA Wind Hadkunghan 2 Co., Ltd.

AI : Associate Infinity Co., Ltd.

EWHK 3 : EA Wind Hadkunghan 3 Co., Ltd.

SWF : Subyai Wind Farm (1) Co., Ltd.

TFTH : TF Tech Holding Co., Ltd.

WNYK : Wind Nayangklak Co., Ltd.

NYKD : Nayangklak Development Co., Ltd.

NWP : Nayangklak Wind Power Co., Ltd.

WPGS : Wind Progressive Co., Ltd.

BJRD : Benjarat Development Co., Ltd.

PND : Pongnok Development Co., Ltd.

WTSP : Wind Tossaphum Co., Ltd.

BCD : Banchuan Development Co., Ltd.

ESN : EA Solar Nakornsawan Co., Ltd.

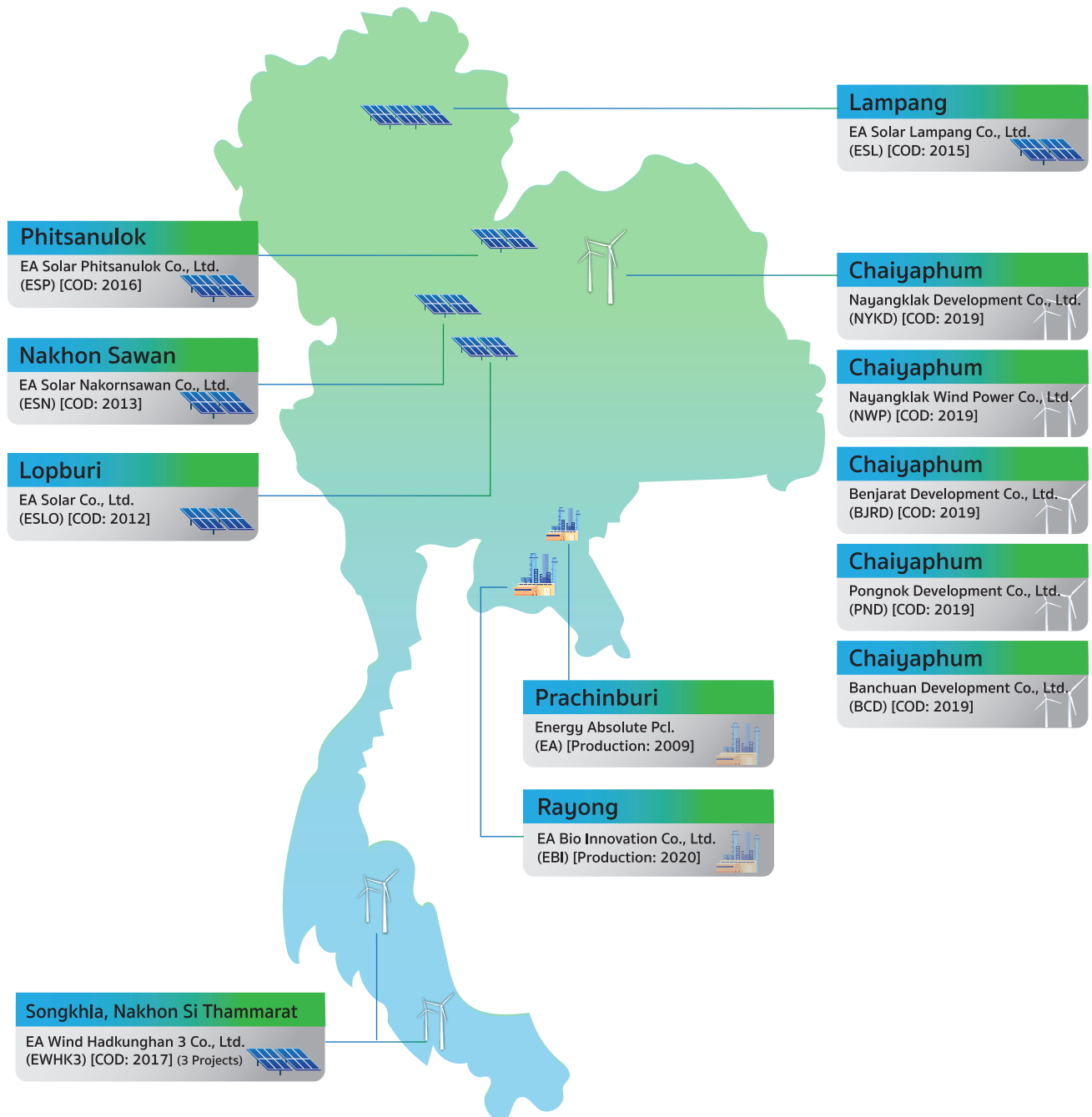
TWF : Thepsathit Wind Farm Co., Ltd.

SU97 : Surachai (1997) Co., Ltd.

SUSO : Surachai Solar (1997) Co., Ltd.

ESLO : EA Solar Co., Ltd.

The Company Group's Plants Location



Solar Power Plant



Wind Power Plant



Biodiesel Business

Nature of Business

Revenue Structure

Majority of revenues of the Company and its subsidiaries comprises of the revenue from **Biodiesel Business**, namely biodiesel, purified glycerin and byproducts, revenue from **Renewable Power Plant Business**, namely solar electric power, wind electric power and subsidy for adders and revenue from **Other Businesses**. The details are as follows:

Type of Revenue	Operated by / % of shareholding by the Company /*	year 2020		year 2019		year 2018	
		THB (million)	%	THB (million)	%	THB (million)	%
Biodiesel Business							
1. Biodiesel oil	EA	5,407.48	31.66	3,423.24	22.89	3,194.23	25.57
2. Purified glycerin	EA	265.54	1.55	228.93	1.53	296.16	2.37
3. Byproducts	EA	41.34	0.24	25.51	0.17	20.76	0.17
4. Crude Palm Oil	LPD, KJD	548.99	3.21	-	-	-	-
		6,263.35	36.67	3,677.68	24.59	3,511.15	28.11
Renewable Power Plant Business							
5. Solar electric power	ESLO, ESN, ESL, ESP	1,993.05	11.59	2,061.64	13.79	1,934.12	15.49
6. Wind electric power	EWHK3, PND, BJRD, NYKD, NWP, BCD	1,975.60	11.49	2,148.29	14.37	802.48	6.43
7. Biogas	KJD	8.62	0.05	-	-	-	-
8. Subsidy for adders		6,624.36	38.52	6,764.35	45.22	4,944.22	39.58
		10,601.63	61.65	10,974.28	73.38	7,680.82	61.50
Other Businesses							
9. Revenue from other services	Amita -TH, ESM	214.58	1.25	234.91	1.57	359.99	2.88
Total revenue from Sales and Services		17,079.56	99.57	14,886.87	99.54	11,551.96	92.49
10. Accounnting gain on Business Combination		-	-	-	-	894.58	7.16
11. Other income		119.58	0.70	67.67	0.46	43.69	0.35
Total Revenue		17,199.14	100.27	14,954.54	100.00	12,490.23	100.00
Share of gain (loss) from investments in associates and a joint venture		(61.05)		(14.26)		(6.31)	

Remarks : /*

EA Solar Co., Ltd. (ESLO): The Company holds direct shares of 49% and indirect shares of 51%

EA Solar Nakhon Sawan Co., Ltd. (ESN):

The Company holds direct shares of 99.99%

EA Solar Lampang Co., Ltd. (ESL):

The Company holds indirect shares of 99.99%

EA Solar Phitsanulok Co., Ltd. (ESP):

The Company holds indirect shares of 99.99%

EA Wind Hadkunghan 3 Co., Ltd. (EWHK3):

The Company holds indirect shares of 99.99%

Pongnok Development Co., Ltd. (PND):

The Company holds indirect shares of 99.99%

Benjarat Development Co., Ltd. (BJRD):

The Company holds indirect shares of 99.99%

Nayangklak Development Co., Ltd. (NYKD):

The Company holds indirect shares of 99.99%

Nayangklak Wind Power Co., Ltd. (NWP):

The Company holds indirect shares of 99.99%

Banchuan Development Co., Ltd. (BCD)

The Company holds indirect shares of 99.99%:

Larp Pakdee Palm Co., Ltd. (LPD):

The Company holds indirect shares of 74.99 %

Kanjanadit Palm Oil Co., Ltd. (KJD):

The Company holds indirect shares of 75.00 %

Amita Technology (Thailand) Co., Ltd. (Amita-TH):

The Company holds indirect shares of 99.99 %

Energy Solution Management Co., Ltd. (ESM):

The Company holds direct shares of 99.99 %



Biodiesel Business

The Company operates a business of producing and distributing of biodiesel ("B100"), pure glycerin and by-products and has been grant license of Oil Trader under Section 7 of the Fuel Trade Act B.E. 2543 from the Ministry of Energy (Oil Trader under Section 7 as aforesaid means oil trader with a trading volume of each type of fuel or trading volume of all type equal or more than 100,000 metric tons or about 120 million liters per year). Besides the above, the Company further research and develop the raw palm to create value to based product and obtained a new product as Phase Change Material (PCM) produced by the Company's subsidiary, i.e. EA Bio Innovation Co., Ltd. Many countries that approach saving energy and utilizing for the most efficiency energy are currently interested in PCM. Therefore, PCM is the products which will create the high demand of market and will enhance the stabilization the raw palm prices and palm farmers.

Nature of Products

Biodiesel (B100)

Biodiesel (B100) is a natural diesel alternative fuel, produced from vegetable oils and animal fats. Most of biodiesel is produced from palm products, such as Crude Palm Oil (CPO), Refined Bleached Deodorized Palm Oil (RBD) and Stearine and be taken into the Trans Esterification process (Transesterification Process) to react with an alcohol (Ethanol or Methanol) and base as the catalysts, such as sodium hydroxide (NaOH) in order to form the Ester which is catalyst by type of alcohol used for reaction. This biodiesel ester's properties are almost the same as diesel fuel. As such, biodiesel performs well in engine. If biodiesel is consumed purely, it will be called B100. However, if biodiesel is blended with the high speed diesel, it will be called according to the blending proportion, such as, B7 is high-speed diesel fuel that contains 7% biodiesel (B100) by volume or B10 is high-speed diesel fuel that contains 10% biodiesel (B100) by volume.

Purified glycerin:

Purified glycerin is a transparent, colorless, scentless, sweet-tasting liquid, and well-soluble in alcohol and water but not in fats. Since glycerin has various chemical properties, it can be used as a substrate to synthesize with other chemical substances. It is widely used in food, medicine, cosmetics, and soap industries. Purified glycerin is made by refining raw glycerin from biodiesel production process through the glycerin refining process. Purified glycerin is one of the Company's products using as an ingredient in many types of products such as cosmetics, medicine and consumer daily products such as toothpaste. The production capacity for glycerin is at 80 tons per day.

Byproducts:

In addition to the above-mentioned products, there are byproducts generated from the production process of biodiesel which include raw glycerin. The orange liquid soluble in alcohol and water, free fatty acid (FFA) - the fat dark color liquid used as a mixture in feed meals industry and others. The byproducts result from the palm oil extraction includes Palm Fatty Acid Distillate: PFAD which become solid at the room temperature, similar to a candle.

Phase Change Material: PCM

PCM are substances that absorb and release thermal energy during the process of melting and freezing. When a PCM freezes, it releases a large amount of energy in the form of latent heat at a relatively constant temperature. Conversely, when such material melts, it absorbs a large amount of heat from the environment. PCMs recharge as ambient temperatures fluctuate, making them ideal for a variety of everyday applications that require temperature control such as wall, House, Clothes, Parcel. In addition, PCM benefits in term of energy saving. For the industries, PCM was used in the buildings and construction, transportation, cooling industry, clothes and others in order to maintain temperatures. Furthermore, some PCM has bio base which friendly to environment, using PCM for heat storage option are particularly attractive because they offer high-density energy storage.

Promotional privileges and benefits: The Company has been granted promotion privileges from the Board of Investment (BOI) according to the Investment Promotion Act, as follows:

Type of the business being promoted

Type of the business being promoted	Promotion Card No.	Capacity per year being promoted	Date of approval
1. Pure glycerin production	1657(2)/2551	24,000 tons/year	12 May 2008
	2037(2)/2554/ ¹	124,800 tons/year	11 July 2011
2. Biodiesel production	2182(9)/2551	289 million liters/year	6 May 2015
3. Refined Bleached Deodorized Palm Oil production (RBD)	1889(2)/2554	178,200 tons/year	24 November 2017
4. Manufacture of biological from Agricultural Products (Phase Change Material (PCM))	63-052-1-18-1-0	16,812 tons/year	14 December 2020

Remarks: ¹ having the same privileges as production of purified glycerin as per promotion card no. 1657(2)/2551

Furthermore, the Company is certified for Quality Management Systems ISO 9001: 2015, Roundtable on Sustainable Palm Oil: RSPO, Kosher standard, Environmental Management Systems ISO 14001: 2015, Occupational Health and Safety Management Systems (OHSAS) 18001: 2007, and the Green Industry Level 3 (GI3) Systematic Environmental Management. The Company strives to improve management into a systematic approach, to conform to the requirement and law, to create a good working environment where employees performing work with safety which will reflect the endeavor of the Company on social responsibility, environmental responsibility that covering inside and out of the organization, creating a positive image for the organization.

Marketing and Competition

Marketing policy

1. Product Strategy

The quality of B100 biodiesel meets quality standards as announced by the Department of Energy Business, the Ministry of Energy. The Company concentrates on continual development production technology including the research and development (R&D) in order to seek for new material with lower price for production of quality biodiesel. All these comprise to the creation of competitive performance and adding value to the products in long run as well as product development that create added value to the products.

The Company examined raw materials by collecting samples from all production tanks for the quality control where any materials which is not in line with the standard will reprocess. All products stored in the ready-made product tanks must pass quality control. The Company also created labs to perform quality testing by random selecting products to ensure product quality.

2. Price strategy

The product prices are stipulated as follows:

(1) Biodiesel (B100)

The price of B100 biodiesel is based on the price announced by the Energy Policy and Planning Office (announced price) on weekly basis, and is also depended on the demand and supply of the particular period of time where the Company has no control over the selling price. However, the Company set the selling price of biodiesel at the rate higher than the announced price, deducted with the discount which is varied depending on a particular period of time. The Company will offer the selling price which is lower than the announced price to huge customers whose sale contract made with the Company shall come into expiration soon, in order to support customer's decision for contract renewal. However, any selling prices cannot be made at a lower rate than the announced price without approval from the Executive Committee's meeting.

(2) Purified glycerin

The selling price of purified glycerin is based on the ICIS pricing which is a standard price for chemical supplies and energy in the world market. The Company has set the policy of purified glycerin selling price at the rate not lower than ICIS price, deducted by the discount as stipulated by the Company. However, any selling prices cannot be made at a lower rate than the announced price without the approval from Executive Committee meeting.

(3) By products

Byproduct from production, the Company has set the sales policy of byproducts to meet the reasonable market price and quality.

3. Sales channel strategy (Place)

The Company sells biodiesel fuel directly to the large oil distributor by directly coordinated and communicated through Sales and Marketing department. One of the marketing tactics is to offer more discount to the major customers to increase sale volume while lessening the cost of production per unit (economies of scale). For purified glycerin selling, the Company distributed to domestic and oversea customers which using glycerin as a raw material or customer which produce and distribute chemical supplies or consumer goods etc. In addition, the purified glycerin is distributed to oversea market to reduce risk from dependent on local market.

4. Marketing and publicity strategy (Promotion)

The Company operates marketing and publicity strategy by maintaining production quality that meets the standard, building a good relationship with customers to retain existing customer base, including continuing the operation development, and obtaining industrial certification to build confidence in the Company's business. Meanwhile, the Company also expands the customer base regularly.

In regard to service, the Company and customers plan together about the details of transport and deliver i.e. product quantity and time to ensure that our service is performed to meet customers' requirements and meet the effectiveness of production and procurement plan.

Target groups

Target groups of the Company are as follows:

(1) Biodiesel (B100)

The whole biodiesel is distributed within the country where the majority of customers are fuel traders as defined in Section 7 (local major oil traders) and the oil trader as defined in Section 10 mainly, the biodiesel trading contract is made with the major customers where each contract duration is valid for 3 months, maximum not exceeding 3 years. Over 99 percent of the biodiesel sales is distributed to the large oil traders in Thailand.

(2) Purified glycerin

Purified glycerin can be divided into various grades based on the purity level. The Company can produce glycerin at the purity level of 99.50 - 99.85 percent (the purity level of more than 99.50 percent is categorized to Pharmaceutical Grade). The Company provided purified glycerin to group of customers both in domestic and oversea countries. In 2020, the proportion of customers in domestic is 89.80 percent and 10.20 percent are customers from oversea such as Singapore - using glycerin as a raw material in the production process, or those who produce and distribute chemicals.

(3) Byproducts

Target groups of the Company are the producers and distributors of chemical supplies both in domestic and overseas.

(4) Phase change Material (PCM)

Target groups of the Company are the producer of construction materials and fiber producer both in domestic and overseas.

Biodiesel Industry Competition

For the year 2020, the Department of Energy Business, Ministry of Energy has announced the list of biodiesel producer type of fatty acid methyl esters which approved for sales or possession for sales from the Ministry of Energy, the total capacity equal to 8,532,242 liter per day, namely as the details below:

No.	Company	Capacity (liter/day)	location
1	AI Energy Public Company Limited	600,000	55/2 Moo 8 Sethakrit1road, Klongmadua, Krathumban District, Samutsakorn 74110
2	Bangchak Biofuel Company Limited	1,000,000	28 Moo 9 Bang Krasan, Bangprain, Pranakorn Sri Ayutthaya 13160
3	Global Green Chemicals Public Company Limited	693,642	199/1 Moo 2 Khaosok, Nongyai District, Chonburi 20190
		1,028,600	8 soi G12 Pakornsongkorraj road, Maptapud, Rayong District, Rayong 21150
4	New Biodiesel Company Limited	1,000,000	23 Moo 6 Sawiat, Tha Chang, Surat Thani 84150
5	PPP Green Complex Company Limited	630,000	321 Moo5 Phetkasem, Kang Raek, Bang Saphan District, Prachuap Khiri khan, 77170
6	GI Green Power Company Limited	200,000	217 Moo 15 Tasae, Tasae District, Chumpornbang 86140
7	Patum Vegetable Oil Company Limited	1,800,000	29/3 Moo 6 Phathumthani- Lad Lum Kaew, Kubangluang District, Lad Lum Kaew, Phathumthani 12140
8	Verasuwan Company Limited	200,000	53/6 Moo 5 Sethakij road, Natee, Samut Sakhon District, Samut Sakhon74000
9	Global Bio Power Company Limited	150,000	8/1 Moo 11 Nongbua, Ban Khai, Rayong 21120
10	Trang Oil Palm Company Limited	100,000	168 Moo 1 Trang-Sikao Road, Namuangphet, Sikao District, Trang 92000
11	Bio Synergy Company Limited	30,000	150 Moo 13 Khok Kruat, Nakhon Ratchasima District, Nakhon Ratchasima 30280
12	Energy Absolute Public Company Limited	650,000	507 Moo 9 Kabin Buri-Korat road, Nong Ki, Kabin Buri District, Prachinburi 25110
13	Suksomboon Energy Company Limited	450,000	110 Moo 4 Hang Sung, Nong Yai District, Chon Buri 20190
Total		8,532,242	As of 23 November 2020

Source: the Department of Energy Business, Ministry of Energy (<http://www.doeb.go.th/info/data/dataoil/Methyl-ester.pdf>)

Product Procurement

In order to the procurement of raw materials for the producing B100, the Company realizes the efficiency in the production process to strengthen the efficiency of procurement in accordance with the market conditions. The information from the production unit is informed for the appropriate decisions for cost competitive over the long term.

- **Crude palm oil (CPO), stearin and refined bleached deodorized palm oil (RBD)**

The crude palm oil, stearin and RBD are the main raw materials used in the production of biodiesel. These materials are supplied to the Company directly from suppliers namely, vegetable oil factory or crude palm oil factory or purified glycerin distributor from different regions i.e. south, east, central in order to prevent the risk of insufficient supplies. At present, the local producers of crude palm oil comprised of more than 100 palm pressing factories which the Company carefully selects more than 30 suppliers for the procurement procedure and have never experienced any significant issues. Furthermore, the Company carries on the development of the production process to enlarge the scope of available raw materials to be used as a feedstock to biodiesel production. For instance, palm fatty acid distillate (PFAD) and free fatty acid (FFA) are used as a raw material in the production of biodiesel in order to reduce risk of insufficient supplies as a result of price fluctuation.

Nevertheless, the procurement criteria as prescribed above are based on reservation quantity as regulated in Section 7 as well as advanced sales plan, risk of the cost of raw materials, the situation in the market and price announcement from the Energy Policy and Planning Office.

- **Methanol**

Methanol is a substantial input in the transesterification process of which the Company procures from local suppliers.

- **Catalyst**

The catalyst is a substance used in biodiesel production which consists of Sodium Methylate to catalyze the reaction in transesterification. The catalyst is supplied by local producers and distributors.

- **Activated Carbon**

Activated Carbon is used to depolarization of glycerin which supplied by local chemical supplies distributors.

- **Refined Palm Oil**

Refined Palm Oil is the main raw material used to produce Phase Change Material (PCM) which the company procures from local suppliers both in south region and east region.



Renewable Energy Business Group

The Company expands its business to produce and distribute solar and wind electric power generated from renewable energy. The aim is to maximize the utilization of resources within the country in responding to the government policy that promotes the production of electricity from renewable energy for reducing the dependence on import of energy and to stabilize the energy security. At the present, the Company operates 13 projects as detailed below:

- 1.) Solar Power Plant 4 Projects with total production capacity of 278 megawatts.
- 2.) Wind Power Plant 8 Projects with total production capacity of 386 megawatts.

Product and service characteristics

The Company produces and distributes electric power generated from renewable energy from the sun and wind to distribute to the Provincial Electricity Authority (PEA) and the Electricity Generating Authority of Thailand (EGAT).

Solar Power Plant

The Company produces and distributes solar electric power. There are 4 projects commercial operated with total production capacity of 278 megawatts. Details are as follows:

Projects	Production Capacity	Status
EA Solar Farm Phatthana Nikhom District / Lopburi Province	8 megawatts	Started commercial operation on 17 October 2012
Project 1 Takhli district /Nakhon Sawan Province	90 megawatts	Started commercial operation on 23 December 2013
Project 2 Mueang Lampang District / Lampang Province	90 megawatts	Started commercial operation on 17 February 2015
Project 3 Phrom Phiram District / Phitsanulok Province	90 megawatts	Started commercial operation on 1 April 2016
Total production capacity	278 Megawatts	

**(1.) Solar Power Plant, total production capacity
8 megawatts / Lopburi Province**

- The power plant is under the management of EA Solar Company Limited, a direct subsidiary company classified as a Very Small Power Producer (VSPP). The Project is located at No. 188, 188/2, Moo 3, Khok Tum - Pa Sak River Road (Highway No. 3333) Km.21, Phatthana Nikhom sub-district, Phatthana Nikhom District, Lopburi in the area approximately 315 Rais.
- A power purchase agreement (PPA) with the Provincial Electricity Authority (“PEA”) for 5 years. Each default renewal is valid for 5 years and effective until the agreement will be terminated.
- The EA Solar was granted Adder privilege for VSPP of renewable energy in the rate of Baht 8 per kilowatt per hour for 10 years from the COD as announced by the PEA. The Adder privilege for VSPP is as per resolution of the National Energy Policy Council dated 9 March 2009.

**(2.) Solar Power Plant, total production capacity
90 megawatts/ Nakhon Sawan Province**

- The power plant is under the management of EA Solar Nakhonsawan Company Limited, a direct subsidiary company classified as a Small Power Producer (SPP). The project is located at No. 99/9, 99/10, Moo 5, Huawai Sub-District, Takhli district, Nakhon Sawan District, Nakhon Sawan, on the area of approximately 1,810 Rais.
- A power purchase agreement (PPA) between EA Solar Nakhonsawan Company Limited and the Electricity Generating Authority of Thailand (EGAT) for 5 years. Each default renewal is valid for 5 years under a condition that the party who wishes to renew the agreement must inform in writing to another party at least 30 days before the expiration date of the agreement.

- Granted Adder privilege for SPP of renewable energy in the rate of Baht 6.50 per kilowatt per hour for 10 years from the COD.

**(3) Solar Power Plant, total production capacity
90 megawatts/ Lampang Province**

- The power plant is under the management of EA Solar Lampang Company Limited, a direct subsidiary company classified as a Small Power Producer (SPP). The project is located at No. 333, Moo 1, Ban-uam Sub-district, Ban-Pao District, Mueang Lampang District, Lampang including an area in Nonglom Sub-district, Hang Chat District, Lampang in the area of approximately 2,477 Rais.
- A power purchase agreement (PPA) between EA Solar Lampang Company Limited and the Electricity Generating Authority of Thailand (EGAT) for 5 years. Each default renewal is valid for 5 years under a condition that the party who wishes to renew the agreement must inform in writing to another party at least 30 days before the expiration date of the agreement.

- Granted Adder privilege for SPP of renewable energy in the rate of Baht 6.50 per kilowatt per hour for 10 years from the COD.

**(4) Solar Power Plant, total production capacity 90
megawatts/ Lampang Province**

- The power plant is under the management of EA Solar Phitsanulok Company Limited, a direct subsidiary company classified as a Small Power Producer (SPP). The project is located at No. 88, Moo 11, Matong Sub-district, Phrom Phiram District, Phitsanulok, in the area of approximately 2,230 Rais.

- A power purchase agreement (PPA) between EA Solar Phitsanulok Company Limited and the Electricity Generating Authority of Thailand (EGAT) for 5 years. Each default renewal is valid for 5 years under a condition that the party who wishes to renew the agreement must inform in writing to another party at least 30 days before the expiration date of the agreement.
- Granted Adder privilege for SPP of renewable energy in the rate of Baht 6.50 per kilowatt per hour for 10 years from the COD.

Promotional privileges and benefits

The Company has been granted promotion privileges from the Board of Investment (BOI) according to the Investment Promotion Act, as follows: Investment Promotion Section 7.1 Solar Energy, total 4 projects as follows:

Type of the business being promoted	Promotion Card No.	Date of approval
1. EA Solar Farm / Lopburi Province	2467 (1)/2011	17 November 2011
2. Project 1 / Nakhon Sawan Province	1251 (1)/2013	20 May 2013
3. Project 2 / Lampang Province	2076(1)/Aor./2014	3 September 2014
4. Project 3 / Phitsanulok Province	58-2034-0-00-2-0	10 July 2015

• Wind Power Plant

The Company produces and distributes wind electric power. There are 8 projects commercial operated with total production capacity of 386 megawatts. Details are as follows:

(1) Hadkanghan 1-3 : total 3 projects with the total production capacity of 126 megawatts.

Projects	Production Capacity	Status
Hadkanghan 1 Ranod District / Songkhla Province	36 megawatts	Started commercial operation on 3 March 2017
Hadkanghan 2 Huasai District /Nakhon Si hammarat Province	45 megawatts	Started commercial operation on 10 June 2017
Hadkanghan 3 Pak Panang District /Nakhon Si Thammarat Province	45 megawatts	Started commercial operation on 23 June 2017
Total production capacity	126 megawatts	

- The power plant 3 projects are under the management of EA Wind Hadkanghan 3 Company Limited, classified as a Small Power Producer (SPP). The project is located at Huasai District, Pak Panang District, Nakhon Si Thammarat to Ranod District, Songkhla.
- A power purchase agreement (PPA) between EA Wind Hadkanghan 3 Company Limited and the Electricity Generating Authority of Thailand (EGAT) for 5 years. Each default renewal is valid for 5 years under a condition that the party who wishes to renew the agreement must inform in writing to another party at least 30 days before the expiration date of the agreement.
- The EA Wind Hadkanghan 3 was granted Adder privilege in the rate of Baht 3.50 per kilowatt per hour for 10 years from the COD.
- Granted tax benefits from the Board of Investment (BOI) for 8 years corporate income tax exemption and 50% reduction of corporate income tax on net profit desired from the promoted activity for 5 years.

(2.) Hanuman 1,5,8,9,10 : total 5 projects with the total production capacity of 260 megawatts.

Projects	Production apacity	Status
Hanuman 1 Thep Sathit District/ Chaiyaphum Province	45 megawatts	Started commercial operation on 25 January 2019
Hanuman 5 Thep Sathit District/ Chaiyaphum Province	48 megawatts	Started commercial operation on 22 March 2019
Hanuman 8 Thep Sathit District/ Chaiyaphum Province	45 megawatts	Started commercial operation on 25 January 2019
Hanuman 9 Thep Sathit District, Nong Bua Rawe District/ Chaiyaphum Province	42 megawatts	Started commercial operation on 30 March 2019
Hanuman 10 Bamnet Narong District/ Chaiyaphum Province	80 megawatts	Started commercial operation on 13 April 2019
Total production capacity	260 megawatts	

- The power plants are under the management of 5 indirect subsidiary companies, classified as a Small Power Producer (SPP). The project is located Thep Sathit district, Nong Bua Rawe district and Bamnet Narong district, Chaiyaphum.
- A power purchase agreement (PPA) between 5 indirect subsidiary companies and the Electricity Generating Authority of Thailand (EGAT) for 5 years. Each default renewal is valid for 5 years under a condition that the party who wishes to renew the agreement must inform in writing to another party at least 30.
- Granted Adder privilege in the rate of Baht 3.50 per kilowatt per hour for 10 years from the COD.
- The Company is granted tax benefits from the Board of Investment (BOI) for 8 years corporate income tax exemption and 50% reduction of corporate income tax on net profit desired from the promoted activity for 5 years.

Promotional privileges and benefits

The Company has been granted promotion privileges from the Board of Investment (BOI) according to the Investment Promotion Act, Investment Promotion Section 7.1 Wind Energy, total 8 projects as follows:

Type of the business being promoted	Promotion Card No.	Date of approval
1. Hadkanghan 1 Ranod District / Songkhla Province	1702(1)/2015	12 February 2015
2. Hadkanghan 2 Huasai District /Nakhon Si hammarat Province	1701(1)/2015	12 February 2015
3. Hadkanghan 3 Pak Panang District /Nakhon Si Thammarat Province	1703(1)/2015	12 February 2015
4. Hanuman 1 Thep Sathit District/ Chaiphaphum Province	60-0055-0-13-2-0	12 February 2015
5. Hanuman 5 Thep Sathit District/ Chaiphaphum Province	60-0051-0-13-2-0	12 February 2015
6. Hanuman 8 Thep Sathit District/ Chaiphaphum Province	60-0052-0-13-2-0	12 February 2015
7. Hanuman 9 Thep Sathit District, Nong Bua Rawe District/ Chaiphaphum Province	60-0053-0-13-2-0	12 February 2015
8. Hanuman 10 Bamnet Narong District/ Chaiphaphum Province	60-0054-0-13-2-0	12 February 2015

Marketing and Competition

Trends and growth of alternative energy business (renewable energy) in the future

The Thailand Power Development Plan 2018-2037 (PDP2018) was endorsed by the National Energy Policy Council (NEPC) and acknowledged by the Cabinet, in accordance with the government policy which focusing on 3 parts as follows

1. Energy Security

The security of power supply, transmission system and distribution system in response to the demand of electricity to support economic and social development plan including consider the power plant in order to sustain energy security.

2. Economy

It is vital to consider the optimized energy costs and promote low cost production while not causing obstacles to economic and social development including the readiness preparation for electrical system in order to the competition in electricity production to increase the efficiency of Electricity production in overall.

3. Ecology

To reduce the impacts on the environment by supporting the production of electric power generated from renewable energy and increasing the efficiency of electrical system both electricity production and electric energy consumption by developing smart Grid to support power distribution system development.

The Government is taking steps to increase renewable energy to correspondence with the outstanding renewable energy and support electricity consumption behavior including Disruptive Technology and in line with the conference of the parties (COP21) which consists of biomass, biogas, solar energy, Hydro Floating Solar Hybrid

Power plant and other renewable energies. The purpose of purchasing power of renewable energy is to maintain the pricing fluctuation and comply to the government policy which targeting the production capacity as of 2037 amount to 18,176 megawatts.

The energy renewable projects during 2018 to 2037

(According to the Thailand Power Development Plan 2018-2037 (PDP2018))

Energy Source	Production Capacity (MW-megawatts)
Solar Energy (Solar PV)	10,000
Biomass Power Plant (Biomass)	3,376
Biogas Power Plant (Biogas)	546
Hydro Floating Solar Hybrid Power plant	2,725
Wind Energy (Wind)	1,485
Industrial Waste	44
Total at year 2037	18,176

Source: the National Policy Council Energy department, Ministry of Energy

Marketing Policy

The Company has no direct competitors in term of marketing due to all the productions are distributed to the state authorities which are the Electricity Generating Authority of Thailand (EGAT) and Provincial Electricity Authority (PEA), based on the sale contracts (PPA). The Company has a strong determination to become a leading producer of alternative energy by using cutting-edge technology, choosing quality equipment from reliable manufacturers to ensure the smooth and stable performance of the power plants. In addition, the Company and the Company Group take into account the influence of teamwork which is an essential part of workflow. Through operation of the Company group, we employ personnel with experience and skills especially, civil work, to design and maintain the solar power plants.

Target customers / Distribution

The target customers for solar and wind power plants is electricity agencies from the government sector which includes the Provincial Electricity Authority (PEA) for 8 megawatts solar power plant in Lopburi and Electricity Generating Authority of Thailand (EGAT) for solar power plants in Nakhon Sawan, Lampang and Phitsanulok, each project has 90 megawatt capacity and total wind power plants as prescribed in the power purchase agreement which the Company and the Company Group made with the said government agencies in order to support the government policy about increasing the production capacity of electricity from renewable energy, to reduce importing energy in the long-term.



Other Businesses

(1) Battery development, manufacturing and distribution business

To enhance competitiveness in the renewable energy business and to comply with the business operation policy of the Company's Group, the Company acquired ordinary shares of Amita Technologies Inc. (AMITA-Taiwan), a company incorporated under the law of Taiwan, the Republic of China (ROC) and listed on the Emerging Stock Market of the Stock Exchange of Taiwan to operate lithium-ion polymer battery development and manufacturing business. In addition, the Company has established a subsidiary, i.e. Amita Technology (Thailand) Co., Ltd. to develop, manufacture, and distribute lithium-ion batteries. At present, the construction of the factory building is in the process of installing the machinery and testing the system before commencing the operation. It is expected that phase 1 shall be commenced operation around early 2021. Thereafter, the production capacity will be gradually increased in the next phase to meet the market demand and be expected to sell for electric vehicle business of the Company's group, such as E-Bus, E-Ferry. In this regard, the Company shall take batteries produced by AMITA-Taiwan's battery

manufacturing plant for EV business to achieve the plan of the Company.

Nature of Products

Generally, lithium-ion battery is an energy storage device which can store high volume of electric charge. After electricity is used up, the battery can be rechargeable as it contains chemicals which can react change to the former form by putting electricity into the equipment called "changer." Regarding properties of a lithium-ion battery, apart from electrode materials, the Company has designed them to have outstanding properties enabling it to contain high volume of energy, have light weight and long useful life. Lithium-ion batteries of the Group contained no chemicals which are hazardous to environment, such as acid liquid or lead. The Group is committed to developing and manufacturing lithium-ion batteries for diverse applications as follows:

(1.) Electric Vehicle

These electric passenger cars, electric trucks and electric transport boats, can help lessen pollution from internal combustion engines, reduce use of fuel oil, and prevent emission of exhaust gases into the air. Using electric power for automobiles can be regarded as an alternative energy to efficiently replace fuel energy. Especially amid the increasing concerns about global warming, use of lithium-ion batteries can be a good choice of power for electric vehicle and benefit to the environment.

(2.) Energy Storage System (ESS)

Since renewable energy becomes part of electric power industry with an image of clean technology, it has increasingly been used for electricity generation. However, renewable energy has some limitations concerning system stability as most of them come from solar and wind power, hence inability to generate and distribute electricity at a consistent pace. As such, energy storage system has increasingly played a significant part in power generation system, paving way for advancement toward the age of energy for the future.

Energy storage system (ESS) refers to a system and equipment which can change electric power or electricity to power in other forms so that electricity can be stored for use when needed, and will change the stored energy to electric power again when electricity is needed. ESS is very essential to the electric system in the future as it can help stabilize the electricity generating system and maintain consistent electricity quality. In addition, it helps support the change of electrical load to the appropriate period of time. For example, when electricity generated exceeds the existing electrical load, instead of throwing it away, the excess energy can be stored in the ESS for the period of lower electricity generation. This will enable smooth energy management in overall.

Strengths of energy storage system (ESS) are as shown below:

- Enhance stability of renewable energy for consistent electricity generation even when there is disruption in renewable energy power generation such as in case of thick clouds blocking sunlight (solar radiation density) or no wind blow (wind speed), etc.
- Serve as a backup energy source to store electric power from the generation system and for use in place of solar power which cannot be generated during night time.
- Stabilize the electric system to cope with fluctuations in the electric system by using power from batteries to maintain stability of the electric pressure and frequency of the system.
- Manage congestion of electric power network by having power from batteries to supplement the system instead of transmitting electricity from afar in case such areas need high volume of electricity for a certain period of time. The ESS uses lithium-ion batteries as they are suitable for installation, storage, and fast transmission of electricity, and worthwhile compared with their useful life. In addition, they can easily be moved for installation elsewhere (subject to regulatory authority's permission).

Each lithium-ion battery has the following components:

- (1.) **Negative electrode:** Main components are graphite-coated copper plates.
- (2.) **Positive electrode:** Main components are nickel manganese cobalt-coated aluminum plates.
- (3.) **Electrolyte solution:** It is solution which has lithium as the main component. Electrolyte solution will exchange lithium's ion and electrons between negative and positive electrodes.
- (4.) **Semipermeable membrane:** Polypropylene (PP) separates negative and positive electrodes.

Types of Products

(1.) Lithium-ion battery cells

Lithium-ion battery cell is the smallest product unit. The Parallel connection attains the higher Nominal Capacity while the connecting several cells in Series adds its voltage (Nominal Voltage) and will be called module. And if the battery modules are stacked together to form a larger size, it will be called a battery pack used with electric cars, electric ferry, or Energy Storage System (ESS). Each battery cell mainly contains cathode (positive electrode) and anode (negative electrode) and electrolyte solution as lithium is the element which allows electron to come from atom easiest among all elements. Therefore, lithium-ion can store high volume of energy.

(2.) Lithium-ion battery modules

Lithium-ion batteries can change electric power capacity according to the application requirements. As capacity of each type of machine requires different capacity, the Company designs arrangement of lithium-ion battery cells to be in modules of various sizes so as to be convenient for diverse applications, whether they are for electric cars, electric trucks, electric boats, or energy storage system, etc.

Promotional privileges and benefits

The Company has been granted promotion privileges from the Board of Investment (BOI) for activity eligible for promotion under Section 5.2.6.1 Manufacture of Lithium battery, Promotion Certificate No. 62-1184-1-18-1-0 approved by the Board on 22 October 2019

Marketing and Competition

Business growth trend and outlook of Battery

Lithium battery is currently a popular topic amid public interest of smart electronic equipment and the energy storage system (ESS) which has lithium-ion batteries as main components and used in various types. The National Metal and Materials Technology Center has classified lithium-ion batteries according to negative and positive electrodes and applications into six types as below:

Table: Types of lithium-ion batteries classified by negative and positive electrodes and applications

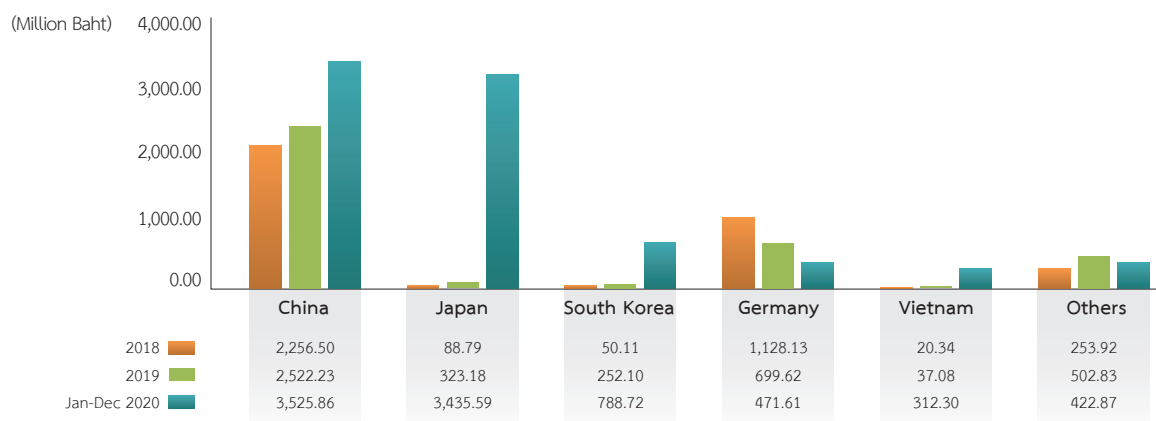
Type no.	Positive electrode	Negative Electrode	Applications
1	Lithium Cobalt Oxide (LiCoO_2 , LCO)	Graphite	Mobile phones, tablets, laptops, digital cameras
2	Lithium Manganese Oxide (LiMn_2O_4 , LMO)	Graphite	Power tools, medical equipment, power transmission system in electric vehicles
3	Lithium Nickel Manganese Cobalt Oxide ($\text{Li}(\text{Ni}, \text{Mn}, \text{Co})\text{O}_2$, NMC, NCM)	Graphite	Electric bikes, medical equipment, power transmission system in electric vehicles (normally hybrid cars), backup power system
4	Lithium Nickel Cobalt Aluminum Oxide ($\text{Li}(\text{Ni}, \text{Co}, \text{Al})\text{O}_2$, NCA)	Graphite	Medical equipment, power transmission system in electric vehicles (found in Tesla Model S), backup power system
5	Lithium Iron Phosphate (LiFePO_4 , LFP)	Graphite	Power transmission system in electric vehicles or replacement of start-lighting-ignition battery), system which requires high current and durability
6	Graphite or LMO	Lithium Titanate ($\text{Li}_4\text{Ti}_5\text{O}_{12}$, LTO)	Backup power system, power transmission system in electric vehicles (Mitsubishi i-MiEV, Honda Fit EV)

Source: MTECH Article on Get to Know Batteries, Part 4 Material Technology Magazine Volume

https://www2.mtec.or.th/th/e-magazine/magazine_detail.asp?Run_no=dlkebwve

Currently, Thailand has still imported lithium-ion batteries in a large volume. Any future increase in investment in lithium-ion battery manufacturing will help cut down import and import costs. In addition, it is an opportunity for manufacturers of equipment in which lithium-ion batteries are used as components, such as wireless charging devices and charging stations for electric cars, etc.

Table: Thailand's import of lithium-ion battery (850760) during 2018-2020

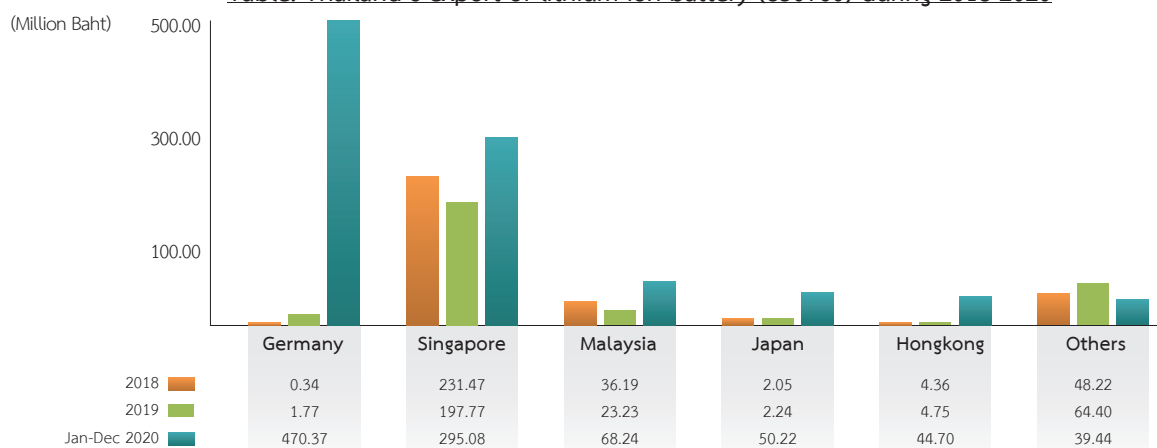


Source: Information and Communication Technology Center, Office of Permanent Secretary, Ministry of Commerce, with collaboration from Customs Department; tradereport.moc.go.th

From the chart above, in 2020 (Jan.-Dec.), Thailand has imported lithium-ion batteries totaling approximately Baht 8,956.95 million which growth at rate of 106.52% or more than 2 times from the same period in 2019. This presents that the import of lithium-ion battery in Thailand continues to increase significantly and it is indicated a continuously growing of demand for this type of battery.

Pursuant to the ASEAN-China Free Trade Agreement (ACFTA), Thailand has reduced the tariffs on the sensitive products (Sensitive list: SL) under Secondary Battery category imported from China to 5 percent from the previous set goal at 20 percent, resulting in the increase of imports from China with the value of Baht 3,525.86 million, presenting the increase of import at 39.79 percent higher than the same period of the last year and market share rise to 38.95% in 2020.

Table: Thailand's export of lithium-ion battery (850760) during 2018-2020



Source: Information and Communication Technology Center, Office of Permanent Secretary, Ministry of Commerce, with collaboration from Customs Department; tradereport.moc.go.th

From the chart of export value of lithium-ion battery of Thailand during 2018-2020, it presents, in 2020, Thailand exported the total lithium-ion battery of Baht 968.05 million, with a growth rate of 229.09 percent from the same period of 2019. This presents that the export of lithium-ion battery in Thailand continues to increase significantly as compared with the same period of last year. This also presents the growth of battery manufactory in the country. The battery exported to Singapore is likely increase with the value of Baht 295.08 million or approximately of 30.48 percent of total value in the year 2020. And by 2020, Thailand exported the most lithium-ion battery to Germany, valued at Baht 470.37 million or 48.59 percent of the total export value.

Marketing policy

1. Marketing strategy (Product)

The Company has focused on continuous research and development of production technology to ensure the designed lithium-ion battery has high quality and efficiency, store higher quantity of energy, and spend less charging time. The Company's research and development team has enabled improvement of quality of lithium-ion battery cells at all times, as well as production formula, manufacturing process, and quality control in every step of the manufacturing process. Also, the Group has invested in construction of electrolyte mixture plant as an important component of lithium-ion batteries. Therefore, it is able to improve electrolyte formula appropriately and continuously. For such downstream products as module batteries, the Company has set up module battery assembly units to provide application convenience for each group of customers who prefer batteries with diverse capacities, whether they are electric cars, electric trucks, electric boats or electric storage batteries for electricity generation and distribution system.

2. Pricing strategy (Price)

The Company has set a policy on distribution of products at market prices and with appropriate quality, and control of production costs in all aspects involving procurement of quality raw materials from various sources, construction of large plants, and automation of manufacturing process. This will help control and allow for efficiency and reduction of product unit costs in the manufacturing process, and enhance competitiveness in both domestic and overseas markets.

3. Distribution channel strategy (Place)

The Company has distributed battery packs through direct distribution channels to electric automobile manufacturers such as electric cars, electric trucks, electric buses or even electric boats both at home and overseas. Its Group's sales teams are direct contact for sales activities. Manufacturing of the products of both module and pack types are in the sizes as required by customers (made to order).

4. Procurement of raw materials

As the Company realizes raw material procurement risk, it has a policy in place to procure each type of raw materials from more than three reputable and reliable distributors to prevent shortage of raw materials for battery manufacturing.



(2) Electric charging station service business

(For electric vehicle), electronic transactions

The Company has expanded business to electric charging station business for electric vehicles under “EA Anywhere” brand, operated by Energy Mahanakhon Company Limited, its subsidiary. Its objective is to promote use of clean energy in the automobile industry to reduce greenhouse gas emission and also use of renewable energy which is environmentally friendly in place of fuel energy in the country’s transport system. This also responds to the development of infrastructure in preparation for electric automobile innovation or next generation automotive industry.

Nature of Products

“Electric charging station” is the station that provides charging service for electric automobiles which include PHEV (plug-in hybrid electric vehicle) and BEV (battery electric vehicle). The electric charging station is based on conductive charging technology. The electric vehicle is connected to the charger by cable (or charging cable) which is widely used nowadays. The charging is available for direct current and alternating current. The alternating current can be charged up to 44 kWh, depending on the onboard charger of each automotive model. Meanwhile, the direct current charger can charge up to 150 kWh and DC chargers for passenger buses, trucks and passenger ferry can be charged a maximum of 300 kWh.

Besides, the group Company has developed the charging cabinet pattern with modern technology, variety of styles according to the electrical power to support the battery size of all types of vehicles. So that it can be used with all electric cars, including the electric vehicles designed and manufactured by the group Company, such as electric cars, electric buses, and electric passenger ferry, which can be charge at the highest speed (4C-Rate) whereas the charging time depends on the type of vehicle and the size of the battery which is divided into 4 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.



- **Super-Fast Charge :**

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



- **Super-Fast Charge :**

DC 40 kW chargers can serve for Electric Vehicles car only.



- **Normal Charge :**

AC Normal chargers can serve electric vehicles car both Plug-in Hybrid (PHEV) and Battery Electric Vehicle (BEV)

For the selection of the charging station installation location, the group Company considers the feasibility factor of location to facilitate and high potential for electricity charging use, such as the area that has a lot of customer, tourist travel by car or the rest area, in Bangkok, perimeter and upcountry. For the first phase, the target location is at the in public places that can support the parking of electric vehicles for a period of at least 1-3 hours, such as shopping mall, hotel, restaurant, hospital, car park building at the business center, the rest area at the main street. And for the next phase, the group Company will concentrate in installation of DC Charger or quick charger at the place provide 24-hour services, especially, the gas station that convenient in terms of service and the surrounding environment and can access many types of services in one stop, etc.

At the end of 2020, 410 electric vehicle charging stations were installed, with 266 DC charge types being installed divided to DC Charge : 266 units (DC 150 kW : 256 units, DC 40 kW : 10 units) and AC Charge types : 592 units. In addition, at the end of 2020, the group Company has installed 14 units of DC Fast Charge stations with a power capacity of 300 kW, in order to support the use of both electric passenger ferry of the group Company and electric ferry of other organization that need the electricity charger at the highest speed which charged within 15-20 minutes.

To provide the services of electric charging stations, customer may reserve a specific electric charger and station in advance or may walk-in for immediate access to the station via “EA Anywhere” application. This application is available to download at “App store” for iOS operating system or “Play store” on the android operation. 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.



(3) Research and development business

The Company incorporated subsidiaries to conduct research and development of products related to palm oil, lithium-ion batteries, and electric automobiles involving both electric cars and electric boats. This serves as an extension of development to launch new innovative products, improve potential and quality of existing products, and boost competitiveness of the Group on a long-term sustainable basis.

Nature of research and development

1. Green Technology Research Company Limited :

Established to develop and conduct research works on innovation to pursue development and add value to Thai agricultural products. The Company's products or services involve the manufacturing processes from palm-related raw materials for higher value added. The manufacturing processes innovated can be registered for patents. The target customers are companies in its Group such as Green Diesel projects and Phase Change Material (PCM) which is the new research and development under Biodiesel business for value adding of crude palm oil using as substrate consisting of

- (1.) Green Diesel (GD) products: for blending with diesel fuel to enhance the efficient and engine performance.
- (2.) Phase Change Material (PCM) is a substance which releases/absorbs sufficient energy at phase transition to provide useful heat/cooling. The PCM is used in many commercial applications where stable temperature is required such as being a component of building materials or fabric fibers. The demanding of PCM is increased in the countries with inclement weather

2. Energy Beyond Research Company Limited :

Established to develop and conduct research works on innovation of lithium batteries and energy storage system. The Company's products or services involve the manufacturing processes of lithium batteries and battery control system as well as other related innovations. The innovations invented can be registered for patents. The target customers are companies in its Group.

3. Mine Mobility Research Company Limited :

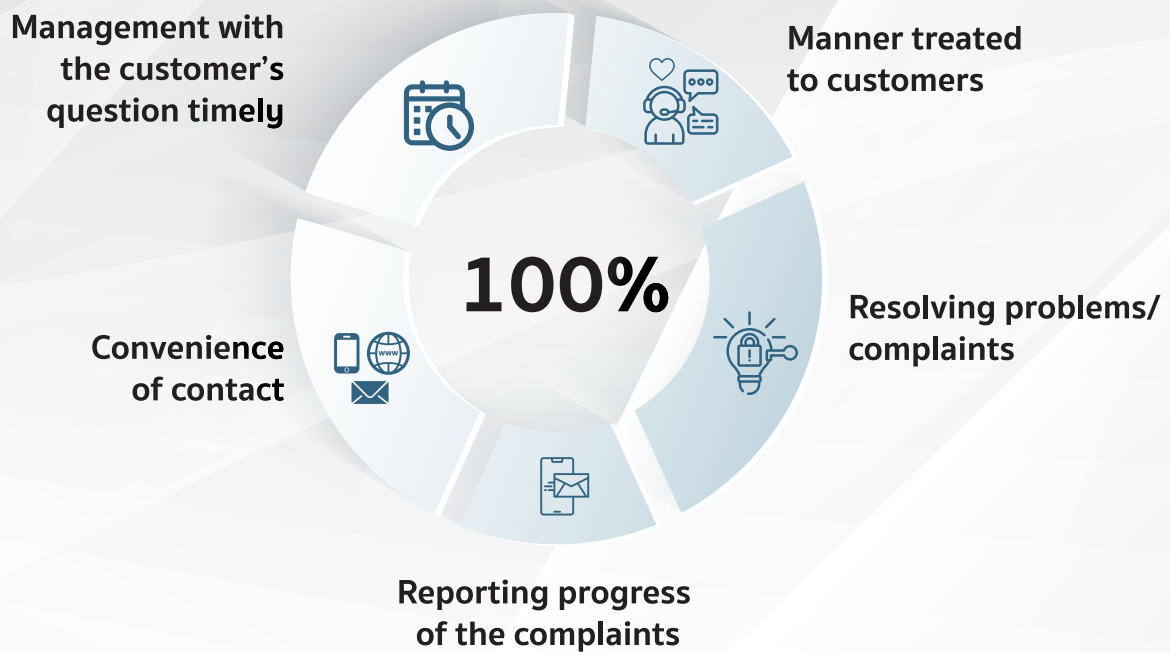
Develop and invent research in electric vehicles, such as electric cars, electric passenger ferry in order to expand the technology of electric vehicles to respond the needs of the customer under the concept of "MISSION NO EMISSION". The "Zero Pollution Mission" is aimed and focused on vehicles without pollution and being the environment friendly, economical, and safe, easy to maintain long-term. So that Thai can use electric cars, electric passenger ferry with high quality to transform Thailand to an innovative city without pollution in future.

This is that why the development, invent and research of electric car under "MINE Mobility" for which the subsidiary, i.e. Mine Mobility Corporate Co., Ltd. is manufacturer, assemble and distributor of electric cars and electric vehicle parts. Moreover, the group Company has started a project to design, develop and manufacture the electric passenger ferry using 800 kWh lithium-ion battery for which the high speed DC Fast Charge charger at 300 kW is supported as the energy source to drive electric motors under the name "MINE SMART FERRY" which is an innovation of Thai people and the honor award National Innovation Product 2020 on the Economy was granted from the National Innovation Agency.

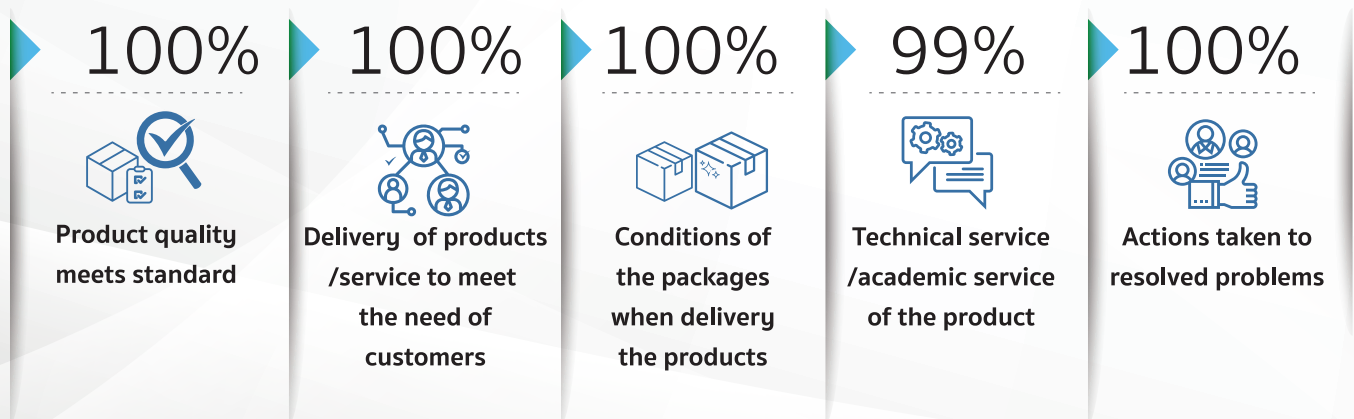
The electric passenger ferry "MINE SMART FERRY" was registered as the country's first electric passenger ferry which passed the examination safety system test and navigation according to the standards of the Harbor Department. The MINE SMART FERRY electric passenger ferry is a 24-meter catamaran with good stability, high safety and powered by the electric power contained in a 800 kWh battery, with the longest distance of up to 100 kilometers per charge and the capacity to transport up to 250 passengers. The services providing from Phra Nangklao Bridge Pier to Wat Ratchasingkhon Pier (Sathorn), a total distance of about 20 kilometers as part to connect the water transport, inland public transport and encourage people to have more options to travel by water transport with safe and easily with environmentally friendly of electric vehicles which the subsidiary, i.e. E Smart Transport Co., Ltd. is a logistic service provider. It is expected that the full-service will be complete from the middle of 2021, to provide both mass transit service and tourism service.

Company performance indicators: Customer satisfaction Survey 2020

Services



Products



Risk Factors

The Company recognizes and gives importance to management of risks in all perspectives under changing circumstances from both internal and external factors which may affect its business operation. This aims to build confidence among its stakeholders, and enable smooth and continuous operation as planned, and with highest efficiency according to the objective of being a leader in alternative energy business by using the modern technology and environmentally friendly for the best benefit of consumers, shareholders, partners, and fairness to employees. Major risks in the year in subject which may affect business operation of the Company and its group of companies can be divided into 6 areas as follows:

1. Strategic Risk

Based on its vision, the Company has mapped out a technology driven strategy to be the business and project pioneer using modern technology as a key factor of the strategy. This has made the Company among the first to innovate projects in the country and overseas to generate higher returns than those from general investments. Therefore, the Company may have come across instability of the surrounding environment and competition both domestically and abroad. Strategic risk factors can be summarized as below:

Risk from dependence on key executives

The Company's energy business operation has been developed and grown under the management of major shareholders and key executives, namely Mr.Somphote Ahunai, Mr.Amorn Sapthaweeikul, and Mr.Wutthilerd Chiannilkulchai, who are authorized directors to sign on behalf of the Company, executive directors, and top executives. The three executives above are competent with in-depth knowledge, expertise, and experience in terms of both daily business operation and execution of projects according to the Company's new business expansion plan towards energy industry.

However, realizing on the risk of dependence on the key executives, the Company's management structure has been adjusted to be more systematic and professional by prioritizing and decentralizing certain parts of daily management tasks to various business units as well as allocating duties and responsibilities of the key executives explicitly to other executives and employees of each business unit. The Company has properly set the internal control, information storage and database systems. Regular sharing and exchange of necessary and relevant news and information between executives and employees is also promoted. In addition, the Nomination Committee has given consent to the succession planning policy to strengthen and get the Group well-prepared. Also, the Executive Trainee Program has been launched to attract personnel with high potential to join the Group to succeed key personnel in major projects as new generation executives, which will help to drive the Group's business expansion both domestic and overseas.

Moreover, the Board of Directors has approved the establishment of Employee Trust to seek and provide additional long-term benefits to talented employees to motivate and retain them to work for the Group. This project is also aimed to inspire new hires for the Group in the future.

Risk from competition in the industries

Crude palm oil (CPO) manufacturing and distribution industry

The CPO manufacturing and distribution industry has encountered fierce competition for the past several years. Since palm is a widely grown agricultural produce, there are a large number of players in the market, hence CPO production capacity in excess of market demand. The Company has thus allocated the use of CPO by having part of the output from its plant to feed as raw material for its biodiesel plant and phase change material (PCM) plant. CPO storage tank is also under construction planning, aiming to store CPO during low market price conditions and sell it when market price is on the rise for higher profitability.

Moreover, the government's B10 diesel promotion policy implemented in 2020 has helped absorb CPO supply of more than 2.3 million tons per year, representing two-thirds of the country's CPO production output. The remaining one-third is to fulfill consumption (*Source: Energy News Center*).

Biodiesel manufacturing and distribution industry

Biodiesel manufacturing and distribution industry competition tends to intensify due to expansion of production capacity of existing manufacturers and market entry of newcomers. As such, the Company has to bear higher competition risk in the domestic market, such as offering discount on biodiesel prices announced by the government, etc. However, with awareness of the rising trend of competition, the Company has improved and developed its manufacturing process to cut cost per unit while maintaining product quality to be in line with the standards to ensure that the Company still has competitive advantage over its competitors, especially amid high competition situation, in parallel to product development to add value and differentiate its products from those of competitors until leads to achievement of the phase change material (PCM) development.

Renewable energy manufacturing and distribution industry

As it is an industry with high growth potential and good returns on investment, competition has been increasing from both existing and new players, and both in domestic and overseas. However, the Company has set a strategy of adopting high technology with the use of the power storage system to create differentiation from its competitors (Barrier to Entry), by offering renewable power generating system in conjunction with the energy storage system as a total solution which can satisfy electricity demand in areas which lack transmission lines or rural areas such as islands and mountains, etc. This helps lessen capital expenditure in transmission line system, increase efficiency in renewable energy production and distribution, and respond to electricity management during peak hours. The market for such total solution is large but there are only a few solution providers.

Energy storage or lithium-ion battery industry

It is the industry where competition is based on technology aimed at developing the batteries for longer useful life at lower cost and with high electricity storage capacity that can respond to extracting electric power for use in a short period of time and in diverse industries with high safety. High competition is evident in ongoing development for new models of better quality. The Company has collaborated with various sectors to get ready for such endeavor. Although the Covid-19 crisis impact on technicians from supplier to enter into the country but the Company still have teams with qualifications and potential relates to technology to operate continuously.

Electric vehicle charging industry

It is a new business which attracts increasing interest in line with the growth of hybrid car and electric car market as well as concerns over PM 2.5 and global warming caused by pollution emissions from vehicles today. However, as cars using fuel oil are still widely in use, the Company has to bear risk from running electric vehicle charging business. The Company has then devised a strategy of focusing on

business management at low investment cost by partnering with owners of locations with high potential in installing the electric vehicle charging equipment. Moreover, the Company has made a joint venture investment with manufacturers of charging equipment to control technology of the equipment and costs of equipment manufacturing and installation to ensure lower costs than its competitors, as well as speeded up investment and installation of the equipment at charging stations in operation across the country, with focus on Bangkok and Greater Bangkok to dominate prime locations ahead of its competitors. Moreover, the Company has entered into cooperation agreements with electric car manufacturers to offer electric charging service for electric car buyers in order to build connections and exchange important technologies and technical information as a way to foster relationship. This will bring about smooth business expansion and it will be difficult for other competitors to enter the market.

Risk from implementation of new business projects

As new investment projects require advanced technology and high investment amount, and in which the Group has not so much experience, the project implementation must be carried out with prudence in investment planning to align with the business framework of the Company and its Group in both short and long terms, and with action plans worked out in the same direction. Details can be summarized as below:

- Create business Ecosystem in which various business sections are inter-related and support one another to drive integrated business success. For instance, the Company aims to grow clean energy business so it has invested in solar and wind power plants, energy storage business (batteries), and charging station for electric vehicles such as electric car, electric bus, and electric ferry.
- Establish an investment structure that is appropriate for nature of business and business structure of each project. The Company has a policy to focus on investment at a significant level to allow for control of major parts of the operation (no less than 50% unless in case otherwise as deemed reasonable) and collaborate with strong allies in the country and those overseas. Collaboration may be in the form of joint venture with business partners or self-investment but partnering with allies, especially in investment in lithium-ion battery electric power storage, which is a strategic investment conducive to future growth.
- Using a strategy of gradual implementation of investment projects by studying and checking related factual information (Due Diligence) and preparing a feasibility test of investment in various scenarios. If the project is found worth investment, the Company will first start with a small size of investment until there is more clarity and risks can be controlled and managed, the Company will then gradually expand investment to meet the target set forth. This investment strategy will be applied to new project of the Company.
- During project implementation, a working team will be set up which consists of the main business units will be in charge in the project to work together with the strategy development and investment planning department under close monitoring and supervision from Chief Executive Officer and Deputy Chief Executive Officer with support from relevant work units. The working team will hold meetings regularly and report the project progress to the Executive Committee at least once a month, and also report the risk issues to the Risk Management Committee before propose to the Board of Directors for acknowledgement or approval as

the case may be. Hence, control and monitoring mechanism is in place according to the strategic plan.

- For New Business Projects are as follows:

Green Diesel and Phase Change Material Project (PCM)

The competition in this industry is not so keen as it is still in the early period of market penetration. The Company's PCM also unique compared to that of competitors as its PCM is made of palm oil. The Company has continued its research and development in order to expand market opportunities for use of PCM in various forms to further add value to the product.

Electric vehicle Projects

According to the national strategy on eco-friendly development and growth (source: Office of the National Economic and Social Development Council) and in particular when Thailand is currently facing air pollutant PM 2.5, demand for electric vehicles is on an upward trend. Although electric vehicle technology is widely employed overseas, it is rather new to Thailand and requires manufacturers to be well-prepared for many technical issues such as those relating to body, battery and charger, etc. The Company group is confident in its readiness in terms of production and related technologies to accommodate electric vehicle demand in the future.

(1) Electric Car

The Group launched electric cars under "MINE Mobility" brand, Model SPA1 in 2019. However, due to the COVID-19 pandemic, target customers like public service vehicles or taxis have been affected by the change in travel behavior of passengers, e.g., working more from home and less travel to various places, or more use of private cars to avoid the COVID-19 spread. The Group is confident that the situation will be eased when vaccines are available to the public.

However, since there is rather low investment in advertising, promotion and marketing for taxi market, the Company is able to set the selling price in a range close to its peers.

The Group also emphasizes its strengths such as battery safety with short circuit prevention technology, hence free from concern about fire and explosion, energy cost saving compared to use of oil and gas, and availability for installation of charging stations at taxi centers.

Furthermore, the Department of Land Transport requires useful life of each taxi car to be not exceeding 12 years from the date of registration to ensure public cars are in good and safe conditions to serve the general public. *(Source: Regulation of land transport relate to license processing for taxis not more than 7 passengers extending the service life of taxis from 9 to 12 years, 2021.)*

(2) Electric Ferry

Competition in the electric ferry industry is not so high. The business operation is under supervision of a government agency, i.e., Marine Department. The Company is required to strictly comply with the rules and regulations concerning its operation, hence difficult for new market entrants. Moreover, the prevailing contagion has necessitated people to live the New Normal way of life. This has hit public transport business as some people are still concerned about travelling to crowded areas. However, for the Company group's electric ferry, preventive measures are maintained including social distancing, passenger screening, provision of alcohol gel at service points in the ferry, seating arrangement with one empty seat in between each passenger, and installation of air sterilizers in the ferry to strengthen the passengers' confidence in the service.

(3) Electric Bus

In 2020, the Company group commenced the construction of assembly plant for its electric bus, which is 100% driven by electricity using batteries manufactured by the Company group. The plant has a production capacity of 3,000 buses per year and supports change of production lines to serve the purpose of other vehicles such as coach, truck and vehicles used in other businesses. The Company group is a new operator in the bus assembly business. In order to prevent knowledge base and construction risks, the

Company invests in the plant in collaboration with the alliances which are plant design expert and world's leading bus assembly operator to ensure optimum efficiency of the plant and assembly line in accordance with the international standards. Still, the COVID-19 has remained a risk factor which affects people's travel behavior and may also have further impact on registration volume of new buses.

Risk from Investment in New Overseas Projects

The Company has planned to expand business to align with its commitment to growing business with determination, consistency and sustainability. However, despite the attractiveness of overseas business investment and operation, there are risks in association with such endeavors, including legal and regulatory risks, economic and political instability, and different and unfamiliar national policies and processes of application for relevant licenses. This might delay the project implementation or failure to achieve the targets. The Company has taken a risk management measure by setting prudent investment criteria and guidelines for supervising and monitoring development of new projects through due diligence. In addition, the Company will engage advisors who have specialized expertise such as legal advisors, accounting advisors, etc., to work closely with its qualified teams to ensure that the Company will be successful in developing its projects and/or business acquisitions as planned. Besides, the Company also has a policy to seek business allies with potential, experience, and expertise in conducting business in a particular country to enhance investment capability and mitigate possible operational risk.

2. Operational Risk

Risk associated with human resources management

To serve the needs of the continuing of business expansion of the Company, and to add value to the business of the

Company, human resources management is essential for such business expansion which aim to be the leader in technology and innovation, such as the business of electric charging station, electric vehicle, electric ferry, battery and energy storage system, whereas the human resource management is focusing to the developing employees skill, knowledge and capability responding to global drive and technology changes. The improper planning of human resource which is not in-step with the future direction of the Company may impact the competitiveness and the operating results of the Company.

To manage the human resource risk in order to provide the sufficient and skilled human resources relating to and for business expansion, the company set forth human resources management program in form of "EA Group" to optimize human resources in EA Group and accelerate the manpower development network and the expertise in technology in various fields in order to achieve the material results by coordinating with the government and private sectors as well as the leading organization of country and aboard. Consequently, the following memorandum of understandings have been executed, i.e., joined the signing of memorandum of agreement related to the Cooperation on people development and Thailand's Educational standards in Next-Generation Automotive and Energy Storage System technology with the National Science Technology and Innovation Policy Office (STI office), and joined the signing of memorandum of understanding with the educational institutions in the Eastern Economic Corridor (EEC) and closed areas for 15 institutions to enhance the manpower at level of the Bachelor's degree and the graduates study in Artificial Intelligence, Intelligent technology, Mechanical Engineering, Mechatronics Engineering, and Automation System, as well as being the source of training, learning and developing of manpower though the short-term course to match skills with the needs of the Company and the country according to the National Strategy

Thailand 4.0 and the manpower development to support the Eastern Economic Corridor (EEC). The preparation of technology transfer program from foreign experts and training to employees to enable that the company can self-reliant at the appropriate level and expose the such knowledge to research and develop the existing technology for further develop the new products, develop the quantity of product and to enhance the competitiveness of the group Company for long term sustainability plan, the key succession plan, the executive program and to create the opportunity for employees with performance potential to rotate from one job to another within the EA group and create joint value for sustainable growth through the career management policy.

Besides the above, the Company has the performance assessment program for which the employees' compensation is referred to performance-based (Pay for Performance) for fairness according to performance, job description, behaviors and potential responding to the complex job. The competency of employee is defined while a trust fund, as one of the long-term compensation program, is established in order to motivate employees to create the sustainability shared value.

Risk of operational disruption

Solar and wind power plants may not be able to be operated during a natural disaster such as in cases of strong wind, flash flood, lightning, etc. These incidents may cause damage of machinery and equipment. However, the Company has put in place a business continuity plan, and prepared spare parts and tools for repair and maintenance to reduce potential risk of machinery and equipment impairment and for prompt recovery to normalcy. Furthermore, the Company Group has applied for business interruption insurance for

compensate when an unexpected situation occurs and in case that the project cannot operate

For the solar power plant, there is power output guarantee from the manufacturers throughout 25 years of useful life, and product warranty of 10 years. Also, the Company has selected inverters with production technology from a renowned manufacturer well accepted overseas and with product warranty of 5 years. As regards wind power plant, the Company has engaged Vestas and Siemens Gamesa which are manufacturers of wind turbines to specifically provide wind turbine generator operation and maintenance service in conjunction with using wind turbines from a reputable manufacturer with 5-year product warranty.

For Biodiesel plant, PCM Plant and Palm Oil Plant, tools and equipment have adequately been prepared to deal with fire outbreak, flood, and disasters. All business units will also have practice drills every year to understand the procedures and be able to timely deal with emergency cases.

3. Financial Risk

Risk of change in electricity offtake rate

The electricity offtake rate under the Power Purchase Agreement with the Electricity Generating Authority of Thailand and the Provincial Electricity Authority, besides the adder, consists of the base tariff and Ft rate. The Electricity Regulatory Commission (ERC) may consider and announce adjustment of the base tariff in line with the circumstances and related factors including cost of investment in the construction of power plant and transmission/distribution systems for the Ft charge ERC calculates and announces every 4 months with reference to uncontrollable fuel costs in production of electricity, i.e. fuel prices, inflation, foreign exchange rates.

Therefore, the Company Group's revenues from sales of electricity will vary to Base Tariff and Ft change. However, there have been so far very few adjustments of the base tariff. Even though the Ft rate adjusts every 4 months but the change rate does not significant impact on the overall electricity sales, the Company should only be slightly affected and in some cases is the positive Impact or some are negative on its revenue.

Risk associated with debt service capability

The Company has in place investment and business expansion plan both domestically and overseas, which requires a large amount of funds. The Group's financial source mainly comes from financial institution loans, hence liability to comply with agreements and conditions in the loan agreements throughout the contractual period. The Company has systematically managed and worked out a long-term financial plan, alongside monitoring and management of liquidity. Viewing its quarterly performance so far, there have been consistent cash flows from operation as projected with an appropriate level of debt to equity ratio. According to TRIS Rating Co., Ltd. (TRIS) in 2020, the Company's credit rating has been maintained at "A". This reflects the Company's stronger credibility with continued cash flow growth, which can help build confidence among creditors, trade partners, and other stakeholders, and ensure that the Company has good cash flow position and stable financial status for payment of principal and interest debts as scheduled. At present, the Group has good debt payment record without any debt default, and considerable financial potential to support its efficient expansion of investment according to its master plan.

Risk of Investment returns lower than projected

The Company and its Group's business expansion is project based, depending on investment in new projects. This will

involve diverse nature of projects, investment risks and investment returns. Certain necessary tools and equipment need to be imported, such as solar panels, wind turbines, and electric vehicle chargers, etc. Each project has to bear respective risks of changes in key factors used in investment assumptions like indefinite costs of projects due to uncertain prices of imported equipment as a result of foreign exchange volatility, demand and supply fluctuations, cost overrun, and so on. The Company has prevented such risks by prudently and comprehensively studying each project before making investment and working with as well as under advice from specialized experts. In addition, it has entered into tool and equipment supply agreements in advance to mitigate risk of changes in exchange rate. It also has a policy to manage loan interest rate risk by employing such a financial instrument as interest rate swap to convert floating interest rates to fixed rates.

Risk associated with funding for new businesses

Project development requires high investment which the Company makes investment through each newly established subsidiary for each project with formulation of shareholding and investment structures as deemed appropriate to prepare for funding from financial institutions. However, the Company's projects always new in Southeast Asia so it may be considered high risk for financial institutions. In some cases, the financial institution might reject the projects, or set strict loan conditions that may affect the project operation. However, in view of the Company's business operation with consistent growth, the Company has gained confidence from financial institutions and received a rating of "A" by TRIS Rating including gained confidence from financial institutions in approving long-term loans and also success in issuing long-term loans to investors. Besides, with its good debt payment record without any debt default, the

Company is confident that it can negotiate with financial institutions and institutional investors to continuously provide financial support for the Company's future projects.

4. Compliance Risk

Risk from changes in government policies

Biodiesel business policy

According to the government policy to promote greater use of biodiesel as renewable energy, B10 biodiesel is designated as the standard biodiesel oil in Thailand, effective from October 1, 2020 onwards. Nonetheless, it is suggested that use of biodiesel takes into account compatibility with cars of various models according to the Notification of the Department of Energy Business (*Source: Notification of the Department of Energy Business Re: Characteristics and Quality of Biodiesel Oil, B.E. 2563 (2020)*)

The change in the policy of the government is aimed to balance the palm supply for use as fuel within the country. It is an external factor beyond the Company's control. Nonetheless, it is suggested that use of biodiesel takes into account compatibility with cars of various models according to the Notification of the Department of Energy Business (*Source: Notification of the Department of Energy Business Re: Characteristics and Quality of Biodiesel Oil, B.E. 2563 (2020)*)

Policy on renewable power plant business

Even though the country's master plan on alternative energy development specifies priority and promotion of proportionate use of alternative energy or renewable energy to reduce environmental impact and increase dependence on domestic energy source in place of import. However, in practice, it has been found that implementation of the policy has been delayed from that expected. This has affected the Group's expansion of the existing business line. Therefore, the

Company has focused on expanding business to related industries such as electric power storage, electric vehicles, electric charging station, etc., and explored opportunities of expanding its investment to neighboring countries and beyond.

Electric vehicle and battery business policy

Despite the public sector's business stimulation through investment promotion for electric vehicle (EV) operators, no clear policy or action plan have yet been put in place to encourage or boost domestic demand for electric cars. This is different from other countries where there are support measures including tax reduction or subsidy for EV buyers, etc. As a result, the development of EV and related industries in Thailand has been at a gradual pace as evidenced by new car registration statistics classified by fuel type. Number of battery electric vehicles or BEV registered was 2,999 in 2020 and 1,572 in 2019 (*Source: Automotive Information Center, Thailand Automotive Institute*). However, with its strong belief that electric vehicle business will replace the existing automotive business, the Company has stimulated market demand and prepared for future EV business operation by establishing Energy Mahanakhon Co., Ltd. under the "EA Anywhere" tagline to operate the installation of EV charging stations with the objective to build consumer confidence in buying electric cars. The Company will also expand channels for use of lithium-ion battery from electric cars, which is the major market, to electric bus and electric ferry as well as plan to add overseas distribution channels.

Investment promotion policy in the Eastern Economic Corridor (EEC)

Recognizing that the Group's investment projects are within the target industry framework under Thailand 4.0 policy, the Company has invested in the construction of production base in the EEC in order to be eligible for additional privileges and use public utilities developed by

the public and private sectors for such area, which will secure long-term achievement of each project. However, due to delay in detailed development of the EEC toward action, the Company has to reschedule and revise the procedures from the original plan. Nonetheless, the Company has accelerated the projects and implemented the backup plan such as use of battery produced by the subsidiary in Taiwan pending the completion of the battery plant construction in Thailand. Marketing campaign has also been launched to promote electric vehicles of various types to enhance broader ranging awareness and acceptance, etc.

Risk related to compliance with relevant laws and regulations

The Company engages in diverse types of businesses such as biodiesel, renewable energy production and distribution, electric vehicle and related businesses, etc. Each business is governed by specific laws, rules and regulations. Any changes in these laws and regulations will have impacts on the Company's business operation. Violation of the rules, regulations, or requirements and relevant laws may also impair the performance and reputation of the Company.

The Company is well aware of and gives importance to keeping abreast of new laws, rules and regulations. Its rigorous compliance is assured through adoption of international standard systems, such as RSPO, ISO 14001 and ISO 45001, etc. In addition, the Company has in place two key work units, namely ISO Department and Licensing and Investment Promotion Department in charge of the control and monitoring of compliance with the related rules, regulations, laws and requirements according to the delegated authority and responsibilities. The Internal Audit Department is also in place to perform the follow-up and

examination to ensure operational consistency and prevent possible impacts on the business operation. Information is disseminated organization-wide to create understanding and awareness of the impacts and actions to be taken. This will help support strict regulatory compliance of the management and employees as well as contractors and mitigate risks or minimize impacts on the organization.

5. Business Operation Risk

Risk from dependence on large customers

The Company is a producer and distributor of biodiesel (B100) for use as fuel. It also produces and distributes purified glycerin and by-products. In the sale of biodiesel, the Company has relied on 7 large customers under sales agreements. A sale to large oil distributors in Thailand is an advantage to the Company as they are financially reliable. Nonetheless, the sale proportion may be adjusted downward in line with the demand in each period. Moreover, the Company believes that likelihood of losing major customers is minimal as the sales are carried out under sales agreements each with contractual term from 3 months to a maximum of 3 years. Discount on biodiesel price announced by the government will also offered for the next agreement to be executed, which will help ensure consistent renewal of the agreement. Furthermore, the government stipulates that large fuel oil traders or distributors pursuant to Section 7 of Fuel Trade Act B.E. 2543 (Fuel Trade Act B.E. 2543: A fuel trader under Section 7 refers to any person who is a fuel trader having annual trade volume for each type or for all types together of fuel from 100,000 metric tons or approximately 120 million liters upward) must use biodiesel (B100) as a mixture in high-speed diesel to be

distributed. Thus, demand for biodiesel (B100) should grow in line with the increase in automobiles that consume high speed diesel and in the mixture proportion of biodiesel in diesel oil.

Besides the production efficiency improvement, the Company recognizes that good customer relationship management leads to satisfaction and lasting relations between customers and the company, especially, in enhancing the probability of renewing long-term contracts with those nearing expires. The Company therefore seeks for feedback through the customer satisfaction survey every year, with elements focusing on product or service and deliver that meet customers' needs, behaving in an appropriate manner, etc. The outcomes reflect customers' satisfaction and expectations to the Company and also indicate how to develop work process to address even more needs of old and new customers. In 2020, the overall customers of biodiesel business are indeed satisfied with its operations at the excellent level.

For production and distribution of renewable power industry, distribution is made to the Electricity Generating Authority of Thailand (EGAT) and the Provincial Electricity Authority (PEA). The contractual period is 5 years from the date of the Company's electricity sales. Renewals of the agreement can be made each for 5 years unless any of the contract parties terminates the agreement. To renew the agreement, the Company has to send a letter notifying its intention to the other contract party. If the Company and its Group's production and distribution of electricity can be carried on continuously without causing any damage to the electricity authorities' power systems, the agreements should be renewed according to the conditions in the master agreement. Therefore, the Company needs to maintain the quality of its power production and

distribution systems and cause no problems to the systems by implementing an ongoing maintenance plan and coordinating with EGAT and PEA teams closely to facilitate exchange of information and cooperation in the operation.

Risk associated with raw material procurement and price fluctuations

Main raw materials for the Company's biodiesel production are crude palm oil (CPO), stearin, and refined bleached and deodorized palm oil (RBD palm oil) which are subject to supply and price volatility. For example, they may be affected by drought or flood, trade protectionism, and demand in overseas markets, etc. The government has given priority to maintaining the levels of palm oil prices and palm oil reserve in the stock to ensure adequacy in line with demand and supply situation in the country and prohibiting import in order to generate income and maintain good returns for Thai palm farmers.

Raw material price in early 2020 continued falling from 2019 due to the prolonged drought which caused palm infertility during its season. In October 2020, the price started to move up continuously. With the drought continued until early 2021, the volume of crude palm oil inventory as at December 2020 was 208,396 tons (Source: palm oil stock data as of December 2020 of the Department of Internal Trade, Agricultural Trade Promotion Division 1: <http://agri.dit.go.th> from the survey on 34 provinces during December 28-30, 2020). This indicated raw material supply in excess of demand and sharp price fall worldwide. The government thus set a policy on use of palm oil in industries including food and energy industries, and increase biodiesel proportion in high speed diesel fuel based on the existing oil stock to drive commercial-scale production and distribution across the country.

At present, the Company has made each raw material purchase and agreed on the prices based on the respective agreement. The raw materials are purchased from edible oil refineries and palm oil crushing mills who procure such raw materials for the Company without any long-term purchase agreements. By this method, there may be risk incurred if these producers and suppliers are unable to produce or supply the raw materials to the Company within the specified time and under the set conditions. Moreover, if they decide to produce biodiesel and stop supplying the raw materials to the Company, the Company's business operation may be impacted. However, in such case, it may help lessen risk from loss on stockpiling of high-priced raw materials.

As such, the Company has prepared to prevent and relieve the impact from such risk by contacting and maintaining good relationship with raw material producers and suppliers. Additionally, it also has a policy in place to diversify the procurement sources of raw materials among producers in various regions of the country. For example, the Company will purchase CPO from palm oil refineries in the southern and north-eastern regions, and RBD palm oil and stearin from large vegetable oil factories in the central and eastern regions to prevent risk in case some regions may experience seasonal disruption or unprecedented incidents or disasters that might hinder their production and lead to shortage of supply.

6. Emerging Risk

The Company has analyzed and assessed 3 emerging risks comprising technology risk, new regulatory risk, and the occurrence of deadly epidemics.

Information technology risk

The Company's consistent business growth and expansion since 2017 has been attributable to its strength in the technology and innovation areas. Its long-term operational plan is to utilize energy storage technologies to bring energy security and to uplift use of eco-friendly renewable energy. The Company is aware of new risks that may arise from new technological inventions to replace the existing technologies which the Company is now investing in, or from the fact that power sale/purchase can freely be undertaken at both local and international levels and at low prices, which may lead to possible changes in the growth of electricity power production and storage. Possible changes in various forms have prompted the Company to make efforts in strengthening its business and income base, and continuously expand the market to the entire power industry, electric vehicle industry and other related industries in parallel to exploring new investment opportunities along with human resource development and advanced technological study and development.

New regulatory risk

As the Company's business involves large investment and thus sizable use of modern tools and equipment such as solar panels, wind turbines, lithium batteries, etc. is required. Upon the end of the useful life of machines and equipment, they will be returned to the manufacturers for proper elimination. The Company has instilled in employee's awareness of importance of maintenance measures and takes these measures to expand the useful life of tools and equipment to the longest possible. However, there is a possibility that stricter laws or regulations on disposal

will be established and in force both at home and abroad in the future. In this connection, the Company signed an MOU with Chulalongkorn University on a project to study recycling of used and expired lithium-ion batteries. Besides, The Company's teams have kept abreast of technological development. It has started making investment in waste management business by incorporating a subsidiary, i.e., Smart Waste Management Co., Ltd. (SWM), which will not only boost business returns but also empower internal teams to be keen and work on waste disposal technology

The occurrence of deadly epidemics

The occurrence of deadly epidemics in many countries tends to intensify spreading faster every year without vaccine for some deceases. The situation became more difficult to control in a timely manner which affected our business operation indirectly. That is, unable to import tool, machinery, equipment, raw material and labor from our partners in many countries, especially China, the country of our important partners. Our executive directors and working team also had to postpone or cancel their business trip to the high-risk countries, including suspending marketing activities that will have a lot of participants, caused delay in some of the company's new investment projects. However, the company has its back up plan to find tool, machinery, equipment and raw material from alternative sources that can be substituted, as well as rescheduled its execution plan and activities to minimize impact including providing appropriate health care and sanitary to our people and related stakeholders.



Securities and Shareholders Information

1. Registered Capital and Paid-up Capital

Energy Absolute Public Company Limited (EA) is a listed company on the Stock Exchange of Thailand with a total registered capital of THB 373,000,000 as at December 30, 2020, fully paid up and divided into a total of 3,730,000,000 ordinary shares with a par value of THB 0.10 per share.

2. Shareholders Structure

The first 10 major shareholders as at December 30, 2020 compare to January 6, 2020.

Name of Shareholders	As at 30 December 2020		As at 6 January 2020		Increase / (Decrease)	
	Number of Shares	Shareholding Percentage	Number of Shares	Shareholding Percentage	Number of Shares	% of shares Increase / (Decrease)
1. Group of "Ahunai"	1,626,406,430	43.6034	1,629,586,330	43.6886	(3,179,900)	(0.0852)
1.1 Mr. Somphote Ahunai	876,436,386	23.4969	876,436,386	23.4969	-	-
1.2 Sotus & Faith#1 *	300,000,000	8.0429	200,000,000	5.3619	100,000,000	2.6810
1.3 Sotus & Faith#1 * (held under Custodian -UBS AG SINGAPORE BRANCH)	264,000,000	7.0777	430,000,000	11.5281	(166,000,000)	(4.4504)
1.4 Sotus & Faith#1 * (held under Custodian -MORGAN STANLEY)	66,000,000	1.7694	-	-	66,000,000	1.7694
1.5 Sotus & Faith#2 * (held under Custodian -UBS AG SINGAPORE BRANCH)	2,770,000	0.0743	2,770,000	0.0743	-	-
1.6 Mrs. Blanca Shulan Huang	24,983,607	0.6698	24,983,607	0.6698	-	-
1.7 Mr. Somboon Ahunai	8,293,951	0.2224	10,093,951	0.2706	(1,800,000)	(0.0483)
1.8 Supaporn Ahunai	24,217,049	0.6493	24,217,049	0.6493	-	-
1.9 Mr. Julin Ahunai	16,800,000	0.4504	16,800,000	0.4504	-	-
1.10 Mrs. Wilai Ahunai	6,000,000	0.1608	6,200,000	0.1662	(200,000)	(0.0054)
1.11 Mr. Pholsith Ahunai	18,637,237	0.4997	19,137,237	0.5131	(500,000)	(0.0134)
1.12 Mr. Peeraphol Ahunai	18,268,200	0.4898	18,948,100	0.5080	(679,900)	(0.0182)
2. UBS AG SINGAPORE BRANCH (excluded shares held under 1.3, 1.5, and 5.2)	479,188,593	12.8469	408,778,593	10.9592	70,410,000	1.8877
3. Thai NVDR Co., Ltd.	188,961,942	5.0660	181,470,841	4.8652	7,491,101	0.2008
4. Group of "Chiannilkulchai"	182,593,892	4.8953	182,593,892	4.8953	-	-
4.1 Mrs. Mukda Boonsieng	167,261,043	4.4842	167,261,043	4.4842	-	-
4.2 Mr. Wutthilerd Chiannilkulchai	15,332,849	0.4111	15,332,849	0.4111	-	-
5. Group of "Sapthaweekul"	160,213,109	4.2952	153,992,809	4.1285	6,220,300	17.7327
5.1 Mr. Amorn Sapthaweekul	74,968,316	2.0099	74,968,316	2.0099	-	-
5.2 Mr. Amorn Sapthaweekul (held under Custodian -UBS AG SINGAPORE BRANCH)	25,000,000	0.6702	25,000,000	0.6702	-	-
5.3 Ms. Wassa Rimchala	25,823,087	0.6923	23,232,787	0.6229	2,590,300	0.0694
5.4 Mr. Anat Sapthaweekul	34,421,706	0.9228	30,791,706	0.8255	3,630,000	0.0973

Name of Shareholders	As at 30 December 2020		As at 6 January 2020		Number of shares	
	Number of Shares	Shareholding Percentage	Number of Shares	Shareholding Percentage	Number of Shares	% of shares Increase / (Decrease)
6. Mr. Luchai Pukan-anan	140,432,408	3.7649	145,632,408	3.9044	(5,200,000)	(0.1395)
7. Group of "Noparumpa"	77,043,100	2.0655	75,243,100	2.0173	1,800,000	0.0482
7.1 Ms. Ploysongsang Noparumpa	68,970,700	1.8491	68,970,700	1.8491	-	-
7.2 Mr. Tirapol Noparumpa	1,800,000	0.0482	-	-	1,800,000	0.0482
7.3 Mr. Tim Noparumpa	6,272,400	0.1682	6,272,400	0.1682	-	-
8. STATE STREET EUROPE LIMITED	49,552,227	1.3285	47,683,578	1.2784	1,868,649	0.0501
9. Mr. Somkiet Thanatchalernkul	40,786,900	1.0935	53,416,900	1.4320	(12,630,000)	(0.3385)
10. Mr. Phornlert Techarattanopas ¹	32,951,300	0.8834	30,501,300	0.8177	2,450,000	0.0657
11. Other shareholders ²	751,870,099	20.1574	821,100,249	22.0134	(69,230,150)	(1.8560)
Total shares	3,730,000,000	100.0000	3,730,000,000	100.0000		
Total shareholders		21,580 persons		24,923 persons		

Remarks : * Please refer to "Controlling power of the Company, changes in shareholding structure and the management,"
: ^{1, 2} Revised Number of Shares of Shareholder no.10, 11 as at January 6, 2020

3. Limitations of Transferring of Shares

There is no limitation except the case of transferring of shares to foreign investors that cause such foreign investors to own more than 49% of total shares of the Company.

4. Other Securities

The Annual General Meeting of Shareholders approved the offering and issuance of the debentures as details below:

- Annual General Meeting of Shareholders dated April 29, 2016 approved the offering and issuance of the debentures up to Baht 10,000 million in order to invest in power plant projects of the Company.
- Annual General Meeting of Shareholders dated April 25, 2019 approved the offering and issuance of the debentures up to Baht 15,000 million in order to be used as working capital and invest in projects of the Company.
- Annual General Meeting of Shareholders dated April 23, 2020 approved the offering and issuance of the debentures up to Baht 15,000 million in order to invest in projects of the Company and refinance the existing debentures.

As at December 31, 2020, the Company offered and issued debentures of 5 times in the total of 10 tranches, which the outstanding debenture value totals up to amount of Baht 16,200 million as details below:

1. Debentures No. 1/2016 unsubordinated and secured debentures in registered name form with debenture holder representative and the issuer's right to early redemption.

Offering	Institutional investors and/or High net worth
Outstanding Debenture Value	Baht 4,000 million
Issue Date	July 22, 2016
Interest Payment Date	Every six months on each January 22 and July 22 that the debentures are outstanding; the first interest payment date on January 22, 2017.
Issue Rating	"AA" by TRIS Rating Co., Ltd.

Series	Debenture Value (Baht)	Interest Rate	Maturity Date
(Tranche 3) / 5 years	4,000,000,000	2.37% per annum	July 22, 2021*

* the issuer's right to early redemption

2. Debentures No. 1/2019 unsubordinated and unsecured debentures in registered name form with debenture holder representative.

Offering	Institutional investors and/or High net worth
Outstanding Debenture Value	Baht 3,000 million
Issue Date	July 11, 2019
Interest Payment Date	Every six months on each January 11 and July 11 that the debentures are outstanding; the first interest payment date on January 11, 2020.
Issue Rating	"A-" by TRIS Rating Co., Ltd.

Series	Debenture Value (Baht)	Interest Rate	Maturity Date
(Tranche 1) / 3 years	1,000,000,000	2.61% per annum	July 11, 2022
(Tranche 2) / 10 years	2,000,000,000	3.61% per annum	July 11, 2029

3. Debentures No. 2/2019 unsubordinated and unsecured debentures in registered name form with debenture holder representative.

Offering	Institutional investors and/or High net worth
Outstanding Debenture Value	Baht 4,000 million
Issue Date	August 15, 2019
Interest Payment Date	Every six months on each February 15 and August 15 that the debentures are outstanding; the first interest payment date on February 15, 2020.
Issue Rating	"A-" by TRIS Rating Co., Ltd.

Series	Debenture Value (Baht)	Interest Rate	Maturity Date
(Tranche 1) / 3 years	500,000,000	2.41% per annum	August 15, 2022
(Tranche 2) / 5 years	1,500,000,000	3.11% per annum	August 15, 2024
(Tranche 3) / 10 years	2,000,000,000	3.58% per annum	August 15, 2029

4. Debentures No. 3/2019 unsubordinated and unsecured debentures in registered name form without debenture holder representative.

Offering	Institutional investors
Outstanding Debenture Value	Baht 3,000 Million
Issue Date	October 16, 2019
Interest Payment Date	Every six months on each April 16 and October 16 that the debentures are outstanding; the first interest payment date on April 16, 2020.
Issue Rating	“A-” by TRIS Rating Co., Ltd.

Series	Debenture Value (Baht)	Interest Rate	Maturity Date
(Tranche 1) / 7 years	3,000,000,000	2.744% per annum	October 16, 2026

5. Debentures No. 1/2020 unsubordinated and unsecured debentures in registered name form with debenture holder representative.

Offering	Institutional investors and/or High net worth
Outstanding Debenture Value	Baht 2,200 Million
Issue Date	July 10, 2020
Interest Payment Date	Every six months on each January 10 and July 10 that the debentures are outstanding; the first interest payment date on January 10, 2021.
Issue Rating	“A-” by TRIS Rating Co., Ltd.

Series	Debenture Value (Baht)	Interest Rate	Maturity Date
(Tranche 1) / 2 years	500,000,000	2.62% per annum	July 10, 2022
(Tranche 2) / 3 years	1,000,000,000	3.94% per annum	July 10, 2023
(Tranche 3) / 5 years	700,000,000	3.30% per annum	July 10, 2025

Dividend Policy

Dividend Policy of the Company

The Company has a policy to pay the annual dividends to shareholders at minimum of 30 percent of net profit after deduction of all income tax and reserves as specified in the articles of association and by the laws. Payment of dividends is subject to the cash flow, investment plans, conditions and requirements of company's contracts including legal limitations and other appropriateness in the future. The Board of Directors may consider paying the annual dividends with approval from the Annual General Meeting of Shareholders (AGM), except interim dividend payment which the Board of Directors has the authority to approve before reporting the interim dividend to the shareholders at the next shareholders' meeting.

Dividend Payment (THB/share) for the year 2017 to year 2020

Dividend Payment (THB/share)	year 2017	year 2018	year 2019	year 2020
Net Profit per share (THB : share)	0.56	1.08	0.93	1.05
Dividend rate per share (THB : ordinary share)	0.15	0.20	0.25	0.30
Dividend Payout Ratio per Net Profit (%)	26.60	18.58	26.75	28.63

Remark : Separate Financial Statements

Subsidiaries' Dividend Policy

The dividend payment of subsidiaries is according to the articles of association and as specified by laws. Regarding to the subsidiaries established for conducting solar power plant business, the consideration must base on conditions of the loan contract and debt service coverage ratio (DSCR).



GOOD CORPORATE GOVERNANCE



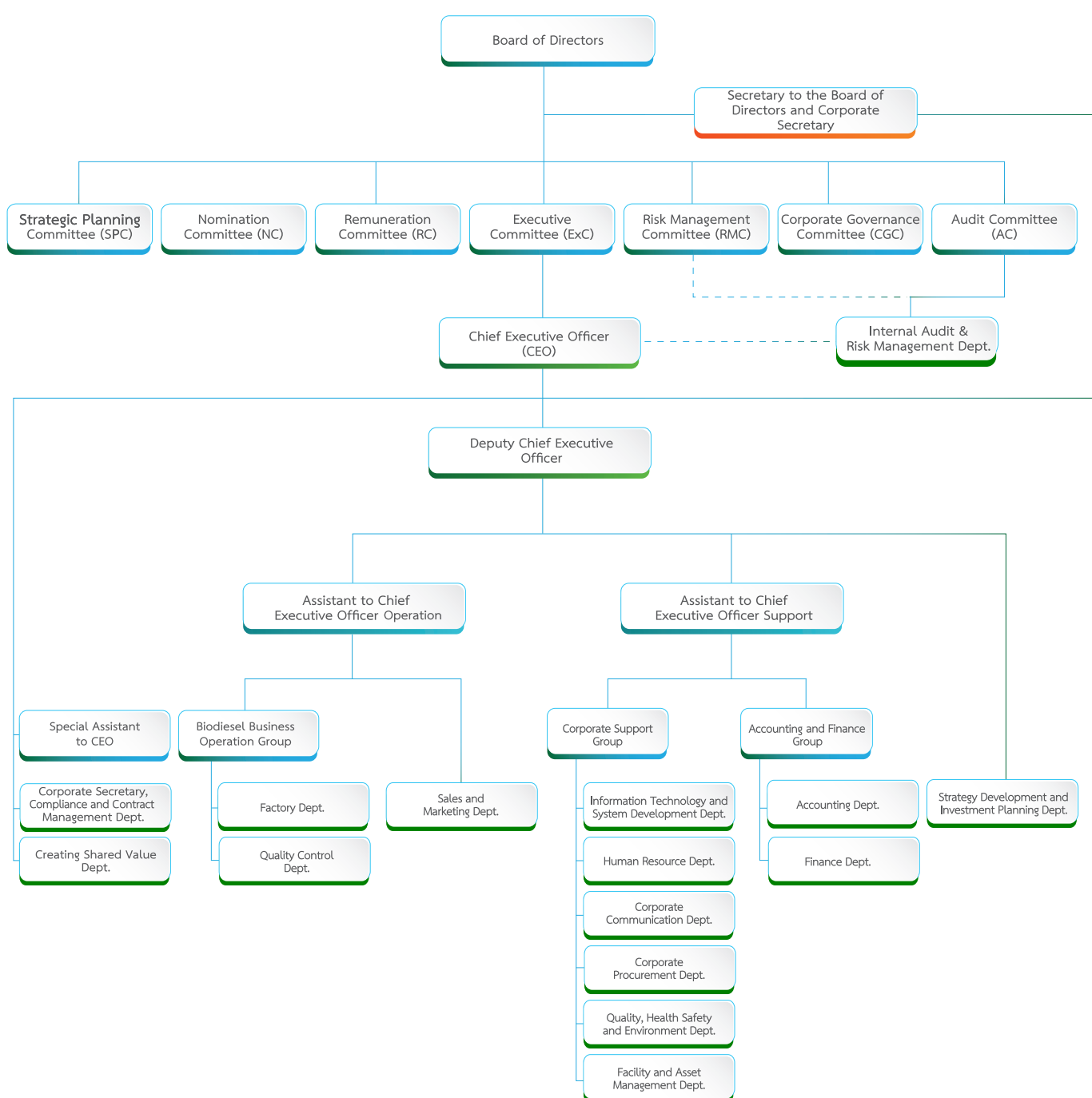
Management Structure

Organization Structure

As of December 31, 2020, the management structure of Energy Absolute Public Company Limited comprises of the Board of Directors and 7 Sub-Committees, namely

- 1.) Executive Committee 2.) Audit Committee 3.) Nomination Committee 4.) Remuneration Committee
- 5.) Corporate Governance Committee 6.) Risk Management Committee and 7.) Strategic Planning Committee

Organization Structure



Board of Directors

Composition of the Board of Directors

As of December 31, 2020, the Board of Directors consisted of 11 directors including 9 non-executive directors and 2 executive directors, namely Chief Executive Officer and Deputy Chief Executive Officer which 6 of whom are independent directors.

The composition above is in line with the Company's Articles of Association, which prescribes that the Board of Directors shall comprise of at least 5 but not exceeding 15 directors and not less than half of whom must reside in Thailand.

Board of Directors

Name /Position	Date Appointed	Meeting Attendance
1. Mr. Somchainuk Engtrakul <ul style="list-style-type: none"> Chairman of the Board of Directors Independent Director/* (Qualified as an independent director in 2017) 	12 March 2008	8/8
2. Mr. Somphote Ahunai <ul style="list-style-type: none"> Director (Authorized Director) Vice Chairman of the Board of Directors 	12 March 2008	5/8
3. Mr. Amorn Sapthaweeikul <ul style="list-style-type: none"> Director (Authorized Director) 	30 March 2012	7/8
4. Mr. Wutthilerd Chiannilkulchai <ul style="list-style-type: none"> Director (Authorized Director) 	12 March 2008	8/8
5. Mr. Sutham Songsiri <ul style="list-style-type: none"> Director 	12 March 2008	8/8
6. ACM. Chainan Thumasujarit <ul style="list-style-type: none"> Independent Director 	7 August 2012	8/8
7. M.R. Bravochat Chatchai <ul style="list-style-type: none"> Independent Director 	26 November 2010	8/8
8. Pol.Gen. Phatcharavat Wongsuwan <ul style="list-style-type: none"> Independent Director 	18 April 2014	-/8
9. Mr. Somboon Ahunai <ul style="list-style-type: none"> Director 	22 April 2015	7/8
10. Mr. Amornsuk Noparumpa <ul style="list-style-type: none"> Independent Director 	27 April 2017	3/8
11. Mr. Somphop Keerasuntonpong <ul style="list-style-type: none"> Independent Director 	23 April 2020	4/8

Ms. Yaowalug Pukpikul : Corporate Secretary and Secretary of the Board of Directors

Remark : Director retired during the year

1.) Mr. Chaiwat Pongpisitsakul, Independent Director effective as of April 22, 2020

Authorized Directors

The directors authorized to act on behalf of the Company as stated in the Company affidavit are “Mr. Somphote Ahunai, Mr. Wutthilerd Chiannilkulchai, Mr. Amorn Saphaweekul with two out of three mentioned directors jointly sign with the Company’s seal affixed”

Roles and Responsibilities of the Board of Directors

(Duty of Care, Duty of Obedience, Duty of Loyalty and Duty of Disclosure)

- To perform their duties under applicable laws, objectives, regulations of the Company and resolutions of shareholders’ meetings with duty of loyalty, duty of care, respect the laws and regulations of the Company (Duty of Obedience) and disclose information to shareholders accurately, completely, transparently, timely (Duty of Disclosure), accountability, as well as full benefit of all shareholders.
- To determine vision, strategy, policy and business direction of the Company, control and monitor whether the management’s performance is effectively and efficiently in order to maximize economic value to the shareholders and achieve the sustainable growth.
- To determine policy and regulate the Company to prepare guidelines for supporting anti-corruption measures to ensure that management aware of the importance of this anti-corruption and cultivate to be an organizational culture.
- The Board of Directors is responsible in considering important subjects such as policies and business plans, big investment projects, corporate acquisition, management authority and other subjects prescribed by the law.
- The Board of Directors is responsible to evaluate and determination of remuneration for the management.
- The Board of Directors is responsible business performance and management practices to carefully and cautiously perform.
- The Board of Directors is responsible for setting an accounting system, financial reports and reliable accounting audit as well as overseeing the process of assessment on the suitability of internal controls and the efficient and effective internal audit, risk management, financial reports and follow up.
- The Board of Directors is responsible to prevent the conflicts of interest between the stakeholders of the Company.
- The Board of Directors is responsible to report the report of the Board of Directors’ Responsibilities for the Financial Report along with the auditor report in the Annual Report as well as covering important issues in accordance with the good practice for the directors of the listed company under the Stock Exchange of Thailand.
- To disclose information to shareholders, investors and all groups of stakeholders with accuracy, standard, transparency and in timely manner.
- To provide efficient internal control system and internal audit.
- To provide efficient risk management and regularly follow up.
- To implement good corporate governance and regularly follow up the result.
- To appoint the Company Secretary to be responsible for arranging activities of the Board of Directors and to support the Board of Directors and the Company to comply with the law and related regulations.

- To implement business ethics for directors, executives and employees as a standard of work within the organization.
- It is duty of the independent directors to review the strategy, operating management, application of resource, appointment of directors and to determine standards of business conduct with their independent discreet, as well as to oppose the action of management or other directors in regard to the conflict which impact equality of all shareholders.
- The Board of Directors may seek for professional opinion in regard to business operation from external advisor at own cost of the Company.
- The Board of Directors may delegate or assign one or more directors or any other person to act on behalf of the Board. However, such delegation shall not be the delegation or sub-delegation which enables the Board of Directors or the attorney of the Board to approve any particular which him/herself or person who may have conflict, gain or loss or any conflict of interest in any other manner or conflict with the interests of the Company or its subsidiaries (if any), except for the resolution for the particular according to the policy and the criteria that the shareholders' meeting has approved.

Roles and Responsibilities of Chairman of the Board

- The Chairman of the Board is responsible for overseeing the use of policies and strategic operational guidelines of the management including providing advice and supporting the business operations of the management but not participate in the routine management of the Company.
- The Chairman of the Board acts as the Chairman of the Board of Directors' meeting and the shareholders' meeting and to encourage all directors to participate in the meeting as well as overseeing that the Board of Directors and shareholders' meetings are conducted effectively and successfully.
- Responsible as the leader of the Board of Directors in monitoring, supervising the Executive Committee and other sub-committees to achieve the objectives.
- Being the Chairman of the Board of Directors' Meeting and being the Chairman of the shareholders' meeting.
- Being a casting vote in the event that there are two equal votes in the Board of Directors' meeting.

Executives

Executive's Name

As of December 31, 2020, the Company has a total of 18 executives as follows:

Executive's Name	Position
1. Mr. Somphote Ahunai	• Chief Executive Officer
2. Mr. Amorn Sapthaweeikul / ¹	• Deputy CEO • Acting Vice President - Quality Control Department
3. Ms. Ailada Ounchareonpornphat / ²	• Assistant to Chief Executive Officer-Support • Acting Head of Accounting and Finance Department • Acting Vice President - Information Technology and System Development Department
4. Mr. Anuparp Leelaratsameephanit / ³	• Senior Vice President - Accounting and Finance
5. Mr. Vasu Klomkliang / ⁴	• Senior Vice President - Strategy Development and Investment Planning Department
6. Ms. Supaporn Ahunai	• Special Assistant to CEO • Vice President - Quality, Health, Safety and Environment Department
7. Ms. Yaowalug Pukpikul	• Vice President - Corporate Secretary, Compliance and Contract Management Department • Corporate Secretary • Secretary of the Board of Directors • Secretary of Executive Committee • Secretary of Risk Management Committee • Secretary of Corporate Governance Committee • Secretary of Strategic Planning Committee
8. Ms. Omsin Siri	• Vice President - Corporate Communication Department
9. Ms. Wimolmas Wongmakornpan	• Vice President - Creating Shared Value Department
10. Mrs. Porntip Sangchan	• Vice President - Human Resource Department • Secretary of the Remuneration Committee
11. Mr. Narawut Tantanurak	• Vice President - Internal Audit and Risk Management Department • Secretary of the Audit Committee
12. Mr. Kitiphong Tuesataya	• Vice President - Purchasing and Procurement Department
13. Ms. Nopamas Choomklang / ⁵	• Vice President - Accounting Department
14. Mr. Cheerapan Panyanan	• Vice President - Factory Department
15. Mr. Kawin Kaewkong	• Vice President - Sales and Marketing Department
16. Mr. Chatrapon Sripratum	• Vice President - Strategy Development and Investment Planning Department
17. Ms. Anongrat Ponkham	• Acting Vice President - Information Technology and System Development Department
18. Mr. Saranyoo Sornkamnerd	• Acting Vice President - Facility and Asset Management Department

Remark: / ^{1 2 3 4} and / ⁵ (Executives according to the notification of the SEC)

Executives was appointed during the year

Executive's Name	Position
Ms. Ailada Ounchareonpornphat (no. 3)	: Assistant to Chief Executive Officer-Support effective as of February 14, 2021 Acting Assistant to Chief Executive Officer-Support effective as of October 19, 2020 to February 13, 2021 Acting Head of Accounting and Finance Department effective as of February 1, 2021 Acting Vice President - Information Technology and System Development Department effective as of January 4, 2021
Mr. Anuparp Leelaratsamephanit (no. 4)	: Senior Vice President - Accounting and Finance effective as of May 5, 2020 to February 1, 2021
Mr. Vasu klomkliang (no. 5)	: Senior Vice President - Strategy Development and Investment Planning Department effective as of June 1, 2020
Ms. Supaporn Ahunai (no. 6)	: Vice President - Quality, Health, Safety and Environment Department effective as of April 7, 2020
Mr. Chatrapon Sripratum (no. 16)	: Vice President - Strategy Development and Investment Planning Department effective as of June 1, 2020
Ms. Anongrat Ponkham	: Acting Vice President - Information Technology and System Development Department effective as of September 1, 2020 to January 4, 2021
Mr. Saranyoo Sornkamnerd	: Acting Vice President – Facility and Asset Management Department effective as of September 14, 2020

Executives retired during the year

Executive's Name	Position
Mrs. Dujdao Luksanaviwat	: Retired form Vice President - Quality, Health, Safety and Environment Department effective as of April 5, 2020
Mr. Manop Oulandsiripong	: Retired form Vice President - Information Technology and System Development Department effective as of September 1, 2020
Mrs. Tanapa Amornmatevarin	: Retired form Vice President - Facility and Asset Management Department effective as of June 1, 2020

Roles and Responsibilities of the Chief Executive Officer

- Manage the business of the Company to be in accordance with laws, objectives, regulations and resolutions of the shareholders' meeting as well as policies, rules, regulations and resolutions of the Board of Directors.
- Perform duties with integrity and careful to protect the interests of the Company.
- Arrange the business plan, annual budget and operational goals including revising such plans during the year if deemed necessary in order to be consistent with the changing situation and propose to the Board of Directors for approval.
- Implement policies, business plans and budgets as approved by the Board of Directors to achieve the goals.
- Propose reports on the Company's performance and financial status for quarterly and annual including other reports that deem important to the Company's operations to the Board of Directors for consideration, acknowledgment or approval.
- Prepare or improve the organizational structure including the authority and responsibility of the executives under supervision, and propose to the Board of Directors for approval.
- Supervising the general administration of the Company to be effective including supervising the employees of the Company to strictly comply with the policies, rules, regulations, orders and resolutions of the Board of Directors and supporting anti-corruption policy by communicating to employee and related persons including review the process and measures to be in accordance with laws and regulations and up to date.
- To have authority to approve or take any action which the Board of Directors has already approved. The use of such approval authority cannot be done in the event that a person may have a conflict of interest (As defined in the Notification of the Securities and

Exchange Commission) with the Company Or subsidiary.

Except for the approval of normal business transactions with general trading conditions and the Board of Directors has already approved in principle under the Securities and Exchange Act.

- Perform other duties as assigned by the Board of Directors.

The authority of the Chief Executive Officer as well as the authorizing to other persons that the Chief Executive Officer deems appropriate which will not include the authority or delegation of authority to approve any transactions that he or the person concerned may have conflicts or have interest or have any conflict of interest in any other manner or there is a conflict of interests with the Company or subsidiary (if any) or items that are not under normal business operations of the Company. The approval of such transactions must be proposed to the Board of Directors and / or the shareholders' meeting of the Company to consider and approve according to the regulations of the Company or related laws.

The company Secretary and Secretary of the Board of Directors

The Board of Directors appointed the Corporate Secretary pursuant to Section 89/15 of the Securities and Exchange Act. B.E. 2535 and the amendment (according to the Board of Directors' Meeting No.7/2013, held on 14 November 2013 resolved to appoint Ms.Yaowalug Pukpikul as the Company Secretary and Secretary of the Board of Directors, effective as of 14 November 2013) whose roles and responsibilities are as follow:

- 1.) To prepare and maintain the Company's documents, namely a registrar of directors, notices and minutes of the Board of Directors' meetings, annual reports, notices and minutes of shareholders' meetings.

2.) To maintain reports on interest submitted by directors or executives of the Company including any other matters as notified by the Capital Market Supervisory Board regarding to the applicable law of Securities and Exchange Act.

The Company Secretary is also responsible for the following duties as required by the Board:

- Organizing meetings of the Board, sub-committees, and shareholders.
- Governing the Company's subsidiaries, including preparing and safeguarding their important documents.
- Ensuring that all shareholders are treated fairly, ethically and lawfully as well as promoting good relationship with minority shareholders.

Ms.Yaowalug Pukpikul holds a Law degree and completed Company Secretary trainings as follows:

- Bachelor of Laws, Thammasat University.
- Certificate "Merchant Marine Management", Merchant Marine Institute of Chulalongkorn University.
- Certificate "Marine Insurance" from Singapore National Shipping Association, Republic of Singapore.
- Company Secretary Program (CSP 56/2014), Thai Institute of Directors.
- Training Course "Internal Control and Risk Management / Value adding support strategic management" held by the Company

Director and Executive remuneration

Director Remuneration

The Company's policy regarding the remuneration payment for directors is subject to resolution of shareholders' meeting. The criteria for remuneration payment is based on the reasonableness and consistency to performance, scope of duty and responsibility of the directors, the Company's financial status including other practices of other companies having similar business scale and industry of the Company. The remuneration is paid in form of monthly allowance, meeting allowance and annual

reward. The matter was proposed to the 2020 AGM which the shareholders' meeting resolved to approve the remuneration of the Board of Directors as proposed.

1.) Remuneration Rates for Members of the Board

(1) Monthly allowance

- Chairman 50,000.- THB/month
- Vice Chairman 45,000.- THB/month
- Directors 40,000.- THB/month/person

(2) Annual reward (Bonus)

- Chairman, not exceeding 2,000,000.- THB/year
- Vice Chairman, not exceeding 1,750,000.- THB/year
- Directors, not exceeding 1,500,000.- THB/person/year

2.) Remuneration Rates for Members of the Sub-Committees

(1) Meeting allowance

- Audit Committee
totally not exceeding **680,000.-** THB/year*
- Remuneration Committee
totally not exceeding **170,000.-** THB/year*
- Nomination Committee
totally not exceeding **170,000.-** THB/year* *
- Risk Management Committee
totally not exceeding **750,000.-** THB/year*
- Corporate Governance Committee
totally not exceeding **420,000.-** THB/year*
- Strategic Planning Committee
totally not exceeding **210,000.-** THB/year*
- Executive Committee, **20,000.-** THB/person/meeting
(only for director who has no received any monthly salary or consulting fees)

Remarks: * Paid to only directors who attended the meetings

Remuneration for monthly allowance, meeting allowance and annual reward (bonus) of members of the Board and Sub-Committees in 2020

Name	Annual bonus 2019 (Paid in 2020)	Monthly Allowance	Director Remuneration (Baht)							Total (Baht)
			Audit Committee	Executive Committee	Remuneration Committee	Nomination Committee	Risk Management Committee	Corporate Governance Committee	Strategic Planning Committee	
1. Mr. Sornchainuk Engtrakul	⊗ 2,000,000.00	600,000.00								2,600,000.00
2. Mr. Somphote Ahunai	★ 1,500,000.00	530,666.67		⊗ -			✓ 60,000.00		⊗ 50,000.00	2,140,666.67
3. Mr. Amorn Sapthaveekul	✓ 1,500,000.00	480,000.00		✓ -	✓ 32,380.00		✓ 60,000.00		✓ 40,000.00	2,112,380.00
4. Mr. Wutthilard Chianmikulchai	✓ 1,500,000.00	480,000.00		✓ -			✓ 60,000.00			2,040,000.00
5. Mr. Sutham Songsiri	✓ 1,500,000.00	480,000.00		✓ -	✓ 32,380.00		✓ 20,000.00	✓ 80,000.00	✓ 40,000.00	2,152,380.00
6. ACM. Chainan Thumasutjarit	✓ 1,500,000.00	480,000.00	⊗ 200,000.00		✓ 32,380.00	✓ 40,000.00	⊗ 75,000.00	✓ 80,000.00		2,407,380.00
7. M.R. Bravochat Chatchai	✓ 1,500,000.00	480,000.00	✓ 160,000.00		⊗ 35,480.00	⊗ 50,000.00	✓ 60,000.00	⊗ 90,000.00		2,375,480.00
8. Pol.Gen. Patcharawat Wongsuwan	✓ 1,500,000.00	480,000.00								1,980,000.00
9. Mr. Somboon Ahunai	✓ 1,500,000.00	480,000.00		✓ -						1,980,000.00
10. Mr. Amornsuk Noparumpa	✓ 1,500,000.00	480,000.00								1,980,000.00
11. Mr. Somphop Keerasuntonpong	✓ -	330,666.67	✓ 160,000.00		✓ 12,380.00	✓ 40,000.00		✓ 40,000.00		583,046.67
Director retired during the year 2020										
1. Mr. Chaiwat Pongpitsitsakul / ¹	1,500,000.00	149,333.33	40,000.00		25,000.00	40,000.00	-	50,000.00	-	1,804,333.33
Total	17,000,000.00	5,450,666.67	560,000.00	-	170,000.00	170,000.00	335,000.00	340,000.00	130,000.00	24,155,666.67

Remarks: ⊗ = Chairman ★ = Vice Chairman ✓ = Director, Sub-committee member

/¹ Mr. Chaiwat Pongpitsitsakul retired on April 22, 2020

3.) Other Remuneration

- None -

Remuneration of the Executives

Monetary remuneration

- Monetary remuneration for the executives such as salary and bonus

	Year 2020
Number of executives (person)	5
Remuneration (million baht)	52.68

Remark: Including executives appointed and retired during the year.

Other remuneration

- Other remuneration such as Social security fund and provident fund (The Company makes its contribution at 4, 6, 8 and 10 percent of the employee's salary) as follows:

	Year 2020
Number of executives (person)	5
Social security fund (Baht)	27,450
Provident fund (million Baht)	1.95

Remark: Including executives appointed and retired during the year.

Personnel

Number of employees, remuneration and forms of remuneration

As of 31 December 2020, the Company has total 326 employees including employees in special projects (Special Assistant to CEO) (excluded executives, directors and consultants).

- Number of employees of the Company separates by department (person)

Department	Daily/ Temporary	Full- Time	Total
Corporate Secretary, Compliance and Contract Management	-	6	6
Creating Shared Value	-	6	6

Department	Daily/ Temporary	Full- Time	Total
Internal Audit and Risk Management	-	3	3
Accounting	3	10	13
Finance	1	5	6
Strategy Development and Investment Planning	-	6	6
Information Technology and System Development	-	5	5
Human Resource	-	6	6
Facility and Asset Management	-	20	20
Corporate Communication	-	4	4
Quality, Health, Safety and Environment	-	8	8
Sales and Marketing	-	4	4
Purchasing and Procurement	1	8	9
Factory	10	131	141
Quality Control	-	9	9

Remark: As of 31 December 2020, the Company has 80 employees (1 temporary employee and 79 full-time employees) in special projects (Special Assistant to CEO).

Number of employees of the Subsidiaries

The Company has a total 390 employees in subsidiaries. Details are as follows:

	Year 2020
Number of executives (person)	13
Number of operating staff	377

Remark: The executives in subsidiaries consists of Vice presidents and equivalent responsible for management in subsidiaries.

Monetary remuneration and forms of remuneration

The remuneration of employees consists of monthly salary, bonus, overtime payments, social security fund and provident fund. In addition to the compensation paid to employees as consistent to the economic situation, competition, labor market, the Company also provides welfares to its employees that include medical expenses covering in and out patient case, marriage contribution and funeral contribution to employees' family.

- **Remuneration of the Company**

	Year 2020
Number of employees (person)	326
Compensation amount (million baht)	183.48

- **Remuneration of Subsidiaries**

Remuneration of the subsidiaries will be paid in the same way as the Company. Details are as follows:

	Year 2020
Number of employees (person)	390
Compensation amount (million baht)	130.72

Remark: The remuneration amount of subsidiaries already included 13 executives.

Significant of labor dispute in the past 3 years

There is no significant of labor dispute in the past 3 years of the Company and subsidiaries.

Hygiene and environment at work

Realizing the importance of maintaining environment for safety to lives, health, hygiene and properties of employees, the Company implements adequate occupational health and environmental measures to prevent the loss from accidents, to prevent injury and illness caused by working. The accident at work, illness and sick leaves of employees in the Company Group during year 2019 and 2020 are as follows.

	Year 2019	Year 2020
Accident from work	-	2
Illness from work (leave of 3 days or more)	-	-

Personnel Development Policy

- **Respect for and protection of human rights**

The Company is committed to managing its business in adherence to good corporate governance principles with social responsibility and respect for differences. Its business operation is anchored on the basic human rights principles, with focus on common value on sustainable growth. In 2020, the Company received Human Rights Awards 2020 being recognized as a model organization. The Company recognizes the importance of respect for and protection of human rights and has rolled out policies related to human rights, namely EA Human Rights Commitment and code of business ethics, as part of the content in the Company's handbook. Human rights principles are blended in EA DNA in respect of synergy, requiring EA people to cultivate positive attitude toward work, be able to develop good relationship and communicate with others efficiently, have courage to talk about work-related matters or existing problems honestly, openly, clearly and regularly and to ask questions and express views with respect and integrity in order to maximize mutual benefits, be open and listen to different views, adjust themselves and be resilient to changes, work collaboratively as a team even amid diversity regarding age, gender, nationality, religion, etc., have respect for each other, and synergize to work toward achievement and sustainable excellence. EA DNA is incorporated into the performance evaluation, individual development plan, development plan for career advancement, salary adjustment and annual bonus consideration, as well as selection of employees to join the Trust Fund.

Moreover, the Company has carried out human rights promotion activities such as EASE Organic Project which promotes knowledge on growing non-toxic vegetables. The project is aimed to reduce social inequality, boost income and improve quality of life of community people. This has reaffirmed the Company's consistent and regular emphasis on respect for and protection of human rights.

- **Human resource management in the Group**

The Company has continuously invested in various businesses for business value added and thus prepared its human resources to accommodate the business expansion and respond to future demand for human resources, as it aims to become the leader in eco-friendly technology and innovation. These businesses comprise electric charging station, electric automobile, electric ferry, battery and high-density energy storage system (ESS), and others. Emphasis is put on development of skills, knowledge and competence to keep pace with rapidly rising demand and business expansion.

For manpower preparation, the Company has set out EA Group human resource management policy to optimize deployment of human resources across the Group while building network for personnel and technological expertise development to support concrete achievements and future business expansion. The Company has cooperated with the public and private sectors as well as leading local and international organizations through, for instance, signing of the Memorandum of Agreement on networking for development of manpower and expertise in modern automotive technology and national energy storage system with the National Science, Technology and Innovation Policy Office (STI), and the MOUs with 15 institutions in the Eastern Economic Corridor (EEC) and nearby areas to prepare its personnel for bachelor's and master's degrees in applied artificial intelligence (AI), smart technology, mechanical engineering, mechatronics engineering and automation. The Company has also served as a source of

learning and practice for personnel development by providing short-term training courses with focus on practical outputs to meet the requirements of the Company and the country under Thailand 4.0 strategy as well as to accommodate the EEC.

In terms of planning and recruitment of external talents, in 2020, the Company adopted the Pay for Performance system to ensure fair performance evaluation based on the performance, volume of work under responsibility, capability to handle more difficult and complicated assignments and behaviors which support the 360-degree culture. The Company also identified essential skills and competencies as well as established a Trust Fund as a way of giving long-term returns and motivating the employees to create shared values for sustainable growth.

- **Development of innovations and new values**

To instill the value of innovative thinking and new values with focus on shared values for sustainable growth, the Company has initiated the "EA Inside EA" program to promote development of innovations within the organization or add value to the Company. In 2020, the following 6 projects were awarded under the program:

- (1) Project on process improvement to maintain biodiesel production cost while ensuring new characteristics according to the Notification of the Department of Energy Business regarding Determination of Appearance and Quality of Biodiesel (Fatty Acid Methyl Ester) B.E. 2019.
- (2) Project on recalibration of temperature control for crude palm oil bleaching to increase production capacity for refined bleached deodorized (RBD) palm oil.
- (3) Project on improvement of electricity system and equipment in the buildings.
- (4) Project on machinery improvement to reduce repair and maintenance cost.
- (5) EBI-QC Laboratory 4.0 project.
- (6) Project on reducing use of paper.

- **Development of personnel potential**

The Company gives importance to development of personnel potential and serves as the learning source with adoption of digital technologies and systems in its human resource management. In 2020, the “Anti-corruption” training course was arranged and attended by 232 employees through self-learning. The course was extended to its subsidiary companies while other courses were also added according to the plan to promote more self-learning without time or place limitations in response to self-improvement trends in the digital age. The employees attended the training averagely for 12.54 hours/person/year, representing 100% of the individual training target (12 hours/person/year).

The organization and operation restructuring has been conducted to support business expansion and minimize waste (lean) in human resource management through the use of shared services. Digital technologies have also been applied to improve the work process including the application of robotic process automation (RPA) and digital systems for personnel-related operation. The Company has also set action plan for technology transfer from foreign experts, arranged training for the employees to ensure the Company’s self-reliance at an appropriate level, and provided second opportunity for the employees to work at other entities or overseas. The Company has altogether 24 Secondees at present.

Furthermore, the Company has put in place the succession plan for key positions, initiated the executive program for direct transfer of experience from the Chief Executive Officer and top management, and arranged external study visits. It has also promoted development of skills and self-learning through hands-on practice, utilized career management and rotation system to give opportunities to talented employees to work for the projects or work units within the EA Group and grow together with the Company under the “Create Your Own Journey” project.

Report of the Audit Committee

To Shareholders,

The Audit Committee of Energy Absolute Public Company Limited consists of 3 Independent Directors, and one of them must be competent and experienced to review the reliability of the financial statement. They are, therefore, qualified in accordance with the regulations of the Stock Exchange of Thailand and independently performed its duties as specified in the Audit Committee Charter.

The Audit Committee comprises of

1. ACM. Chainan Thumasujarit
Chairman of Audit Committee and Independent Director
2. M.R. Bravochat Chatchai
Member of Audit Committee and Independent Director
3. Mr. Somphop Keerasuntonpong
Member of Audit Committee and Independent Director

In 2020, the Audit Committee held 13 meetings with 92 percent of the members attending. The Audit Committee invited executives to attend the meeting in the agenda related to them, and invited the internal audit officer to report the internal audit result including certified public accountant to propose the financial statement, clarify the facts and report the audit result with supporting evidence in each quarter.

In the meetings, the Audit Committee strictly complied with the Audit Committee Charter which approved by the Board of Directors and reported to the Board of Directors with suggestions as a guideline for the Management. The substance is described as follows;

1. The quarterly and annual financial statements for the year 2020 of Energy Absolute Public Co., Ltd. and consolidated financial statements were reviewed and audited by the auditors before submitting to the Board of Directors. This procedure was to ensure that the preparation of financial statements, accounting transactions with related companies would be accurate in accordance with accounting standard and

legal requirement. The notes to financial statements were added with adequate information. Additionally, the related management team and the auditors were invited to attend the meeting to clarify and answer the inquiries of the Audit Committee regarding to the accuracy, adequacy, significant adjustment which affect its financial statements and auditor's opinions after considered and reviewed financial statements. The Audit Committee had an opinion that the financial statements was prepared in accordance with generally accepted accounting principles, accurate and reliable.

In addition, the Audit Committee arranged a meeting, together with the external auditor, in the absence of the executives every quarter, discussed significant information and internal control system related to accounting and financial reports and other matters including obstacles occurred during work. The Committee found that the auditors had received full cooperation from the management and had exercised full performance with complete independence. In addition, the external auditors were deemed to be knowledgeable, with experience and expertise commensurate with their duties as auditors.

2. The Audit Committee assessed and reviewed the adequacy of the internal control system under the guidance of the Securities and Exchange Commission and the internal audit result of the Internal Audit Unit. The assessment was based on the report of the

internal audit result conducted by the Internal Audit Unit and auditors. The Audit Committee instructed the Internal Audit Unit to monitor the matters that need to be corrected or improved to ensure that the Management has corrected or improved as per suggestions of the Internal Audit within the prescribed period of time. The Audit Committee had an opinion that the internal control system of the Company is effective and adequate, without any significant defects and the Internal Audit Unit was independent. The Audit Committee has approved the Internal Audit Plan for the year 2021 which focuses on the operation that results in the efficiency, effectiveness and the continual development.

3. The Audit Committee promoted, supported and pushed the Company to provide adequate and proper anti-corruption measures to prevent corruption risk from business transactions such as anti-corruption manual, internal and external communication, whistleblowing channel, anti-corruption risk assessment and internal control and reviewed the compliance with anti-corruption measures. The Audit Committee had an opinion that the anti-corruption measures of the Company is proper and adequate. In 2020, the Audit Committee evaluated anti-corruption for submitting to Thai Private Sector Collective Action against Corruption (CAC) and the Company is officially certified as a CAC member which the certificate will be valid from 30 June 2020 to 30 June 2023.
4. The Audit Committee reviewed the compliance with Securities and Exchange Act of Thailand, regulations of the Stock Exchange of Thailand, laws related to the business and the policy of the Company. The Audit Committee considered that the Company has appropriately complied with the laws and regulations.
5. Review the related transactions or the transaction that may have a conflict of interest: The Audit Committee

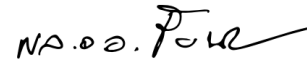
reviewed the related transactions or the transaction that may have a conflict of interest which was classified as a related transaction pursuant to the Notification of the Securities Exchange Commission of Thailand and the Securities and Exchange Commission. It was considered that the said transactions proceeded in accordance with the articles of association which adhering to the compliance with the notification of the Stock Exchange of Thailand. The related transactions were proceeded with the reasonable ground, taking into account the highest benefits of the Company and adequate disclosed.

6. The Audit Committee selected and proposed for an appointment of auditor and auditing fee based on transparency, independence and good corporate governance including the performance of the auditor in the previous year. Additionally, the Audit Committee also considered the reputation, reliability, the ability to perform auditing and certify on financial statements in time. In 2020, the Audit Committee considered and proposed to appoint the auditor to be auditors of the Company and its subsidiaries in Thailand and proposed auditing fee to the Board of Directors which is to be proposed at the Annual General Meeting of Shareholders for the year 2020. These auditors are independence, skilled and approved by the Securities and Exchange Commission, Thailand.
7. The Audit Committee reviewed the Audit Committee Charter with an opinion that the Charter was appropriate and in line with criteria of the Stock Exchange of Thailand and good corporate governance.
8. Audit Committee organized the self-assessment for both collectively and individually assessment. In 2020, the self-assessment result on a collective basis was 99.21 percent and individual basis was 98.49 percent.

In conclusion, the Audit Committee sufficiently maintained its independence and fulfilled its duties in monitoring with proficiency in accordance with the roles and responsibilities prescribed in the Audit Committee Charter as well as giving opinions and suggestions for the benefits and equitable treatment of stakeholders. The Audit Committee was of the opinion that the Company's financial statements is accurate, reliable and consistent with general financial reporting standards. The Company operates activities to comply with the laws, obligations relevant to the business including good corporate

governance, compliance with rules and regulations and sufficient internal control systems with an effectiveness and efficiency of internal audit.

Energy Absolute Public Company Limited



(ACM. Chainan Thumasujarit)
Chairman of Audit Committee

Report of the Nomination Committee

To Shareholders,

The Nomination Committee of Energy Absolute Public Company Limited consists of 3 Independent Directors which responsible for supporting the Board of Directors in nominating and proposing qualified persons with knowledge and skills that suit the position of directors and top executives.

The Nomination Committee comprises of

1. M.R. Bravochat Chatchai
Chairman of Nomination Committee and Independent Director
2. ACM. Chainan Thumasuarit
Member of Nomination Committee and Independent Director
3. Mr. Somphop Keerasuntonpong
Member of Nomination Committee and Independent Director

In 2020, the Nomination Committee performed their duties as assigned by the Board of Directors. Five meetings were held to consider and proceed with the following matters.

1. To consider and nominate directors who retired by rotation to re-elect to be the directors for another term. The Nomination Committee considered and selected the duly qualified persons without prohibited characteristics as stipulated by the Securities and Exchange Commission of Thailand. The nominated persons were proposed to the Board of Directors, before proposing to the General Meeting of Shareholders for appointment as a director to replace the directors who retired by rotation.
2. To review the criteria that allows shareholders to propose names of the qualified person to be nominated as a director of the Company, to propose nomination form for director position and to allow

shareholders to nominate persons to become a director of the Company.

3. To consider succession plan for top management positions and senior management position.
4. To review the Nomination Committee Charter to ensure compliance with the good corporate governance and the compatibility with current duties.
5. To organize the self-assessment of the Nomination Committee for the year 2020 for both collectively and individually assessment. The self-assessment result on a collective basis was 98.96 percent and individual basis was 99.24 percent.

Furthermore, In 2020 the Company had opened the opportunities to all shareholders to propose director nominees in advance which appeared that for the 2021 AGM, there is no director nominees proposed by shareholders.

Energy Absolute Public Company Limited



(M.R. Bravochat Chatchai)

Chairman of the Nomination Committee

Report of the Remuneration Committee

To Shareholders,

The Board of Directors of Energy Absolute Public Company Limited appointed the Remuneration Committee in order to support the Board to set the policy, form and criteria of the remuneration for directors, sub-committees and chief executive officer of the Company including proposed the opinion to the Board of Directors and shareholders' meeting in order to create more transparency, fair and can be comparative with other companies in the same size and business as well as to retain the qualified directors and top executives who have a significant roles in driving the business operation to achieve the goal.

The Remuneration Committee comprises of:

1. M.R. Bravochat Chatchai
Chairman of Remuneration Committee and Independent Director
 2. ACM. Chainan Thumasujarit
Member of Remuneration Committee and Independent Director
 3. Mr. Somphop Keerasuntonpong
Member of Remuneration Committee and Independent Director
 4. Mr. Sutham Songsiri
Member of Remuneration Committee
 5. Mr. Amorn Saphthaweekul
Member of Remuneration Committee
2. To propose the remuneration of directors and sub-committees to the Board of Directors and shareholders' meeting including the budget allocation to be the bonus to director in each year.
 3. To consider the performance evaluation of Chief Executive Officer to be in line with the Company's goal and plan for the year as well as the performance assessment in accordance with SET's criteria.
 4. To consider the performance of the Chief Executive Officer including propose the opinion about salary and bonus for the year.
 5. In 2020, the Remuneration Committee organized the self-assessment for both collectively and individually assessment. The self-assessment result on a collective basis was 97.75 percent and individual basis was 99.25 percent.

In 2020, the Remuneration Committee held 2 meetings to propose the resolution to the Board of Directors meeting.

The substance is summarized as follows:

1. To consider and propose the bonus to director from the last year performance by referring to the result of self-assessment and operating result compared to the target achieved.

Energy Absolute Public Company Limited



(M.R. Bravochat Chatchai)

Chairman of Remuneration Committee

Report of the Risk Management Committee

To Shareholders,

The Risk Management Committee of the Energy Absolute Public Company Limited (the “Company”) consists of 7 members from the Board of Directors, 3 of whom were independent directors. All of them are qualified with knowledge, specific skills that cover the risk management function which is beneficial to the business of the Company Group.

The Risk Management Committee consists of:

1. ACM Chainan Thumasujarit	Chairman of Risk Management Committee and Independent Director
2. M.R. Bravochat Chatchai	Member of the Risk Management Committee and Independent Director
3. Pol.Gen. Patcharawat Wongsuwan	Member of the Risk Management Committee and Independent Director
4. Mr. Somphote Ahunai	Member of the Risk Management Committee
5. Mr. Amorn Saphaweekul	Member of the Risk Management Committee
6. Mr. Wutthilerd Chiannikulchai	Member of the Risk Management Committee
7. Mr. Sutham Songsiri	Member of the Risk Management Committee

The Risk Management Committee has performed its duties as assigned by the Board of Director and in accordance with the Risk Management Charter. In 2020, the Risk Management Committee held 3 meetings. The substance is summarized as follows:

- To consider the Risk Management Committee Charter in order to stipulate the responsibilities, composition and qualifications, term of office, meeting schedule as a practice guideline.
- To follow up major projects of the Company, to give advice and suggest the solution to reduce risks that may occur.
- To follow up operation, investment of new business projects of the Company to be in line with the direction and scope approved by the Board of Directors.
- The review the Risk Management framework, to determine level/change, impact and damage level precisely in order to adhere to as a guide for assessing the severity of the risk and risk management. The risk identification for business operation of the Company and the Company Group are classified in 6 types as follows:
 1. Strategic Risk
 2. Operational Risk
 3. Financial Risk
 4. Compliance Risk
 5. Business Operation Risk
 6. Emerging Risk
- Risk Management Committee collected and developed a Risk Management Manual as a guidebook to manage risk and to ensure that the Company’s employees at all levels realize the significant of risk management and enable employees to comply with the guidelines and stimulate it as the Company’s culture. These will bring a long-term sustainable value to the Company and all of the stakeholders.
- In 2020, the risk management committee organized the self-assessment for both collectively and individually assessment. The self-assessment result on a collective basis was 93.06 percent and individual basis was 93.18 percent.
- The Risk Management Committee thrives to perform its duties to cause the adequate supervision and risk management, to ensure that such risks are within acceptable ranges and to promote the efficient and effective business operation of the Company Group.

Energy Absolute Public Company Limited



(ACM Chainan Thumasujarit)

Chairman of the Risk Management Committee

Report of the Corporate Governance Committee

To Shareholders,

The Corporate Governance Committee of Energy Absolute Public Company Limited performs its duties by supporting the Board of Directors in determining criteria and practices in various fields to be in conformity to the good corporate governance principles and to operate a business with social responsibility.

The Corporate Governance Committee comprises of 4 members (3 of whom were independent directors) as follows:

1. M.R. Bravochat Chatchai
Chairman of the Corporate Governance Committee and Independent Director
2. ACM. Chainan Thumasujarit
Member of Corporate Governance Committee and Independent Director
3. Mr. Somphop Keerasuntonpong
Member of Corporate Governance Committee and Independent Director
4. Mr. Sutham Songsiri
Member of Corporate Governance Committee

In 2020, the Corporate Governance Committee performed its duties as assigned by the Board of Directors. Total 4 meetings were held to consider the following matters.

1. To oversee the improvement of corporate governance and performance assessment. The Corporate Governance Committee monitored the improvement of corporate governance to ensure the conformity with good corporate governance principles. In 2020, the Stock Exchange of Thailand (SET) and the Thai Institute of Directors (IOD) collaborated in taking the survey on the corporate governance of the Thai listed companies. The Corporate Governance Assessment (CG 2020) scored 91 percent which was more than an average score of total listed companies and the SET 100 Index, but lower than the average score of SET 50

Index which was 92 percent. The Corporate Governance Committee is committed to develop and improve the corporate governance coupling with the growth of the Company Group.

2. To consider the corporate governance guidelines of the Company to be the practice for Company's management and employees.
3. To enhance and support using the result of quality assessment of AGM by Thai Investors Association (TIA) to be used as a guideline to maintain the quality of AGM in the future.
4. To review and amend the Corporate Governance Committee Charter to be at the current state and consistent with the responsibility of the Corporate Governance.
5. To conduct self-assessment for both collectively and individually assessment. The self-assessment result on a collective basis was 99.61 percent and individual basis was 99.31 percent.

Energy Absolute Public Company Limited



(M.R. Bravochat Chatchai)

Chairman of the Corporate Governance Committee

Report of the Strategic Planning Committee

To Shareholders,

The Strategic Planning Committee of the Energy Absolute Public Company Limited (the “Company”) consists of 3 members from the Board of Directors. All of them are qualified with knowledge, specific skills that cover the determination and management of strategic direction which is beneficial to the business of the Company Group.

The Strategic Planning Committee consists of:

- | | |
|---------------------------|--|
| 1. Mr. Somphote Ahunai | Chairman of Strategic Planning Committee |
| 2. Mr. Amorn Saphaweeikul | Member of the Strategic Planning Committee |
| 3. Mr. Sutham Songsiri | Member of the Strategic Planning Committee |

The Strategic Planning Committee has performed its duties as assigned by the Board of Director and in accordance with the Strategic Planning Charter. In 2020, the Strategic Planning Committee held 2 meetings. The substance of the meetings is summarized as follows:

- To consider the Strategic Planning Committee Charter in order to stipulate the responsibilities, composition and qualifications, term of office, meeting schedule as a practice guideline.
- To monitor and approach the business operation, the investment of new projects of the Company to be in accordance with the scope approved of the Board of Directors.
- To review the strategic direction of the Company and the group company
- In 2020, the Strategic Planning Committee organized the self-assessment for both collectively and individually assessment. The self-assessment result on a collective basis was 92.65 percent and individual basis was 93.18 percent.

Under the strategic planning direction as set, the Strategic Planning Committee is committed to driving the Company and Group Company to be an efficient sustainable growth and effectiveness towards.

Energy Absolute Public Company Limited



(Mr. Somphote Ahunai)

Chairman of Strategic Planning Committee

Report of the Executive Committee

Dear Shareholders,

The Executive Committee of Energy Absolute Public Company Limited, appointed by the Board of Directors, is responsible for assisting, supporting and serve the board-level-oversight role to monitor and manage the Company's business to be in line with strategy, policy, business operation plans, regulation as well as the objectives and main target which approved by the Board of Directors in order to perform the business efficiently and comply with the Company's corporate governance policy.

The Executive Committee comprises of

- | | |
|---------------------------------|---|
| 1. Mr.Sompote Ahunai | Chairman of Executive Committee and Chief Executive officer |
| 2. Mr.Amorn Saphthaweekul | Member of Executive Committee and Deputy CEO |
| 3. Mr.Somboon Ahunai | Member of Executive Committee |
| 4. Mr.Sutham Songsiri | Member of Executive Committee |
| 5. Mr.Wutthilerd Chiannikulchai | Member of Executive Committee |

In 2020, the Executive Committee performed its duties delegated by the Board of Directors. The total 12 meetings were held to consider the following significant matters as summarized below

- **Consider and review direction of business operation, strategy and business plan of the Company and its subsidiaries**

The Executive Committee considered and reviewed direction of business operation, strategy and business plan of the Company and its subsidiaries in each line of business, by specifying that the meeting shall be arranged and such plans shall be conveyed to the management and the employees at all levels for their acknowledgement and compliance, so that the targets should be achieved as per specified.

- **Review and monitor performance of the Company and its subsidiaries**

The Executive Committee reviewed and monitored performance of the Company and its subsidiaries every month, in order to drive goal achievement of business operations.

- **Consider and approve the Company's annual budget**

The Executive Committee considered and approved the Company's annual budget prior to further approve of the Board of Directors.

- **Consider the Company's investment and operations**

The Executive Committee considered the Company's investment including financial transactions and credits which are important for business and operations as assigned by the Board of Directors.

- **Promote and support Anti-Corruption policy**

The Executive Committee promoted and supported the anti-corruption policy to communicate with the employees and related parties.

- **Self-evaluation of the Executive Committee**

The Executive Committee has conducted a self-assessment for the year 2020, that there are 3 topics as the structure and qualifications, roles and responsibilities and meeting of the Executive Committee. The self-assessment result on a collective basis was 98.75 percent and individual basis was 97.33 percent in order to use for improving with aims to increase efficiency of the operations.

Energy Absolute Public Company Limited



(Mr. Sompote Ahunai)

Chairman of Executive Committee

Corporate Governance

The Board of Directors understands the importance of implementing “Good Corporate Governance 2017” as announced by Stock Exchange of Thailand, and therefore, implemented such Good Corporate Governance as a guideline to enable effective and transparent management which will ensure trust and confidence among shareholders, investors, stakeholders and all related parties.

The Board of Directors defined “**Company Manual**”¹ which consists of organizational culture (Vision, Mission, Values), Code of Business Ethics, Code of Conduct for Directors, Management and Employees, Corporate Governance, Social Responsibility and Anti-Corruption policy in writing for Directors, Management and all Employees to acknowledge, understand and strictly adhere to the policy and there are measures to monitor compliance with the policy. The Board of Directors assigned Directors, Management and Employees must comply with the policy. The Board of Directors also encourages to publish Company Manual to stakeholders and every related person as well as distribution on the Company’s website and reviewed annually.

Corporate Governance Policy

The Board of Directors set forth the corporate governance policy that all level has to adhere to as guideline and has assigned the Corporate Governance Committee to govern and ascertain the Company’s corporate governance in

¹ - Approved by the Board of Directors Meeting No.2/2009 on 25 May 2009
- Reviewed and approved by the Board of Directors Meeting No.1/2020 on 21 February 2020

compliance with standard performance including with operational assessment and practical enhancement in accordance with the Good Corporate Governance for listed companies amended B.E. 2560 of the Stock Exchange of Thailand (SET). Good Corporate Governance is divided into 5 categories as following details:

Corporate Governance



Rights of Shareholders



Equal treatment to shareholders



Roles of stakeholders



Information disclosure and transparency



Responsibilities of the Board of Directors

Practice guideline to Good Corporate Governance

Section 1 : Rights of shareholders:

The Company emphasizes and enhances the exercising of all shareholders right and protects all shareholders right as follows:

1.) Rights of shareholders

- Right of holding Company’s shares;
- Right to acquire, dispose and transfer the shares;
- Right to acknowledge complete information and news related to the Company;
- Right to attend and vote in the shareholders’ meeting;
- Right to appoint or dismiss the Company’s directors;
- Right to receive dividend from the Company;

- Right to take part in making decision and acknowledge the decision of the Company concerning changes of internal infrastructure which are
 - (1) Disposal or transfer the Company as a whole or important part to other persons;
 - (2) Acquisition or receive business of other companies or private companies under ownership of the Company;
 - (3) Covenant, amend or terminate of agreements concerning all leasing business of the Company, as a whole or important part, delegate other person to operate the Company's business, or consolidate with other person with intention to share the profit/ loss;
 - (4) Change details in memorandum of association or articles of association or other regulations of the same nature;
 - (5) Increase or reduce the Company's capital;
 - (6) Merge or liquidation of the Company;
 - (7) Issue debenture;
 - (8) Execute other special transactions which are not normal transaction
- Right to propose matter as the agenda in the general meeting of shareholders
- Right to propose a person as a director of the Company in the shareholders' meeting.

2.) The shareholders' meeting.

Shareholders including institutional investors have right to attend and vote in Shareholders' meeting with equal treatment. The Company shall refrain from any action that may limit the right to access the Company's information or to attend the meeting. The Company undertakes procedures regarding each meeting as follows:

- This year, the Annual General Meeting of Shareholders ("AGM") 2020 is held on Thursday, 23 April 2020 at 14.00 hours at People Park

Onnuch, No. 486 Onnuch Road, Onnuch, Suan Luang, Bangkok. The Company has implemented for quality in convening the AGM through convenience meeting venue with various alternated transportations i.e. car, BTS, and other public transportations. In this regard, The Company has complied with assessment guidelines and examples in the Annual General Meeting of Shareholders (AGM Checklist) by the Thai Investors Association and SEC.

- The Company provides notice of meeting with all necessary information and timely manner such as date, time, location and an agenda of the meeting, including supporting documents for each agenda in prior to the meeting date to allow shareholders to study supporting information for their vote, without additional agenda other than specified in the notice of the meeting or changes of important information without prior notice to the shareholders.
- The Company publicizes invitation to the Annual General Meeting of Shareholders including relevant enclosures and make it available on the Company's website at www.energyabsolute.co.th in both Thai and English version not less than 30 days prior to the meeting date and sent by registered mail in advance at least 7 days prior to the meeting which requires ordinary resolution and 14 days prior to the meeting which requires special resolution.

Furthermore, the Company clearly specifies the shareholder's rights to attend meeting, voting rights, proxy for shareholders, and proxy forms, the profile of the Independent director to act as proxy of shareholder, including with a map of meeting place which are indicated in the notice of AGM. The annual general meeting of shareholders 2020, the Company sent the invitation letter 16 days prior to the date of meeting to provide shareholders an opportunity to study the key information.

- The Company acknowledges rules and regulations of the shareholder's meeting as well as voting procedure to be clearly stated in the notice of the meeting and inform to shareholder in the meeting.
- The Company allows shareholders to propose agenda to the meeting, propose a list of candidates of director position and send the related questions in advance in respect to AGM as well as name and contact details to the company prior to the meeting date through following methods:

Energy Absolute Public Company Limited.

Attention to: Company Secretary

16th Floor, AIA Capital Center Building,
89 Ratchadaphisek Road, Dindaeng,
Bangkok 10400
Tel : 0 2248 2488-92, 0 2002 3667-9
(Ext.19131, 19133)
Fax : 0 2248 2493

- The Company determines criteria and pattern to enable minor shareholders to propose a list of candidates for nomination of director position as well as to approve the list of proposed candidates. The proposal is opened for 3 months prior to the date of the shareholders' meeting when the Nomination Committee will consider the pattern for proposing list of candidates for director position.
- The Company stipulates the criteria to enable shareholders to propose agenda to the meeting prior to the date of the shareholders' meeting by informing through the Stock Exchange of Thailand of which the form can be downloaded from the Company's website. For the AGM 2020, the Company had invited shareholders to propose agenda in advance and propose the qualified person to be elected as director of the Company and send their questions from 2 October 2019 to 15 January 2020 *(for the Annual General Meeting of Shareholder 2021, the Company determined to be proposed of name list for consideration propose agenda including sending their questions from 2 October 2020 - 15 January 2021)* for the purpose of transparency and fairness. For AGM 2020, this attracted no recommendation of such agenda items or nomination of director.
- The shareholders can enquire, express their opinion and ask for clarification from the Board of Directors, sub-committee or the Management in regard to meeting agenda, policy, operation result, annual audit result from the independent auditor, remuneration policy of the directors and executives or other related matters.
- In the event that the shareholder is unable to attend the meeting, he/she can use proxy. The shareholders to be allowed to appoint an independent director or other person as considered an appropriate as well as their proxy on which he/she can specify their vote. Appointment of the proxy document must be clearly specified in invitation. In 2020, the Company has implemented online application allowing shareholders to watch the live shareholders' meeting online whereas the manual to watch live is also available on the Company's website.
- For the election of directors, the Company has enabling shareholders to vote each director individually to select a qualified representative to be a director in order to oversee the interests of shareholders and separated ballots individually by collecting all voting papers, whether agreed, disagreed or abstained.
- The Company held meetings in a timely manner, and support shareholders to fully express their opinion and ask for more information.
- The Company encourages directors, executives and auditors to attend the meeting for the benefit

of answering questions of the shareholders. In the AGM 2020, the Chairman of the Board of Director, Chairman of the Audit Committee, Chairman of the Executive Committee and Chairman of other committees such as Chairman of the Nomination Committee, Chairman of the Remuneration Committee, Chairman of the Corporate Governance Committee and Chairman of the Risk Management Committees, as well as the Chief Executive Officer and Deputy Chief Executive Officer, all abovementioned management attended the AGM.

- In the meeting date, the registration is performed through Barcode system to facilitate shareholders at best convenience.
- The Company Secretary provided minutes of meetings with accurate, complete and clear details and submitted to SET, SEC as well as disseminated through the Company website within 14 days after the date of meeting.
- In 2020, According to evaluation of the quality of annual general meetings of shareholder (AGM checklist) of listed companies carried out by the Thai Investors Association, the Company was 100% for 4 consecutive years.

Section 2: Equal treatment to shareholders:

All shareholders, investors, institutional investors both within the country and abroad, received equal treatment as specified in the Right of Shareholder Section. The Company has stipulated the policy to protect right of shareholders to ensure that everyone is being treated equally and fairly as follows:

1.) Use of internal information for purchase and sale of the Company's securities

The Board of Directors has set the protection of internal information and purchase and sale of the Company's securities to ensure equality and justice to all shareholders

and to retrain directors and related executives from illegally sale and purchase of the securities for their own interest (Insider Trading).

• Use of Internal Information

The Company has implemented policy and protection approach for misuse of internal information for personal interest and securities sale-purchase as follows:

- 1.) All directors, executives and employees including their spouse and minor child, including related person as per Section 258 are not allowed to use internal information which has not been disclosed to the public domain, to purchase, sale, transfer or receive securities of the Company.
- 2.) Any purchase, sell, transfer or receive securities of the Company by directors, executive, including their spouse and minor child and related person as per Section 258 of the Securities and Stock Exchange B.E. 2535 must be report to the SEC and SET within 3 days from the date of transaction. The violation or failure to comply with the regulation issued in accordance with Section 275 of the Securities and stock Exchange B.E. 2535 is liable to a fine not exceeding Baht 500,000 and a further fine not exceeding Baht 10,000 for every day during which the contravention continues. A copy of transaction report must be submitted to the Company as evidence.
- 3.) Directors, executives and employees of the Company who have access to the internal information shall not use such information prior to disclosure to the public, and shall not purchase, sell, transfer or receive securities of the Company within a period of one month prior to, and 1 day subsequent to the quarterly and annual financial statement will be disclosed to the public. The materiality content of the information is prohibited be disclosed to any other parties.

4.) Report shareholding of director to the Board of Directors quarterly.

- **Control of internal information:**

All directors, executives and employees are not allowed to use internal information which has not been disclosed to the public domain for interest of their own or others. In addition, any third party who is involved or may have access to the important internal information of the Company, must enter into the non-disclosure agreement to ensure that the particular person will use the information with full caution and keep such information as confidential in the same manner as the executives and employees would practice.

- **Holding the Company's securities:**

All directors, executives and employees have freedom to sale and purchase of securities of the Company. However, to prevent conflict of interest, directors, executives and employees including their spouse and minor child are prohibited to sale and purchase of securities of the Company during 1 month prior to the date of disclosure of the financial statement to the public and at least 1 day after disclosure of the financial statement. Any acquisition, disposition, transfer, or receipt of the Company's securities held in their account must be reported and disclosed to the related authority. The Company reports changes in securities holding of directors and executives in quarterly to Board of the Directors and also must be reported in the Annual report.

In case there is any unpublished information which will be affected to the price of securities of the Company, the aforementioned persons must not sale and purchase the securities of the Company until such information has been published.

Directors and Executives (According to the definition of SEC)' Shareholding in the Company in 2020
(Including spouse and minor children)

Name - Surname	Shareholding as at		Share Increase / (Decrease) during the year	Remark
	Jan 6, 2020	Dec 31, 2020		
Directors				
1. Mr. Somchainuk Engtrakul	-	-	-	-
2. Mr. Somphote Ahunai	876,436,386	876,436,386	-	-
By Trustee	632,770,000	632,770,000	-	-
By Spouse	24,983,607	24,983,607	-	-
3. Mr. Amorn Saphthaweekul	74,968,316	74,968,316	-	-
By Custodian	25,000,000	25,000,000	-	-
By Spouse	23,232,787	25,823,087	2,590,300	-
4. Mr. Wutthilerd Chiannilkulchai	15,332,849	15,332,849	-	-
5. Mr. Sutham Songsiri	1,650,000	1,300,000	(350,000)	-
6. ACM. Chainan Thumasujarit	-	-	-	-
7. M.R. Bravochat Chatchai	-	-	-	-
8. Pol.Gen. Phatcharavat Wongsuwan	1,140,000	1,140,000	-	-
9. Mr. Somboon Ahunai	10,093,951	8,293,951	(1,800,000)	-
10. Mr. Amornsuk Noparumpa	-	-	-	-
11. Mr.Somphop Keerasuntonpong	N/A	-	N/A	Appointed during 2020
Retired during the year 2020				
1. Mr. Chaiwat Pongpisitsakul	-	N/A	N/A	-
Executives (According to the definition of SEC)				
1. Mr. Amorn Saphthaweekul	74,968,316	74,968,316	-	-
By Custodian	25,000,000	25,000,000	-	-
By Spouse	23,232,787	25,823,087	2,590,300	-
2. Ms. Ailada Ounchareonpornphat	N/A	-	N/A	-
3. Mr. Anuparp Leelaratsameephanit	N/A	-	N/A	Appointed during 2020
4. Mr. Vasu Klomklang	N/A	-	N/A	Appointed during 2020
5. Ms. Nopamas Choomklang	-	-	-	Appointed during 2020

Remark: N/A means no information due to the executive was appointed during 2020

In this regard, if the executive and employee violate the use of internal information policy aforesaid, such person shall be deemed as violation of the Company's regulations. In addition, if such person is considered violation of Section 242 of the Securities and Exchange Act (No.5) B.E. 2559, such person shall be punished under the Securities and Exchange Act (No.5) B.E. 2559.

2.) Conflict of interest policy

The Company operated business with honesty, integrity, transparency and fairness. Directors, executives and all employees are not allowed to engage in any business that competes with the Company or execute any business transaction which involves themselves or related person/juristic person that may lead to conflict of interest. It is responsibilities of the Board of Directors to monitor and ensure that everyone strictly comply with the rules and regulations of disclosing related transaction as stipulated by law or relevant authorities.

In case it is necessary to enter into a connected transaction, such transaction must be under general trade conditions as approved by the Board, with transparency and fairness, and executed in a manner as if to external party and conduct for the full benefit of the Company. However, the connected transaction which is not based on the general trade conditions may lead to conflict of interest and must be reviewed and considered by the Audit Committee prior to being proposed to the Board or shareholders for approval.

Prevention on the conflict of interest

- The Company has structure of shareholding which is explicit, transparent without cross shareholding with major shareholders that may cause conflict of interest to a particular party. The structure of shareholding of the Company and subsidiaries is disclosed in the annual report with full details.
- The duties of the Board of Directors, executives and shareholders are clearly classified, therefore, there is no issue concerning intervening each other's duties.

- The Company determines that the directors and executives are responsible for providing report of stake holding as to review the related transactions.

3.) Report on the interest of directors and related persons

It is the responsibility of directors and executives to report interest of directors and related persons regarding the management of the Company as regulations and conditions set forth by the SEC. The Company Secretary is responsible for collecting and submitting report of interest to the Chairman of the Board of Directors and the Chairman of the Audit Committee within 7 days from the date of receiving report.

Section 3: Roles of stakeholders:

The Company supports to conduct of business based on fairness and shared benefit between the Company and stakeholders. All related policies and measures are set forth as follows:

1.) Treatment to stakeholders Policy: Stakeholders of the Company are categorized as follows:

- **Shareholders:** The Company determines to create quality and stable business growth for the full and sustainable benefit of the shareholders based on the effective work performance, excellent turnover, equal access to necessary information, disclosure of actual information, conducting business with honesty, integrity, transparency and fairness.
- **Customers:** The Company provides excellent service system to ensure that all customers receive appropriate response and complete, accurate information as required. The Company also has survey forms to take customers feedback as a guideline for continual improvement and development. The practice guideline to customers and product quality/ marketing communication are as follows:

1. Advertise products and services of the Company based on the fact, refrain from misleading, against morality and culture, and does not cause the conflict to society.
 2. Deliver products and service in accordance with the agreement made with customers.
 3. Maintain its standards, product/service quality to ensure confidence and satisfaction among customers.
 4. Willing to listen to claim from customers and take immediate action to improve. In case such improvement is limited or require longer period of time, the issue must be noticed to customer. Furthermore, status of the procedure must be reported to customers within timely manner from time to time.
 5. Not require for money, material or any benefit which indicate unfaithful action from customers.
- **Partner:** The Company continues to treat its partner whom deemed as business partner with equity and based on the mutual benefit, develop and maintain long-term relationship with partner, while creating trust between each other. The Company has complied with the procurement regulations which the procedures and practice guides are clearly stated. Treatment to contract parties (partner and creditors):
 1. Strictly comply with the conditions, terms or contract strictly, in case of non-compliance, promptly notify/negotiate with the contract party to find the solution and mitigate the damage with fairness.
 2. Procure transparently. Preceding the procurement with transparency, equally, accurately, clearly, completely, fairly and verifiably treat all stakeholders.
 3. Procure from entrepreneurs who comply with laws that are not or do not benefit from labor or production process which is unlawful and immoral.
 4. Take into account the quality, safety of purchased goods and services which may affect the health of users, employees, communities, society and environment.
 5. Not use the information obtained from the procurement operation for private benefit or other people who are not involved.
 6. Negotiate and enter into a contract with fairness, not taking advantage over the contract party by considering reputation and image of the Company.
 - **Creditors:** The Company strictly adheres to the creditors' conditions, controls the repayment of the load and interest to all types of debtors, fully meets the term and conditions of the loan agreement in full.
 - **Employees:** The Company treats its employees with fairness and appropriate manner in term of opportunity and compensation, appointment, transfer, skill development and safe working condition. The Company welcomes any opinion and suggestions from employees and treats everyone with fairness and equality.
 - **Competitors:** The Company determines to conduct business under fair competition environment, not seeking competitor's confidential information dishonestly or inappropriately, not executing any action that violates their intellectual property. The practice guideline to competitors is stipulated as follow:
 1. Refrain from damaging reputation of competitors by accusing in negative way;

2. Refrain from seeking information, trade secret of competitors by dishonest method;
 3. Support fair competition and adhere to the competition rules strictly;
 4. Not enter into any agreement with competitors or any person which reduce or limit their competitiveness;
 5. Consider the equality and honesty in conduct of business and mutual benefit with the trading partners;
 6. Conduct business with morality
- **Community, Society, Environment, Health and Safety:** The Company maintains its participation in society by complying with the law and/or approved regulations, coordinates with government authorities, ensures that business operation will not cause any damage to community, society and environment, supports and develop society in terms of life quality development, education development, energy saving and environmental care. The practice guideline toward communities, societies, environment, health and safety are set forth as follows:
 1. Comply with related laws correctly, completely and consistent to the management manual, and to support implementation of management system which in line with international standard to business management within organization.
 2. Inspect, monitor and evaluate work performance to lower impact to environment, hygiene, safety of communities and environment.
 3. Communicate for better understanding; participate in providing information to communities and societies, investors, shareholders and general people with latest situation related to status and facts of the business operation of the Company without hiding any facts.

4. Commit to participate in development and support social activities, environment care and development on life quality of local communities in accordance with sustainable development for the harmonized society.

2.) Risk Management Policy :

- Risk management is under the responsibility of all directors, management and all level of employees. The awareness toward risks adhere to business conduction and work under their responsibly. With emphasis on risk management in various fields to ensure risk management is at an adequate and appropriate level. This includes risk of corruption.
- To define risk management procedures in line with international standards, integrate same risk management to whole organization, implement risk management as a part of strategic planning, plan and business operation of the Company, as well as to achieve the target, vision, mission and strategy set forth in order to create success and confidence among stakeholders.
- To define the prevention practice, minimize and mitigate risks from business operations in order to avoid damages, loss, and corruption as well as to monitor and conduct the assessment of risk management result regularly.

3.) Safety, Occupational Health and Working Environment policy :

The Company realizes that safety occupational health and working environment management is the basic responsibility of organization and is an important and necessary factor for our business operation. To become an excellent organization, all departments are constantly supported and developed under safety occupational health and working environment policy as follows:

- Prevent accidents, injuries and sickness which may be incur from operation under strict compliance of everyone, as well as limit and control work that exposes to harmful risk.
- Quickly, effectively and carefully coordinate with government authorities and private companies to minimize emergency cases or accidents incur from work.
- Strictly comply with applicable laws, regulations and provisions regarding safety, and implement safety standard to business operation.
- Suitably provide equipment, tools, regulations, work plan and training course for employees of all levels to ensure they understand and receive sufficient information about safety at work and to prevent accidents or diseases incur from work.
- Arrange for the regulations, action plan and training course to educate employees at all levels appropriately. In order to have knowledge and understanding and receive adequate information about work safety to prevent potential hazards from work and various diseases.
- Arrange for the safety of employees and related parties by providing a safe and hygienic working environment.
- Provide the adequate personal protective equipment for employees who are in compliance with adequate risks, Use, organize, provide training, rehearsal and control for proper use.
- Review safety policy and regularly conduct assessment.

4.) Society and Environment Policy

The Company realizes the importance of taking part in society and environment to be in good quality and conducts various activities to support and promote the sustainable development of society and environment by following policies:

- Operate business by taking into account the impact to society and environment;
- Aim to reduce and prevent pollution;
- Strictly comply with the applicable laws, regulations and related practices;
- Continuously develop and improve work standards to be in compliance with environmental standards.

5.) Policy on non-violation on information, IT and intellectual property²

The Company determines policy against violation on information, IT and intellectual property of the Company and subsidiaries, and to comply with applicable law related to intellectual property or copyright, as well as not to support violation on intellectual property of other person. The details are as follows:

- Any works resulted from performing duties is deemed as intellectual property of the Company. After discharging from employee status, all intellectual properties including products of invention must be returned to the Company in all forms of collection.
- To use software and computer programs, user must receive permission from owner of copyright and the Company will permit to the extent of the Company's necessity.
- To bring works or information of which a copyright of external party to use within the Company, art work must be reviewed to ensure that the application will not violate the intellectual property of other persons.

² Approved by the Board of Director Meeting No. 6/2014 on 14 November 2014

6) Create good relationship with communities where the Company's office is located

The Company recognizes the importance of good relationship with the surrounding community. Therefore, the Company has set a guideline practices to enhance the knowledge and career development of the surrounding community, such as set the questionnaire to survey farmers needs and expectations, as well as to promote the consumption of organic produce

7) Anti-Corruption Policy

The Company is aware of the importance of ethics, morals, and transparency in business operations including corporate social responsibility, the environment, and all stakeholders in accordance with the principles of good corporate governance. The Company prioritizes importance on the compliance with the rules, regulations and laws relating to anti-corruption including anti-corruption promotion activities within the company for better understanding and conscious commitment to against corruption in all forms.

To ensure that the Company has an appropriate risk management system to prevent corruption in all forms, the Company has set an anti-corruption policy to enable appropriate practices and operating regulations to prevent the corruption and to ensure the risk of fraud and corruption that may occur with the operations of the Company has been considered and implemented for prevention appropriately, sufficiently and prudently.

The Company has therefore established a written anti-corruption guideline in writing including explanations, understanding and communication of the said guidelines to the Board of Directors. The Board of directors various sub-committees as well as employees at all levels of the Company and the Company group thoroughly. This is to be considered as a clear guideline for anti-corruption in

all forms that may occur in the operations of the Company.

1. Prohibit the directors, executives, employees, and stakeholder groups of the Company and its affiliates proceed or accept all forms of corruption either directly or indirectly for the benefit of oneself, family, friends and acquaintances, covering all businesses in every country and all related agencies and to regularly review the implementation of this anti-corruption policy as well as reviewing the guidelines and operational requirements to be in line with business changes, regulations, and legal requirements.
2. To have measures to prevent and against corruption as a part of the Company's business operations. This is the responsibility of all departments, including directors, executives, employees of the Company and affiliates as well as groups of interested parties to participate in giving opinions on various practices to prevent and against corruption of the Company in order to achieve the Company's policy.
3. The Company must continually improve and develop measures to prevent and against corruption in accordance with relevant rules and regulations including the Code of Conduct and Good Corporate Governance, which must assess the risk of corruption that may occur in the Company's business operations and the preparation of guidelines under good internal control in order to prevent any forms of corruption from occurring in the Company's business operations.
4. The Company must not give or accept bribes or support all forms of bribery Including supervision and control of various donations including charitable donations, donations to political parties including giving or accepting gifts or receiving financial support as well as rewards or other benefits in order to make the transactions transparent and not to convince or motivate related persons, including directors, executives, employees of the Company and its affiliates as well as

groups of public and private stakeholders performing improper operations.

5. The Company must provide a suitable, adequate, and sufficient internal control system to prevent corruption in all forms.
6. The Company must communicate the commitment of the Company in preventing and anti-corruption in all forms as well as promoting the knowledge on preventing and anti-corruption to the directors, executives and employees in order to instill good awareness and for all personnel of the Company being aware of their duties and responsibilities in carrying out their duty to fight against corruption in all forms.
7. The Company must provide a transparent financial reporting mechanism in accurate and reliable.
8. The Company must promote good and diverse communication channels in order to receive notification of fraud and corruption from directors, executives, employees and all relevant parties with a guarantee for the whistleblower to be protected by not being unfair punishment or being bullied and including the appointment of a person or group of people to closely monitor and monitor all corruption reports that have been reported.

Guidelines for the implementation of the anti-corruption policy

Directors, executives, and employees at all levels, stakeholder groups, and affiliates must comply with this anti-corruption policy including the code of ethics, good corporate governance policies, and guidelines for various groups of stakeholders as well as regulations and regulations about the work of the Company and/or other guidelines that the Company will be determined further and must not directly or indirectly engage in corruption by the following:

1. The Company is very determined and determined to create and maintain the corporate culture as well as

raising awareness among personnel in the organization to have a common awareness that corruption is not acceptable to the Company regardless of the form of corruption in any form.

2. There is no circumstance of giving bribery, or receiving bribery, or bribery to various stakeholders' related duties and their responsibilities, either directly or indirectly, in order to gain improper benefits despite being the Company's benefits or personal interests which must be treated as follows:

- 2.1 Not accepting, and offering gifts, souvenirs, or similar items to any person related to their duties, responsibility, and their work both of government and private agencies
- 2.2 Not accepting assets, things, gifts, gifts or other benefits which is an inducement or inducement to refrain or omit to perform their duties. However, in the event that it is necessary to receive any property, gift, or other benefit, the recipient should ensure that it is carried out correctly in accordance with the regulations and/or the Company's policy as well as various related laws. In this regard, any property, item, gift, or other benefit which is given to each other in that function, its price should not expensive and should suitable for each occasion.
- 2.3 Not giving the property, items, gifts, or other benefits which is an inducement or inducement the recipient to make a decision or causing the recipient to not follow the trade practices as if they were with other partners. However, such giving must have a value not more than normal practice and suitable for each occasion.
- 2.4 Not being an intermediary or having any affiliations in offering money, assets, things or other benefits to those involved in the Company's business operations both public and private agencies in exchange for any special privileges that should

not be obtained or unlawful or causing government officials to refrain or refrain from performing their duties according to the rules, regulations, and laws as specified.

3. For business operations and procurement with government agencies, do not give or accept bribes of any kind and must be done correctly. And being aware that rules, regulations, laws, rules, or traditions in each locality or in each country, may have different conditions, procedures, or practices. Therefore, contacting government agencies must be transparent, honest, and must proceed in accordance with relevant laws.
4. In procurement whether done with government sectors or private agencies, it must proceed through the procedures in accordance with the Company's regulations, transparent, and can be inspected.
5. Expenses for rearing business can do, but it must be reasonable, transparent, and can be inspected and to be in accordance with the ethics.
6. Charitable donations must do as follows:
 - 6.1 Use of funds or other assets of the company for donations for that charity must operate on behalf of the company only and must be a foundation charity organizations, hospitals, hospitals, temples, or organizations for social benefits With certificate or reliable can check This must be done through procedures in accordance with the regulations of the company.
 - 6.2 Personal charitable donations can be done, but it must not cause suspicion of corruption or for any wrongful interest.
7. Use of money or assets of the Company in order to support the Company's projects must be specified in the name of the Company only and must have business objectives creating a good image or for the reputation of the Company. Disbursement must specify objectives that are clear, transparent, and can be

inspected, and proceed through the procedures in accordance with the Company's regulations.

8. No political involvement. The Company will adhere to political neutrality, support and adhere to the law under democratic rule. And there is no policy to provide political assistance to any political party whether directly or indirectly.
9. Directors, executives and employees of the Company and its affiliates must notify the responsible person immediately, and cooperate in the investigation of various facts without neglecting or neglecting to see any action that is considered corruption. However, if in doubt or questions such person may consult with the responsible person through various channels.
10. The Company will provide fairness and protection for personnel of the Company who refuse or report fraud or corruption in accordance with the protection measures for whistle blowing, any offense and corruption without any action that is unfair to the whistleblowers, such as reducing positions, punishing or negatively affecting employees who refuse corruption, etc., although the said actions will cause the Company to lose business benefits or opportunities.
11. The Company considers that any corruption by directors, executives, employees of the Company and its affiliates, is a violation of the ethics and regulations of the Company. Such persons shall be subject to disciplinary consideration in accordance with the regulations stipulated by the Company, including legal penalties.

The Company is aware and gives importance to the dissemination of knowledge and understanding about anti-corruption policies to both of all employees of the Company and other parties relating to the company business operations. The "Anti-Corruption Handbook" is conducted as the guideline for good practice of Company operations enable to be sustainable organization. The Company conducted in-house training on anti-corruption

to directors, executives and employees, as well as assessing knowledge and understanding and further notify to business partners and stakeholders including the public along with the announcement of the "No Gift Policy". In 2020, the Company has been certified as a member of the Private Sector Coalition against Corruption, period from 30 June 2020 - 30 June 2023.

8.) Whistle-blowing Policy:

In order to encourage both internal and external stakeholders to participate in Good Corporate Governance process, the company therefore has set a policy in the event that various groups of stakeholders have questions or see actions suspected of violation or non-compliance with laws, regulations, or business ethics, or suspicions that may lead to corruption can report clues or complaints together with sending evidence and details to the Chairman of the Audit Committee of the Company.

Conditions and consideration for receiving complaints / clues

- 1.) Details of the complaint must be true, clear, and have enough information to conduct a fact search for further action.
- 2.) The complainant can choose not to reveal themselves in order to protect the complainant.
- 3.) Information that the Chairman of the Audit Committee received will be considered a secret and reveal as necessary with regard to the safety of the complainant.
- 4.) Complaints that have been screened and investigated will be reported to the Board of Directors to consider and determine suitable measures.
- 5.) Complainants will be protected despite being a company employee and outsiders.

Whistle-blowing /Complaints Channels

Shareholders, directors, executives, employees and stakeholders in all groups can give clues in case of doubt or see actions suspected of violation or failure to comply with laws, regulations, or business ethics or events that may cause damage to the Company to the Chairman of the Audit Committee, which the Company will keep the said information confidential in order to prevent the whistleblower to suffer. Channels for whistleblowing are as follows:

- ❖ Letter to the recipient of the complaint :

Chairman of the Audit Committee

Address : Energy Absolute Public Company Limited

16th Floor, AIA Capital Center Building,

No. 89 Ratchadaphisek Road, Dindaeng Subdistrict,

Dindaeng District, Bangkok 10400 Thailand





- ❖ E-mail Address

chairman.audit.com@energyabsolute.co.th

Implementation

1. Notify the progress/ consideration result of complaints to whistle-blower who disclosed his/her name and contact address;
2. The Company reserved its rights to not disclose any information and details concerning the interrogation or disciplinary action affecting the personal information and confidentiality.

Whistleblowing procedures

	1. The whistleblower is the Company's employee and outsider.
	2. The person receiving the complaint in accordance with the channels specified by the Company is the Chairman of the Audit Committee.
	3. Channels for reporting complaints / clues via: - chairman.audit.com@energyabsolute.co.th - www.energyabsolute.co.th - Send mail by post
	4. Consider the facts and investigate and then report the results to the Board of Directors to determine further measures.

9.) Right Protection for employees, contractors or temporary staff

The Company refrains from any unfair treatment toward its employees, contractors or temporary staffs such as change of position, work scope, or place of work, suspend work, threatening, disturbing, dismissal or any other action defined as unfair treatment based on the ground that:

- Such person provides information, coordination or assistance whatsoever to directors, executives, government or related authorities in the event that those people reasonably believed that there is a violation or incompliance with the law, regulation, or good corporate governance policy.
- Giving statement, submitting evidence document or provide assistance whatsoever to the directors, executives, government or regulators authorities, for the benefit of consideration, examination for the violation of non-compliance with the laws, regulations, provisions or good corporate governance policy. This includes the violation of the anti-corruption practice.

Section 4: Information disclosure and transparency

1.) Information disclosure

The Board of Directors places attention on disclosure of reliable, accurate, complete, transparent and timely released information for financial and nonfinancial matters to investors and all stakeholders to have reliable and sufficient information for decision. The Office of Company Secretary and the Department of Corporate Communication are responsible for communicate and disseminate information necessary for individual investors, corporate investors, analyst and individuals within the country and abroad different channels i.e. notify through the SET Community Portal and the Company's website, announcement of quarterly results, business operation plan. Important information being disclosed to the public

are such as annual statement (form 56-1), annual report (form 56-2), financial information, information related to major shareholders and rights of voting, information related to directors and committee, information disclosed to SET, corporate governance policy, business ethic, activities and operative plan etc.

Disclosure of financial and non-financial information accurately, completely and in timely manner

The information appeared in the financial report is accurate in accordance with generally accepted accounting standards and reviewed by independent certified public auditors.

- The Company provides Report of the Board's Responsibility in the Financial Statements and encloses with the auditor's report in the Annual Report.
- Management Discussion and Analysis or MD&A has been provided to support disclosure of quarterly financial statement to ensure that investors acknowledge and understand well of any changes in relation to financial status and quarterly operation result besides the numbers shown in the financial statement.
- Disclose audit fee and other service fees related to the auditors in the Annual Report.
- Disclose roles and duties of the Board of Directors and sets of sub-committees, a number of meeting held and number of attendance of each director during the previous year in the annual report, under "Corporate Governance- Sub-committees". The Company has determined the policy on which directors and executives have to report their interest as well as related persons who involve with stake holding of business management of the Company or its subsidiaries. The criteria and method of report is as follow:
 - ❖ Report after first undertaking director or executive position;
 - ❖ Report for any changes related to stake holding.

2.) Auditor and quality of financial reports

The financial statements of the Company and its subsidiaries are reviewed and audited by an auditor approved by the office of the Securities and Exchange Commission who is independently, knowledgeable, expertise and qualities to give confidence to the Board of Directors and shareholders that the financial statements of the Company and the subsidiaries shall present the actual financial position and operating results of the Company.

- Nevertheless, the Company has policy to change the auditors if the auditor has been appointed for 7 consecutive fiscal years, and the Company can appoint a new auditor that is affiliated with the former audit firm of the former auditor. From the execution of duties due to the auditor, the Company's auditor can be re-appointed after pass the appointment period at least two fiscal years since the date of such auditor passed the duty³.
- The Board of Directors places important and responsibility on the financial statements of the Company and its subsidiaries based on general accounting standards, with full caution, accuracy and completeness to reflect actual operative result of the Company. The Board of Directors provided operative result and information disclosure with transparency and sufficiency to related authorities such as SEC and SET regally by taking into account the benefit of shareholders and investors. Furthermore, the Audit Committee is appointed by the Board of Directors to verify and examine reliability and accuracy of the financial report and internal control system.

³ Norpor. 5/2561 Re : Guidelines on Auditor Rotation in Capital Market and Relaxation on Auditor Rotation in Capital Market

Disclosure and summary of business ethics, ethics for directors, executives and employees as well as risk management policy

The Company set forth the ethics, policy, and practice guideline of the group Company Group in writing for directors, executives and employees to apply as a practice guideline. Those as aforesaid are disclosed on the Company website as follow:

Business Code of Conduct

The Board of Directors has established the “Business Code of Conduct”⁴ for directors, executives and employees to use as a guideline for operations; it is divided into the following topics.

1.) Human rights and treatment to employees

- Without discrimination: Respect for human rights, without discrimination on the basis of similarity or difference for race, religious, gender, age, education, status, including respect for personal liberty and privacy protection.
- Labor protection:
 - 1) Do not employ labor younger than the legally required minimum age. Should child labor above the legally required minimum age be employed, their legally mandated rights shall be fully protected and proper development and promotion of quality of life and work be provided.
 - 2) Female employees shall not engage in work may harm their health and safety. Pregnant workers shall be protected and provided their legally-mandated benefits.
 - 3) Employment of foreign workers must be fully compliance with the regulatory requirements.

⁴ Approved by the Board of Director Meeting No. 2/2557 on 11 March 2014

- Prohibition of Involuntary Labor: Do not use or get benefit from forced labor including the use of corporal punishment, threat, confinement at the workplace, coercion, harassment, human trafficking or any other means of violence.
- Wages and Benefits: Payment of wages, overtime pay, and holiday pay, as well as provide legally mandated benefits shall be made accurately, fairly, and not less than the minimum wage according to applicable laws and within the time set. Proper welfare is also provided.
- Working Hours: Do not force workers to work longer than the maximum working hours specified by applicable laws and also provide sufficient break out period during working day. Working overtime or working on a public holiday is voluntary. Workers must be granted holidays and leave as required by applicable laws.
- Have evaluation system compensation for performance, rewards and penalties based on non-discriminatory justice and explicability.
- Open the opportunity and focus on the development of skills, knowledge and competency of employees thoroughly and continuously as well as prepare the succession plan for all key positions.
- Use knowledge, ability, appropriateness, and performance of employees as indicators in considering the nomination, transfer by fair, equitable and explicable assessment

2.) Communities, societies, environment, health and safety

- Correctly and fully comply with relevant laws, and management guidelines, as well as promote the implementation of international standard management systems as the tool of management.

- Inspect, monitor and evaluate the implementation to reduce the impact on the environment, occupational health, safety, community and environment.
- Communicate for understanding and cooperation in providing information to the community and society, investors, shareholders and other interested parties in timely manner with the situation and the fact of the business operation of the Company without obscuring facts.
- Aim to participate in the development and promotion of social activities, environmental protection and improve the quality of life in the community in according with the principle of sustainable development for happily living together.

3.) Receiving or Providing Property or any benefits that might motivate the decision.

- Perform their duties with honesty, diligence and sense of responsibility.
- Disclose all factual information.
- Do not request or receive any property, item or benefit from people involving in business with the intention to act or refrain from any action that is not correct or exchange with the privilege of the Company.
- Not use the power in the position / duties in the Company for personal benefit

4.) Conflict of interest in transactions of the Company

- Avoid any action that will cause conflicts of interest with the organization or that may affect the decision to perform duties.
- Be cautious about personal relationships with people who may have potential conflicts of interest or a commercial competitor with the Company, as well as relationships or personal

business with colleagues that may cause the conflict or affect the performance.

- Do not take advantage of data or opportunity to be a staff member in the pursuit of personal interests for private or business purposes other than the Company's work which affects the job function.
- Do not conduct any action that is contrary to the business interests of the Company or competitive with the Company which affect the Company to lose benefits or receive lesser beneficial than it should be.
- Follow the rules, procedures and disclosure of connected transactions in accordance with the requirements of the Stock Exchange of Thailand and the Securities and Exchange Commission.

5.) Acquisition and disposal securities of the Company and the use of internal information

- Do not use internal information or disclose internal information to outsiders or use the important information that is not publicly available for personal benefit.
- Avoid expressing opinions to outsiders or the media concerning the matter or the information of the Company which there is no clear policy or guidelines for doing so that may affect the stock price of the Company.
- Do not use the information obtained during performing duties for personal benefit or for any unlawful Insider Trading preventive measures of related persons, such as directors, executives and employees in relevant departments including their spouses and minor child of such person by forbidding to buy, sell, transfer or receive the transfer of securities of the Company within one month before disclosing the quarterly financial statements and annual financial statements and at

least 1 working day after publicizing such financial statements.

6.) Compliance with laws, regulations, provisions

- Strictly perform duties under the law and regulations of the Company.
- Respect and support activities / transactions that are legitimate and the ethics of the organization.

7.) Application of properties, information, IT and intellectual property of the Company

- Comply with laws and regulations on information technology of the Company.
- Do not violate the copyrights and trademark that may cause damage to the Company.
- Use hardware and software provided by the Company for the Company's business.
- Maintain the security of information systems including not disclose the password to access the information system of the Company to others.
- Efficiently use the property of the Company to maximize the benefits to the Company and not use the property of the company for personal benefit.
- Protect the intellectual property of the Company from damage, loss, depreciation, and use of intellectual property to maximize the benefit of the Company including maintenance of confidential information appropriately.

8.) Treatment to customers and product quality / marketing communication

- Advertise the Company's products and services truthfully, do not make any misunderstanding and do not conflict with the good traditions and not cause the conflict.
- Deliver goods and services in accordance with agreements with customers.

- Maintain the quality standard of products and services to build up the customer confidence and satisfaction.
- Listen to customer complaints and timely improve and correct. In case of having limitation or requiring time to correct, the Company has to notify the customer to acknowledge in a timely manner and regularly report the progress of the improvement.
- Do not collect money, materials or any benefits from the customer which will be dishonest actions.

9.) Treatment to contract parties (trading partner and creditors)

- Formulate rule for selecting partners, which is considered business partners in accordance with "EA Code of Business Ethics" with fair business practices that have social and environmental responsibility and not violating human rights.
- Strictly follow the conditions and terms of the contract if the conditions cannot be met, notify / negotiate with the contract party to find solutions and remedies for damage.
- Precede the procurement with transparency and equally treat all stakeholders with fairness and verifiability.
- Procure from entrepreneurs who comply with the law that is not related or benefit from the use of labors or have the production process that is against the law and good morals.
- Take into account the quality, safety of purchased goods and services that may affect the health of the users, employees, communities, society and the environment.
- Do not use the information obtained from the procurement operation for personal benefit or benefit of others.

- Negotiate and enter into contract with fairness and without taking advantages from contract party by taking into account the reputation and image of the Company.

10.) Treatment to competitors

- Do not ruin the reputation of a competitor with the accusations in a bad way.
- Do not seek for information, trade secrets of competitors by dishonest means.
- Promote the fair competition and strictly adhere to the rules of competition.
- Do not make any agreements with a competitor or any person to reduce or limit the trade competition.
- Take into account equality and honesty in business operation and benefits with trading partners.
- Ethically conduct business.

Ethic of directors, executives and employees

Summarized as follows:

1.) Contain no conflict of interest

Directors, executives, and employees must not seek for personal benefit which is against the interests of the Company or conduct any action that causes the conflict of interest to the Company by complying with following guidelines:

- Directors, executives, and employees should abide by any behavior or action that may cause the conflict of interest to the Company. If it is necessary to do any action that may cause the conflict of interest, the utmost benefit of the Company should be mainly considered.
- Directors, executives and employees who participate in activities outside the organization or hold the position outside the Company, such as directors, executives, consultants, representatives or employees in other organizations, shall not cause any conflict of interest to the Company,

either directly or indirectly; it must not affect the performance of their duties in the Company.

- Directors, executives and employees must not ask for assets or any benefit from trading partners and / or staff involved or use their powers to pursue personal benefit.
- Directors, executives, and employees must not commit or be involved in bribery or use their powers to pursue personal benefit.
- Directors, executives, and employees must avoid receiving gifts or any present from those who do business with us, which may lead to benefits or make other people understand that there are benefits together in the wrong way.

2.) Protect the confidential information of the Company

The Company is considered that it is the responsibility of directors, executives, and employees of the Company to strictly maintain the confidential information of the Company and apply following guidelines:

- Directors, executives and employees are responsible and maintain the confidential information of shareholders, customers, trading partners, officers and employees without disclosing such information if the information owner does not permit unless such disclosure is in compliance with the laws, regulations, terms or conditions that the Company must follow including non-access to confidential information of such person with dishonest or inappropriate means.
- Directors, executives and employees must not seek for personal benefits and benefits of related person without disclosure of confidential internal information to outsiders, both directly and indirectly.
- Directors, executives and employees must not buy, sell, transfer or receive the transfer of the Company's securities based on internal information that is not disclosed by the Company.

3.) Be responsible for the Company's assets

The Company encourages its executives and employees to be responsible for the efficient use of resources and assets of the Company in order to make it worthwhile and most beneficial with the following guidelines:

- Directors, executives and employees must supervise, manage, control and take care of any assets of the Company in the condition that is usable and must maintain and use resources and assets in a cost-effective manner.
- Directors, executives and employees must adhere to the principles of savings to control production costs including unnecessary waste.

4.) Behave in line with morality and integrity

- Directors, executives, and employees shall act with morality and ethically according to respect religion, and not to act against the anti-corruption practice guideline.

Section 5: Responsibilities of the Board of Directors

The Board of Directors plays an important role in corporate governance for the best interest of the Company. The Board of Directors responsible for performance of duties to shareholders and independent from management.

Structure of the Board of Directors

- The Board of Directors consists of at least 5 directors but not more than 15 directors, and at least half of the directors must have residence in Thailand.
- The Board of Directors consists of independent directors at least one-third (1/3) of the total number of directors and/or not less than 3 independent directors.
- The Chairman of the Board of Directors and the Chief Executive Officer must not be the same person for segregation of duties and responsibilities and balance of the power.

- Structure of the Board of Directors as of December 31, 2020, comprises of 11 members which having directors with diversified qualifications in terms of skills, experiences, and specific talents that benefits to the Company including Directors with knowledge and experience in engineering, accounting, finance, banking, law, management.
 - The Board of Directors has independent directors as specified by the SEC which able to be independent in giving opinions.
 - Term and number of years of the Board of Directors in the position of director of the Company according to the Company's regulations specified the number of years in each position of the Board of Directors shall be in accordance with the Public Limited Companies Act. At every Annual General Meeting of Shareholders, one-third of the Directors, or, if their number is not a multiple of three, then the number nearest to one-third, must retire. The directors retiring in the first and second years following the registration of the Company shall be drawn by lots. In every subsequent year, the directors who have been longest in the board shall retire. However, the retiring directors may be re-elected.
 - The Company has specified the qualifications of the person who will be "Independent Directors" so that the independent directors of the Company are truly independent in accordance with the regulations of the SEC and SET. The definition / qualifications of independent directors of the Company more than to the definition of independent directors of the SEC and SET.
 - The Chairman of the Board of Directors and Chief Executive Officer has clearly separated roles and responsibilities between the Board of Directors and management. The director is responsible for policy making and overseeing the management's operations at the policy level, while the management manages various tasks to be in accordance with the specified policy.
 - Therefore, the Chairman of the Board of Directors and Chief Executive Officer is a different person and the Chairman of the Board of Director is not an executive director and not being a chairman or member in any sub-committees. Furthermore, the duties of the sub-committees are truly independent and not participate in the management of the Company as well as having no authorization to sign for binding the Company. This is to separate the duties between the policy oversight of the Company and management of the Company.
 - Determination of the number of listed companies in which the directors will be appointed as directors, the Board of Directors is aware of the Good Corporate Governance in relation to the number of listed companies which the directors will be appointed as directors. Therefore, the beneficial contribution from the directors being able to devote their time to perform their duties efficiently. There is no director in the company that takes a position more than other 4 listed companies.
 - The Board of Directors appointed the Nomination Committee in order to select the directors of the Company and senior management by going through the process and procedures and guidelines definitions and terms of the Company and related rules.
 - The Board of Directors appointed the Company Secretary who has legal knowledge, experience and passed the Company Secretary Program from the Thai Institute of Directors Association.
- 1.) Qualifications of directors**
- Qualified, not being prohibited to run Public Company, law and regulation of Securities and Stock Exchange, including other applicable laws and good corporate governance of the Company.

- Having competent knowledge and good professional background, independent, performing duties' honest, moral, ethical and regularly attend the meetings
- Having one or more specific knowledge in a particular field which will generate benefit to the Company which are:
 - (1) Production and distribution of biodiesel oil
 - (2) Production and distribution of alternative energy
 - (3) have specialized knowledge that useful for the Company to support the business expansion according to the strategic plan to achieve goals, such as, accountings, finances, laws, strategy and business plan, Management, Information Technology etc.
 - (4) Good corporate governance
- Holding position as a director in the maximum of 4 listed companies, and not hold any position in the entity deemed as the Company's competitor.
- The board determines CEO can hold director position in 1) other companies but not the listed company 2) nonprofit organizations. However, holding such position should not affect the CEO's exercise of its duties and responsibilities and not give rise to conflicts of interest.
- Qualifications of **Independent Directors**⁵ are as follows:
 - (1) Holding no more than 0.8% of total voting shares of the Company, parent company, subsidiaries, associate company, major shareholder or

controlling person of the Company, including shares held by the connected persons⁶ of such independent director.

- (2) Not being or having been an executive director⁷, employee, staff, advisor earning regular monthly salary or the controlling person of the Company, its parent company, subsidiary, associate company, same-level subsidiary⁸, major shareholder or controlling person, unless the foregoing status has ended for at least two years prior to the date of filing the application with the SEC Office. In this regard, such prohibited characteristics shall exclude the case where an independent director used to be a government official or advisor of a governmental agency, which is a major shareholder or the controlling person of the Company.
- (3) Not being a person who is related by blood or legal registration as father, mother, spouse, sibling and child, including spouse of child, other directors, executives, major shareholders, controlling person or person to be nominated as director, executive or controlling person of the Company or its subsidiary.
- (4) Not having or having had a business relationship with the Company, its parent company, subsidiary, associate company, major shareholder or controlling person in a manner that may

⁵ The Company specifies the independent director's qualification according to Clause 17(2) of the Notification of the Capital Market Supervisory Board No. TorJor. 39/2559 Re: Application for Approval and Granting of Approval for Offering of Newly Issued Shares which is more stringent than as defined in the SEC and SET's regulations.

⁶ The "Connected persons" means the persons according to Section 258 of the Securities and Exchange Act.

⁷ "Executive Director" means a director holding an executive position, a director responsible for any action deemed to be taken by an executive, and shall include a director authorized to bind a company unless it can be demonstrated that it is a joint authorization with other directors for a transaction that has been approved by the board of directors.

⁸ same-level subsidiary company means two or more subsidiary companies under the same parent company regardless of being in which level

interfere with independent discretion, which includes not being or having been a significant shareholder, director who is not independent director or the executive having a business relationship⁹ with the Company, its parent company, subsidiary, associate company, major shareholder or controlling person, unless such foregoing relationships have ended for at least two years prior to the date of filing the Company with the SEC Office.

- (5) Not being or having been an auditor of the applicant, its parent company, subsidiary, associate company, majority shareholder, or controlling person, and not being a significant shareholder, controlling person, or partner of the audit firm which employs the auditor of the applicant, its parent company, subsidiary, associate company, majority shareholder, or controlling person, unless the foregoing relationship has ended for not less than 2 years prior to the date of filing the application with the SEC Office.
- (6) Not being or having been a provider of professional services, which includes serving as a legal advisor or financial advisor being paid with a service fee of more than two million baht per year by the applicant, its parent company, subsidiary, associated company, majority shareholder, or controlling person, and not being a significant shareholder, controlling person, or partner of such provider of professional services, unless the foregoing relationship has ended for not less than two years prior to the date of filing the application with the SEC Office.

(7) Not being a director who is appointed as the representative of directors of the applicant, major shareholder, or shareholder who is a connected person of a majority shareholder.

- (8) Not undertaking any business of the same nature and in significant competition with the business of the applicant or its subsidiary, or not being a significant partner in a partnership, or an executive director, employee, staff, advisor earning regular monthly salary, or holding more than one (1) percent of the voting shares of another company that undertakes a business of the same nature and in significant competition with the business of the applicant or its subsidiary.
- (9) Not having any other characteristics that cause the inability to express independent opinions on the business operation of the applicant.

2.) Term of directors

At the Annual General Meeting of Shareholders (AGM), one-third of all directors shall retire by rotation. In case the number of retiring directors cannot be proceeding, the similar amount to one third shall be applied. The retiring directors may be re-elected. In addition to due term of office, the directors may vacate the position upon following situation:

- Death
- Resign
- Unqualified or having prohibited character as stipulated by the Public Limited Company Act or the Securities and Exchange Act
- By resolution of the shareholders' meeting
- By the court's order

3.) Meeting of the Board of Directors

- ❖ The meeting of the Board of Directors is held at least 3 months for a meeting, with advance

⁹ The “business relationship” according to the definition of Circular Kor Lor Tor Kor (Wor) 11/2552 Re: Amendment of the Regulation regarding the independent directors.

schedule of total meeting per annum. Meeting with special agenda may be held as necessary.

- ❖ Not less than half (1/2) of the total directors attending the meeting shall constitute the quorum.
- ❖ To call for the Board of Directors meeting, the Chairman or the person assigned to do so shall send the notice of the meeting to all directors not less than (7) days prior the meeting date. (except for the urgent case and in order to protect the interest of the Company, the notification by other methods and set the meeting date earlier than that shall be allowed)
- ❖ The Chairman of the Board of Directors should allocate appropriate time to enable directors to discuss important matters in each agenda.
- ❖ The meeting of the Board of Directors will be held at least once a year with no executive or management members attending the meeting in order to open the opportunity to discuss various issues concerning the business operation of the Company or the subject in the interest. The Chief Executive Officer will be reported for acknowledgement of the meeting result.
- The Company sets the meeting schedule and the main agenda of the Board of Directors' meeting and sub-committees meeting for the whole year in advance and notifies each director of the schedule. Therefore, the directors can arrange the time and attend the meeting.
- The Board of Directors organized regular meetings in order to be informed and to jointly decide in the Company's business operations. The meeting agenda is clearly set in advance and there may be additional special meetings to consider important matters urgently. In the year 2020, the Company held 8 Board of Directors' meetings, which consist of 4 quarterly meetings, and 4 special meetings. In each Board of

Directors' meeting, sufficient time is allocated for management and those involved will provide information and sufficient time for the directors to carefully consider the important information. In every Board of Directors' meeting, the Chairman of the Board asked all directors to exercise discretion carefully including freely expressing opinions voting at a meeting of the Board of Directors shall be made by a majority vote in which one director has one vote. If the votes are equal, the Chairman of the meeting will have an additional vote as the deciding vote. In each Board of Director's meeting, a meeting document is sent to the directors in advance in order to have sufficient time to study the information. In considering various matters, the Chairman of the Board which chaired the meeting gave the directors an opportunity to express their opinions appropriately.

The Board of Directors' meeting organized a meeting between non-executive directors without management participation in the Board of Directors' meeting no. 4/2020, held on November 13, 2020, there was a discussion on important business issues by having summaries of useful issues and suggestions to the Board of Directors and the management for further development of related operations.

- In considering matters as the agenda of the Board of Directors' meeting, the Chief Executive Officer / Vice President Executive Officer, is responsible for proposing matters to the Chairman of the Board of Directors in order to consider the matter as the agenda of the Board of Directors' meeting.
- The Board of Directors opened the opportunity and invited top executives to join the Board of Directors' meeting to provide more detailed information as directly related to the information

and to have an opportunity to get to know senior executives for consideration of a succession plan.

- ❖ The Board of Directors assigns to the audit committee, which are all Independent Directors, to have a meeting at least once a year to discuss various issues about management that is of interest without the management team together and notify to the Chief Executive Officer.

4.) Board approval authority

- To approve and review the vision, mission and policy of the Company.
- To approve short-term and long-term strategic plans including the annual action plan, budget and manpower accordance with the strategic plan.
- To approve the work that benefits to the Company, shareholders and stakeholders and monitor the performance of the management and jointly consider and provide the suggestions to solve problems appropriately.
- To approve the sub-committees charter.
- To approve the organization structure of the Company.
- To elect and appoint director(s), in the event that the director retire during the year.
- To approve investment in business expansion and the investment.
- To appoint, withdraw and change sub-committee members.
- To approval of interim dividend payment.
- To approve the adjustment of remuneration for the Chief Executive Officer.
- To approve the succession plan for the position of Chief Executive Officer and Executive Levels.
- To approve accounting policies Additional investment Write-off or the disposal of the company's assets.
- To appoint the company secretary
- To approve agenda for shareholders' meeting approval as follows:
 1. Entering into the connected transactions, the acquisition, the disposal of assets of the Company according to the laws and regulations of SEC.
 2. Disposal or transfer of all or part of the core Company's business.
 3. Acquisition or accepting the transfer of other companies' businesses to the Company.
 4. Modification of the Memorandum of Association and the article of association of the Company.
 5. Increase / decrease of registered capital.
 6. Issuing of any securities other than the ordinary shares.
 7. Dissolution of the Company / merging with other company.
 8. Determine the date of the shareholders' meeting and the annual meeting agenda.
 9. Annual dividend declaration.
 10. Any other business that required by law or the article of association of the Company to obtain the approval from the shareholders' meeting.

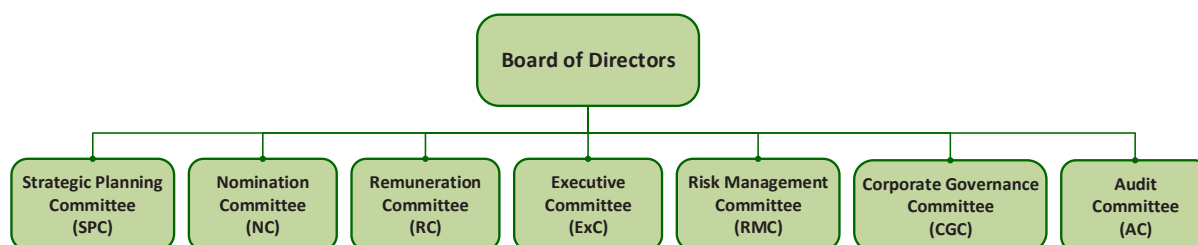
Sub-Committees

Appointment of Sub-Committees

The Board of Directors appointed sub-committees to oversee and monitor important issues and to regularly report to the Board. Sub-Committees are as follows:

- The Executive Committee
- The Audit Committee
- The Nomination Committee
- The Remuneration Committee
- The Risk Management Committee
- The Corporate Governance Committee
- The Strategic Planning Committee

Structure of Sub-committees of the Company



The Executive Committee

The Executive Committee must be the Company's Director and/or the Company's Executive appointed by the Board of Directors based on the number of directors that the Board deemed appropriate and the Board of Directors will appoint one of executive committee member as the Chairman of the Executive Committee.

As of 31 December 2020: The Executive Committee consists of 5 members as follows:

	Name	Position	No. of attendance
1	Mr. Somphote Ahunai	Chairman of the Executive Committee	5/12
2	Mr. Amorn Saphaweeikul	Executive Committee	11/12
3	Mr. Wutthilerd Chiannilkulchai	Executive Committee	11/12
4	Mr. Sutham Songsiri	Executive Committee	11/12
5	Mr. Somboon Ahunai	Executive Committee	12/12

Ms. Yaowalug Pukpikul: Corporate Secretary, Vice President of the Corporate Secretary, Compliance and Contract Management, is responsible for the Secretary of the Executive Committee

Scope of duties and responsibilities of the Executive Committee

- 1.) To consider and review direction of business operation, business plan and strategy for approval of the Board of Directors.
- 2.) To control the business operation of the Company to ensure the compliance with strategic business plan and the budget approved by the Board of Directors and to report result to the Board of Directors for consideration.
- 3.) Establish a promotion and supporting system of the anti-corruption policy to communicate with all employees and related parties including reviewing the suitability of various processes and measures to comply with business changes, regulations, and legal requirements.
- 4.) To review the code of conduct, handbooks for different departments to ensure compliance with the regulations stipulated by related government authority.
- 5.) To set efficient internal control system and risk management system as well as monitoring system and to ensure work procedures are completed in line with law, regulations and good corporate governance.
- 6.) To consider and propose accounting policy, investment, removal of bad debt, or removal of asset disposal to the Board of Directors for further consideration and approval.
- 7.) To consider and approve work procedures as assigned by the Board of Directors.
- 8.) To perform or act as a representative of the Board of Directors on behalf of the Company in coordination with government authorities such as SEC and SET, etc.
- 9.) To consider and approve budget for normal transaction of the Company, which maximum value is 250 Million Baht.
- 10.) To consider and approve employment, shifts, dismissal, approve Remuneration of the executives, as well as to determine punishment, indemnification, and approve on executive's resignation.
- 11.) The meeting shall be held on a monthly basis where at least half of the directors attending the meeting shall constitute the quorum.

Nonetheless, the authority of the Executive Committee including authorization to other person as considered appropriate by the Executive Committee shall not constitute the authority to approve transactions that there is potentially conflicted persons may involve or any involvement causing conflicts of interest to the Company or any conflict with the Company or its subsidiaries (if any) or the transaction which is not under normal business transaction of the Company. To approve such transaction, the matter must be proposed to the meeting of the Board of Directors and/or shareholders for consideration and approval as stipulated by the regulations of the Company or related law.

The Audit Committee

The Audit Committee appointed by the Board of Directors are qualified in accordance with the Securities and Exchange Act including notification, rules and/or regulations prescribed by the SET that the Board of Directors appoints the Audit Committee, consisting of at least 3 Independent Directors, and at least 1 Independent Director has sufficient experience to review the financial statements.

As of 31 December 2020: the Audit Committee consists of 3 Independent Directors as following details:

	Name	Position	No. of attendance
1	ACM. Chainan Thumasujarit	Chairman of the Audit Committee and Independent Director	13/13
2	M.R. Bravochat Chatchai	Audit Committee and Independent Director	13/13
3	Mr. Somphop Keerasuntonpong	Audit Committee and Independent Director	8/13*
	Retired during the year 2020		
1	Mr. Chaivat Pongpisitsakul		2/13

*Appointed as Director on April 23, 2020

Mr. Narawut Tantianurak: Vice President of the Internal Audit and Risk Management is responsible for the Secretary of the Audit Committee

Audit Committee Qualification

- 1.) Not being a director assigned by the Board of Directors to decide on the business operation of the Company, its parent company, subsidiaries, joint ventures, subsidiaries in the same level, major shareholders or the person authorizing and controlling the Company; and
- 2.) Not being director of the parent company, subsidiaries or subsidiaries in the same level, particularly at listed companies;
- 3.) Have sufficient knowledge and experience to be able to act as a member of the Audit Committee. There must be at least one member of the Audit Committee who has sufficient knowledge and experience to be able to review the reliability of the financial statements.
- 4.) Have the same duties as prescribed in the Notification of the Stock Exchange of Thailand regarding qualifications and scope of work of the Audit Committee.

Duties and responsibilities of the Audit Committee are:

1. Financial Reports
 - ❖ To review a financial report and consider the completeness of the information acknowledged and to assess the appropriate of accounting principles applied to the financial report;
 - ❖ To review accounting matters and significant financial report, including complicated or irregular transactions and the transaction which requires discretion;
 - ❖ To enquire management and auditors in regard to auditing result of the important risk concerning financial report and plan to reduce such risk;
 - ❖ To review efficiency of the internal control in regard to procedure of creating financial statement.
2. Internal control
 - ❖ To review to ensure that the Management has set the internal control system as well as internal

control of the proper technology implemented, communication guidelines, important of the internal control and risk management through the whole organization;

- ❖ To review to ensure that the advice regarding internal control suggested by the internal audit and auditor has been amended and improved.

3. Internal Audit

- ❖ Review and approve annual internal audit plan, as well as personnel and resources required;
- ❖ Review activities and performance of the Internal Audit Department to ensure independency as well as approve the appointment, transfer, employment termination of the Head of Internal Audit or any function responsible for internal audit;
- ❖ Review efficiency of the Internal Audit performance to ensure that the internal audit standard has been implemented;
- ❖ Review the effectiveness of Anti-Corruption guidelines as well as to consider and audit follows the Whistle Blowing policy to ensure that the Company performs with a concise and suitable operation and in accordance with international standards and able to prevent any form of corruptions.

4. Control the compliance with law and regulations

- ❖ Consider changes of law, regulations proposed by the Internal Audit which has impact to the business operation of the Company regularly;
- ❖ Review the facts found by controlling authority, follow up, improve, as well as report to the Board of Directors;
- ❖ Review efficiency of system which implemented to monitor compliance with the law, regulations,

as well as correct in case the matter has not been followed.

5. Consider and ensure accuracy and completeness of the information disclosure of the Company in case there is connected transaction or conflict of interest.
6. Select, propose, appoint and consider remuneration of the Auditors.

- ❖ Responsible for selection, appointment and proposal of the remuneration of the Auditors.

7. Compliance to the morality and ethic of the executives and employees

- ❖ To review to ensure that business ethics and morality of the executives and employees, prevention policy on conflict of interest are made in written form and acknowledged by all executives and employees;
- ❖ To support the compliance with morality, ethic and prevention policy on conflict of interest.

8. Provide report of activities of the Audit Committee by disclosure such information in the Annual Report of the Company which will be signed with affixed name by the Chairman of the Audit Committee.

9. Other responsibilities

- ❖ Otherwise act as assigned by the Board of Directors;
- ❖ Review and assess charter of the Audit Committee on regular basis, as well as propose to Board of Directors for approval in case of amendment;
- ❖ Provide self-assessment, at least, on annual basis, and report the result to the Board of Directors

The Audit Committee has the authority to terminate the external auditor contract if the external auditor is unable to perform his duties or neglected his duties or wrongfully performs his duties.

The Nomination Committee

The Board of Directors appointed the Nomination Committee to support the Board of Directors in setting policies, criteria and procedures for recruiting qualified persons to serve as the Company's director, sub-committee member including top executives¹⁰ and the person assigned by the Board of Directors in accordance with the nomination process and propose to the Board of Directors. The Nomination Committee consists of at least 3 directors and all of them are independent directors. The Nomination Committee meeting shall elect one member as the Chairman of the Nomination Committee.

As of 31 December 2020: The Nomination Committee consists of 3 Independent Directors as following details:

	Name	Position	No. of attendance
1	M.R. Bravochat Chatchai	Chairman of the Nomination Committee and Independent Director	5/5
2	ACM. Chainan Thumasujarit	Member of Nomination Committee and Independent Director	5/5
3	Mr. Somphop Keerasuntonpong	Member of Nomination Committee and Independent Director	3/5*
Retired during the year 2020			
1	Mr. Chaiwat Pongpisitsakul		2/5

*Appointed as a Director on April 23, 2020

Ms. Pimvara Laemsuwanhuen: Senior Internal Audit is responsible for the Secretary of the Nomination Committee

Duties of the Nomination Committee are as follows:

- 1.) To consider policy of nomination of directors and top executives, nominate, select and propose qualified person with morality, ethics and qualification suitable to the position of committee member and/or executives, as the case may be.
- 2.) To review and assess the work performance of the directors and executives.
- 3.) To provide the succession plan, revise the development plan of the Chairman of the Executive Officers or top executives as a prepared plan in the event that the CEO or top executives in particular position will retire or will be unable to perform their duties to assure smooth and continual business operation.
- 4.) Considering the vacant of the Board of Directors due to
 - Termination - Considering the selection of qualified candidates to be directors and propose to the Board of Directors for further propose to the annual shareholders' meeting for appointing
 - Termination other than the expiration of the term - Considering the selection of qualified persons as directors and propose to the Board of Directors for consideration and appointing to replace the vacant positions
- 5.) Encourage to allow shareholders to propose names of persons to be nominated as directors.

¹⁰ Top Executives mean Chief Executive Officer or Managing Director or a person holding equivalent position with different position title of Energy Absolute Public Company Limited and its subsidiaries.

- 6.) Consider the preparation of the development plan for directors to develop knowledge of the current directors and new directors to understand the business, roles and duties of directors and important developments industry, such as the current conditions of the industry, the rules and laws related to the business of the Company.
- 7.) Selecting the qualified directors to be directors in sub-committees in order to propose to the Board of Directors' meeting for appointment to fill in the vacant position.
- 8.) Considering and reviewing the Charter of the Nomination Committee and regularly perform.
- 9.) Other duties assigned by the Board of Directors.

Criteria for shareholder to propose the qualified candidate to be elected for director of the Company

1. Being a shareholder holds at least 5% of total shares of the Company (Not less than 186.5 million shares).
The shareholder who wishes to propose a person for directorship must be a shareholder holding shares at the amount as specified previously as of the date of proposal and as of the date of closing shareholders' register in order to determine right to attend the meeting of shareholders.
2. Provide evidence of shareholding such as certificate of Shareholding is sued by the securities company or any other evidence issued from the Stock Exchange of Thailand (SET) or the Thailand Securities Depository Co., Ltd. (TSD).
3. The person being proposed for directorship shall have qualifications as follows:
 - (1) Fully qualified, without any prohibited characteristics, under law related to the Public Company Limited, Securities and Stock Exchange, including other laws and notifications, and the good corporate governance of the Company.
 - (2) Having competent knowledge, good professional background, independent, performing duties with honesty, morality, ethics and regularly attend the Board of Directors' meeting.
 - (3) Having one or more specific knowledge in a particular field which will generate benefit to the Company which are business of production and distribution biodiesel oil/ business of production and distribution of electricity, including the good corporate governance.
 - (4) Neither holds directorship in more than 4 listed companies nor any position in the competitors' company.

The Remuneration Committee

The Board of Directors appointed the Remuneration Committee to support the Board of Directors in setting policies, pattern and criteria for paying the remuneration for the Company's directors, sub-committees as well as setting the remuneration for top executives and the person assigned by the Board of Directors to propose to

the Board of Directors. The Remuneration Committee consists of at least 4 directors. The Chairman shall be independent director and at least half of member shall be independent directors. Member of the Remuneration Committee shall be selected as Chairman of the committee.

As of 31 December 2020: The Remuneration Committee consists of 5 Directors as following details:

	Name	Position	No. of attendance
1	M.R. Bravochat Chatchai	Chairman of the Remuneration Committee and Independent Director	2/2
2	ACM. Chainan Thumasujarit	Member of Remuneration Committee and Independent Director	2/2
3	Mr. Somphop Keerasuntonpong	Member of Remuneration Committee and Independent Director	1/2*
4	Mr. Sutham Songsiri	Member of Remuneration Committee	2/2
5	Mr. Amorn Saphaweekul	Member of Remuneration Committee	2/2
Retired during the year 2020			
1	Mr. Chaiwat Pongpisitsakul		1/2

*Appointed as a Director on April 23, 2020

Mrs. Pornthip Sangchan: Vice President of the Human

Resource and Administration Department is responsible for Secretary of the Remuneration Committee

The Remuneration Committee has duties and responsibilities as follows:

- 1.) To consider the policy and structure of directors' remuneration and sub-committee of the Company and propose to the Board of Directors for consideration and further propose to the meeting of shareholders for approval;
- 2.) To consider and review the remuneration structure and ratio of the top executives to be in compliance with the current market condition and suitable to the Company's business performance, and propose to the Board of Directors for further consideration.

To perform such duties, the Remuneration Committee considers from the reasonable and reflects the scope duties and responsibilities of director, the financial status of the Company in comparing with the good practice of other companies in the same size and same sector. The remuneration of directors shall be proposed to the Board of Directors for further approval by the shareholders' meeting consecutively.

The criteria to determine the remuneration are as follows:

1. Remuneration of the Board of Directors comprises of the monthly remuneration because the Company considers that the duties and responsibilities of directors are at all the time during their directors' term;
2. Remuneration of Sub-Committees shall be the attendance meeting fees for which this remuneration shall be proposed and obtain the approval from shareholders' meeting as the budget every year. Each sub-committee will set their working plan for the year as assigned by the board of directors;
3. Annual award or bonus for the Company's Directors is proposed as budget for shareholders meeting approval in advance. The bonus budget is considered from overall performance of the Company. However, the Board of Directors also conducts the self-assessment both of the whole board and each of director as well before paying such bonus;
4. Remuneration of CEO consists of salary and bonus, the Remuneration Committee considers and set KPI of Chief Executive Office according to goal and planning of the Company and as per assignment from the Board of Director. The evaluation, in comparing with the Key Performance Indicator (KPI) and remuneration of CEO of the company in the same size and sector of the Company, is conducted at the end of the year. The remuneration of CEO is proposed to the Board of Directors for approval.

The Risk Management Committee

The Board of Directors appointed the Risk Management Committee to support the Board of Directors in setting risk management policy for overall corporate as well as to supervise and control to have risk management system or procedures to suitably remove/reduce the impacts on the business of the Company Group, also setting the composition, scope of authorities, duties and responsibilities to enable the Risk Management Committee to perform its duties with effectiveness.

The Risk Management Committee consists of at least 5 directors. Their duty is to propose and support to the Board of Directors. At least half of the members must have competent knowledge in finance, accounting, law or specific skill related to the business operation of the Company or risk management. The Risk Management Committee will select one member as the Chairman of the committee.

As of 31 December 2020: The Risk Management Committee consists of 7 Directors as following details:

	Name	Position	No. of attendance
1	ACM. Chainan Thumasujarit	Chairman of Risk Management Committee and Independent Director	3/3
2	M.R. Bravochat Chatchai	Member of Risk Management Committee and Independent Director	3/3
3	Pol.Gen Phatcharavat Wongsuwan	Member of Risk Management Committee and Independent Director	-/3
4	Mr. Somphote Ahunai	Member of Risk Management Committee	3/3
5	Mr. Amorn Saphthaweekul	Member of Risk Management Committee	3/3
6	Mr. Wutthilerd Chiannilkulchai	Member of Risk Management Committee	3/3
7.	Mr. Sutham Songsiri	Member of Risk Management Committee	1/3

Ms. Yaowalug Pukpikul: Vice President of the Corporate Secretary, Compliance and Contract Management/ Corporate Secretary, is responsible for the Secretary of the Risk Management Committee

The duties of the Risk Management Committee are as follows:

- 1.) To establish risk management policies, supervise and support efficient risk management covering the business operations of the Company which includes the risk of corruption and considering and reviewing various measures to prevent those risks to be at an acceptable risk level.
- 2.) To follow up the implementation, review the report of risk management, ensure the appropriateness and sufficiency of the risk management, ensure the risk management remains in the acceptable level, and to ensure that the risk management has been continuously applied;
- 3.) To regularly coordinate with the Audit Committee by exchanging knowledge and information regarding risk and internal control which impacts or may impact the Company;
- 4.) Encourage to have culture of risk management and proper internal control.

The Corporate Governance Committee

The Board of Directors appointed the Corporate Governance Committee, consisting of at least 3 Directors to perform duties in setting and reviewing policies, regulations and operational approaches to be in line with the principles of good corporate governance, setting policies and planning activities related to the social responsibility, holding meeting to follow up the progress of corporate governance plan and social responsibility as well as providing suggestions and necessary support, implementing internal audit with the criteria of corporate governance in order to determine issues to be improved and being the Company's representative to communicate and implement activities related to the corporate governance with all executives, employees and external organizations.

As of 31 December 2020: The Corporate Governance Committee consists of 4 Directors as following details:

	Name	Position	No. of attendance
1	M.R. Bravochat Chatchai	Chairman of Corporate Governance Committee and Independent Director	4/4
2	ACM. Chainan Thumasujarit	Member of Corporate Governance Committee and Independent Director	4/4
3	Mr. Somphop Keerasuntonpong	Member of Corporate Governance Committee and Independent Director	2/4*
4	Mr. Sutham Songsiri	Member of Corporate Governance Committee	4/4
	Retired during the year 2020		
1	Mr. Chaiwat Pongpisitsakul		2/4

*Appointed as a Director on 23 April 2020

Ms. Yaowalug Pukpikul: Vice President of the Corporate Secretary, Compliance and Contract Management/ Corporate Secretary, is responsible for the Secretary of the Corporate Governance Committee

The duties of Corporate Governance Committee are as follows:

- 1.) To determine and review policy, regulations and work practices to be in line with good corporate governance, determine and plan about activities related to corporate social responsibilities, the stakeholders, i.e. 1.1) Shareholders 1.2) Employees 1.3) Social Partners, 1.4) Creditor and 1.6) other stakeholders;
- 2.) To hold the meeting to monitor the progress of corporate governance plan as well as corporate social responsibilities, as well as to give advice and support as necessary;
- 3.) To conduct internal assessment based on corporate governance principles in order to seek for improvement;
- 4.) To act as representative of the Company in communication and conduct corporate governance with the executives, employees and external agencies.
- 5.) Review and propose amendments to the scope of duties and responsibilities of the Corporate Governance Committee in accordance with current situation.
- 6.) Performing other duties assigned by the Board of Directors.

The Strategic Planning Committee

The Board of Directors appointed the Strategic Planning Committee to support the Board in considering the overall strategic of the Company and group then propose to the Board of Directors for consideration

As of 31 December 2020: The Strategic Planning Committee consists of 3 Directors as the following details:

	Name	Position	No. of attendance
1	Mr. Somphote Ahunai	Chairman of the Strategic Planning Committee	2/2
2	Mr. Amorn Sapthaweeikul	Member of the Strategic Planning Committee	2/2
3	Mr. Suthum Songsiri	Member of the Strategic Planning Committee	2/2

Ms. Yaowalug Pukpikul: Vice President of the Corporate Secretary, Compliance and Contract Management/ Corporate Secretary, is responsible for the Secretary of the Strategic Planning Committee

Scope of duties and responsibilities of the Strategic Planning Committee

- 1.) To consider and determine the corporate strategy of the group Company and propose to the Board of Directors for consideration and approval.
- 2.) To review and monitor the direction of the corporate strategy of the group Company and propose to the ultimate strategic direction as deemed appropriate to the Board of Directors.
- 3.) To consider and understand the strategic direction and initiatives, new business, as well as the corporate organization in overall to determine the essential resources to approach and support the corporate strategy of the group Company and propose to the Board of Directors.
- 4.) To appoint or set up the management team or consultant or expert in order to seek advices or opinion as deemed appropriate and necessary.
- 5.) To report the significant operations results and issue to the Board of Directors.
- 6.) To review the Charter of the Strategic Planning Committee, and to conduct committee's self-assessment annually.
- 7.) To perform other duty assigned by the Board of Directors.

Performance evaluation of the Board of Directors and Sub-Committees

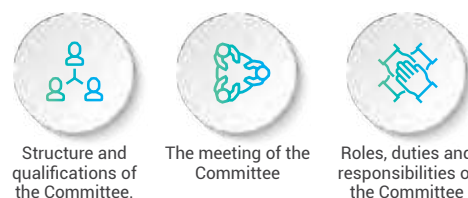
The Company conducts a self-assessment of the board of directors and sub-committees related to good corporate governance according to the board self-assessment form issued by the Stock Exchange of Thailand by conducting an evaluation form for both collectively and individually at least once a year. The Board of Directors jointly set criteria for self-assessment of the performance of both the collectively and individually. Self-Assessment is required to be conducted annually and the Board of Directors will jointly consider the evaluation results to determine ways to improve work.

Evaluation form for the entire Board of Directors

1. Evaluation form for the entire Board of Directors is comprised of 6 topics:



2. Individual Evaluation form for the individual Board of Directors is comprised of 3 topics:



The Audit Committee brings the assessment form from the guideline of the SEC to be complied with the Company's assessment by adding the general responsibilities and specific duties of the Audit Committee.

Evaluation assessment form for the sub-committees:

1. The criteria of assessment form for the entire sub-committees is comprised of 3 topics

- Structure and qualifications of the Committee.
- The meeting of the Committee.
- Roles, duties and responsibilities of the sub-committee.
- Self-development of directors and executives.

2. Individual Evaluation Form for sub-committees is comprised of 3 topics:

- Structure and qualifications of the Committee.
- Roles, duties and responsibilities of the sub-committee.
- The meeting of the Committee.

The criteria for scoring at each level are as follows.

90 – 100 percent = Excellent

80 – 89 percent = Very Good

70 – 79 percent = Good

Below 69 percent = Fair

Evaluation Results

The performance evaluation of the Board of directors and sub-committees is based on personal opinion to overall performance of the board of directors and applied according to the criteria of assessment form.

For 2020, the result of self-assessment of the Board of Directors and Sub-committees are as follows:

	Collective basis (%)	Individual basis (%)
Board of Directors	98.62	98.50
Audit Committee	99.21	98.49
Nomination Committee	98.96	99.24
Remuneration Committee	97.75	99.25
Risk Management Committee	93.06	93.18
Corporate Governance Committee	99.61	99.31
Executive Committee	98.75	97.33
Strategic Planning Committee	92.65	93.18

Directors' remuneration

The remuneration committee has duty to determine directors' remuneration policy and criteria and present to the Board for consideration and propose to the shareholders for approval. The remuneration is considered with appropriateness and consistent to the responsibility and contribution from each director.

In addition to the remuneration of the Board of Directors, the company also takes into of the increased responsibilities from having more sub-committees which the Board of Directors proposed to the shareholders' meeting to approve the remuneration of the sub-committees. For the compensation of the Chief Executive Officer, will go through the process of consideration by the remuneration committee before propose to the board of directors for approval.

Training and Development for Directors

Directors Orientation

Newly appointed director will be given company overview, regulations and business information relate to his duties. The company secretary is assigned to provide the information of the organization structure, nature of business, business structure of the Group Company, regulations, the article of association of the Company, Code of Conduct consisting of corporate culture, business ethics, code of conduct for directors, executives and employees, Good Corporate Governance, and anti-corruption policy, for the directors to understand the business of the Company and related regulations.

The Company also provides opportunity of skills development of directors through continual training courses to support directors to perform their duties with full efficiency and effectiveness.

Directors who received additional training in 2020

For the year 2020, there were additional directors who attended the training as follows:

Director	Program
Mr. Somphote Ahunai	<ul style="list-style-type: none">● Public Lecture on Technology and Energy business, IBID Talk Seminar held by Institute of Business and Industrial Development (IBID)● Public Lecture on "Electric Vehicle Trends and how to adapt after COVID-19 Crisis", ASE Webinar held by Electric Vehicle Association of Thailand● Public Lecture on "Future Energy Trend in Thailand" held by Ministry of Energy● Academic Webinar "New Normal for Energy Industry in Thailand" held by The Institute of Industry Energy● Public Lecture on "EV Transformation in Thai Way" held by Chulalongkorn Engineering Alumni
ACM.Chainan Thumasujarit	<ul style="list-style-type: none">● Electric Vehicles (EVs) : Technology, Design, Infrastructure and Applications held by IEEE Thailand Section, IEEE Power & Energy Society – Thailand Chapter and Electric Vehicle Association of Thailand● The side nobody knows EV Transformation in Thai Way held by Chulalongkorn Engineering Alumni
Mr. Amorn Saphaweeikul	<ul style="list-style-type: none">● Research, Development and Intangible Assets Workshop held by Pricewaterhouse Coopers ABAS Co., Ltd.

Succession Plan

The Board of Directors formulates the succession plan of Chief executive officer and top executives to ensure the confidence among shareholder, investors, organizations and employees for business continuity. The succession plan is reviewed on annual basis.

● Succession Plan Policy

The succession plan is executed with transparency and adequacy to ensure that the Company will have professional and high potential executive. The details of succession plan are as follows:

1.) Chairman of Executive Committee or equivalent position

Once the Chairman of the Executive Committee or equivalent position becomes vacant or unable to perform duties, the Company may assign the duties to other executive in the similar or lower position as an acting person until the qualified person will be elected. The person elected to replace the vacant position should have great vision, competent knowledge and skills as well as an experience which suit to the culture of organization. In the event that the Chief Executive Officer is vacant, the Nominating Committee will consider the qualifications of persons nominated for the position of Chief Executive Officer and propose to the Board of Directors to approve the appointment.

2.) Executive Level

Once the executive position ranked from director upward, becomes vacant or person holding such position is unable to perform duties, the Company may propose the elected successor to the Board of

Executive Committee. The consideration procedures are as follows:

- Analyze the business operation, strategy, policy, investment plan, expansion plan, and evaluation of personnel readiness to be consistent with both short-term and long-term strategy of the Company.
- Formulate plan to prepare readiness of personnel by improving existing personnel to nominating for new replacement.
- Formulate recruitment program, employee training and development prior to the retirement or early resignation.
- Determine the competency, which is knowledge, skill, personality and desirable attitude of the particular position, as well as to formulate development plan for individual person (Individual Development Plan).
- Select, evaluate on performance and competency of the applicant.
- Conduct testing and evaluating of applicant to analyze their competency.
- Specify the successor based on the evaluation, analysis of competency and performance, as well as advance notice to the applicant in to be prepared for handover and knowledge transfer, and to specify the alternative successor.
- Develop and evaluate applicant is expected to be successor to see career development and potential to achieve target, applicant who not meet the requirement will be replaced.

Nomination and appointment of the directors and CEO

Composition and Nomination of the Board of Directors

- 1.) The Company has Nomination Committee to select and propose the qualified person with morality, ethics and meets the requirements as prescribed in Section 68 of the Public Company Act B.E. 2535 and as stated in the related Notifications of the SEC and SET. The consideration also based on experience, knowledge, skills relevant to the business of the Company. Then the lists of selected applicants will be submitted to the Board of Directors for further proposal to the shareholders' meeting for selection and appointment. Currently, the Board of Directors consists of 11 members, 6 of them are Independent Directors, 2 of them are Executive Directors and 3 of them are non-Executive Directors.
- 2.) At the Annual General Meeting of Shareholders (AGM), one-third of all directors shall resign by rotation. In case the number of resigned directors cannot be precede, the similar amount to one-third of the directors to resign during the first year. In second year after registration of the company, the ballot papers will be provided for seeking director to resign. Later years, the directors who hold longest term shall be resigned. The resigning directors may be re-elected.
- 3.) Shareholders' meeting will appoint directors from majority votes according to the following rules and methods

3.1 Shareholder has votes equal to one (1) share per one (1) vote.

3.2 Each shareholder must use all existing votes according to Clause 3.1 to elect one person or many people as directors, however, the votes cannot be divided.

3.3 Persons who receive the highest votes in descending order being elected as a director equal to the number of directors that should have or should be elected at that time. In the event that the person elected in the next order having equal votes in excess of the number of directors that the shareholders' meeting must elect at that time, the chairman of the meeting is the casting vote

- 4.) In the event that the position of the director is vacant due to reasons other than the expiration of the term, the Board shall select the qualified person and does not have the characteristics of being prohibited under the law on public limited companies and the law on securities and stock exchange, to be replaced in the next board meeting except that director's remaining term shall be less than two months. The person who is the replacement director will be in the position of director only for the remaining term of the director that replaced.
- 5.) The shareholders' meeting may have resolution to terminate director(s) prior to the term expiration with the votes of not less than three-fourths (3/4) of the attending shareholders with total shares no less than half of total shares hold by the attending shareholders with the rights to vote.

Nomination / Qualifications of the Sub-Committees

● Executive Committee

The Executive Committee must be the members of Board of Directors and/or executives and is appointed by the Board of Directors. The number of Executive Committee is as considered appropriate by the Board of Directors. The Chairman of the Executive Committee is also elected by the Board of Directors.

● Audit Committee

The Audit Committee consists of directors from the Board of Directors, appointed by the Board of Directors, with qualifications in accordance with the Securities and Exchange Act, notifications, regulations and/or the rules stipulated by the Stock Exchange of Thailand. The Audit Committee consists of at least 3 Independent Directors and at least 1 director should have competent knowledge in accounting and finance.

Qualifications of the Audit Committee

- 1.) Never be assigned by the Board to make decision in business operation of the Company, holding company, subsidiaries, and associated, subsidiaries in the same level, major shareholders or controlling parties of the Company; and
- 2.) Not holding directorship in the holding company, subsidiaries or subsidiaries in the same level only the listed company;
- 3.) Have sufficient knowledge and skill to perform duties as Audit Committee member. However, at least one committee member should have competent knowledge to review the accountability of the financial statement.
- 4.) Having the same duties as prescribed in the notification of the Stock Exchange of Thailand Re: Qualifications and Scope of Work of the Audit Committee.

● Nomination Committee

The Board of Directors appoints the Nomination Committee to support the Board of Directors in determination of policy, criteria and procedures in recruitment of the

director, sub-committee, including top executives and the person as assigned by the Board of Directors in line with the nomination procedure stipulated, and to suggest opinion to the Board of Directors.

Nomination Committee consists of:

- 1.) At least 3 independent directors
- 2.) The Chairman of the Nomination Committee is elected by the resolution of the meeting of the Nomination Committee.

● Remuneration Committee

The Board of Directors appoints Remuneration Committee to support the Board in determination of policy, package and criteria of Remuneration for Directors, Sub-committee, Executives and person assigned by the Board of Directors, to propose to the Board of Directors for approval.

Remuneration Committee consists of:

- 1.) At least 4 directors from the Board.
- 2.) At least half of members are the Independent Directors.
- 3.) The Chairman of the Remuneration Committee is elected from the member of the committee elected by the meeting of the Remuneration Committee.

● Risk Management Committee

The Board of Directors appoints Risk Management Committee to support the Board in determination of risk management policy for all organization, to implement risk management system or procedure to reduce/ minimize impact on the business of the company group efficiently by formulating factors, scope of authority, duties, responsibilities to ensure the Risk Management Committee perform their duties with full effect.

The Risk Management consists of

- 1.) At least 5 directors from the Board;
- 2.) Comprise of the members who have competent knowledge in finance, accounting, legal, or risk management or skill or expertise related to business operation of the Company;

- 3.) The Chairman of the Risk Management Committee is elected from the member of the committee by the meeting of Risk Management committee.

- **Corporate Governance Committee**

The Corporate Governance Committee is appointed by the Board; consist of at least 3 directors elected from the Board. Their duties are to determine and review policy, regulations and work approach to be in line with good corporate governance, determine and plan about corporate social responsibilities, hold a meeting to follow up progress of corporate governance plan as well as corporate social responsibilities, as well as to give advice and support as

The Control of the subsidiaries and associates

- 1.) Mechanism to control and manage work performance of the subsidiaries and associates to control and oversee work operation of the subsidiaries, the Company sends its representative to undertake different position such as director, executive or controlling party in the subsidiaries and associates at least in proportion of shareholding. The duty of such representatives is to ensure the best performance of the subsidiaries and associates. Moreover, the representatives must ensure that the subsidiaries and associates has regulations of connected transactions or acquisition or disposal of the assets or any significant transaction to be accurate,

Use of Internal Information

The Company has implemented policy and protection approach for misuse of internal information for personal interest and securities sale-purchase as follows:

- 1.) All directors, executives and employees including their spouse and minor child, including related person as per Section 258 are not allowed to use internal information which has not been disclosed to the public domain, to purchase, sale, transfer or receive securities of the Company.

necessary, to conduct internal assessment based on corporate governance principles in order to seek for improvement, to act as representative of the Company in communication and conduct corporate governance with the executives, employees and external agencies.

- **Strategic Planning Committee**

The Board of Directors appointed the Strategic Planning Committee to support the Board in considering the overall strategic of the group Company. The Strategic Planning Committee comprises of at least 3 directors who has expertise and experience relating to the management and determination of corporate strategy.

apply criteria related to information disclosure and transaction mentioned above to be in line with the regulations of the Company, to ensure the information storage and accounting record of the subsidiaries and associates can be reviewed and collected to enable delivering financial statement in timely manner.

- 2.) The agreement between the Company and other shareholders in management of subsidiaries and associated (shareholder's agreement): The Company has no agreement with other shareholders in management of subsidiaries and associates.

- 2.) Any purchase, sell, transfer or receive asset of the Company by directors, executive, including their spouse and minor child and related person as per Section 258 of the Securities and Stock Exchange B.E. 2535 must be report to the SEC and SET within 3 days from the date of transaction. The violation or failure to comply with the regulation issued in accordance with Section 275 of the Securities and stock Exchange B.E. 2535 is liable to a fine not

exceeding Baht 500,000 and a further fine not exceeding Baht 10,000 for every day during which the contravention continues.

- 3.) Directors, executives and employees of the Company who have access to the internal information shall not use such information prior to disclosure to the public, and shall not purchase, sell, transfer or receive asset of the Company within a period of one month prior

Compensation for Auditors

For the fiscal year ended 31 December 2020, the Company and its subsidiaries has paid remuneration to the auditor for the auditing of financial statements (Audit Fee) in the total amount of 11,482,185.00 Baht, which is divided into the audit fees of the Company in the amount of 2,427,600.00 Baht, and the audit fees of the subsidiary companies in the amount of 9,054,585.00 Baht, and

The Company sets up department related to “Investor Relations or IR”

The Company has appointed Corporate Communication Division to be mainly responsible for Investors Relations in order to communicate with external parties such as shareholders, institution investors, public investors, analysts and related public sectors with fairness and justice and to enable them to meet the Company’s executives as considered appropriate under the policy that the information provided has been disclosed to the public. In the year 2020, the Company has prepared the investor relations ethics of the company. To be used as a framework and guideline for the investor relations operator of the company with the following requirements

- Disclose important and necessary information to make investment decisions accurately, adequately, timely in accordance with related regulations.
- Do not use inside information for personal benefit or for others, including refraining from buying-selling,

to, and the disclosure of quarterly and annual financial statement will be disclosed to the public and 1 day after the disclosure. The materiality content of the information is prohibited be disclosed to any other parties.

- 4.) Report shareholding of director to the Board of Directors quarterly.

other non-audit fees of 700,000.00 Baht, divided into other service fees of the Company of 100,000.00 Baht, and other service fees of the subsidiaries of 600,000.00 Baht. PricewaterhouseCoopers ABAS Co., Ltd., the Company's auditor has been approved by the SEC and has independence without directors or senior management of the Company had previously been an employee or partner of the audit company.

transferring-accepting the Company's securities within 1 month before disclosing the financial statements and at least 1 day after the financial statements are disclosed as well as refrain from meeting and / or providing information about the Company's performance to outsiders at least 2 weeks before the disclosure of the financial statements.

All shareholders, investors and interested parties can contact the Investor Relations unit for any inquiring and more information via mailing or direct contact the following channel:

Investor Relations unit:

Energy Absolute Public Company Limited
16th Floor, AIA Capital Center Building,
No. 89 Ratchadaphisek Road, Dindaeng Subdistrict,
Dindaeng District, Bangkok 10400 Thailand
Tel: 0 2248 2488-92, 0 2002 3667-9 Ext.19531

E-mail: ir@energyabsolute.co.th

Investor relations activities of the company in 2020 are as follows:

Investors Relations Activities	Total News	Additional information
1. New Release: Publishing news within the next business day from the date of reporting SET / SEC in the form of Press release, Photo release. Such release contain the requisite information to disclose according to rules and regulations of SET/SEC as well as the general business development of the group of the Company through domestic and international media	62 News for Domestic releases and 50 news for international releases	After the Company disclosed the official information to SET/SEC, the Investor Relations will release information through media channels within the same business day or previous to the trading next day.
2. Presenting information: The number of times to present information of the Company through various activities.		
2.1 “Opportunity Day” organized by SET	4 times via online channel	1. Financial Statements for the year ended 2019 2. Financial Statements for Q1 of 2020 3. Financial Statements for Q2 of 2020 4. Financial Statements for Q3 of 2020
2.2 “Analyst Group Meeting”	1 time and 3 times via online channel	Number of participating company No. 1: 19 companies No. 2: 41 companies (Online) No. 3: 24 companies (Online) No. 4: 27 companies (Online)
2.3 “One-on-One Meeting” with analyst and institute investor at the office of the Company including the conference call after the announcement the operating results	60 times	Divided into Q1/2020 : Total 13 times Q2/2020 : Total 10 times Q3/2020 : Total 24 times Q4/2020 : Total 13 times
2.4 “Road Show” for investors, analysts and shareholder both domestic and international	12 times via online channel	Divided into - Present to foreign investors: 7 times - Present to domestic investors: 5 times
<ul style="list-style-type: none"> Support the preparation and dissemination of the Company analysis journal to disseminate to investors and the general public for reference in reasonable investment decision in the securities of the Company. 	12 analysts	
<ul style="list-style-type: none"> Other Stakeholders site visit at <ul style="list-style-type: none"> Biodiesel factory at Prachin Buri province Solar Power Plants at Nakhon Sawan, Lampang, and Phitsanulok provinces Wind Power Plant at Chaiyaphum, Songkhla and Nakorn Si Thammarat provinces Electric Vehicle Business consists of Electric Car, Electric Bus, Electric Ferry and Electric Charging Station 	8 times	

Compliance with the Principles of Good Corporate Governance

According to the survey conducted by the Corporate Governance Report of Thai Listed Companies 2020, the Stock Exchange of Thailand and the Thai Institute of Directors (IOD) made the overall assessment. The Company obtained the score at “Excellent” and its average score was higher than the average scoring of overall listed companies and SET100 Index.

In 2020, the Company has reviewed the compliance of corporate governance and also implemented the following measures in line with the Corporate Governance Report of Thai Listed Companies and ASEAN Corporate Scorecard. The Company also adopted the principles of good corporate governance for listed companies of the Securities and Exchange Commission (revised in 2017) (Corporate Governance Code for Listed Companies 2017, CG Code 2017) to improve the corporate governance principles of the Company. Followings are the part that the Company is under on progress:

CGR Principles on progress	Reasons
<ul style="list-style-type: none"> The company should set the policy of term of service holding the position of independent director for no more than 9 years. 	<p>Since the nature of the Company’s business is a specialized business, therefore, the Company’s directors who have a lot of experience and expertise as well as vision in this field of business. They are very important resources to push and drive the company’s growth and become a leader in the industry. The Company is aware of knowledge, expertise and experience of independent directors and providing their independent opinion without the conflict of interest or gain and loss to the Company. As a result, the Company has expanded its policy of 9-year-term of service of the independent director.</p>
<ul style="list-style-type: none"> The Company should appoint external consultants to provide guidance and advice on performance evaluation of the Board at least every 3 years and disclose such activities in the Annual Report. 	<p>The Board of Directors and all sub-committee members evaluated their self-assessment for both individual and group and also evaluated the performance of Chief Executive Officer every year. At present, the Company has directors who have knowledge relate to the Company’s business and capable to set the policy and strategy efficiently to drive the Company’s business. However, the Board of Directors requires the Nomination Committee to have authority and can consider hiring external consultants when necessary for the Company.</p>
<ul style="list-style-type: none"> All directors should attend not less than 75% of the total number of Board meetings held during the year 	<p>In 2020, since some directors are not available to attend in every meeting due to an important mission, however, the Company consulted and discussed with the Board of Directors both in the meeting and outside the meeting. Therefore, in order to let the directors can attend all meetings, the Company prepares the annual meeting schedule in advance to be in line with the mission of the board as much as possible.</p>
<ul style="list-style-type: none"> To Vote at the Board of Directors meeting, should have directors not less than two-third of the total number of directors. 	<p>According to the resolution of the shareholders’ meeting which prescribed in Clause 25 of the Company’s Articles of Association that at least half of directors must present at the meeting, then can set a quorum. In the meeting of the Board of Directors, the resolution requires the majority of votes; therefore, the Company must comply with such regulations.</p>

Developing Technology to Make Life Better with Environmental Protection



**Focusing on Renewable
Technology Development**



**Creating
New Technology**



**Caring for
The Environment**



**Entering to
The Future Energy
Era with Confidence**



Corporate Social and Environmental Responsibility

The Company operates clean energy business and devote to developing the innovations with the aim to co-create and enhance the energy stability which is necessary for developing the country. The Company also realize of sustainable business development together with environment and social. This is not just to strengthen the business of the Company, but also aim to create and share benefit to community along with the business operation of the Company. Therefore, the Company stipulated the social activities under the policy and principles of good corporate governance in order to be responsible for all stakeholders of the Company's business, such as employee, customers and shareholders; so that the group Company shall take the guideline practice in respect of the social and environment responsibility into part the business management. The policy of social and environment responsibility is as follows:

Principle 1 : Good Corporate Governance

To conduct business in accordance with relevant laws and regulations, be transparent, disclose the significant information, verify and perform the good corporate governance policy as well as the Sufficiency Economy Philosophy by considering the benefit of shareholders, employee, communities, society, suppliers, media, customer, people, competitors, creditors, government agencies and all stakeholders.

Principle 2 : Conduct Business with Fairness

To promote free trade competition, avoid any arrangement that may cause the conflicts of interest and violation of intellectual property and anti-corruption of all form.

Principle 3 : Human Rights and Treatment to Employees

To comply with the corporate culture of the Company, support and respect to the protection of human rights, treat employee equally and be fair, provide welfare, safety and hygiene in the workplace as well as complying with the policy to promote the organization learning and personnel development to profession level. The employee is also encouraged to participate to create benefit to social both directly and indirectly.

Principle 4 : Responsibility to Consumers

Aim to product development and services which no impact to consumers and environmental, being qualified according standard or higher that standard with fair and reasonable, to provide the sufficient information of products and services and to protect customer's confidential information as well as not to use for own benefit or wrongfully related persons.

Principle 5 : Environment and Safety

To realize and conduct the risk analysis process which impact to environment and safety in all business processes including the utilizing of resources efficiently.

Principle 6 : Participation in Development of Community and Society

To encourage business operation to improve the quality of life, enhancing the economy and strength the surrounding communities.

Principle 7 : Development and Dissemination of Innovation from Social Responsibility

To support the creation and promotion of stakeholders' participation in developing innovations to enhance the balance between communities' value, society, environment along with sustainable business growth.

The Company conducted the Corporate Sustainability Report for the year 2020 and disclosed the information in respect of economic, social and environmental to present the Company commitment to support the Sustainable Development Goals: SDGs framework. The 2020 Sustainability Report is disclosed and posted on website of the Company.

Internal Control and Risk Management

The Audit Committee, appointed by the Board of Directors, consists of 3 Independent Directors is responsible for reviewing the accuracy and reliability of the financial reports, the efficiency of internal control system, the compliance with relevant laws and regulations including the transactions that may lead to a conflict of interest.

The Board of Directors, Audit Committee and Management place a great emphasis on the internal control system by evaluating the effectiveness and adequacy of the system. In doing this, the Company has applied international standard frameworks of COSO (The Committee of Sponsoring Organizations of the Treadway Commission), Good Corporate Governance according to the Stock Exchange of Thailand (SET)'s practices and Risk Management on a regular basis. The assessment is conducted to ensure that the Company's internal control and risk management systems are appropriate and effective with good corporate governance. The accounting system and financial reports are accurate and reliable including the compliance with relevant laws and regulations related to the business operation.

The Audit Committee assesses the adequacy and effectiveness of the internal control system using the assessment form provided by the Office of the Securities and Exchange Commission of Thailand (SEC) and report to the Board of Directors at least once a year. The components of the framework of COSO for assessment are as follows:

1. Control Environment
2. Risk Assessment
3. Control Activities
4. Information and Communication
5. Monitoring Activities

In addition to the assignment to the Management to regularly submit the performance report to Executive Committee, the Audit Committee and Internal Audit Department also determine the annual internal audit plan to ensure that the business operations are in compliance with laws and regulations including vision and mission of the Company.

In the Board of Directors' Meeting No. 1/2021 held on 25 February 2021, with the attendance of Audit Committee, the Board considered the assessment of internal control system for the year 2020 using the assessment form provided by the Office of the Securities and Exchange Commission of Thailand (SEC) the Board endorsed the Audit Committee's report on the assessment result of the Company's internal control system and, in overall, the Company and subsidiaries have sufficient and appropriate of internal control. The Company supplied manpower to support operational activities efficiently including the sufficient in reviewing of the connected transaction and transaction that may lead to conflict of interest. The Audit Committee and Management place great importance on Good Corporate Governance, Internal Control, Risk management in an acceptable level and the accounting and financial reports' accuracy and completeness. The Company also conducted the operations in compliance with the laws and regulations including Anti-Corruption policy that defines Directors, Managements, Employees, and related parties are aware of all kinds of corruptions.

Note of auditors on internal control

PricewaterhouseCoopers ABAS Limited, the auditor of the Company and Subsidiaries has no comments and no suggestion regarding the internal control on accounting of the financial statements of the Company and its subsidiaries for the accounting year 2020, ended on 31 December 2020.

Head of the Internal Audit Unit

In 2019, the Audit Committee has appointed Mr. Narawut Tantianurak as a Secretary of the Audit Committee and a Vice President of the Internal Audit and Risk Management Department. Audit Committee has considered the qualification, education and experience and is of the opinion that he is qualified to undertake the responsibility which will be benefit to the Company's business. At present, the consideration and approval on appointment, dismissal, relocation including performance assessment and compensation of Internal Audit must be approved by the Audit Committee.

Furthermore, the Company has established the Internal Audit Unit which the vice president of aforementioned

department acting as a secretary of Audit Committee performing internal audit functions to ensure that the internal audit procedure is in accordance with the plan and reporting internal audit result to Audit Committee in the meeting. Before the internal audit result will be reported, there will be discussing with involved executives first. The comments and suggestion from audit committee is taken into, in order to develop internal audit procedure in the future. The internal audit result for the year 2020 of the Company Group is adequate and appropriate and Audit Committee is of the opinions that the Internal Auditor performed work completely and covering all important departments.

Connected Transactions

1. Connected Transactions of the Company and subsidiaries with other entities that may result in conflicts of interest during the year 2019 and 2020 are as follows:

1.1 Dhipaya Insurance Public Company Limited (“TIP”)

Relationship: The Company and TIP have a common chairman of the board, namely Mr. Somchainuk Engtrakul.

Preconditions and Reasons: The Company and subsidiaries applied insurance under the co-insurance between TIP and other insurance companies and/or be the Fronting with other insurance companies in the case of foreign insurers. The insurance is made by broker that is not related to the Company, helping to find insurance company by considering term and condition including premium and propose to the Company for consideration to select the insurers with the reasonable premium and term that benefit to the Company.

Details are as follows:

Transaction	Connected Transaction Value for the year	
	Ended 31 Dec 20 (Million Baht)	Ended 31 Dec 19 (Million Baht)
The Company <ul style="list-style-type: none"> Applied for Property All Risk Insurance, Public Liability Insurance to cover its biodiesel factory <ol style="list-style-type: none"> Such insurance premiums were recognized as Cost of Sales. 0.66 0.49 Prepaid Insurance 0.57 0.67 Applied for Motor Insurance <ol style="list-style-type: none"> Such insurance premiums were recognized as administrative expenses. 0.06 - Prepaid Insurance 0.28 - 		
EA Solar Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> Applied for Property All Risks Insurance, Business Interruption Insurance to cover the solar power plant <ol style="list-style-type: none"> Such insurance premiums were recognized as administrative expenses. 0.59 0.60 Prepaid Insurance 0.55 0.74 		
EA Solar Nakorn Sawan Co., Ltd. (Direct Subsidiary) <ul style="list-style-type: none"> Applied for Property All Risks Insurance, Business Interruption Insurance and Public Liability Insurance to cover the solar power plant <ol style="list-style-type: none"> Such insurance premiums were recognized as Cost of Sales 5.76 5.20 Prepaid Insurance - 6.89 		

Transaction	Connected Transaction Value for the year	
	Ended 31 Dec 20 (Million Baht)	Ended 31 Dec 19 (Million Baht)
EA Solar Phitsanulok Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> Applied for Industrial All Risks Insurance, Business Interruption Insurance and Public Liability Insurance to cover the solar power plant <ol style="list-style-type: none"> Such insurance premiums were recognized a Cost of Sales Prepaid Insurance 	6.49 -	5.56 6.12
EA Solar Lampang Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> Applied for Industrial All Risks Insurance, Business Interruption Insurance and Public Liability Insurance to cover the solar power plant <ol style="list-style-type: none"> Such insurance premiums were recognized as Cost of Sales Prepaid Insurance 	6.38 -	5.56 6.77
EA Wind Hadkunghan 3 Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> Applied for Industrial All Risks Insurance, Business Interruption and Public Liability Insurance to cover the wind power plant <ol style="list-style-type: none"> Such insurance premiums were recognized as Cost of Sales Prepaid Insurance 	8.39 7.11	7.60 8.94
Nayangklak Development Co., Ltd (Indirect Subsidiary) <ul style="list-style-type: none"> Applied for Industrial All Risks Insurance, Business Interruption Insurance and Public Liability Insurance to cover the wind power plant <ol style="list-style-type: none"> Such insurance premiums were recognized as Cost of Sales Prepaid Insurance 	2.16 -	2.19 0.10
Nayangklak Wind Power Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> Applied for Industrial All Risks Insurance, Business Interruption and Public Liability Insurance to cover the wind power plant <ol style="list-style-type: none"> Such insurance premiums were recognized as Cost of Sales Prepaid Insurance 	2.19 -	2.22 0.10
Pongnok Development Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> Applied for Industrial All Risks Insurance, Business Interruption and Public Liability Insurance to cover the wind power plant <ol style="list-style-type: none"> Such insurance premiums were recognized a Cost of Sales Prepaid Insurance 	2.32 -	1.90 0.50

Transaction	Connected Transaction Value for the year	
	Ended 31 Dec 20 (Million Baht)	Ended 31 Dec 19 (Million Baht)
Benjarat Development Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> Applied for Industrial All Risks Insurance, Business Interruption Insurance and Public Liability Insurance to cover the wind power plant <ol style="list-style-type: none"> Such insurance premiums were recognized as Cost of Sales Prepaid Insurance 	1.95 -	1.35 0.67
Banchuan Development Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> Applied for Property All Risks Insurance, Business Interruption and Public Liability Insurance to cover the wind power plant <ol style="list-style-type: none"> Such insurance premiums were recognized as Cost of Sales Prepaid Insurance 	3.97 -	2.95 1.22
EA Bio Innovation Co., Ltd (Direct Subsidiary) <ul style="list-style-type: none"> Applied for Property All Risks Insurance, Business Interruption Insurance and Public Liability Insurance <ol style="list-style-type: none"> Such insurance premiums were recognized as administrative expenses Prepaid Insurance 	1.10 1.48	- 1.45
Energy Solution Management Co., Ltd. (Direct Subsidiary) <ul style="list-style-type: none"> Applied for Property All Risks Insurance (tower crane), Inland Transit Insurance <ol style="list-style-type: none"> Such insurance premiums were recognized as administrative expenses. Prepaid Insurance 	3.49 4.49	- 1.39
Mine Mobility Corporation Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> Applied for Contractors All Risks Insurance <ol style="list-style-type: none"> Such insurance premiums were recognized as administrative expenses Prepaid Insurance 	0.52 0.52	- -
E Smart Transport Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> Applied for Hull and Machinery Insurance <ol style="list-style-type: none"> Such insurance premiums were recognized as administrative expenses Prepaid Insurance 	0.11 0.19	- -
Energy Mahanakhon Co., Ltd. (Direct Subsidiary) <ul style="list-style-type: none"> Applied for Property All Risks Insurance, Public Liability Insurance to cover Charging Station <ol style="list-style-type: none"> Such insurance premiums were recognized as administrative expenses Prepaid Insurance 	0.18 0.62	0.15 -

Transaction	Connected Transaction Value for the year	
	Ended 31 Dec 20 (Million Baht)	Ended 31 Dec 19 (Million Baht)
Amita Technology (Thailand) Co., Ltd (Indirect Subsidiary) <ul style="list-style-type: none"> Contractors All Risks Insurance during construction, Machinery Warehouse Insurance, Marine Cargo Insurance 		
1. Such insurance premiums were recognized as administrative expenses	0.21	0.06
2. Prepaid Insurance	0.43	0.08
Kanjanadit Palm Oil Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> Industrial All Risks Insurance, Business Interruption Insurance and Public Liability Insurance 		
1. Such insurance premiums were recognized as administrative expenses	0.12	-
2. Prepaid Insurance	-	-

1.2 Asia Recycle Technology Co., Ltd. (“ART”)

Relationship: The Company and ART have a common director, ACM. Chainan Thumasujarit, an independent director and Chairman of the Audit Committee of the Company.

Preconditions and Reasons: Service of waste disposal and treatment (salt residue, sludge from wastewater treatment) from biodiesel production with prices and terms considered according to normal business practice. For transparency purposes, the Board of directors considered and was of the opinion that the transaction does not affect the independent opinion of the Independent Director.

Transaction	Connected Transaction Value for the year	
	Ended 31 Dec 20 (Million Baht)	Ended 31 Dec 19 (Million Baht)
<ul style="list-style-type: none"> Service of waste disposal and treatment from biodiesel production for 1 year contract. 		
1. The services is an administrative expenses	1.19	0.04

1.3 Advance Finance PCL. (“Advance Finance”)

Relationship: The Company has director and executives which is the director and shareholder of Advance Finance as follows:

- The Company’s director and executive; Mr. Amorn Saphaweekul is the directors of Advance Finance.
- The Company’s directors and executives; Mr. Somphote Ahunai holds 10% of Advance Finance shares and Mr. Amorn Saphaweekul, holds 10% of Advance Finance shares.

Preconditions and Reasons: The Interest earned from short-term deposit which is another way to manage liquidity and increase interest earned by comparing the return with other financial institutions that is beneficial to the Company.

Transaction	Connected Transaction Value for the year	
	Ended 31 Dec 20 (Million Baht)	Ended 31 Dec 19 (Million Baht)
• Interest earned from short-term deposit	0.93	0.17

1.4 Thai EV Co., Ltd. (“THAI EV”)

Relationship: Mr. Kittikorn Phinitwongwithaya, an authorized director and major shareholder that holds 25 percent of EV Now Co., Ltd which is the director and major shareholder of THAI EV.

Preconditions and Reasons: For supporting electric public vehicles business of the Company Group which is operated by EV Now and providing place to be the office building and parking for electric vehicles. The price setting follows normal business.

Transaction	Connected Transaction Value for the year	
	Ended 31 Dec 20 (Million Baht)	Ended 31 Dec 19 (Million Baht)
<ul style="list-style-type: none"> EV Now Co., Ltd. (Indirect Subsidiary) <ul style="list-style-type: none"> 1. Expenses for office building rental and parking for a three-year period 2. The services is recorded as an administrative expenses 	0.8	-

1.5 Double P Land Co., Ltd. (“PPL”)

Relationship: Mr. Ake Ahunai, a person who is a major shareholder (indirect) of PPL and close relative of Mr. Somphote Ahunai, a major shareholder, director and executive of the Company.

Preconditions and Reasons: A subsidiary of the Company has leased the land for building a battery factory for 15-year period. The transaction size of this connected transaction is over than 3 percent of the net tangible assets of the Company which complying with the connected transaction rule and was agreed and resolved by the audit committee and the board of directors, disclosed the informational memorandum on the transactions to the SET including appointed an independent financial advisor to provide an opinion regarding the transaction. The rate of the rent is reasonable and was proposed to Shareholders meeting in 2020 to consider the execution of the transaction. Detail of Annual General Meeting of Shareholders for the year 2020 is disclosed on the Company’s website.

Transaction	Connected Transaction Value for the year	
	Ended 31 Dec 20 (Million Baht)	Ended 31 Dec 19 (Million Baht)
Amita Technology (Thailand) Co., Ltd (Indirect Subsidiary) <ul style="list-style-type: none"> Land leasing for building a factory for 15-year period. <ul style="list-style-type: none"> 1. Recorded as Right of use asset 	651.03	-

Transaction	Connected Transaction Value for the year	
	Ended 31 Dec 20 (Million Baht)	Ended 31 Dec 19 (Million Baht)
2. Depreciation of Right of use asset was capitalized as construction in progress under Properties Plant and Equipment.	14.83	-

1.6 Land Prosperity Holding Co., Ltd. (“LPH”)

Relationship: Mr. Ake Ahunai, a person who is a major shareholder (indirect) of LPH and close relative of Mr. Somphote Ahunai, a major shareholder, director and executive of the Company.

Preconditions and Reasons: The Company invested in LPH by acquiring 19 percent of all ordinary shares (285 million shares) The transaction size of this connected transaction is over than 3 percent of the net tangible assets of the Company which complying with the connected transaction rule and was agreed and resolved by the audit committee and the board of directors, disclosed the informational memorandum on the transactions to the SET including appointed an independent financial advisor to provide an opinion regarding the transaction. The rate of the rent is reasonable and was proposed to Shareholders meeting in 2020 to consider the execution of the transaction. Detail of Annual General Meeting of Shareholders for the year 2020 is disclosed on the Company’s website.

Transaction	Connected Transaction Value for the year	
	Ended 31 Dec 20 (Million Baht)	Ended 31 Dec 19 (Million Baht)
• Book Value amount of Invest in LPH by acquiring 19 percent of all ordinary shares	5,476.32	-

The Company’s Audit Committee reviewed the connected transactions which were recorded as summarized above and considered them to be indispensable, fair and justifiable in terms of conditions and prices, and/or within the arm’s length basis. The transactions were also approved by the management or the Company’s Board of Directors according to the Company’s policy, SEC and SET’s policy prior to execution.

2. Approval Measures and Procedures for Connected Transactions

The company focuses on the consideration of transparent and beneficial transactions to the Company. Therefore, for connected transactions involving the Company and/or its subsidiaries with potential parties of conflict, related party transaction, or connected transaction. Approval Measures and Procedures for Connected Transactions are as follows;

- Criteria for the necessity and justification of such transactions for the best interest of the company and/or its subsidiaries to ensure that the company is operating in compliance with the code of conduct, rules and regulations of the Capital Market Supervisory Board and the Stock Exchange of Thailand including regulations, announcements, directives, or requirements of the Stock Exchange of Thailand.

- Criteria for fair price, the management executives provide its views on the price sensibility of such transactions to ensure that the terms involved follow the normal course of business, that third-party price comparison before proposes to the board of director and/or shareholders to approve. In the case that, Audit Committee does not have the expertise in the connected transactions, the company will provide an independent appraiser or external auditor of the company to ensure that such price is reasonable in support of decisions by the board of director and/or audit Committee and/or shareholders (as seen fit) which the potential conflicts of interest are not allowed to vote on the transactions.

3. Trends for Connected Transactions with Potential Parties of Conflict

- Directors and Management of the Company prepare reports on their individual vested interests with related parties and notify the company for use as reference for taking action under applicable requirements for connected transactions.
- Directors, Management and Employees are not allow to do business that may cause conflict of interests with the Company and avoiding to do the transaction that may cause conflict of interests with the Company. In addition, the board of director is to supervise and review the business transactions that are considered connected transactions according to the measures and procedures including disclosure of the Company connected transactions to comply with law and regulation.

For future connected transactions, must comply with all laws on securities and exchanges, regulations, announcements, directives, or requirements of the Capital Market Supervisory Board, SEC, and SET. For routine transactions likely to regularly occur, the Company must follow the criteria and approaches of general commercial practices, with price references and terms that are suitable and fair, sensible, and auditable. Such transaction engagement must follow principles on agreements with general commercial terms approved by the Board of Directors. To this end, the management must prepare a summary of connected transactions for reporting to the Audit Committee each year.

Report of the Board of Directors' Responsibilities for the Financial Report

The Board of Directors is responsible for the Company's financial statements and financial information presented in this Annual Report. The financial statement is prepared in accordance with generally accepted accounting standard in Thailand using proper accounting policy of which the Board of Directors always adheres to. With best discretion and calculation of the Board of Directors, the financial statement contains adequate information disclosed in the note to financial statement.

The Board of Directors provides to have and maintains the effective internal control system to assure that the accounting record is accurate, complete and adequate to safeguard the Company's asset and to identify the weakness. Eventually, the effectiveness of the internal control system will prevent the corruption or significant unusual operation. In this regard, the Board of Directors has appointed the Audit Committee which comprises of all independent directors, to be responsible for quality of the financial report and internal control system. The opinion of the Audit Committee is expressed in the Report of the Audit Committee in this Annual Report.

The Board of Directors is of the opinion that overall of the Company's internal control system is in satisfactory level that creating trust and reliability. The Company's financial statement as at 31 December 2020 is accurate, complete and in line with generally accepted accounting standard and in compliance with relevant laws and regulations.

On behalf of the Board of Directors,
Energy Absolute Public Company Limited



(Mr. Somchainuk Engtrakul)

Chairman of the Board of Directors

Management Discussion and Analysis: MD&A

The operating results during the past 3 years for the Company and its subsidiaries, the revenue from sales and services can be divided into 3 business groups as follows:

- **Biodiesel Business:**

- 1.) Revenue from sales of biodiesel
- 2.) Revenue from sales of purified glycerin
- 3.) Revenue from sales of byproducts
- 4.) Revenue from sales of crude palm oil (“CPO”)

- **Renewable Power Plant Business**

- 1.) Revenue from sales of solar electric power
- 2.) Revenue from sales of wind electric power
- 3.) Revenue from sales of biogas electric power
- 4.) Revenue from subsidy for adders

- **Other Businesses**

- 1.) Revenue from other services

In 2020, the Company and its subsidiaries acquired 2 companies with production of CPO and biogas electric power.

Type of Revenue	Operated by / % of shareholding by the Company /*	year 2020		year 2019		year 2018	
		THB (million)	%	THB (million)	%	THB (million)	%
Biodiesel Business							
1. Biodiesel oil	EA	5,407.48	31.66	3,423.24	22.89	3,194.23	25.57
2. Purified glycerin	EA	265.54	1.55	228.93	1.53	296.16	2.37
3. Byproducts	EA	41.34	0.24	25.51	0.17	20.76	0.17
4. Crude Palm Oil	LPD, KJD	548.99	3.21	-	-	-	-
		6,263.35	36.67	3,677.68	24.59	3,511.15	28.11
Renewable Power Plant Business							
5. Solar electric power	ESLO, ESN, ESL, ESP	1,993.05	11.59	2,061.64	13.79	1,934.12	15.49
6. Wind electric power	EWHK3, PND, BJRD, NYKD, NWP, BCD	1,975.60	11.49	2,148.29	14.37	802.48	6.43
7. Biogas	KJD	8.62	0.05	-	-	-	-
8. Subsidy for adders		6,624.36	38.52	6,764.35	45.22	4,944.22	39.58
		10,601.63	61.65	10,974.28	73.38	7,680.82	61.50
Other Businesses							
9. Revenue from other services	Amita -TH, ESM	214.58	1.25	234.91	1.57	359.99	2.88
Total revenue from Sales and Services		17,079.56	99.57	14,886.87	99.54	11,551.96	92.49
10. Acconunting gain on Business Combination		-	-	-	-	894.58	7.16
11. Other income		119.58	0.70	67.67	0.46	43.69	0.35
Total Revenue		17,199.14	100.27	14,954.54	100.00	12,490.23	100.00
Share of gain (loss) from investments in associates and a joint venture		(61.05)		(14.26)		(6.31)	

Remarks : /*

EA Solar Co., Ltd. (ESLO): The Company holds direct shares of 49% and indirect shares of 51%

EA Solar Nakhonsawan Co., Ltd. (ESN):

The Company holds direct shares of 99.99%

EA Solar Lampang Co., Ltd. (ESL):

The Company holds indirect shares of 99.99%

EA Solar Phitsanulok Co., Ltd. (ESP):

The Company holds indirect shares of 99.99%

EA Wind Hadkunghan 3 Co., Ltd. (EWHK3):

The Company holds indirect shares of 99.99%

Pongnok Development Co., Ltd. (PND):

The Company holds indirect shares of 99.99%

Benjarat Development Co., Ltd. (BJRD):

The Company holds indirect shares of 99.99%

Nayangklak Development Co., Ltd. (NYKD):

The Company holds indirect shares of 99.99%

Nayangklak Wind Power Co., Ltd. (NWP):

The Company holds indirect shares of 99.99%

Banchuan Development Co., Ltd. (BCD)

The Company holds indirect shares of 99.99%:

Larp Pakdee Palm Co., Ltd. (LPD):

The Company holds indirect shares of 74.99 %

Kanjanadit Palm Oil Co., Ltd. (KJD):

The Company holds indirect shares of 75.00 %

Amita Technology (Thailand) Co., Ltd. (Amita-TH):

The Company holds indirect shares of 99.99 %

Energy Solution Management Co., Ltd. (ESM):

The Company holds direct shares of 99.99 %

Results of Operation for the Company and its Subsidiaries

Revenue from Sales of products and Total Revenue

Total revenue from sales of products of the Company and its subsidiaries in 2018, 2019 and 2020 were THB 11,551.95 million, THB 14,886.87 million, and THB 17,079.56 million including Adder from PEA at the rate of THB 8 per kWh for 8-MW Solar power plant in Lopburi and from EGAT at the rate of THB 6.50 per kWh for 90-MW Solar power plant in Nakhon Sawan, Lampang, and Phitsanulok, and at the rate of THB 3.50 per kWh for 126-MW Wind power plant in Songkla, Nakorn Si Thammarat and Chaiyaphum. This resulted in the continuous increase in total revenue of the Company and its subsidiaries.

In 2020, the total revenue increased by THB 2,244.60 million from 2019 or 15.01% and increase by THB 4,708.92 million from 2018 or 37.70%. For the year 2020, the Company and its subsidiaries incurred sales revenue of THB 17,079.56 million, increased by 14.73% in comparison to 2019. In proportion of total revenue: 31.66% was from sales of biodiesel, 1.55% from sales of purified glycerin, 0.24% from sales of byproducts, 3.21% from sales of crude palm oil, and 23.29% from sales of solar, wind and biogas power plant business and 38.79% from subsidy for adders.

Revenue from sales of biodiesel

In 2020 increased from 2019 by THB 1,984.24 million or 57.96% as a result of the increase in average selling price from 17.69 THB/litre in 2019 to 28.79 THB/litre in 2020, representing 62.75% increase. This is due to the increase in raw material price which is a factor of the increase in fixed distribution pricing, resulted in the increase of value from sales of biodiesel in 2020.

Revenue from solar and wind power plants

The Company and its subsidiaries in 2018, 2019, and 2020 were THB 7,680.82 million, THB 10,974.28 million, and THB 10,601.63 million, respectively. The continuous increase followed the on planned commercial operation of power plant projects in 2019, where the earnings were recognized from sales of the electricity units and adder. In 2020, revenue from solar and wind power plants decreased mainly due to lower solar irradiation as a result of more total raining days compared to the same period last year led to lower production from solar power plants, and weaker wind current compared to the same period last year led to lower production of wind power plants, and lower peak-period power generation which led to lower electricity unit pricing.

Revenue from other business

In 2020, mainly incurred from the recognition of revenue from Amita Technologies Inc. (“Amita-Taiwan”) from the sales of batteries amounted to THB 163.66 million and renewable energy consulting income from Energy Solution Management Co., Ltd. (“ESM”) amounted to THB 36.84 million.

Cost of sales and gross profit

Cost of sales of the Company and its subsidiaries in 2018, 2019 and 2020 were THB 5,668.29 million, THB 6,752.39 million, and THB 9,271.43 million, respectively or 49.07%, 45.36% and 54.28% of revenue from sales. Cost of sales increased in 2020 in comparison to 2018 and 2019 due to the increase in raw material pricing in Manufacturing and distributing biodiesel products and the commercial operation of wind power plants with aggregated capacity of 260 MW in 2019 which led to the recognition of depreciation, administrative and maintenance expenses.

Gross profit of the Company and its subsidiaries in 2018, 2019 and 2020 were THB 5,883.66 million, THB 8,134.48 million and THB 7,808.13 million, or 50.93%, 54.64%, and 45.72% of revenue from sales, respectively, according to the aforementioned changes in revenue and cost.

Type of Revenue	2020		2019		2018	
	THB (million)	%	THB (million)	%	THB (million)	%
Manufacturing and distributing biodiesel, purified glycerin, and crude palm oil (including byproducts)						
- Revenue from Sales	6,263.35	36.67	3,677.68	24.70	3,511.14	30.39
- Cost of Sales	5,745.89	33.64	3,631.15	24.39	3,299.44	28.56
- Gross Profit	517.46	3.03	46.53	0.31	211.70	1.83
Generating and distributing solar and wind electric power (including from subsidy for adders)						
- Revenue from Sales	10,601.63	62.07	10,974.28	73.72	7,680.82	66.49
- Cost of Sales	2,919.46	17.09	2,532.43	17.01	1,793.27	15.52
- Gross Profit	7,682.17	44.98	8,441.85	56.71	5,887.55	50.97
Other Businesses						
- Revenue from Sales and Services	214.58	1.26	234.91	1.58	359.99	3.12
- Cost of Sales	606.08	3.55	588.80	3.96	575.58	4.98
- Gross Profit	(391.50)	(2.29)	(353.89)	(2.38)	(215.60)	(1.87)
Total Revenue*	17,079.56	100.00	14,886.87	100.00	11,551.95	100.00

Remark : * (excluded other income)

Revenue from Sales and Cost of Sales categorized by Product for 2018 – 2020

Product	2018			
	Revenue	Cost of Sales	Gross Profit	Gross Profit Margin (%)
Biodiesel	3,194,227,727	3,174,757,495	19,470,232	0.61%
Purified Glycerin	296,155,581	93,761,113	202,394,468	68.34%
Byproducts	20,760,800	30,924,619	(10,163,819)	(48.96)%
Electricity from solar power plants (included adders)	5,865,704,001	1,127,604,444	4,738,099,557	80.78%
Electricity from wind power plants (included adders)	1,815,113,049	665,660,131	1,149,452,918	63.33%

Product	2019			
	Revenue	Cost of Sales	Gross Profit	Gross Profit Margin (%)
Biodiesel	3,423,241,100	3,427,717,236	(4,476,136)	(0.13)%
Purified Glycerin	228,932,711	104,180,970	124,751,741	54.49%
Byproducts	25,509,932	94,602,411	(69,092,479)	(270.85)%
Electricity from solar power plants (included adders)	6,159,965,384	1,098,705,633	5,061,259,751	82.16%
Electricity from wind power plants (included adders)	4,814,311,713	1,433,728,728	3,380,582,985	70.22%

Product	2020			
	Revenue	Cost of Sales	Gross Profit	Gross Profit Margin (%)
Biodiesel	5,407,482,895	4,699,327,117	708,155,778	15.07%
Purified Glycerin	265,538,585	115,501,901	150,036,684	129.90%
Byproducts	41,336,429	178,866,464	(137,530,035)	(76.89)%
Crude Palm Oil	548,989,292	752,186,773	(203,197,481)	(27.01)%
Electricity from solar power plants (included adders)	6,050,253,372	1,186,543,733	4,863,709,639	409.91%
Electricity from wind power plants (included adders)	4,541,354,130	1,717,345,846	2,824,008,284	164.44%
Electricity from Biogas (included adders)	10,021,737	15,573,989	(5,552,252)	(35.65)%
Other Business	214,580,666	606,073,587	(391,492,921)	(64.59)%

Selling Expenses

Selling expenses of the Company and its subsidiaries in 2018, 2019, and 2020 were THB 69.19 million, THB 81.29 million and THB 79.84 million, or 0.55%, 0.54% and 0.46% of total revenues, respectively. In 2020, selling expenses decreased by THB 1.45 million or 1.78% in comparison to 2019 mainly from the lower selling expenses in Manufacturing and Distributing of Biodiesel business from its lower sales volume.

Administrative Expenses

Administrative expenses of the Company and its subsidiaries in 2018, 2019, and 2020 were THB 735.35 million, THB 864.55 million, and THB 1,198.58 million, or 5.89%, 5.78%, and 6.97% of total revenue, respectively. These were mainly from

- 1.) The increase in employee expenses by THB 143.08 million compared to the same period last year due to the increase in number of employees and executives of the Company and its subsidiaries in accordance with the expansion of new businesses,
- 2.) The increase in research and development expenses by THB 46.21 million compared to the same period last year due to research of new development projects.
- 3.) The increase in donation expenses by THB 64.36 million compared to the same period last year due to the outbreak of COVID-19 resulted in the Company donating sterilization equipment to hospitals nationwide,
- 4.) The increase in depreciation and amortization by THB 35.59 million compared to the same period last year due to the loss of sales of unused equipment.

Gains (losses) on Currency exchange

As of 31 December 2020, the Company and its subsidiaries recorded a gain on currency exchange of THB 9.77 million, decreased by THB 150.31 million compared to the same period last year of THB 160.08 million. The significant decrease was from the recording of assets and liabilities of the wind power plant project in Chaiphaphum which the construction completed in 2019. There were some construction payables traded in foreign currencies and the Company group received credit terms from the seller. The Company recognized THB 67.93 million of gain on measurement of financial instruments in 2020 in accordance with the new accounting standard.

Financial Costs

In 2018, 2019, and 2020, the financial cost of the Company and its subsidiaries were THB 1,086.43 million, THB 1,386.27 million, and THB 1,636.80 million, or 8.70%, 9.27% and 9.52% of total revenue, respectively. The increase in financial costs in 2020 compared to the same period last year was due to the loan from financial institutions and the issuance of debentures in order to repay some part of supplier credits of Hanuman wind power plants project that was due.

Net Profit and Rate of Net Profit

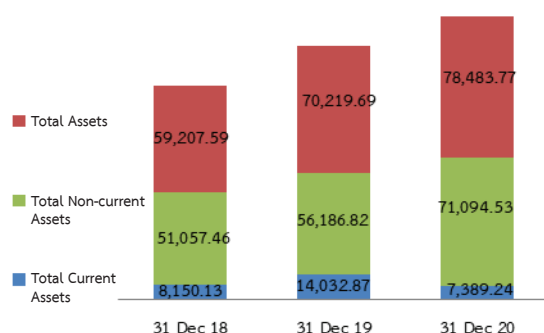
Net profit of the Company and its subsidiaries (in part of the profit attributable to owners of the parent) in 2018, 2019 and 2020 were THB 5,147.54 million, THB 6,081.62 million, and THB 5,204.57 million, or 41.21%, 40.67%, and 30.26% of total revenue, respectively. In 2020, net profit decreased by THB 877.05 million or 14.42% in comparison to 2019 due to weaker wind resulted to lower production of wind power plant. However, the Company and its subsidiaries maintains business expansion policy that focuses on high yield business, for example, wind power plants, which started commercial operation in mid-2019 and biodiesels business, which continuously generates profit.

Return on Equity

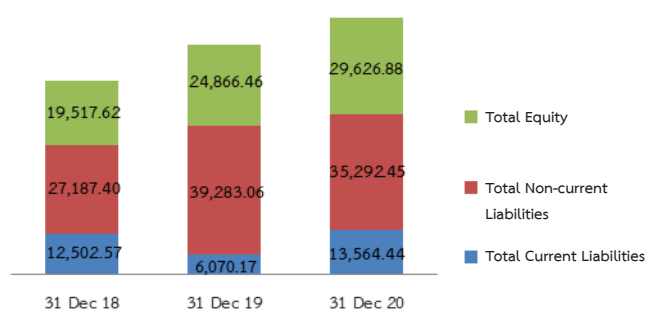
Return on equity of the Company and its subsidiaries in 2018, 2019 and 2020 were 30.86%, 29.19% and 20.34%, respectively. Shareholder's equity (in part of equity attributable to owners of the parent) was THB 18,310.99 million, THB 23,364.51 million, and THB 27,811.52 million, respectively. The paid-up ordinary shares were THB 373 million and the premium on share capital was THB 3,680.62 million.

Statement of Financial Position

Total Assets (Unit : THB Million)



Total Liabilities and Equity (Unit : THB Million)



Assets

Total assets of the Company and its subsidiaries as of 31 December 2018, 2019 and 2020 were THB 59,207.59 million, THB 70,219.69 million and THB 78,483.77 million, respectively. Details of significant assets were as follows:

- Cash and Cash equivalents**

Cash at financial institution of the Company and its subsidiaries as of 31 December 2018, 2019 and 2020 were THB 5,478.57 million, THB 10,028.95 million and THB 2,950.67 million, respectively. Decreasing is mainly from investment in new businesses in 2020.

- Trade accounts receivable and allowance for doubtful receivables**

As of 31 December 2018, 2019 and 2020 the Company and its subsidiaries had trade accounts receivable of THB 1,650.85 million, THB 2,665.76 million and THB 2,750.19 million or 2.79%, 3.80% and 3.50% of total assets, respectively. In 2020, trade accounts receivable decreased due to decreasing in account receivable as the revenue of electric power plant decreased.

The average collection period in 2018, 2019 and 2020, was 53.05 days, 52.92 days and 57.87 days, respectively. The collection period in 2020 increased as a result of the increase in the proportion of income and debtors with longer credit term in accordance to the Company's credit term policy of no more than 45-day of credit term per terms and conditions of agreements for main customers.

Other accounts receivable

Other accounts receivable of the Company and its subsidiaries as of 31 December 2018, 2019 and 2020 were THB 644.06 million, THB 509.51 million, and THB 761.29 million, respectively. Other accounts receivable included Revenue Department receivable, undue input vat, goods deposit, advanced expenses, etc.

- **Inventories**

As of 31 December 2018, 2019 and 2020, the inventory of the Company and its subsidiaries were THB 329.96 million, THB 757.68 million, and THB 833.30 million, or 0.56%, 1.08%, and 1.06% of total assets, respectively. The significant increase in inventories in 2019 and 2020 was due to the consolidation of Amita-Taiwan's inventory amounted to THB 241.80 million into the consolidated financial statements due to reclassification of Amita-Taiwan from an associate to a subsidiary.

- **Property, Plant and Equipment**

The property, plant and equipment of the Company and its subsidiaries as of 31 December 2018, 2019 and 2020 were THB 55,856.94 million, THB 51,371.09 million and THB 47,587.21 million, or 71.17%, 73.16% and 80.37% of total assets, respectively. The increase of THB 4,485.85 million or 8.73% in comparison to 2019 was mainly from the investment in new businesses such as Lithium-ion batteries and PCM.

Property, plant and Equipment by asset type

Unit: THB Million

Property, plant and Equipment	As of 31 Dec 2020	As of 31 Dec 2019	As of 31 Dec 2018
Land	2,106.97	1,234.05	1,083.44
Buildings and Buildings improvement	1,317.71	656.03	585.40
Machines, equipment, and instruments in the plants	2,686.67	1,242.87	1,184.77
Office equipment, furniture and motor vehicles	97.76	77.67	63.65
Assets and Construction in progress	4,935.10	1,209.82	15,569.72
Power plants, substation, transmission system and components	44,712.73	46,950.65	29,100.23
Total	55,856.94	51,371.09	47,587.21

- **Intangible Assets**

The intangible assets of the Company and its subsidiaries as of 31 December 2018, 2019, and 2020 were THB 1,941.13 million, THB 2,792.78 million and THB 2,792.58 million or 3.28%, 3.98%, and 3.56% of total asset, respectively. In 2020, intangible assets decreased by THB 0.20 million compared to the same period of last year due to the amortization of patents of power transmission system for wind power plants 5 projects in Chaiyaphum which have been recognized as asset since its commercial operation in 2019.

Intangible Assets details

Unit: THB Million

List of Intangible Assets	As of 31 Dec 2020	As of 31 Dec 2019	As of 31 Dec 2018
Right to power purchase agreement	28.52	30.22	31.92
Right to use transmission line and substation			
• Solar Power Plant in Lopburi	9.98	10.58	11.17
• Solar Power Plant in Nokhon Sawan	139.84	147.63	155.40
• Solar Power Plant In Lampang	143.98	151.52	159.04
• Solar Power Plant In Phitsanulok	219.11	229.97	240.83
• Wind Power Plant In Nakhon Si Thammarat and Sogkhla	297.61	311.54	325.44
• Wind Power Plant In Chaiyaphum	827.92	863.69	-
Computer software	38.40	31.74	14.67
Patents	675.45	670.07	745.12
Brand	232.93	231.07	257.54
Intangible assets under development	178.84	114.75	-
Totat	2,792.58	2,792.78	1,941.13

Liquidity

As of December 31, 2019 and 2020, the current assets of the Company and its subsidiaries was THB 14,032.87 million and THB 7,389.23 million or 19.98% and 9.41% of total assets, respectively. The major current were with high quality and liquidity such as cash and cash equivalents amounting to THB 10,028.95 million and THB 2,950.67 million or 71.47%, and 39.93% of current assets, respectively. Trade accounts receivable were THB 2,665.76 million and THB 2,750.19 million or 19.00% and 37.22% of current assets, respectively. Inventories were THB 757.68 million and THB 833.30 million or 5.40% and 11.28% of current assets, respectively. The ratio of current assets to total assets is likely to decrease due to the expansion into the business of generating and distributing of electricity from renewable energy which categorized as non-current assets and high value, such as, land and power plants.

The power plants had completed their constructions and commenced commercial operation with continuous electricity distribution. Consequently, the ratio of current assets to total assets decreased.

As of 31 December 2019 and 2020, the Company and its subsidiaries incurred the current liabilities of THB 6,070.18 million and THB 13,564.44 million or 8.64% and 17.28% of total assets, respectively. The current liabilities of the Company in 2020 compared to the same period of last year increased by THB 7,494.26 million mainly due to the increase in short-term loans from financial institutions by THB 1,980.45 million, the increase in long-term loans from financial institutions and debentures due in one year by THB 5,034.64 million to repay suppliers for wind power plant that was due.

The aforementioned changes in current assets and current liabilities resulted in the Company's liquidity ratio at 0.65 times in 2018, 2.31 times in 2019, and 0.54 times in 2020. The liquidity ratio in 2020 was significantly decreased due to

- 1.) The reclassification of long-term loan from financial institutions due in 2020 from non-current liabilities to current liabilities of THB 4,034.67 million, and,
- 2.) The reclassification of debentures due in 2020 from non-current liabilities to current liabilities of THB 999.97 million. These resulted in the decrease in proportion of current liabilities to total liabilities.

Source of Fund

Liability

As of 31 December 2018, 2019 and 2020, the Company and its subsidiaries incurred total liabilities of THB 39,689.97 million, THB 45,353.23 million, and THB 48,856.89 million, or 67.04%, 64.59% and 62.25% of total assets respectively. The details of liabilities were as follows:

- **Short-term loan from financial institutions**

As of 31 December 2018, 2019 and 2020, the Company and its subsidiaries incurred short-term loans from financial institutions of THB 1,817.01 million, THB 659.86 million, and THB 2,640.31 million, or 3.07%, 0.94% and 3.36% of total assets, respectively. As of 31 December 2020, the short-term loan from financial institutions increased in order to repay for the assets in battery project.

- **Long-term loan from financial institutions**

As of 31 December 2018, 2019 and 2020, long-term loans from financial institutions (including the portion due within 1 year) of the Company and its subsidiaries were THB 19,406.52 million, THB 24,293.68 million and THB 24,239.96 million, or 32.78%, 34.60% and 30.89% of total assets, respectively.

- **Debenture**

The Company's outstanding debentures (including the portion due within 1 year) as of 31 December 2020 were THB 16,191.77 million, or 20.63% of total assets. The objective is for investing in projects such as battery factory construction.

Shareholders' Equity

The Company and its subsidiaries' shareholder's equity continuously increased. As of 31 December 2018, 2019 and 2020, shareholder's equity of the Company and its subsidiaries were THB 19,517.63 million, THB 24,866.46 million and THB 29,626.88 million, or 32.96%, 35.41% and 37.75% of total asset, respectively. Shareholder's equity continued to increase due to the continuous profit leading to increase in retained earnings

In 2018, 2019, 2020, the Annual General Meeting of Shareholders approved the payment of dividend of THB 0.25 per share, THB 0.30 per share and THB 0.30 per share, or the dividend payout of THB 932.50 million, THB 1,119.00 million and THB 1,119.00 million, respectively, from operating results under non-BOI businesses.

Dividend	2020	2019	2018
Dividend (THB/Share)	0.30	0.30	0.25
Dividend payout (THB million)	1,119.00	1,119.00	932.50
Dividend payout ratio	33.32%	28.63%	26.75%

Debt-to-equity ratio of the Company and its subsidiaries as of 31 December 2018, 2019 and 2020 were 2.19 times, 1.94 times and 1.76 times, respectively. In 2020, the debt-to-equity ratio decreased due to lower amount of loan drawdown for the construction of power plants which were mostly completed in 2019. There were also gradual repayments of loan for the power plants that had commenced commercial operations, resulted to the overall decrease in debt. In addition, the Company incurred continuous profit leading to increase in retained earnings and shareholders' equity. As a consequence, the debt-to-equity ratio has been decreasing.

Cash flow

The Company and its subsidiaries incurred net cash flows from operating activities in 2018, 2019 and 2020 were THB 7,192.71 million, THB 8,703.24 million and THB 9,237.63 million, respectively. The increase in cash flows from operating activities was a result of the continuous profit from the sales of electricity from solar and wind power plants.

Net cash flow (payment) from investing activities in 2018, 2019 and 2020 were THB (5,566.72) million, THB (14,834.44) million, THB (14,195.54) million, respectively. The Company invested in the construction of a new wind power plant project in Chaiphaphum (Hanuman Project) resulting in an increased net cash flow for investing activities in 2019. In 2020, the Company and its subsidiaries mostly invested in the construction of battery plants and car assembly.

For funding activities in 2018, 2019 and 2020, cash receipts from (payments in) financing activities were equal to THB (598.33) million, THB 10,723.13 million and THB (2,140.88) million, respectively. Cash flow from financing activities was from the issuance of debentures in 2019 amounted to THB 10,000 million and repayment of debentures amounted to THB 1,000 million, the outstanding debenture value to THB 9,000 million were utilized for payment of power plants construction. Additionally, there was issuance of debentures amounted to THB 2,200 million in 2020.

Cash flow from various activities for the year ended 31 December 2018, 2019 and 2020 are summarized as follows:

Unit: THB Million

Cash flow from activities	2020	2019	2018
Net cash receipts from (payments in) operating activities	9,237.63	8,703.24	7,192.71
Net cash payments in investing activities	(14,195.54)	(14,834.44)	(5,566.72)
Net cash receipts from (payments in) financing activities	(2,140.88)	10,723.13	(598.33)
Increase (decrease) of net cash	(7,098.78)	4,591.93	1,027.66
Cash and cash equivalents at beginning of year	10,028.95	5,478.57	4,505.65
Currency transaction differences	20.50	(41.55)	(54.74)
Cash and cash equivalents at ending of year	2,950.67	10,028.95	5,478.57

Charging Station

E[^] ANYWHERE

Electric charging station provides charging service for electric automobiles which include PHEV (plug-in hybrid electric vehicle) and BEV (battery electric vehicle)

The electric charging station is based on conductive charging technology.

The electric vehicle is connected to the charger by charging cable which is widely used nowadays.



Independent Auditor's Report

To the shareholders of Energy Absolute Public Company Limited

My opinion

In my opinion, the consolidated financial statements and the separate financial statements present fairly, in all material respects, the consolidated financial position of Energy Absolute Public Company Limited (the Company) and its subsidiaries (the Group) and the separate financial position of the Company as at 31 December 2020, and its consolidated and separate financial performance and its consolidated and separate cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRS).

What I have audited

The consolidated financial statements and the separate financial statements comprise:

- the consolidated and separate statements of financial position as at 31 December 2020;
- the consolidated and separate statements of comprehensive income for the year then ended;
- the consolidated and separate statements of changes in equity for the year then ended;
- the consolidated and separate statements of cash flows for the year then ended; and
- the notes to the consolidated and separate financial statements, which include significant accounting policies and other explanatory information.

Basis for opinion

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated and separate financial statements section of my report. I am independent of the Group and the Company in accordance with the Code of Ethics for Professional Accountants issued by the Federation of Accounting Professions that are relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Key audit matters

Key audit matters are those matters that, in my professional judgement, were of most significance in my audit of the consolidated and separate financial statements of the current period. These matters were addressed in the context of my audit of the consolidated and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

Key audit matter	How my audit addressed the key audit matter
<p>Impairment assessment of goodwill</p> <p>Refer to Note 21 Goodwill, as at 31 December 2020, the Group had goodwill of Baht 1,337.33 million, which represents 1.70% of the total consolidated assets. Goodwill of Baht 949.40 million arose from the acquisitions of a battery developing, manufacturing and distributing business. The remaining of Baht 387.93 mostly arose from the acquisitions of palm crushing mills and biomass power plants business. The Group did not recognise an impairment loss in the 2020 consolidated financial statements.</p> <p>The management tests goodwill impairment annually at the cash-generating unit level (CGU) and calculates its recoverable amount by applying the value-in-use model. This model involves management's significant judgments in respect to the future operating results, the projected cash flows and the appropriate discount rate to be applied to those projected cash flows. Key assumptions applied in the value-in-use model are projected sales and service revenue, growth rate and discount rate applied to the projected cash flows.</p> <p>I focussed on the valuation of goodwill arising from the acquisitions of a battery developing, manufacturing and distributing business due to its significant value and the fact that the determination of value-in-use depends on a number of assumptions. Those assumptions involve management's significant judgements in assessing the feasibility of future business plans.</p>	<p>I carried out the following procedures to assess the impairment testing of the goodwill arising from the acquisitions of a battery developing, manufacturing and distributing business which was prepared by the management.</p> <ul style="list-style-type: none"> assessed the appropriateness of management's identification of the CGUs. held discussions with management to understand the basis for the assumptions applied and evaluated whether the goodwill impairment testing process and assumptions had been applied appropriately and were in line with the nature of the business. challenged management's significant assumptions used in the goodwill impairment testing, especially the projected sales and service revenue, growth rate and discount rate. My procedures included comparing those assumptions to the loan interest rate and rate of return from external sources and the approved business plan. assessed the reasonableness of the business plan by comparing the 2020 plan with actual results. assessed the discount rate taking into account independently obtained data from available public information of companies in the industry to check whether the discount rate used by the management was within an acceptable range. tested the sensitivity analysis over key assumptions to assess which factors are sensitive to assumptions and the potential impacts of the range of possible outcomes. <p>As a result of the procedures performed, the key assumptions used by the management are within the acceptable range and consistent with supporting evidence.</p>

Key audit matter	How my audit addressed the key audit matter
<p>Fair value measurement of an investment in an equity instrument</p> <p>Refer to Note 14 Financial assets measured at fair value through other comprehensive income. As at 31 December 2020, the Group had an investment in an equity instrument of a non-listed company of Baht 5,479.32 million, which represents 6.98% of the total consolidated assets. The investee engages the business of property development. The Group determined that this investment is an investment in an equity instrument under the scope of TAS 32 “Financial Instruments: Presentation” and requires subsequent measurement to fair value under the scope of TFRS 9 “Financial Instruments”. The Group irrevocably elected to account for the equity investment at fair value through other comprehensive income (FVOCI).</p> <p>The management engaged the external valuer to appraise the fair value of an investment in an equity instrument. Fair value measurements involve significant judgements made by management in respect to the future operating results, projected cash flows and the appropriate discount rate to be applied to the projected cash flows. Key assumptions applied in determining the fair value are the growth rate of the land price, projected revenue, capital expenditure, operating expenditure, capital structure and discount rate applied to the projected cash flows. The result of external valuer measurement indicates that the fair value is more than the carrying value under the cost method. Therefore, the Group recognised a gain through other comprehensive income amounting to Baht 345.25 million in the 2020 consolidated financial statements.</p> <p>I focussed on the fair value measurement of an investment in an equity instrument because the external valuer applied discounted cash flows and the model involves the management's significant estimations and judgment to assess the projected cash flows and discount rate applied for the projected cash flows.</p>	<p>I carried out the following procedures to obtain evidence for the management's fair value measurement of an investment in an equity instrument:</p> <ul style="list-style-type: none"> • read the share purchase agreement to understand the key terms and conditions and confirmed our understanding of the transaction with the management. • reviewed management's assessment that the classification of the investment should be accounted as a financial asset measured at fair value through other comprehensive income. • evaluated the competency, qualifications, experience and objectivity of management's experts. • tested the calculation of fair values of investment in an equity instrument and also challenged management's significant assumptions applied in the future cash flows estimation (e.g. the growth rate of the land price, projected revenue, capital expenditure, operating expenditure, capital structure and discount rate) by comparing those assumptions to the underlying agreements, external sources and the approved business plan. • assessed the reasonableness of the business plan by comparing the 2020 plan with actual results. • assessed the discount rate taking into account independently obtained data from available public information of companies in the industry to check whether the discount rate used by the management was within an acceptable range. <p>As a result of the procedures performed, I determined that the method and assumptions applied in fair value measurement of an investment in an equity instrument were reasonable and in line with the accounting for the fair value.</p>

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to the audit committee.

Responsibilities of the directors for the consolidated and separate financial statements

The directors are responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRS, and for such internal control as the directors determine is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate financial statements, the directors are responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

The audit committee assists the directors in discharging their responsibilities for overseeing the Group's and the Company's financial reporting process.

Auditor's responsibilities for the audit of the consolidated and separate financial statements

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with TSAs, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with the audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide the audit committee with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with the audit committee, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

PricewaterhouseCoopers ABAS Ltd.



Amornrat Pearmpoonvatanasuk
 Certified Public Accountant (Thailand) No. 4599
 Bangkok
 25 February 2021

Energy Absolute Public Company Limited
Statement of Financial Position
As at 31 December 2020

		Consolidated financial statements		Separate financial statements	
		2020	2019	2020	2019
	Notes	Baht	Baht	Baht	Baht
Assets					
Current assets					
Cash and cash equivalents	11	2,950,667,329	10,028,951,620	637,794,878	5,260,281,030
Deposits at financial institutions used as collateral	12	11,719,261	11,534,539	-	-
Trade accounts receivable, net	13	2,750,193,492	2,665,758,015	497,494,602	321,655,322
Other accounts receivable, net	15	761,289,090	509,510,354	290,712,065	248,082,844
Short-term loans to other parties and related parties, net		7,065,407	3,192,550	1,830,543,640	1,013,817,540
Current portion of long-term loans to other parties and related parties		75,000,000	56,250,000	52,446,741	-
Inventories, net	16	833,299,401	757,677,910	282,809,335	200,587,215
Total current assets		7,389,233,980	14,032,874,988	3,591,801,261	7,044,423,951
Non-current assets					
Deposits at financial institutions used as collateral	12	177,457,376	166,306,110	92,945,000	98,128,211
Financial assets measured at fair value through other comprehensive income	14	5,526,611,867	-	5,479,323,609	-
Investments in subsidiaries	17	1	1	27,719,122,426	24,072,837,448
Investments in associates	17	1,500,481,507	69,530,375	-	-
Investment in a joint venture	17	28,990,332	30,665,924	45,471,090	43,285,440
Long-term loans to other parties and related parties		4,846,250	23,596,250	10,333,553,259	13,000,000,000
Investment property, net	18	67,194,176	69,295,244	1,038,844,012	1,040,945,080
Property, plant and equipment, net	19	55,856,938,552	51,371,094,887	347,349,223	379,251,639
Right-of-use assets, net	20	1,778,324,439	-	303,779,068	-
Goodwill	21	1,337,332,568	889,808,430	-	-
Intangible assets, net	22	2,792,580,343	2,792,784,053	11,559,999	11,132,235
Deferred tax assets, net	23	111,283,704	75,696,116	-	7,738,279
Other non-current assets, net	24	1,912,492,967	698,041,765	936,064,828	61,763,565
Total non-current assets		71,094,534,082	56,186,819,155	46,308,012,514	38,715,081,897
Total assets		78,483,768,062	70,219,694,143	49,899,813,775	45,759,505,848

The accompanying notes to the financial statements on pages 16 to 107 are an integral part to these financial statements.

Energy Absolute Public Company Limited
Statement of Financial Position
As at 31 December 2020

	Notes	Consolidated financial statements		Separate financial statements	
		2020	2019	2020	2019
		Baht	Baht	Baht	Baht
Liabilities and equity					
Current liabilities					
Short-term loans from financial institutions, net	25	2,640,314,893	659,862,469	362,176,922	482,886,986
Trade accounts payable		372,586,822	285,293,648	269,528,788	239,149,989
Other accounts payable	26	915,949,519	735,741,309	489,524,604	376,612,774
Construction payables and payables for purchase of assets		128,136,800	62,158,264	-	-
Short-term loans from other parties and related parties		33,925,953	-	4,779,903,740	2,536,710,000
Current portion of long-term loans from financial institutions, net	27	5,342,357,161	1,307,686,226	3,535,124,780	-
Derivative liabilities	7	10,628,706	-	-	-
Current portion of lease liabilities, net		98,740,857	1,061,644	54,589,949	-
Current portion of debentures, net	28	3,999,465,959	2,999,498,444	3,999,465,959	2,999,498,444
Income tax payable		12,609,517	5,656,670	-	-
Retention for constructions		9,727,084	13,218,448	-	-
Total current liabilities		13,564,443,271	6,070,177,122	13,490,314,742	6,634,858,193
Non-current liabilities					
Derivative liabilities	7	3,205,326	-	-	-
Long-term loans from financial institutions, net	27	18,897,599,008	22,985,990,896	1,886,868,053	5,677,470,188
Debentures, net	28	12,192,300,842	13,991,362,918	12,192,300,842	13,991,362,918
Retention for constructions		76,477,961	15,919,789	-	-
Lease liabilities, net		1,674,909,377	2,282,934	260,749,280	-
Deferred tax liabilities, net	23	296,341,100	180,227,772	57,636,972	-
Retirement benefit obligations		67,612,900	49,947,884	52,929,052	44,725,300
Advance receipts for land rental from related parties	40.6	-	-	769,730,234	733,568,777
Provision for decommissioning costs	29	2,073,682,821	2,056,008,666	1,592,750	1,592,750
Other non-current liabilities		10,317,611	1,316,711	1,539,947	1,488,131
Total non-current liabilities		35,292,446,946	39,283,057,570	15,223,347,130	20,450,208,064
Total liabilities		48,856,890,217	45,353,234,692	28,713,661,872	27,085,066,257

The accompanying notes to the financial statements on pages 16 to 107 are an integral part to these financial statements.

Energy Absolute Public Company Limited
Statement of Financial Position
As at 31 December 2020

	Note	Consolidated financial statements		Separate financial statements	
		2020	2019	2020	2019
		Baht	Baht	Baht	Baht
Liabilities and equity (continued)					
Equity					
Share capital					
Authorised share capital					
- 3,730,000,000 ordinary shares					
at par value of Baht 0.10 per share		373,000,000	373,000,000	373,000,000	373,000,000
Issued and paid-up share capital					
- 3,730,000,000 ordinary shares					
paid-up at Baht 0.10 per share		373,000,000	373,000,000	373,000,000	373,000,000
Premium on share capital		3,680,616,000	3,680,616,000	3,680,616,000	3,680,616,000
Retained earnings					
Appropriated					
- Legal reserve	30	37,300,000	37,300,000	37,300,000	37,300,000
Unappropriated		24,149,090,022	20,148,089,424	16,837,417,144	14,601,906,893
Other components of equity		(428,488,805)	(874,498,543)	257,818,759	(18,383,302)
Equity attributable to owners					
of the parent		27,811,517,217	23,364,506,881	21,186,151,903	18,674,439,591
Non-controlling interests		1,815,360,628	1,501,952,570	-	-
Total equity					
Total liabilities and equity					

The accompanying notes to the financial statements on pages 16 to 107 are an integral part to these financial statements.

Energy Absolute Public Company Limited
Statement of Comprehensive Income
For the year ended 31 December 2020

	Notes	Consolidated financial statements		Separate financial statements	
		2020	2019	2020	2019
		Baht	Baht	Baht	Baht
Revenue from sales and services	31	10,455,194,710	8,122,513,384	5,705,542,290	3,672,669,881
Revenue from subsidy for adders	32	6,624,362,396	6,764,353,399	-	-
Dividend income	17.2, 40.7	-	-	3,871,536,709	4,745,364,506
Other income	33	119,585,303	67,673,775	513,599,523	393,940,806
Total revenues		17,199,142,409	14,954,540,558	10,090,678,522	8,811,975,193
Cost of sales and services		(9,271,419,410)	(6,752,387,011)	(5,169,676,229)	(3,626,500,617)
Selling expenses		(79,838,972)	(81,287,742)	(58,647,338)	(64,804,386)
Administrative expenses		(1,198,576,795)	(864,551,560)	(672,652,931)	(534,212,418)
Gain on measurement of financial instruments		67,931,198	-	-	-
Currency exchange gains (losses), net		9,766,800	160,076,461	9,491,592	(9,221,990)
Finance costs	34	(1,636,797,026)	(1,386,265,878)	(845,008,629)	(667,988,468)
Total expenses		(12,108,934,205)	(8,924,415,730)	(6,736,493,535)	(4,902,727,879)
Share of loss from investments in associates and a joint venture, net	17	(61,049,730)	(14,259,073)	-	-
Profit before income tax		5,029,158,474	6,015,865,755	3,354,184,987	3,909,247,314
Income tax	36	18,222,893	10,752,519	3,675,264	(864,190)
Profit for the year		5,047,381,367	6,026,618,274	3,357,860,251	3,908,383,124
Other comprehensive income (expense)					
Items that will not be reclassified subsequently to profit or loss					
Remeasurements of post-employment benefit obligations		(31,256)	(1,018,339)	-	(2,376,193)
Changes in fair value of equity investments at fair value through other comprehensive income	14	363,883,560	-	345,252,576	-
Income tax on items that will not be reclassified subsequently to profit or loss		(72,776,712)	-	(69,050,515)	-
Total items that will not be reclassified subsequently to profit or loss		291,075,592	(1,018,339)	276,202,061	(2,376,193)

The accompanying notes to the financial statements on pages 16 to 107 are an integral part to these financial statements.

Energy Absolute Public Company Limited
Statement of Comprehensive Income
For the year ended 31 December 2020

	Note	Consolidated financial statements		Separate financial statements	
		2020 Baht	2019 Baht	2020 Baht	2019 Baht
Items that will be reclassified subsequently to profit or loss					
Share of other comprehensive expense of associates and a joint venture accounted for using the equity method, net		(5,617,123)	(1,578,129)	-	-
Currency translation differences		208,501,612	(140,115,938)	-	-
Income tax on items that will be reclassified subsequently to profit or loss		-	-	-	-
Total items that will be reclassified subsequently to profit or loss		202,884,489	(141,694,067)	-	-
Other comprehensive income (expense) for the year, net of tax		493,960,081	(142,712,406)	276,202,061	(2,376,193)
Total comprehensive income for the year		5,541,341,448	5,883,905,868	3,634,062,312	3,906,006,931
Profit (loss) attributable to:					
Owners of the parent		5,204,565,828	6,081,618,542	3,357,860,251	3,908,383,124
Non-controlling interests		(157,184,461)	(55,000,268)	-	-
		5,047,381,367	6,026,618,274	3,357,860,251	3,908,383,124
Total comprehensive income (expense) attributable to:					
Owners of the parent		5,645,121,504	5,977,697,656	3,634,062,312	3,906,006,931
Non-controlling interests		(103,780,056)	(93,791,788)	-	-
		5,541,341,448	5,883,905,868	3,634,062,312	3,906,006,931
Earnings per share					
Basic earnings per share	37	1.40	1.63	0.90	1.05

The accompanying notes to the financial statements on pages 16 to 107 are an integral part to these financial statements.

Energy Absolute Public Company Limited
Statement of Changes in Equity
For the year ended 31 December 2020

Attributable to owners of the parent													Consolidated financial statements								
Notes	Other components of equity												Total equity	Baht							
	Other comprehensive income (expense)																				
	Issued and paid-up share capital		Premium on share capital		Retained earnings		Discount from changes in shareholding interests in subsidiaries		Remeasurements of post-employment benefit obligations		Change in fair value of investment in equity instruments				Currency translation differences		Share of other comprehensive income (expense) of associates and a joint venture		Total other components of equity		Non-controlling interests
	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
	373,000,000	3,680,616,000	37,300,000	14,998,970,882	(701,846,993)	(16,699,109)	-	(63,398,100)	2,011,329	18,310,994,009	(778,892,873)	1,206,631,377	19,517,625,386								
Opening balance as at 1 January 2019																					
Changes in equity for the year																					
Changes in shareholding interests in subsidiaries	-	-	-	-	8,315,216	-	-	-	-	-	8,315,216	367,581,542	375,896,758								
Capital contributions by non-controlling interests in subsidiaries	-	-	-	-	-	-	-	-	-	-	-	21,531,439	21,531,439								
Dividend paid	-	-	-	(932,500,000)	-	-	-	-	-	-	(932,500,000)	-	(932,500,000)								
Total comprehensive income (expense) for the year	-	-	-	6,081,618,542	-	(1,378,865)	-	(100,864,092)	(1,578,129)	5,977,697,696	(103,920,886)	(93,791,788)	5,883,905,868								
Closing balance as at 31 December 2019	373,000,000	3,680,616,000	37,300,000	20,148,089,424	(693,531,777)	(17,077,774)	-	(164,322,192)	433,200	23,384,506,881	(874,498,543)	1,501,952,570	24,866,459,451								
Opening balance as at 1 January 2020																					
- As previously reported	373,000,000	3,680,616,000	37,300,000	20,148,089,424	(693,531,777)	(17,077,774)	-	(164,322,192)	433,200	23,384,506,881	(874,498,543)	1,501,952,570	24,866,459,451								
Impact on adoption of new financial reporting standards	-	-	-	(84,565,230)	-	-	5,454,062	-	-	-	5,454,062	1,846,249	(77,264,919)								
- As restated	373,000,000	3,680,616,000	37,300,000	20,063,524,194	(693,531,777)	(17,077,774)	5,454,062	(164,322,192)	433,200	23,295,395,713	(869,044,481)	1,503,798,819	24,786,194,532								
Changes in equity for the year																					
Acquisitions of indirect subsidiaries	-	-	-	-	-	-	-	-	-	-	-	19,321,325	19,321,325								
Capital contributions by non-controlling interests in a subsidiary	-	-	-	-	-	-	-	-	-	-	-	11,395,540	11,395,540								
Increased capital of subsidiaries	-	-	-	(1,119,000,000)	-	-	-	-	-	-	-	384,625,000	384,625,000								
Dividend paid	-	-	-	-	-	-	-	-	-	-	-	-	(1,119,000,000)								
Total comprehensive income (expense) for the year	-	-	-	5,204,565,828	-	(23,352)	290,121,269	156,074,882	(5,617,123)	5,645,121,504	440,555,676	(103,780,056)	5,541,341,448								
Closing balance as at 31 December 2020	373,000,000	3,680,616,000	37,300,000	24,148,090,022	(693,531,777)	(17,101,126)	296,575,331	(8,247,310)	(5,183,923)	27,811,617,217	(428,488,805)	1,815,360,628	29,626,877,843								

The accompanying notes to the financial statements on pages 16 to 107 are an integral part to these financial statements.

Energy Absolute Public Company Limited
Statement of Changes in Equity
For the year ended 31 December 2020

Separate financial statements

Notes	Issued and paid-up share capital	Premium on share capital	Other components of equity								Total equity		
			Retained earnings				Other comprehensive income (expense)						
			Legal reserve		Unappropriated		Remeasurements of post-employment benefit obligations		Change in fair value of investment in equity instruments			Total other components of equity	
			Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht		Baht	Baht
	373,000,000	3,680,616,000	37,300,000	11,626,023,769		(16,007,109)	-	-	(16,007,109)		15,700,932,660		
38	-	-	-	(932,500,000)		-	-	-	-		(932,500,000)		
	-	-	-	3,908,383,124		(2,376,193)	-	-	(2,376,193)		3,906,006,931		
	373,000,000	3,680,616,000	37,300,000	14,601,906,893		(18,383,302)	-	-	(18,383,302)		18,674,439,591		
	373,000,000	3,680,616,000	37,300,000	14,601,906,893		(18,383,302)	-	-	(18,383,302)		18,674,439,591		
	-	-	-	(3,350,000)		-	-	-	-		(3,350,000)		
4	373,000,000	3,680,616,000	37,300,000	14,598,556,893		(18,383,302)	-	-	(18,383,302)		18,671,089,591		
	-	-	-	(1,119,000,000)		-	-	-	-		(1,119,000,000)		
38	-	-	-	3,357,860,251		-	276,202,061	276,202,061	276,202,061		3,634,062,312		
	373,000,000	3,680,616,000	37,300,000	16,837,417,144		(18,383,302)	276,202,061	276,202,061	257,818,759		21,186,151,903		

The accompanying notes to the financial statements on pages 16 to 107 are an integral part to these financial statements.

Energy Absolute Public Company Limited
Statement of Cash Flows
For the year ended 31 December 2020

		Consolidated financial statements		Separate financial statements	
		2020	2019	2020	2019
	Notes	Baht	Baht	Baht	Baht
Cash flows from operating activities					
Profit before income tax for the year		5,029,158,474	6,015,865,755	3,354,184,987	3,909,247,314
Adjustments to reconcile profit before income tax to net cash provided by operations:					
- Depreciation and amortisation		2,730,380,260	2,517,451,638	119,402,885	91,255,850
- Impairment loss of assets		5,807,644	15,933,670	1,441,013	8,909,508
- Gain on measurement of financial instruments		(67,931,198)	-	-	-
- Interest income		(30,528,099)	(41,920,480)	(431,106,923)	(312,676,969)
- Dividend income	17.2	-	-	(3,871,536,709)	(4,745,364,506)
- Finance costs	34	1,636,797,026	1,386,265,878	845,008,629	667,988,468
- Retirement benefit expenses		12,739,765	15,041,188	8,203,752	11,436,057
- Share-based payments		11,395,540	7,263,423	-	-
- Share of loss from investments in associates and a joint venture	17.1	61,049,730	14,259,073	-	-
- Gain on changing in shareholding interest in associates and a joint venture	17.1	(8,758,602)	(12,439,095)	-	-
- Losses on disposals of investments in subsidiaries		-	-	64,735,371	-
- Gains on disposals of investments in associates, net		(2,886,785)	-	-	-
- Losses (gains) on disposal of machines and equipment		81,341,425	(329,413)	(1,360,837)	-
- Losses (gains) on write-off of equipment		3,373,454	4,993,428	-	1,386,558
- (Reversal) allowance for decrease in value of inventories	16	6,265,237	6,848,214	(1,387,595)	(5,939,934)
- Unrealised losses (gains) on exchange rates		(2,300,365)	2,350,713	(7,632,114)	9,248,968
- Amortisation of advance receipts for land rental from related parties	40.6	-	-	(57,150,326)	(52,142,084)
Cash flows before changes in operating assets and liabilities		9,465,903,506	9,931,583,992	22,802,133	(416,650,770)
Change in operating assets and liabilities:					
- Trade accounts receivable		(88,825,778)	(1,021,932,191)	(175,839,280)	(130,959,507)
- Other accounts receivable		(257,700,134)	133,697,059	37,079,250	77,974,817
- Inventories		(72,157,572)	(434,564,084)	(80,834,525)	(67,532,629)
- Other non-current assets		15,336,955	(380,743,005)	7,592,211	(32,983,937)
- Trade accounts payable		72,143,170	135,113,329	30,378,799	167,330,340
- Other accounts payable		137,147,004	384,038,752	24,445,633	73,439,938
- Other non-current liabilities		(5,412,348)	(24,427,482)	51,816	239,493,868
Cash generated from (used in) operations		9,266,434,803	8,722,766,370	(134,323,963)	(89,887,880)
- Income tax paid		(28,799,955)	(19,526,632)	(10,866,244)	(16,399,454)
Net cash receipts from (payments in) operating activities		9,237,634,848	8,703,239,738	(145,190,207)	(106,287,334)

The accompanying notes to the financial statements on pages 16 to 107 are an integral part to these financial statements.

Energy Absolute Public Company Limited
Statement of Cash Flows
For the year ended 31 December 2020

		Consolidated financial statements		Separate financial statements	
		2020	2019	2020	2019
	Notes	Baht	Baht	Baht	Baht
Cash flows from investing activities					
Deposits at financial institutions used as collateral		9,523,235	(4,145,768)	5,183,211	2,642,743
Proceeds from short-term loans to related parties	40.4	200,000	-	1,400,000,000	341,799,000
Payments for short-term loans to related parties	40.4	-	-	(2,472,000,000)	(12,128,346,000)
Payment for short-term loans to other party		-	(500,000)	-	-
Proceeds from long-term loans to related parties	40.4	-	-	3,029,000,000	-
Payments for long-term loans to related parties	40.4	-	-	(165,000,000)	-
Payments for long-term loans to other party		-	(75,000,000)	-	-
Payment for an investment in financial assets measured at fair value through other comprehensive income	14	(5,134,071,033)	-	(5,134,071,033)	-
Proceeds from acquisitions of indirect subsidiaries		2,740,878	-	-	-
Payments for acquisitions of indirect subsidiaries		(403,799,779)	-	-	-
Payments for investments in subsidiaries	17.1	-	-	(4,234,029,911)	(1,534,818,532)
Proceeds from disposals of investments in subsidiaries		-	-	523,009,562	-
Payments for investments in associates	17.1	(1,514,000,000)	(70,151,055)	-	-
Proceeds from disposals of investments in associates		34,202,386	-	-	-
Payments for investment in a joint venture	17.1	(2,185,650)	-	(2,185,650)	-
Payments for purchase of investment property	18	-	(38,790,830)	-	(8,472,839)
Payments for purchase of property, plant and equipment		(7,160,399,734)	(14,521,994,372)	(925,150,255)	(43,787,928)
Proceeds from disposals of machines and equipment		30,514,588	343,356	10,461,325	-
Payments for purchase of intangible assets	22	(77,861,556)	(139,436,589)	(2,119,320)	(3,120,640)
Proceeds from advance receipts for land rental from related parties	40.6	-	-	93,200,902	-
Proceeds from dividend income	17.2	-	-	3,871,536,709	4,745,364,506
Proceeds from interest income		28,550,359	41,409,539	331,615,022	299,867,880
Interest paid capitalised in property, plant and equipment	19	(8,954,051)	(26,169,813)	-	-
Net cash payments in investing activities		(14,195,540,357)	(14,834,435,532)	(3,670,549,438)	(8,328,871,810)
Cash flows from financing activities					
Proceeds from short-term loans from financial institutions	25	4,898,169,125	8,150,946,615	2,789,197,544	7,932,797,861
Payments for short-term loans from financial institutions	25	(3,303,185,833)	(9,307,937,046)	(2,913,016,424)	(9,264,513,510)
Proceeds from long-term loans from financial institutions	27.1	1,302,200,424	5,125,585,306	-	4,900,000,000
Payments for long-term loans from financial institutions	27.1	(1,845,026,605)	(266,025,473)	(270,000,000)	-
Proceeds from short-term loans from related parties	40.5	-	-	2,380,000,000	2,051,000,000
Payments for short-term loans from other parties and related parties		(69,172,032)	-	(136,806,260)	(8,290,000)
Payments for liabilities under lease agreements		(115,475,792)	(3,679,172)	(11,788,998)	-
Proceeds from issuing debentures	28	2,200,000,000	10,000,000,000	2,200,000,000	10,000,000,000
Payments for repayment of debentures	28	(3,000,000,000)	(1,000,000,000)	(3,000,000,000)	(1,000,000,000)
Payments for deferred financing fees	28	(2,200,000)	(7,700,000)	(2,200,000)	(7,700,000)
Proceeds from paid-up common shares of subsidiaries from non-controlling interest		384,625,000	387,804,660	-	-
Dividend paid	38	(1,118,937,555)	(932,406,789)	(1,118,937,555)	(932,406,789)
Interest paid		(1,471,875,249)	(1,423,457,787)	(725,512,693)	(517,771,985)
Net cash receipts from (payments in) financing activities		(2,140,878,517)	10,723,130,314	(809,064,386)	13,153,115,577

The accompanying notes to the financial statements on pages 16 to 107 are an integral part to these financial statements.

Energy Absolute Public Company Limited
Statement of Cash Flows
For the year ended 31 December 2020

		Consolidated financial statements		Separate financial statements	
		2020	2019	2020	2019
	Notes	Baht	Baht	Baht	Baht
Net increase (decrease) in cash and cash equivalents		(7,098,784,026)	4,591,934,520	(4,624,804,031)	4,717,956,433
Beginning balance		10,028,951,620	5,478,570,449	5,260,281,030	544,675,310
Currency translation differences on cash and cash equivalents		20,499,735	(41,553,349)	2,317,879	(2,350,713)
Ending balance		2,950,667,329	10,028,951,620	637,794,878	5,260,281,030
Cash and cash equivalents are made up as follows:					
- Cash on hand and deposits at financial institutions - maturities within three months	11	2,950,667,329	10,028,951,620	637,794,878	5,260,281,030
		2,950,667,329	10,028,951,620	637,794,878	5,260,281,030
Supplementary information					
Changes in construction payables and payables for purchase of assets (including retention for constructions)		123,045,344	8,719,314,371	-	-
Decommissioning costs	29	28,955,058	1,214,810,281	-	-
Transfer cost of construction of high voltage station to right to use transmission line	22	-	893,021,349	-	-
Reclassification of advance payment for purchase of investment to be investment in a joint venture	17	-	34,531,200	-	34,531,200
Changes in right-of-use assets and lease liabilities	20	1,882,810,286	-	342,464,376	-

The accompanying notes to the financial statements on pages 16 to 107 are an integral part to these financial statements.

Energy Absolute Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2020

1 General information

Energy Absolute Public Company Limited (the Company) is a public limited company, incorporated and resident in Thailand. The address of its registered office is 89, AIA Capital Center Building, 16th Floor, Ratchadaphisek Road, Dindaeng, Bangkok.

The Company is listed on The Stock Exchange of Thailand. For reporting purposes, the Company and its subsidiaries are referred to as “the Group”.

The Group engages in business of manufacturing and distributing crude palm oil, biodiesel products and glycerol, operating renewable power plants and develop, manufacture and distribute lithium-ion polymer battery.

These consolidated and separate financial statements were authorised for issue by the Board of Directors on 25 February 2021.

2 Basis of preparation

The consolidated and separate financial statements have been prepared in accordance with Thai Financial Reporting Standards (TFRS) and the financial reporting requirements issued under the Securities and Exchange Act.

The consolidated and separate financial statements have been prepared under the historical cost convention except as disclosed in the below accounting policies.

The preparation of financial statements in conformity with TFRS requires management to use certain critical accounting estimates, and to exercise its judgement in applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements and separate financial statements are disclosed in Note 9.

An English language version of the consolidated and separate financial statements has been prepared from the statutory financial statements that are in the Thai language. In the event of a conflict or a difference in interpretation between the two languages, the Thai language statutory financial statements shall prevail.

3 New and amended financial reporting standards

3.1 New and amended financial reporting standards that are effective for accounting periods beginning on or after 1 January 2020 and have significant impacts to the Group

a) Financial instruments

The new financial reporting standards related to financial instruments are as follows:

TAS 32	Financial Instruments: Presentation
TFRS 7	Financial Instruments: Disclosures
TFRS 9	Financial Instruments
TFRIC 16	Hedges of a Net Investment in a Foreign Operation
TFRIC 19	Extinguishing Financial Liabilities with Equity Instruments

The new financial reporting standards related to financial instruments introduce new classification and measurement requirements for financial instruments as well as provide derecognition guidance on financial assets and financial liabilities. The new guidance also provides an option for the Group to apply hedge accounting to reduce accounting mismatch between hedged item and hedging instrument. In addition, the new rule provides detailed guidance on financial instruments issued by the Group whether it is a liability or an equity. Among other things, they require extensive disclosure on financial instruments and related risks.

The new classification requirements of financial assets require the Group to assess both i) business model for holding the financial assets; and ii) cash flow characteristics of the asset whether the contractual cash flows represent solely payments of principal and interest (SPPI). The classification affects the financial assets' measurement. The new guidance requires assessment of impairment of financial assets as well as contract assets and recognition of expected credit loss from initial recognition.

On 1 January 2020, the Group has adopted the financial reporting standards related to financial instruments in its financial statements. The impact from the first-time adoption has been disclosed in Note 4.

b) TFRS 16 Leases

Where the Group is a lessee, TFRS 16, leases will result in almost all leases being recognised on the statement of financial position as the distinction between operating and finance leases is removed. A right-of-use asset and a lease liability will be recognised, with exception on short-term and low-value leases.

On 1 January 2020, the Group has adopted the new lease standard in its financial statements. The impact from the first-time adoption has been disclosed in Note 4.

3.2 New and amended financial reporting standards that are effective for accounting periods beginning on or after 1 January 2021 and 2022. The Group has not yet early adopted these standards

For accounting periods beginning on or after 1 January 2021

a) **Revised Conceptual Framework for Financial Reporting** added the following key principals and guidance:

- Measurement basis, including factors in considering difference measurement basis
- Presentation and disclosure, including classification of income and expenses in other comprehensive income
- Definition of a reporting entity, which maybe a legal entity, or a portion of an entity; and
- Derecognition of assets and liabilities

The amendment also includes the revision to the definition of an asset and liability in the financial statements, and clarification to the prominence of stewardship in the objective of financial reporting.

b) **Amendment to TFRS 3, Business combinations** amended the definition of a business which requires an acquisition to include an input and a substantive process that together significantly contribute to the ability to create outputs. The definition of the term 'outputs' is amended to focus on goods and services provided to customers and to exclude returns in the form of lower costs and other economic benefits.

c) **Amendment to TFRS 9, Financial instruments and TFRS 7, Financial instruments: disclosures** amended to provide relief from applying specific hedge accounting requirements to the uncertainty arising from interest rate benchmark reform such as IBOR. The amendment also requires disclosure of hedging relationships directly affected by the uncertainty.

d) **Amendment to TAS 1, Presentation of financial statements and TAS 8, Accounting policies, changes in accounting estimates and errors** amended to definition of materiality. The amendment allows for a consistent definition of materiality throughout the Thai Financial Reporting Standards and the Conceptual Framework for Financial Reporting. It also clarified when information is material and incorporates some of the guidance in TAS 1 about immaterial information.

For accounting periods beginning on or after 1 January 2022

e) **Amendment to TFRS 16, Leases** amended to include a practical expedient for leases that are modified as a direct consequence of IBOR reform (e.g. replacement of THBFIX as a benchmark interest rate due to the cancellation of LIBOR) for lessee to remeasure the lease liability by discounting the revised lease payments using a discount rate that reflects the change in the interest rate. An early application of the amendment is permitted.

The Group's management is currently assessing the impact of adoption of these standards.

4 Impacts from the first-time adoption of the new financial reporting standards

The Group has adopted financial reporting standards relating to financial instruments (TAS 32, TFRS 7 and TFRS 9) and lease standard (TFRS 16). The new accounting policies applied from 1 January 2020 were disclosed in Note 5.

The Group has adopted those accounting policies from 1 January 2020 by applying the modified retrospective approach. The comparative figures have not been restated. The reclassifications and the adjustments arising from the changes in accounting policies were therefore recognised in the statement of financial position as of 1 January 2020.

The impact of first-time adoption of new financial reporting standards on the consolidated and separate statements of financial position are as follows:

Consolidated financial statements					
	Notes	As at 31 December 2019 Previously reported Million Baht	TAS 32 and TFRS 9 Million Baht	TFRS 16 Million Baht	As at 1 January 2020 Restated Million Baht
Assets					
Current assets					
Other accounts receivable, net	4.2	510	-	(18)	492
Short-term loans to other parties and related parties, net	4.1	3	(3)	-	-
Non-current assets					
Financial assets measured at fair value through other comprehensive income	4.1	-	28	-	28
Property, plant and equipment, net	4.2	51,371	-	(2)	51,369
Right-of-use assets, net	4.2	-	-	1,032	1,032
Other non-current assets, net	4.1, 4.2	698	(21)	(8)	669
Total restated assets		52,582	4	1,004	53,590

Consolidated financial statements					
	Notes	As at 31 December 2019 Previously reported Million Baht	TAS 32 and TFRS 9 Million Baht	TFRS 16 Million Baht	As at 1 January 2020 Restated Million Baht
Liabilities and equity					
Current liabilities					
Derivative liabilities	4.1	-	48	-	48
Current portion of lease liabilities, net	4.2	1	-	(1)	-
Current portion of lease liabilities, net	4.2	-	-	47	47
Non-current liabilities					
Derivative liabilities	4.1	-	34	-	34
Finance lease liabilities, net	4.2	2	-	(2)	-
Lease liabilities, net	4.2	-	-	960	960
Total restated liabilities		3	82	1,004	1,089
Equity					
Retained earnings - Unappropriated		20,148	-	-	20,148
- Fair value of derivatives	4.1	-	(82)	-	(82)
- Measurement of financial assets	4.1	-	(3)	-	(3)
Total restated retained earnings		20,148	(85)	-	20,063
Other components of equity					
- Measurement of investment in equity instruments at fair value through other comprehensive income	4.1	-	7	-	7
- Income tax on measurement of investment in equity instruments at fair value through other comprehensive income ^(*)	4.1	-	(2)	-	(2)
Non-controlling interests	4.1	1,502	2	-	1,504
Total restated equity		21,650	(78)	-	21,572
Total restated liabilities and equity		21,653	4	1,004	22,661

^(*) The effect from the first-time adoption of new financial reporting standards.

		Separate financial statements			
	Notes	As at 31 December 2019 Previously reported Million Baht	TAS 32 and TFRS 9 Million Baht	TFRS 16 Million Baht	As at 1 January 2020 Restated Million Baht
Assets					
Current assets					
Other accounts receivable, net	4.2	248	-	(18)	230
Short-term loans to other parties and related parties, net	4.1	1,013	(3)	-	1,010
Non-current assets					
Right-of-use assets	4.2	-	-	323	323
Other non-current assets	4.2	62	-	(8)	54
Total restated assets		1,323	(3)	297	1,617
Liabilities and equity					
Current liabilities					
Current portion of lease liabilities, net	4.2	-	-	21	21
Non-current liabilities					
Lease liabilities, net	4.2	-	-	276	276
Total restated liabilities		-	-	297	297
Equity					
Retained earnings					
- Unappropriated		14,602	-	-	14,602
- Measurement of financial assets	4.1	-	(3)	-	(3)
Total restated retained earnings		14,602	(3)	-	14,599
Total restated equity		14,602	(3)	-	14,599
Total restated liabilities and equity		14,602	(3)	297	14,896

4.1 Financial instruments

The first-time adoption of new financial reporting standards related to financial instruments has made a significant impact on the Group's accounting practices in the following areas.

4.1.1 Classifications of financial instruments

On 1 January 2020, the measurement categories and carrying amounts of financial assets and financial liabilities were as follows.

	Consolidated financial statements				
	Measurement categories		Carrying amounts		
	Previously reported (TAS 105 and other TAS)	Restated (TFRS 9)	Previously reported Million Baht	Restated Million Baht	Difference Million Baht
Current financial assets					
Cash and cash equivalents	Amortised cost	Amortised cost	10,029	10,029	-
Deposits at financial institutions used as collateral	Amortised cost	Amortised cost	12	12	-
Trade accounts receivable, net	Amortised cost	Amortised cost	2,666	2,666	-
Other accounts receivable, net	Amortised cost	Amortised cost	11	11	-
Short-term loans to other parties and related parties, net	Amortised cost	Amortised cost	3	-	(3)
Current portion of long-term loans to other parties and related parties	Amortised cost	Amortised cost	56	56	-
Non-current financial assets					
Deposits at financial institutions used as collateral	Amortised cost	Amortised cost	166	166	-
Long-term loans to other parties and related parties	Amortised cost	Amortised cost	24	24	-
Long-term investment (presented in other non-current assets)	Cost less impairment	FVOCI	21	28	7
Other non-current assets	Amortised cost	Amortised cost	121	121	-

Consolidated financial statements					
Measurement categories			Carrying amounts		
	Previously reported (TAS 105 and other TAS)	Restated (TFRS 9)	Previously reported Million Baht	Restated Million Baht	Difference Million Baht
Current financial liabilities					
Short-term loans from financial institutions, net	Amortised cost	Amortised cost	660	660	-
Trade accounts payable	Amortised cost	Amortised cost	285	285	-
Other accounts payable	Amortised cost	Amortised cost	736	736	-
Construction payables and payables for purchase of assets	Amortised cost	Amortised cost	62	62	-
Current portion of long-term loans from financial institutions, net	Amortised cost	Amortised cost	1,308	1,308	-
Derivative liabilities	Unrecognised	FVPL	-	48	48
Current portion of lease liabilities, net	Amortised cost	Amortised cost	1	47	46
Current portion of debentures, net	Amortised cost	Amortised cost	2,999	2,999	-
Income tax payable	Amortised cost	Amortised cost	5	5	-
Retention for constructions	Amortised cost	Amortised cost	13	13	-
Non-current financial liabilities					
Long-term loans from financial institutions, net	Amortised cost	Amortised cost	22,986	22,986	-
Derivative liabilities	Unrecognised	FVPL	-	34	34
Debentures, net	Amortised cost	Amortised cost	13,992	13,992	-
Retention for constructions	Amortised cost	Amortised cost	16	16	-
Lease liabilities	Amortised cost	Amortised cost	2	960	958

		Separate financial statements			
		Measurement categories		Carrying amounts	
	Previously reported (TAS 105 and other TAS)	Restated (TFRS 9)	Previously reported Million Baht	Restated Million Baht	Difference Million Baht
Current financial assets					
Cash and cash equivalents	Amortised cost	Amortised cost	5,260	5,260	-
Trade accounts receivable, net	Amortised cost	Amortised cost	322	322	-
Short-term loans to other parties and related parties, net	Amortised cost	Amortised cost	1,013	1,010	(3)
Non-current financial assets					
Deposits at financial institutions used as collateral	Amortised cost	Amortised cost	98	98	-
Long-term loans to other parties and related parties	Amortised cost	Amortised cost	13,000	13,000	-
Other non-current assets	Amortised cost	Amortised cost	28	28	-
Current financial liabilities					
Short-term loans from financial institutions, net	Amortised cost	Amortised cost	483	483	-
Trade accounts payable	Amortised cost	Amortised cost	239	239	-
Other accounts payable	Amortised cost	Amortised cost	377	377	-
Short-term loans from other parties and related parties	Amortised cost	Amortised cost	2,537	2,537	-
Current portion of lease liabilities, net	Amortised cost	Amortised cost	-	21	21
Current portion of debentures, net	Amortised cost	Amortised cost	2,999	2,999	-
Non-current financial liabilities					
Long-term loans from financial institutions, net	Amortised cost	Amortised cost	5,677	5,677	-
Debentures, net	Amortised cost	Amortised cost	13,991	13,991	-
Lease liabilities, net	Amortised cost	Amortised cost	-	276	276

Note:

FVOCI = Fair value through other comprehensive income

FVPL = Fair value through profit or loss

4.1.2 Impairment of financial assets

The Group and the Company have following financial assets that are subject to the expected credit loss model:

- Cash and cash equivalents
- Deposit at financial institutions used as collateral
- Trade and other accounts receivable
- Loans to other parties and related parties

The Group and the Company were required to revise its impairment methodology of financial assets according to TFRS 9. The Group and the Company recognised accumulative impacts of Baht 2.80 million and Baht 3.37 million in the consolidated and separate financial statements, respectively to retained earnings on 1 January 2020.

4.1.3 Classification and measurement of investments in equity instruments (previously classified as other non-current assets)

The Group had equity instruments that were previously presented as other non-current assets and measured at cost of Baht 21.32 million in the consolidated statement of financial position. This investment was reclassified and remeasured to fair value through other comprehensive income. The Group recognised a corresponding adjustment of Baht 7.48 million in the consolidated financial statement to other components of equity on 1 January 2020.

4.1.4 Derivatives

Currently, the Group has entered into derivative contracts which are interest rate swap agreements to reduce uncertainty over future cash flows arising from movements in interest rates.

Before 1 January 2020, the Group did not recognise fair value of derivative contracts in the financial statements. The derivative contracts and related fair values were disclosed in the note. On 1 January 2020, the Group recognised fair value of derivatives but did not apply accounting principle about hedge accounting for these derivatives. Then, the Group recognised cumulative adjustment from change in fair value of these derivatives of Baht 81.77 million in the consolidated financial statements to the retained earnings as at 1 January 2020.

4.2 Leases

On adoption of TFRS 16, the Group recognised lease liabilities in relation to leases which had previously been classified as “operating leases” under the principles of TAS 17 Leases. These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee’s incremental borrowing rate as at 1 January 2020. The weighted average lessee’s incremental borrowing rate applied to the lease liabilities on 1 January 2020 were between 2.36% and 3.36%.

The Group recognised right-of-use assets at the amount equal to the lease liabilities, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the statement of financial position as at 31 December 2019.

	Consolidated financial statements Million Baht	Separate financial statements Million Baht
Operating lease commitments disclosed as at 31 December 2019	556	385
(Less): Discounted using the lessee's incremental borrowing rate of at the date of initial application	(360)	(90)
(Less): Short-term leases recognised on a straight-line basis as expense	(1)	-
Add: Finance lease liabilities recognised as at 31 December 2019	3	-
Add: Adjustments as a result of a different treatment of extension and termination options	809	2
Lease liability recognised as at 1 January 2020	1,007	297
Lease liabilities - Current portion	47	21
Lease liabilities - Non-current portion	960	276

For leases previously classified as finance leases, the Group recognised the carrying amount of the lease asset and lease liability immediately before transition as the carrying amount of the right-of-use asset and the lease liability at the date of initial application. The measurement principles of TFRS 16 are only applied after that date.

The recognised right-of-use assets relate to the following types of assets:

	Consolidated financial statements Million Baht	Separate financial statements Million Baht
Land	904	286
Building	110	36
Office equipment	1	-
Vehicle	17	1
Right-of-use assets recognised as at 1 January 2020	1,032	323

Practical expedients applied

In applying TFRS 16 for the first time for the leases before 1 January 2020, the Group has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics
- reliance on previous assessments on whether leases are onerous
- the accounting for operating leases with a remaining lease term of less than 12 months as at 1 January 2020 as short-term leases
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application
- the use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease
- elect not to reassess whether a contract is, or contains a lease as defined under TFRS 16 at the date of initial application but relied on its assessment made applying TAS 17 and TFRIC 4 Determining whether an Arrangement contains a Lease.

5 Accounting policies

The principal accounting policies applied in the preparation of these consolidated and separate financial statements are set out below:

5.1 Principle of consolidation

5.1.1 Subsidiaries

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are consolidated from the date on which control is transferred to the Group until the date that control ceases.

In the separate financial statements, investments in subsidiaries are accounted for using cost method less allowance for impairment (if any).

5.1.2 Associates

Associates are all entities over which the Group has significant influence but not control or joint control. Investments in associates are accounted for using the equity method of accounting.

In the separate financial statements, investments in associates are accounted for using cost method less allowance for impairment (if any).

5.1.3 Joint arrangements

Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangements.

Joint ventures

A joint venture is a joint arrangement whereby the Group has rights to the net assets of the arrangement. Interests in joint ventures are accounted for using the equity method.

In the separate financial statements, investments in joint ventures are accounted for using cost method less allowance for impairment (if any).

5.1.4 Equity method

The investment is initially recognised at cost which is consideration paid and directly attributable costs.

The Group's subsequently recognises shares of its associates and joint ventures' profits or losses and other comprehensive income in the profit or loss and other comprehensive income, respectively. The subsequent cumulative movements are adjusted against the carrying amount of the investment.

When the Group's share of losses in associates and joint ventures equals or exceeds its interest in the associates and joint ventures, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associates and joint ventures.

5.1.5 Changes in ownership interests

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. A difference between the amount of the adjustment to non-controlling interests to reflect their relative interest in the subsidiary and any consideration paid or received is recognised within equity.

If the ownership interest in associates and joint ventures is reduced but significant influence and joint control is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate. Profit or loss from reduce of the ownership interest in associates and joint ventures is recognise in profit or loss.

When the Group losses control, joint control or significant influence over investments, any retained interest in the investment is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. The fair value becomes the initial carrying amount of the retained interest which is reclassified to investment in an associate, or a joint venture or a financial asset accordingly.

5.1.6 Intercompany transactions on consolidation

Intra-group transactions, balances and unrealised gains on transactions are eliminated. Unrealised gains on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interest in the associates and joint ventures. Unrealised losses are also eliminated in the same manner unless the transaction provides evidence of an impairment of the asset transferred.

5.2 Business combination

The Group applies the acquisition method to account for business combinations with an exception on business combination under common control. The consideration transferred for the acquisition of a subsidiary comprises.

- fair value of the assets transferred
- liabilities incurred to the former owners of the acquiree
- equity interests issued by the Group

Identifiable assets and liabilities acquired and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date.

On an acquisition-by-acquisition basis, the Group initially recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

The excess of the consideration transferred, the amount of any non-controlling interest recognised and the acquisition-date fair value of any previous equity interest in the acquiree (for business combination achieved in stages) over the fair value of the net identifiable assets acquired is recorded as goodwill. In the case of a bargain purchase, the difference is recognised directly in profit or loss.

Acquisition-related cost

Acquisition-related cost are recognised as expenses in consolidated financial statements.

Step-up acquisition

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date; any gains or losses arising from such re-measured are recognised in profit or loss.

Business combination under common control

The Group accounts for business combination under common control by measuring acquired assets and liabilities of the acquiree at their carrying values presented in the highest level of the consolidation. The Group retrospectively adjusted the business combination under common control transactions as if the combination had occurred on the later of the beginning of the preceding comparative period and the date the acquiree has become under common control.

Consideration of business combination under common control are the aggregated amount of fair value of assets transferred, liabilities incurred and equity instruments issued by the acquirer at the date of which the exchange in control occurs.

The difference between consideration under business combination under common control and the acquirer's interests in the carrying value of the acquiree is presented as "surplus (discount) arising from business combination under common control" in equity and is derecognised when the investment is disposed by transferred to retained earnings.

5.3 Foreign currency translation

5.3.1 Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The financial statements are presented in Thai Baht, which is the functional currency of the Company and the presentation currency of the Group and the Company.

5.3.2 Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions.

Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss.

Any exchange component of gains and losses on a non-monetary item that recognised in profit or loss, or other comprehensive income is recognised following the recognition of a gain or loss on the non-monetary item.

5.3.3 Group companies

The operational results and financial position of all of the Group's entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;
- Income and expenses for each statement of comprehensive income are translated at average exchange rates; and
- All resulting exchange differences are recognised in other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

5.4 Cash and cash equivalents

In the statements of cash flows, cash and cash equivalents includes cash on hand, deposits held at call, short-term highly liquid investments with maturities of three months or less from acquisition date.

5.5 Trade accounts receivable

Trade accounts receivable are amounts due from customers for goods sold or services performed in the ordinary course of business. They are generally due for settlement within 30 - 45 days and therefore are all classified as current.

Trade accounts receivable are recognised initially at the amount of consideration that is unconditional unless they contain significant financing components, they are recognised at fair value. The Group holds the trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost.

5.6 Inventories

Inventories are stated at the lower of cost and net realisable value.

Cost is determined by the first-in, first-out method, except for cost of battery which is determined by weighted average method. The cost of purchase comprises both the purchase price and costs directly attributable to the acquisition of the inventory, such as import duties and transportation charges, less all attributable discounts, allowances or rebates.

The cost of finished goods and work in progress comprises raw materials, direct labour, other direct costs and related production overheads based on normal operating capacity. It excludes borrowing costs. Net realisable value is the estimate of the selling price in the ordinary course of business, less applicable variable selling expenses. Allowance is made, where necessary, for obsolete, slow-moving and defective inventories.

5.7 Financial asset

For the year ended 31 December 2020

5.7.1 Classification

From 1 January 2020, the Group classifies its debt instrument financial assets in the following measurement categories depending on i) business model for managing the asset and ii) the cash flow characteristics of the asset whether they represent solely payments of principal and interest (SPPI).

- those to be measured subsequently at fair value (either through other comprehensive income or through profit or loss); and
- those to be measured at amortised cost.

The Group reclassifies debt investments when and only when its business model for managing those assets changes.

For investments in equity instruments, the Group has an irrevocable election at the time of initial recognition to account for the equity investment at fair value through profit or loss (FVPL) or at fair value through other comprehensive income (FVOCI) except those that are held for trading, they are measured at FVPL.

5.7.2 Recognition and derecognition

Regular way purchases, acquires and sales of financial assets are recognised on trade-date, the date on which the Group commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

5.7.3 Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at FVPL, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether the cash flows are solely payment of principal and interest.

5.7.4 Debt instruments

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the financial assets. There are three measurement categories into which the Group classifies its debt instruments:

- Amortised cost: Financial assets that the Group held for collection of contractual cash flows that represent solely payments of principal and interest (SPPI) are measured at amortised cost. Interest income from these financial assets is recognised using the effective interest method and presented in other income. Any gain or loss on derecognition and foreign exchange gains (losses) are recognised through profit or loss, and presented in other gains (losses) and currency exchange gains (losses), respectively. Impairment losses are recognised and presented as a separate line item in the statement of profit or loss.
- FVOCI: Financial assets that the Group held for i) collection of contractual cash flows; and ii) for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through other comprehensive income (OCI), except for the recognition of impairment gains or losses, interest income using the effective interest method, and foreign exchange gains and losses which are recognised in profit or loss. When the Group derecognised that financial assets, the cumulative gain or loss previously recognised in OCI is reclassified from equity to profit or loss and presented in other gains (losses). Interest income is included in other income. Impairment expenses are presented separately in the statement of profit or loss.
- FVPL: Financial assets that the Group held do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognised in profit or loss and presented net within other gains (losses) in the period in which it arises.

5.7.5 Equity instruments

The Group measures all equity investments at fair value. Where the Group has elected to present fair value gains and losses on equity instruments in OCI, When the Group derecognised that equity instrument, the cumulative gain or loss previously recognised is not subsequent recycling to profit or loss. Dividends from such investments continue to be recognised in profit or loss as dividend income when the right to receive payments is established.

Changes in the fair value of equity instruments at FVPL are recognised in gains (losses).

Impairment losses and reversal of impairment losses on equity investments are reported together with changes in fair value.

5.7.6 Impairment

From 1 January 2020, the Group applies the TFRS 9 simplified approach and general approach in measuring the impairment of trade accounts receivable, other accounts receivable and loans to other parties and related parties, which applies lifetime expected credit loss, from initial recognition, for all trade accounts receivable, other accounts receivable and loan to other parties and related parties.

To measure the expected credit losses by using to simplified approach, the managements grouped the receivables based on shared credit risk characteristics and the days past due. The expected credit loss rates are based on payment profiles, historical credit losses as well as forward-looking information and factors that may affect the ability of the customers to settle the outstanding balances. In addition to the simplified approach, the management applies the general approach, which is consider the individual assessments by applying the discounted cash flow method. For this, management uses an estimate debtor's future cash flows based on the original effective interest rate.

For other financial assets carried at amortised cost and FVOCI, the Group applies TFRS 9 general approach in measuring the impairment of those financial assets. Under the general approach, the 12-month or the lifetime expected credit loss is applied depending on whether there has been a significant increase in credit risk since the initial recognition.

The significant increase in credit risk (from initial recognition) assessment is performed every end of reporting period by comparing i) expected risk of default as of the reporting date and ii) estimated risk of default on the date of initial recognition.

The Group assesses expected credit loss by taking into consideration forward-looking information and past experiences. The expected credit loss is a probability-weighted estimate of credit losses (probability-weighted present value of estimated cash shortfall). The cash shortfall is the difference between all contractual cash flows that are due to the Group and all cash flows expected to receive, discounted at the original effective interest rate.

When measuring expected credit losses, the Group reflects the following:

- Probability-weighted estimated uncollectible amounts;
- Time value of money; and
- Supportable and reasonable information as of the reporting date about past experience, current conditions and forecasts of future situations.

Impairment and reversal of impairment losses are recognised in profit or loss and included in administrative expenses.

For the year ended 31 December 2019

The Group classified equity instruments which is non-market securities, except investment in subsidiaries, investment in associates and joint venture as general investment. The classification is dependent on the purpose which the investments. Management determines the appropriate classification of its investments when the investments were acquired and are reviewed periodically.

General investments are initial recognised at cost which comprise fair value of consideration paid plus direct transaction cost and carried at cost less allowance for impairment (if any).

The Group reviewed for impairment whenever there is an indication of impairment. If the carrying amount of the assets exceeds its recoverable amount. The Group recognised impairment loss in profit or loss.

On disposal of an investment, the difference between the net disposal proceeds and the carrying amount, including cumulative changes in fair value which is recognised in equity, is charged or credited to the profit or loss. When disposing of part of the holding of a particular investment in debt or equity securities, the carrying amount of the disposed part is determined by the weighted average carrying amount of the total holding of the investment.

5.8 Investment property

Investment property that is held for long-term rental yields or for capital appreciation or both, and that is not occupied by the companies in the Group, is classified as investment property. Investment property also includes property that is being constructed or developed for future use as investment property.

Investment property is measured initially at cost, including directly attributable costs and borrowing costs. Subsequent expenditure is capitalised to the asset's carrying amount only when it is probable that future economic benefits associated with the expenditure will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance costs are expensed when incurred. When part of an investment property is replaced, the carrying amount of the replaced part is derecognised.

Subsequently investment property is carried at cost less accumulated depreciation and allowance for impairment (if any).

Land is not depreciated. Depreciation on other investment properties is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives which is 20 years.

5.9 Property, plant and equipment

Property, plant and equipment is initially recorded at cost. Plant and equipment are subsequently stated at historical cost less accumulated depreciation and allowance for impairment (if any). The costs of property, plant and equipment comprise both the purchase price and any costs directly attributable to bringing the assets to location and condition necessary for them to be capable of operating in the manner intended by management. Their costs also include the initial estimate of the costs of dismantling and removing the item and restoring the site on which they are located, the obligation for which the Group incurs either when the items are acquired or as a consequence of having used the items during a particular period.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.

Depreciation on assets is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives, except for land, which is considered to have an indefinite life.

	Years
Buildings and buildings improvement	5, 6, 10, 20 and 25
Machines and equipment	5 and 10
Power plant, substations, transmission system and components	10 and 25
Office equipment, furniture, computers and motor vehicles	5

At the end of each reporting period, the assets' residual values and useful lives are reviewed, and adjusted if appropriate.

If the asset's carrying amount is greater than its estimated recoverable amount, the asset's carrying amount is written-down immediately to its recoverable amount.

Gains or losses on disposals are determined by comparing the proceeds with the carrying amount. The net gains or losses are recognised in profit or loss.

5.10 Goodwill

Goodwill is tested for impairment annually, or more frequently if events or changes in circumstances indicate that it might be impaired. It is carried at cost less accumulated impairment losses.

For the purpose of impairment testing, goodwill is allocated to cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose. The units or groups of units are identified at the lowest level at which goodwill is monitored for internal management purposes.

5.11 Intangible assets

5.11.1 Research and development

Research expenditure is recognised as an expense as incurred.

Development expenditure is recognised as an asset when the Group can demonstrate all of the following:

- the expenditure attributable to its development can be measured reliably and that it is technically, financially, commercially, and resourcefully feasible; and
- the Group intends to and has the ability to complete the development for the purpose of using or selling.

Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

Capitalised development costs are amortised from the commencement of the commercial production of the product on a straight-line basis over the period of its expected benefit.

5.11.2 Right to use transmission line

Right to use transmission line is stated at historical cost less accumulated amortisation. Right to use transmission line cost is amortised by using straight-line method based on its estimated useful life which is 25 years.

5.11.3 Right to power purchase agreement

Right to power purchase agreement from acquisition of a subsidiary is amortised by using straight-line method based on its estimated useful life which is 25 years.

5.11.4 Computer software

Acquired computer software recognised as assets and subsequently amortised by using straight-line method over their estimated useful lives, which are 5 and 10 years.

Costs associated with maintaining computer software programmes are recognised as an expense as incurred.

5.11.5 Patent and brand

Separately acquired patent and brand are shown at historical cost. Patent and brand acquired from a business combination are recognised at fair value at the acquisition date. Patent and brand have a finite useful life and are carried at cost less accumulated amortisation. Amortisation is calculated using the straight-line method to allocate the cost of patent and brand over their estimated useful lives of 20 years.

5.12 Impairment of assets

Intangible assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that it might be impaired. Assets that are subject to amortisation are reviewed for impairment whenever there is an indication of impairment. An impairment loss is recognised for the amount by which the carrying amount of the assets exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use.

Where the reasons for previously recognised impairments no longer exist, the impairment losses on the assets concerned other than goodwill is reversed.

5.13 Leases

For the year ended 31 December 2020

Leases - where the Group is the lessee

The Group recognised leases as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

The Group allocates the consideration in the contract to the lease and non-lease components based on their relative stand-alone prices. However, for leases of real estate for which the group is a lessee, it has elected to separate lease and non-lease components and accounts for only a lease component.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payment that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise small office equipment.

Leases - where the Group is the lessor

When assets are leased out under a finance lease, the present value of the lease payments is recognised as a receivable. The difference between the gross receivable and the present value of the receivable is recognised as unearned finance income. Lease income is recognised over the term of the lease which reflects a constant periodic rate of return. Initial direct costs are included in initial measurement of the finance lease receivable and reduce the amount of income recognised over the lease term.

Rental income under operating leases (net of any incentives given to lessees) is recognised on a straight-line basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognised as expense over the lease term on the same basis as lease income. The respective leased assets are included in the statement of financial position based on their nature.

For the year ended 31 December 2019

Leases - where the Group is the lessee

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to profit or loss on a straight-line basis over the period of the lease.

Leases of assets where the lessee has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the inception of the lease at the lower of the fair value of the leased property and the present value of the minimum lease payments. Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate on the liabilities balance outstanding. The corresponding rental obligations, net of finance charges, are included in other long-term payables. The interest element of the finance cost is charged to profit or loss over the lease period so as to achieve a constant periodic rate of interest on the remaining balance of the liability for each period. The property, plant or equipment acquired under finance leases is depreciated over the shorter period of the useful life of the asset and the lease term.

Leases - where the Group is the lessor

When assets are leased out under a finance lease, the present value of the lease payments is recognised as a receivable. The difference between the gross receivable and the present value of the receivable is recognised as unearned finance income. Lease income is recognised over the term of the lease using the net investment method, which reflects a constant periodic rate of return. Initial direct costs are included in initial measurement of the finance lease receivable and reduce the amount of income recognised over the lease term.

Lease in which a significant portion of the risk and rewards of ownership are retained by the lessor are classified as operating lease. Assets leased out under operating leases are included in property, plant and equipment in the statement of financial position. They are depreciated over their expected useful lives on a basis consistent with other similar property, plant and equipment owned by the Group.

5.14 Financial liabilities

For the year ended 31 December 2020

5.14.1 Classification

Financial instruments issued by the Group are classified as either financial liabilities or equity securities by considering contractual obligations.

- Where the Group has an unconditional contractual obligation to deliver cash or another financial asset to another entity, it is considered a financial liability unless there is a predetermined or possible settlement for a fixed amount of cash in exchange of a fixed number of the Group's own equity instruments.
- Where the Group has no contractual obligation or has an unconditional right to avoid delivering cash or another financial asset in settlement of the obligation, it is considered an equity instrument.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting date.

5.14.2 Measurement

Financial liabilities are initially recognised at fair value and are subsequently measured at amortised cost.

5.14.3 Derecognition and modification

Financial liabilities are derecognised when the obligation specified in the contract is discharged, cancelled, or expired.

Where the terms of a financial liability are renegotiated/modified, the Group assesses whether the renegotiation/modification results in the derecognition of that financial liability. Where the modification results in an extinguishment, the new financial liability is recognised based on fair value of its obligation. The remaining carrying amount of financial liability is derecognised. The difference as well as proceed paid is recognised as other gains (losses) in profit or loss.

Where the modification does not result in the derecognition of the financial liability, the carrying amount of the financial liability is recalculated as the present value of the renegotiated / modified contractual cash flows discounted at its original effective interest rate. The difference is recognised in other gains (losses) in profit or loss.

For the year ended 31 December 2019

Borrowings

Borrowings are recognised initially at the fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortised cost; any difference between proceeds (net of transaction costs) and the redemption value is recognised in profit or loss over the period of the borrowings.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent that there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a pre-payment for liquidity services and amortised over the period of the facility to which it relates.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of reporting date.

5.15 Borrowing cost

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets (assets that take 12 months to get ready for its intended use or sale) are added to the cost of those assets less investment income earned from those specific borrowings. The capitalisation of borrowing costs is ceased when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete.

Other borrowing costs are expensed in the period in which they are incurred.

5.16 Current and deferred income taxes

The tax expense for the period comprises current and deferred tax. Tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity.

Current tax

The current income tax is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax

Deferred income tax is recognised on temporary differences arising from differences between the tax base of assets and liabilities and their carrying amounts in the financial statements. However, deferred income tax is not recognised for temporary differences arise from:

- initial recognition of an asset or liability in a transaction other than a business combination that affects neither accounting nor taxable profit or loss is not recognised
- investments in subsidiaries, associates and joint arrangements where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax is measured using tax rates of the period in which temporary difference is expected to be reversed, based on tax rates and laws that have been enacted or substantially enacted by the end of the reporting period.

Deferred tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

5.17 Employee benefits

The Group operates various post-employment benefits schemes. The Group has both defined benefit and defined contribution plans.

5.17.1 Defined contribution

The Group provides provident fund, which is contributed by the employees and the Group, and managed by an external fund manager in accordance with the Provident Fund Act. B.E. 2530. The Group has no legal or constructive obligations to pay further contributions once the contributions have been paid even if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. The contributions are recognised as employee benefit expense when they are due.

5.17.2 Retirement benefits

The Group provides for post-employment benefits, payable to employees under the labour laws in Thailand and country which Group are operating. Typically, defined benefit plans define an amount of retirement benefit that an employee will receive on retirement, usually depends on one or more factors such as age, years of service and compensation.

The liability recognised in the statement of financial position in respect of defined benefit retirement plans is the present value of the defined benefit obligation at the end of the reporting period. The defined benefit obligation is calculated by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using yields on government bonds which have terms to maturity approximating the terms of the related liability that are denominated in the currency in which the benefits will be paid.

Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

Past-service costs are recognised immediately in profit or loss.

5.18 Share-based payment

The Group receives services from employees as consideration for equity instruments (options) of the Group. The fair value of the employee services received in exchange for the grant of the options is recognised as an expense. The total amount to be expensed is determined by reference to the fair value of the options granted:

- including any market performance conditions. For example, the entity's share price;
- including the impact of any non-vesting conditions. For example, the requirement for employees to save or holdings shares for a specific period of time; and
- excluding the impact of any service and non-market performance vesting conditions. For example, profitability, sales growth targets and remaining an employee of the Group over a specified time period.

Non-market performance and service conditions are included in assumptions about the number of options that are expected to vest.

At the end of each reporting period, the entity reviews the number of options that are expected to vest. It recognises the impact of the revision to original estimates (if any) in profit or loss, with a corresponding adjustment to equity.

When the options are exercised, the Group issues new shares. The proceeds received net of any directly attributable transaction costs are credited to share capital and share premium.

5.19 Provisions

5.19.1 General provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated.

5.19.2 Provisions for decommissioning cost

The Group recognises provision for decommissioning costs, which are provided at the onset of completion of the project, for the estimate of the eventual costs that relate to the removal of the power and water plants. The recognised provisions for decommissioning costs are based on future removal cost estimates and incorporate many assumptions such as abandonment times and future inflation rate and discounted to present value at the discount rate estimated by the management. Those costs are included as part of the related assets.

5.20 Government grants

Government grants from the government are recognised at their fair value where there is a reasonable assurance that the grant will be received, and the Group will comply with all attached conditions.

The Group receives government grants relating to revenue as revenue from subsidy for adders in accordance with the Power Purchase Agreement with Electricity Generating Authority of Thailand and Provincial Electricity Authority. The compensations of costs are deferred and recognised in profit or loss over the period necessary to match them with the costs they are intended to compensate and are presented as revenue from subsidy for adders.

5.21 Share capital

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

5.22 Revenue recognition

Revenues are recorded net of value added tax. They are recognised in accordance with the provision of goods or services provided that collectability of the consideration is probable.

Multiple element arrangements involving delivery or provision of multiple products or services are separated into individual distinct performance obligations. Total transaction price of the bundled contract is allocated to each performance obligation based on their relative standalone selling prices or estimated standalone selling prices. Each performance obligation is recognised as revenue on fulfilment of the obligation to the customer as follows:

Sales of goods

Sales are recognised at a point in time when control of the products has transferred, being when the products are delivered to the destination as agreed in the contract. The revenue is recognised based on transaction price net of output tax, rebates and discounts.

Interest income

Interest income is recognised on an effective interest rate method.

Dividend income

Dividend income is recognised when the right to receive payment is established.

5.23 Dividend distribution

Dividend distribution to the shareholders is recognised as a liability in the Group's financial statements in the period in which the dividends are approved by the shareholders, and interim dividend are approved by the Board of Directors.

5.24 Derivatives

For the year ended 31 December 2020

Derivatives accounting

Derivatives that do not qualify for hedge accounting is initially recognises at fair value on measurement of derivative. Changes in the fair value are included in gain or loss.

Fair value of derivatives is classified as a current or non-current following its remaining maturity.

For the year ended 31 December 2019

Derivatives accounting

The Group is party to derivative financial instruments, which mainly comprise interest rate swap contracts and foreign currency forward contracts.

Foreign currency forward contracts protect the exposure from movements in exchange rates by determining the future exchange rate that assets or liabilities in foreign currencies will be received or paid. Foreign currency forward contracts are recognised in the financial statements on the contract date. Any fee, premiums or discounts arising from foreign currency forward contracts are amortised over the contract's period.

Interest rate swap contracts protect the exposure from movements in interest rates. Any differential to be paid or received on the interest rate swap contracts is recognised as a component of finance costs as incurred. Gains and losses from early cancellation of interest rate swap contracts is recognised in profit or loss.

5.25 Financial guarantee contracts

Financial guarantee contracts are recognised as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value and subsequently at the higher of:

- the amount determined in accordance with the expected credit loss model under TFRS 9; and
- the amount initially recognised less the cumulative amount of income recognised in accordance with the principles of TFRS 15.

The fair value of financial guarantees is determined based on the present value of the difference in cash flows between a) the contractual payments required under the debt instrument; and b) the payments that would be required without the guarantee, or the estimated amount that would be payable to a third party for assuming the obligations.

Where guarantees in relation to loans or other payables of associates are provided for no compensation, the fair values are accounted for as contributions and recognised as part of the cost of the investment.

5.26 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Steering Committee that makes strategic decisions.

6 Financial risk management

6.1 Financial risk

The Group exposes to a variety of financial risk: market risk (including foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance. The Group may consider using derivative financial instruments to hedge certain exposure.

The Group's risk management is carried out by the finance department under policies approved by the Board of Directors. The finance department identifies, evaluates and manages financial risks in close co-operation with the Group's operating units. The Board of Directors provides written principles for overall risk management, as well as policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative and other financial instruments as well as investment of excess liquidity.

Trading for speculative purposes is not allowed. All derivative transactions are subject to pre-approval by the respective board of each company in the Group.

6.1.1 Market risk

a) Foreign exchange risk

The Group are exposed to foreign exchange risk from future commercial transactions and net monetary assets and liabilities that are denominated in a currency that is not the functional currency of each entity.

Financial instruments using for risk management

The Group considers use hedge instrument to reduce the fluctuation of exchange rate by entering into a foreign currency forward if the Group assess that there is a significant foreign currency exposure. The Group's policy, the critical term of the forward contracts must align with hedge items.

Exposure

The Group's and the Company's exposure to foreign currency risk at the end of the reporting period, expressed in Baht are as follows:

	Consolidated financial statements			
	31 December 2020		31 December 2019	
	Taiwan Dollars Million Baht	US Dollars Million Baht	Taiwan Dollars Million Baht	US Dollars Million Baht
Cash and cash equivalents	24	74	22	54
Trade and other accounts receivable, net	-	2	-	30
Short-term loans from financial institutions	-	1	-	-
Trade and other accounts payable	-	61	-	24
	Separate financial statements			
	31 December 2020		31 December 2019	
	Taiwan Dollars Million Baht	US Dollars Million Baht	Taiwan Dollars Million Baht	US Dollars Million Baht
Cash and cash equivalents	24	3	22	12
Other accounts receivable	-	12	-	4
Short-term loans to related parties	-	369	-	371

Sensitivity

As shown in the table above, the Group is primarily exposed to changes in Baht and US Dollar and Baht and Taiwan Dollar exchange rate. The sensitivity of profit or loss to changes in the exchange rates arises mainly from financial assets and financial liabilities denominated in US Dollar and Taiwan Dollar. The impacts of movement in exchange rate on Group's net profit are as follows:

	Consolidated financial statements Million Baht	Separate financial statements Million Baht
Taiwan Dollar to Baht exchange rate		
- Increase 10%*	2	2
- Decrease 10%*	(2)	(2)
US Dollar to Baht exchange rate		
- Increase 10%*	1	38
- Decrease 10%*	(1)	(38)

* Holding all other variables constant

b) Cash flows and interest rate risk

The Group manages interest rate risk by closely monitoring the movement of interest rates in the market. The Group allocates its debt portfolio in either short-term and long-term borrowings with fixed and floating interest rates corresponding to their types of investments and uses interest rate swap contracts to manage risk of movements in interest rates. The Group mostly borrows and issues debentures with fixed interest rate to specify a certain amount of future cash outflows of the Group.

The interest rate exposure on the long-term loans from financial institutions and debentures of the Group before taking account of interest rate swap contracts is as follows:

	Consolidated financial statements		Separate Financial statements	
	2020	2019	2020	2019
	Million Baht	Million Baht	Million Baht	Million Baht
Long-term loans from financial institutions, net				
- at fixed rates	20,256	21,199	2,425	2,692
- at floating rates	3,984	3,095	2,997	2,985
Total long-term loans from financial institutions, net	24,240	24,294	5,422	5,677
Debenture, net				
- at fixed rates	16,192	16,991	16,192	16,991
Total debenture, net	16,192	16,991	16,192	16,991

An analysis by maturities is provided in Note 6.1.3.

Instruments used by the Group

The Group entered into interest rate swaps covering partial of the variable loan principal outstanding. The fixed interest rates of the swaps range between 5.60% and 5.62% per annum (2019: 5.25% and 6.25% per annum), and the variable interest rates of the loans from market reference rate are disclosed in Note 26.1.

The interest rate swap contracts require settlement of net interest receivable or payable every 3 months. The settlement dates coincide with the dates on which interest is payable on the underlying debt

Sensitivity

Profit or loss is sensitive to higher or lower interest income from loans to related parties, and interest expenses from borrowings as a result of changes in interest rates. The sensitivity of profit or loss to changes in the exchange rates are as follows:

	Consolidated financial statements Million Baht	Separate financial statements Million Baht
Interest rate - increase 1%*	(2)	-
Interest rate - decrease 1%*	2	-
* Holding all other variables constant		

c) Price risk

The Group's exposure to commodity price risk arises from crude palm oil price that the Group uses as raw materials for manufacturing and distributing biodiesel business. The Group manages its risk by closely monitoring the trend of crude palm oil price for planning the procurement of crude palm oil at reasonable price and volume. In addition, the Group adjusts the selling price of biodiesel to align with changes in crude palm oil market price.

6.1.2 Credit risk

a) Risk management

The Group has no material credit risks for cash and deposits with financial institutions. This is because the Group uses quality financial institutions for cash and deposits. To reduce potential risks for deposits with financial institutions, the Group has laid down a policy to limit the transactions to be made with a particular financial institution and to invest surplus only in low-risk investments. In its experience, the Group has never suffered any losses from cash and deposits. For trade accounts receivable, the Group sets up policies to ensure that sales of biodiesel and batteries are made to customer with appropriate credit profile. For sales of electricity, the Group's sales are made to state-owned enterprises under the terms and conditions of the long-term Power Purchase Agreements.

b) Impairment of financial assets

The Group and the Company has financial assets that are subject to the expected credit loss model:

- Cash and cash equivalents
- Trade and other accounts receivable
- Deposits at financial institutions used as collateral
- Loan to other parties and related parties

The management considered the amount of those expected credit losses of financial assets are immaterial on the financial statements for the year ended 31 December 2020.

6.1.3 Liquidity risk

a) Risk management

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities and the availability of funding through an adequate amount of committed credit facilities to meet obligations when due and to close out market positions. At the end of reporting period, the Group has available deposits at financial institutions of Baht 2,950.67 million (2019: Baht 10,028.95 million) for purpose of Group's liquidity management. The Group's finance department maintains flexibility in funding by maintaining availability under committed credit lines due to the dynamic nature of the underlying business.

As at 31 December, the Group had available credit facilities as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Maturity within 1 year				
- Available credit facilities from bank overdraft	29	62	15	15
- Available credit facilities from short-term loans from financial institutions	6,349	11,751	2,096	2,751
- Available credit facilities from long-term loans from financial institutions	528	-	-	-
Maturity over 1 year				
- Available credit facilities from long-term loans from financial institutions	1,500	3,230	1,500	-
	8,406	15,043	3,611	2,766

In addition, the Company had available debenture facilities which have not yet issued of Baht 12,800 million (2019: Baht 5,000 million). The said debenture facilities have been approved by the Annual General Meeting of Shareholder for the year 2020 and have maturity within 1 year.

b) Maturity of financial liabilities

The table below analysed the maturity of financial liabilities grouping based on their contractual maturity. The amounts disclosed were the contractual undiscounted cash flow.

Maturity of financial liabilities as at 31 December 2020	Consolidated financial statements				
	Within 1 year Million Baht	1-5 years Million Baht	Over 5 years Million Baht	Total Million Baht	Book value Million Baht
Bank overdraft and short-term loans from financial institutions	2,640	-	-	2,640	2,640
Trade and other accounts payable and construction payables	1,361	-	-	1,361	1,361
Lease liabilities	153	425	2,237	2,815	1,774
Long-term loans from financial institutions and related interests	3,101	10,321	14,176	27,598	24,276
Debenture and related interests	4,429	6,383	7,579	18,391	16,379
Total financial liabilities that are not derivatives	11,684	17,129	23,992	52,805	46,430
Derivatives					
Interest rate swap contracts	13	1	-	14	14
Total derivatives	13	1	-	14	14
Total	11,697	17,130	23,992	52,819	46,444
Maturity of financial liabilities as at 31 December 2020	Separate financial statements				
	Within 1 year Million Baht	1-5 years Million Baht	Over 5 years Million Baht	Total Million Baht	Book value Million Baht
Bank overdraft and short-term loans from financial institutions	362	-	-	362	362
Trade and other accounts payable and construction payables	759	-	-	759	759
Lease liabilities	67	106	508	681	315
Long-term loans from financial institutions and related interests	605	5,201	-	5,806	5,423
Debentures and related interests	4,429	6,383	7,579	18,391	16,379
Total	6,222	11,690	8,087	25,999	23,238

6.2 Capital management

Risk management

The Group's objectives when managing capital are to safeguard their ability to continue as a going concern, to provide returns for shareholders and benefits for other stakeholders and maintain an optimal capital structure to reduce the cost of capital.

As at 31 December, net debt to equity ratios of the Group are as follows:

	Consolidated financial statements	
	2020 Million Baht	2019 Million Baht
Net debt	41,929	31,919
Equity (including non-controlling interests)	29,641	24,866
Net debt to equity ratio	1.41	1.28

7 Derivatives

As at 31 December 2020, the Group had following derivatives.

	Consolidated financial statements Baht
Current derivative liabilities	
Derivatives contracts that do not qualify as hedge accounting	
- Interest rate swap contracts	10,628,706
Total current derivative liabilities	10,628,706
Non-current derivative liabilities	
Derivatives contracts that do not qualify as hedge accounting	
- Interest rate swap contracts	3,205,326
Total non-current derivative liabilities	3,205,326

The objective of derivative contracts are to hedge economical not trading investment. The Group does not apply hedge accounting and, for accounting purpose, classifies the derivatives as trading and measure them at fair value through profit loss.

The following table presented financial assets and liabilities that are measured at fair value in each level including fair value of financial assets and liabilities. The table exclude financial assets and liabilities measured at amortised cost where their carrying value approximated fair value.

		Consolidated financial statements				
	Fair value level	Fair value through profit or loss (FVPL) Million Baht	Fair value through other comprehensive income (FVOCI) Million Baht	Amortised cost Million Baht	Carrying value Million Baht	Total Fair Value Million Baht
As at 31 December 2020						
Assets						
Financial assets						
- Investments in equity instruments						
	3	-	5,527	-	5,527	5,527
Total assets		-	5,527	-	5,527	5,527
Liabilities						
Long-term loans from financial institutions, net						
	2	-	-	24,240	24,240	23,537
Debentures, net						
	2	-	-	16,192	16,192	16,227
Derivatives						
- Interest rate swap agreements						
	2	14	-	-	14	14
Total liabilities		14	-	40,432	40,446	39,778

As at 31 December 2020

Assets

Financial assets
- Investment in an equity instrument
Long-term loans to related parties

Total assets

Liabilities

Long-term loans from financial institutions, net
Debentures, net

Total liabilities

Separate financial statements					
Fair value level	Fair value through profit or loss (FVPL) Million Baht	Fair value through other comprehensive income (FVOCI) Million Baht	Amortised cost Million Baht	Carrying value Million Baht	Total Fair Value Million Baht
3	-	5,479	-	5,479	5,479
2	-	-	10,386	10,386	10,488
	-	5,479	10,386	15,865	15,967
2	-	-	5,422	5,422	5,411
2	-	-	16,192	16,192	16,227
	-	-	21,614	21,614	21,638

The Group did not reclassify and recognise financial assets and liabilities in accordance with the new financial reporting standards related to financial instruments in the financial statements as at 31 December 2019.

Fair value of following financial assets and liabilities measured at amortised cost where their carrying value approximated fair value are as follows:

Consolidated financial statements	Separate financial statements
Financial assets	Financial assets
- Cash and cash equivalents	- Cash and cash equivalents
- Deposits at financial institutions used as collateral	- Deposits at financial institutions used as collateral
- Trade accounts receivable	- Trade accounts receivable
- Other accounts receivable	- Other accounts receivable
- Short-term loans to other parties	- Short-term loans to other parties and
- Long-term loans to other parties	related parties
Financial liabilities	Financial liabilities
- Short-term loans from financial institutions	- Short-term loans from financial institutions
- Trade accounts payable	- Trade accounts payable
- Other accounts payable	- Other accounts payable
- Construction payables and payables for purchase of assets	- Short-term loans from related parties
- Short-term loan from other parties	- Lease liabilities
- Lease liabilities	
- Retention for constructions	

8.1 Valuation technique used to measure fair value level 2

Valuation technique used to measure fair value level 2 of derivatives is as follows:

- Fair value of interest rate swap agreement is determined using forward interests extracted from observable yield curves.

Fair value of loans and debentures are calculated from the net present value of future cash flows discounted by market interest rates.

8.2 Valuation technique used to measure fair value level 3

The Group's valuation technique used to measure fair value level 3 is discounted cash flows for measurement of financial assets measured at fair value to other comprehensive income.

Change in financial assets that are measured by fair value level 3 through other comprehensive income are disclosed in Note 14.

The following table summarises the quantitative information about the significant unobservable inputs used in level 3 fair value measurements.

	Consolidated financial statements		
	Fair value	Unobservable inputs	Range of inputs
	31 December 2020 Million Baht		31 December 2020
Financial assets measured at fair value through other comprehensive income	5,526	Risk-adjusted discount rate Growth rate of land price	8.13%-10.00% 10.05%

	Separate financial statements		
	Fair value	Range of inputs	
	31 December 2020 Million Baht	Unobservable inputs	31 December 2020
Financial assets measured at fair value through other comprehensive income	5,479	Risk-adjusted discount rate	8.13%-10.00%
		Growth rate of land price	10.05%

Relationship of unobservable inputs to fair value are shown as follows:

	Consolidated financial statements			
			Change in fair value	
			Increase in assumptions	Decrease in assumptions
	Unobservable inputs	Movement	31 December 2020	31 December 2020
Financial assets measured at fair value through other comprehensive income	Risk-adjusted discount rate	1%	Decreased by Baht 857 million	Increased by Baht 1,121 million
	Growth rate of land price	1%	Increased by Baht 991 million	Decreased by Baht 769 million

	Separate financial statements			
			Change in fair value	
			Increase in assumptions	Decrease in assumptions
	Unobservable inputs	Movement	31 December 2020	31 December 2020
Financial assets measured at fair value through other comprehensive income	Risk-adjusted discount rate	1%	Decreased by Baht 857 million	Increased by Baht 1,121 million
	Growth rate of land price	1%	Increased by Baht 991 million	Decreased by Baht 769 million

The Group's valuation processes

The accounting and finance teams discuss valuation processes and results at least every quarter.

Significant unobservable input of fair value hierarchy level 3 is risk adjusted discount rate. It is estimated based on public companies' weighted average cost of capital that, are in opinion of the Group, in a comparable nature of business and financial position with the counterparty in the contract. The growth rate of land price is based on land price index that, is in opinion of the Group, in a comparable location and characteristic with the Group's investment.

9 Critical accounting estimates and judgements

The Group makes estimates and assumptions concerning the future. The result of accounting estimates will, by definition seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are as follows:

Estimated impairment of goodwill

The Group tests impairment of goodwill annually in accordance with the accounting policy stated in Note 5.10. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations use cash flow projections based on financial budget covering useful lives of assets used in developing, manufacturing and distributing battery business incorporated in the Republic of China (Taiwan) and palm crushing mills and biomass power plants business as disclosed in Note 21.

Fair value measurement of equity instrument

Fair value of equity instrument which is not trade in the active market is measured by valuation technique. The Group uses judgement to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period. Details of key assumptions used are included in Note 8.

Fair value estimation of business combination

The Group estimates fair value of net assets acquired from a business combination by engaging the professional valuer, applying appropriate valuation method based on financial assumptions to derive fair value of net assets acquired. These calculations require the use of management judgment. Details of fair value of net assets acquired from a business combination are included in Note 17.

10 Segment information - Consolidated financial statements

The Group has four segments report which comprises of manufacturing and distributing crude palm oil and biodiesel products, manufacturing and distributing pure glycerine products, manufacturing and distributing electricity from solar and wind power and consulting in the project regarding alternative electric energy. The chief operating decision-maker evaluates the segment's performance by using profit before income tax which is measured in the same basis as profit before income tax in the financial statements.

	For the years ended 31 December									
	Manufacturing and distributing crude palm oil and biodiesel products		Manufacturing and distributing pure glycerine products		Manufacturing and distributing electricity from solar and wind power		Consulting in the project regarding alternative electric energy		Head office and others	
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
Revenue of the operating segments	6,031	3,448	266	230	10,628	10,983	63	25	211	268
Expenses of the operating segments	(5,774)	(3,589)	(124)	(110)	(3,831)	(3,241)	(227)	(360)	(2,153)	(1,624)
Share of gain (loss) from investments in associates and a joint venture	-	-	-	-	4	-	-	-	(65)	(14)
Profit (loss) before income tax	257	(141)	142	120	6,801	7,742	(164)	(335)	(2,007)	(1,370)
Income tax									18	11
Profit for the year									5,047	6,027
Timing of revenue recognition:										
At a point in time	6,031	3,448	266	230	10,628	10,983	-	-	200	251
Over time	-	-	-	-	-	-	63	25	11	17
Total revenue of the operating segments	6,031	3,448	266	230	10,628	10,983	63	25	211	268
									17,199	14,954

The Group generates revenue from sales and services by utilising the majority of assets located in Thailand and oversea. The majority of the Group's revenue is originated in Thailand.

11 Cash and cash equivalents

As at 31 December	Consolidated financial statement		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Cash on hand	494,369	8,285,472	51,604	54,124
Cash at banks in current accounts	45,765,896	145,223,860	29,721,422	45,321,190
Cash at banks in savings accounts	2,904,407,064	9,875,442,288	608,021,852	5,214,905,716
Total cash and cash equivalents	2,950,667,329	10,028,951,620	637,794,878	5,260,281,030

As at 31 December 2020 and 2019, cash and cash equivalents mainly comprised cash at savings accounts with the banks. The interest rates were 0.05% - 0.13% per annum (2019: 0.05% - 1.50% per annum).

12 Deposits at financial institutions used as collateral

As at 31 December 2020, deposits at financial institutions of the Group and the Company amounting to Baht 177.46 million and Baht 92.95 million (2019: Baht 166.31 million and Baht 98.13 million) are pledged as collateral for issuing the letters of guarantee by domestic commercial banks and deposits at financial institutions of the Group and the Company amounting to Baht 11.72 million (2019: Baht 11.53 million) are pledged as collateral for short-term loans from financial institutions. The interest rates were 0.10% - 0.82% per annum (2019: 0.66% - 1.07% per annum).

13 Trade accounts receivable, net

Trade accounts receivable, net as at 31 December are trade accounts receivable from third parties which can be analysed as follows:

As at 31 December	Consolidated financial statement		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Not yet due	2,746,173,509	2,644,167,983	497,494,602	321,655,322
Overdue below 3 months	1,671,822	17,858,040	-	-
Overdue 3 - 6 months	-	-	-	-
Overdue 6 - 12 months	3,288,583	7,569,370	-	-
Overdue more than 12 months	17,596,059	10,308,802	-	-
<u>Less</u> Allowance for doubtful receivables	(18,536,481)	(14,146,180)	-	-
Total trade accounts receivable, net	2,750,193,492	2,665,758,015	497,494,602	321,655,322

Realised allowance for doubtful receivables is from trade accounts receivable that are overdue more than 6 months.

14 Financial assets measured at fair value through other comprehensive income

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Financial assets - investments in equity instruments	5,526,611,867	-	5,479,323,609	-
Total financial assets measured at fair value through other comprehensive income	5,526,611,867	-	5,479,323,609	-

	Consolidated financial statements Baht	Separate financial statements Baht
For the year ended 31 December 2020		
Opening book value, net	-	-
Impact of adoption of the new financial reporting standard	28,794,284	-
Opening book value, net - as restated	28,794,284	-
Acquisition of an investment in equity instrument ⁽¹⁾	5,134,071,033	5,134,071,033
Gains recognised through other comprehensive income	363,883,560	345,252,576
Currency translation differences	(137,010)	-
Closing book value, net	5,526,611,867	5,479,323,609

⁽¹⁾ Investment in Land Prosperity Holding Co., Ltd.

During May 2020, the Company acquired ordinary shares of Land Prosperity Holding Co., Ltd., a connected person of the Company, from its former shareholder according to a Share Purchase Agreement with the former shareholder. The Company made payments for 285,000,000 ordinary shares at Baht 18 per share, totalling Baht 5,130 million and related direct costs at Baht 4 million. As a result, the Company holds 19% of the issued and paid-up ordinary shares. Land Prosperity Holding Co., Ltd. engages in the business of investing in property development business.

15 Other accounts receivable, net

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Other accounts receivable				
- third parties	143,846,632	8,159,754	35,159,834	32,565
- related parties (Note 40.3)	-	-	229,379,012	209,009,715
Prepaid expenses	31,835,767	87,810,374	8,714,340	36,378,023
Revenue department receivables	449,891,228	364,908,085	9,647	10,000
Undue input tax	35,940,384	29,191,656	1,404,977	935,095
Deposits for goods	51,705,317	-	-	-
Advance payments	29,499,516	16,793,033	16,629,707	1,254,435
Other	19,595,039	2,647,452	463,011	463,011
Less Allowance for impairment losses	(1,024,793)	-	(1,048,463)	-
Total other accounts receivable, net	761,289,090	509,510,354	290,712,065	248,082,844

16 Inventories, net

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Raw materials	194,966,514	130,045,311	69,740,142	46,729,509
Work in process	290,174,806	271,588,588	103,047,432	74,445,659
Finished goods	203,294,097	333,299,339	102,247,372	75,315,870
Spare parts and supplies	184,635,818	56,251,269	16,436,726	14,146,109
	873,071,235	791,184,507	291,471,672	210,637,147
Less Allowance for decrease in value of raw materials	(5,711,700)	(13,750,785)	(7,427,346)	(7,650,081)
Allowance for decrease in value of works in process	(5,327,193)	(4,458,914)	-	-
Allowance for decrease in value of finished goods	(20,070,604)	(12,897,047)	-	-
Allowance for decrease in value of spare parts and supplies	(8,662,337)	(2,399,851)	(1,234,991)	(2,399,851)
Total inventories, net	833,299,401	757,677,910	282,809,335	200,587,215

17 Investments in subsidiaries, associates and a joint venture

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Investments in subsidiaries (Note 17.2)	1	1	27,719,122,426	24,072,837,448
Investments in associates (Note 17.3)	1,500,481,507	69,530,375	-	-
Investment in a joint venture (Note 17.4)	28,990,332	30,665,924	45,471,090	43,285,440
Total investments in subsidiaries, associates and a joint venture	1,529,471,840	100,196,300	27,764,593,516	24,116,122,888

17.1 The movement of the investments in subsidiaries, associates and a joint venture can be analysed as follows:

	Consolidated financial statements	
	2020 Baht	2019 Baht
For the years ended 31 December		
Opening net book value	100,196,300	1
Acquisition of investments in associates	1,514,000,000	70,151,055
Acquisition of investment in a joint venture	2,185,650	-
Calling for additional capital contributions of a joint venture	-	34,531,200
Share of loss from investments in associates and a joint venture, net	(61,049,730)	(14,259,073)
Change in shareholding interest in associates and a joint venture	8,758,602	12,439,095
Disposal of investments in associates	(31,315,601)	-
Currency translation differences	(3,303,381)	(2,665,978)
Closing net book value	1,529,471,840	100,196,300
	Separate financial statements	
	2020 Baht	2019 Baht
For the years ended 31 December		
Opening net book value	24,116,122,888	22,546,773,156
Acquisition of investments in subsidiaries	209,629,414	738,319,152
Acquisition of investment in a joint venture	2,185,650	-
Increase in share capital and called for additional paid-up share capital of subsidiaries	4,024,400,497	796,499,380
Calling for additional capital contributions of a joint venture	-	34,531,200
Disposal of investments in subsidiaries	(587,744,933)	-
Closing net book value	27,764,593,516	24,116,122,888

17.1.1 The movement of the investments in subsidiaries during the year ended 31 December 2020 as follows:

Direct subsidiaries

Calling for additional paid-up share capital

During the year, the Board of Directors passed resolutions calling for additional paid-up share capital. The Company made payments for additional paid-up share capital as details below:

Subsidiaries	Date of subsidiaries' Board of Directors' Meeting	Number of shares (Million shares)	Paid-up share (Baht per share)	Total (Million Baht)
Mine Mobility Research Co., Ltd.	10 January 2020	20	3.50	70
Mine Mobility Corporation Co., Ltd.	23 January 2020	15	7.50	112
EA Palm Network Co., Ltd.	23 March 2020	19.99	1.25	25
	1 June 2020	100	3.00	300
Green Technology Research Co., Ltd.	24 September 2020	7.20	1.80	13
EA Mobility Holding Co., Ltd.	15 June 2020	20	7.50	150
	2 July 2020	9.84	6.50	64
	18 August 2020	200	1.25	250
	19 October 2020	200	1.25	250
				<u>1,234</u>

Incorporation and increase in share capital of subsidiaries

Energy Solution Management Co., Ltd.

At the Extraordinary Shareholders' Meeting of Energy Solution Management Co., Ltd. on 27 December 2019, the shareholders passed a resolution increasing in the authorised share capital from Baht 110 million to Baht 530 million by issuing new ordinary share of 4,200,000 shares with a par value of Baht 100 per share, totalling Baht 420 million. The Company already made a payment for these new shares in the period.

Mine Mobility Research Co., Ltd.

At the Extraordinary Shareholders' Meeting of Mine Mobility Research Co., Ltd. on 25 January 2020, the shareholders passed a resolution increasing in the authorised share capital from Baht 300 million to Baht 400 million by issuing new ordinary share of 10,000,000 shares with a par value of Baht 10 per share, totalling 100 million. The Company already made a payment for these new shares in the period.

EA Palm Network Co., Ltd.

On 28 January 2020, EA Palm Network Co., Ltd. was incorporated in Thailand by the Company with the registered share capital of 20,000,000 shares at a par value of Baht 10 per share. The Company holds 99.99% of the issued and paid-up ordinary share capital of the said company. The Company already made a payment for 19,999,997 ordinary shares at Baht 8.75 per share, totalling Baht 175 million in the period.

At the Extraordinary Shareholders' Meeting of EA Palm Network Co., Ltd. on 14 April 2020, the shareholders passed a resolution increasing in the authorised share capital from Baht 200 million to Baht 1,200 million by issuing new ordinary share of 100,000,000 shares with a par value of Baht 10 per share. The Company already made a payment for 100,000,000 ordinary shares at Baht 3 per share, totalling Baht 300 million in the period.

EA Waste Management Co., Ltd.

On 15 April 2020, EA Waste Management Co., Ltd. was incorporated in Thailand by the Company with the registered share capital of 10,000 shares at a par value of Baht 10 per share. The Company holds 99.97% of the issued and paid-up ordinary share capital of the said company. The Company already made a payment for 9,997 ordinary shares at Baht 10 per share, totalling Baht 0.10 million in the period.

EA Mobility Holding Co., Ltd. (Former EA Wind Hadkanghan 1 Co., Ltd.)

On 27 April 2020, EA Wind Hadkanghan 1 Co., Ltd., an indirect subsidiary, registered a new name as EA Mobility Holding Co., Ltd. and changed the objective to be investing in electric vehicles business.

On 28 April 2020, the Company purchased EA Mobility Holding Co., Ltd. ordinary shares from EA Renewable Holding Co., Ltd., a direct subsidiary of the Company. The details are as follows:

- a) Fully paid-up ordinary shares of 9,997 shares with a par value of Baht 10 per share, at Baht 10 per share, totalling Baht 0.10 million
- b) Fully paid-up ordinary shares of 9,837,000 shares with a par value of Baht 10 per share, at Baht 3.50 per share, totalling Baht 34.43 million

As a result, the Company holds 99.99% of the issued and paid-up ordinary share capital of the EA Mobility Holding Co., Ltd. In addition, EA Mobility Holding Co., Ltd. has become the Company's direct subsidiary.

At the Extraordinary Shareholders' Meeting of EA Mobility Holding Co., Ltd. on 11 June 2020, the shareholders passed a resolution increasing in the authorised share capital from Baht 98.47 million to Baht 298.47 million by issuing new ordinary share of 20,000,000 shares with a par value of Baht 10 per share. The Company already made a payment for 20,000,000 ordinary shares at Baht 2.50 per share, totalling Baht 50 million in the period.

At the Extraordinary Shareholders' Meeting of EA Mobility Holding Co., Ltd. on 17 July 2020, the shareholders passed a resolution increasing in the authorised share capital from Baht 298.47 million to Baht 2,298.47 million by issuing new ordinary share of 200,000,000 shares with a par value of Baht 10 per share. The Company already made a payment for 200,000,000 ordinary shares at Baht 7.50 per share, totalling Baht 1,500 million in the period.

At the Extraordinary Shareholders' Meeting of EA Mobility Holding Co., Ltd. on 3 November 2020, the shareholders passed a resolution increasing in the authorised share capital from Baht 2,298.47 million to Baht 3,348.47 million by issuing new ordinary share of 105,000,000 shares with a par value of Baht 10 per share. The Company already made a payment for 105,000,000 ordinary shares at Baht 4 per share, totalling Baht 420 million in the period.

Disposal of investment in subsidiaries

E Smart Transport Co., Ltd.

On 20 July 2020, the Company sold 99,997 ordinary shares of E Smart transport Co., Ltd. to EA Mobility Holding Co., Ltd. with a par value of Baht 10 per share and the paid-up share capital at Baht 2.50 per share, with total book value of Baht 0.25 million. The ordinary shares were sold at Baht 1.91 per share, totalling Baht 0.19 million. As a result, E Smart transport Co., Ltd. has become an indirect subsidiary of the Company. During the year ended 31 December 2020, the Group received the payment for this in full. Consequently, the Group recognised a net loss on disposal of its investment in the subsidiary, under the cost method, of Baht 0.06 million in the separate statement of income for the year ended 31 December 2020.

Mine Mobility Corporation Co., Ltd.

On 5 November 2020, the Company sold 54,999,997 ordinary shares of Mine Mobility Corporation Co., Ltd. to EA Mobility Holding Co., Ltd. with a par value of Baht 10 per share and the paid-up share capital at full amount, with total book value of Baht 550 million. The ordinary shares were sold at Baht 8.90 per share, totalling Baht 489.68 million. As a result, Mine Mobility Corporation Co., Ltd. has become an indirect subsidiary of the Company. During the year ended 31 December 2020, the Group received the payment for this in full. Consequently, the Group recognised a net loss on disposal of its investment in the subsidiary, under the cost method, of Baht 60.32 million in the separate statement of income for the year ended 31 December 2020.

EV Now Co., Ltd.

On 5 November 2020, the Company sold 3,749,497 ordinary shares of EV Now Co., Ltd. to EA Mobility Holding Co., Ltd. with a par value of Baht 10 per share and the paid-up share capital at full amount, with total book value of Baht 37.49 million. The ordinary shares were sold at Baht 8.84 per share, totalling Baht 33.14 million. As a result, EV Now Co., Ltd. has become an indirect subsidiary of the Company. During the year ended 31 December 2020, the Group received the payment for this in full. Consequently, the Group recognised a net loss on disposal of its investment in the subsidiary, under the cost method, of Baht 4.35 million in the separate statement of income for the year ended 31 December 2020.

Indirect subsidiaries

Subyai Wind Farm (1) Co., Ltd.

On 24 January 2020, the Group acquired ordinary shares of Subyai Wind Farm (1) Co., Ltd. from its former shareholder according to a Share Purchase Agreement with the former shareholder. The Group made payment for 19,997 ordinary shares at Baht 250 per share, totalling Baht 4.99 million. As a result, the Group holds 99.99% of the issued and paid-up ordinary share capital. Subyai Wind Farm (1) Co., Ltd. engages in the business of manufacturing and distributing electricity generated from wind power.

Larp Pakdee Palm Co., Ltd.

On 3 February 2020, the Group acquired ordinary shares of Larp Pakdee Palm Co., Ltd. from its former shareholder according to a Share Purchase Agreement and a Shareholder Agreement with the former shareholder. The Group made payment for 1,199,999 ordinary shares at Baht 31.25 per share, totalling Baht 37.50 million. As a result, the Group holds 74.99% of the issued and paid-up ordinary share capital. Larp Pakdee Palm Co., Ltd. engages in the business of palm crushing mills electric power plants and development projects for biomass and biogas.

Details of consideration paid at acquisition date are as follows:

	Consolidated financial statements As at acquisition date Baht
Cash	37,499,969
Purchase consideration	37,499,969

The Group completely measured the fair value of the net identifiable assets acquired and completed purchase price allocation at the acquisition date as follows:

	Consolidated financial statements As at acquisition date Baht
Recognised amount of identifiable assets acquired and liabilities assumed (Proportion of 100%)	
Cash and cash equivalents	88,639
Trade and other accounts receivable	1,356,135
Inventories	5,286,593
Property, plant and equipment, net	329,312,352
Deferred tax asset	10,298,562
Trade and other accounts payable	(13,405,028)
Short-term loans	(220,046,344)
Long-term loans	(278,993,580)
Other liabilities	(3,699,017)
Fair value of net liabilities	(169,801,688)
<u>Less</u> Non-controlling interests	42,467,402
Goodwill	164,834,255
Purchase consideration	37,499,969

Revenue from sales and net loss contributed by Larp Pakdee Palm Co., Ltd. since the date of the Group obtained control which included in the consolidated income statement for the year ended 31 December 2020 were Baht 456.61 million and Baht 51.03 million, respectively.

Acquisition-related costs included in administrative expenses in the consolidated income statement for the year ended 31 December 2020 is Baht 3 million.

Subsequently, at the Extraordinary Shareholders' Meeting of Larp Pakdee Palm Co., Ltd. on 4 February 2020, the shareholders passed a resolution increasing in the authorised share capital from Baht 160 million to Baht 310 million by issuing new ordinary share of 1,500,000 shares with a par value of Baht 100 per share, totalling Baht 150 million. The Group already made a payment for its proportion of share amounting to Baht 112.49 million in the year.

Combine Energy Tech Co., Ltd.

On 27 March 2020, the Group received the transfer of net assets which is 1,267,000 ordinary shares of Combine Energy Tech Co., Ltd. from Bio Alternative Energy Co., Ltd. under the conditions of an Entire Business Transfer Agreement and a Shareholder Agreement with Bio Alternative Energy Co., Ltd. and paid for such transfer of Baht 285.51 million. As a result, the Group holds 70% of the issued and paid-up ordinary share capital. Combine Energy Tech Co., Ltd. engages in business of shore tank rentals and crude palm oil pipeline transport.

Details of consideration paid at acquisition date are as follows:

	Consolidated financial statements As at acquisition date Baht
Cash	268,065,731
Other accounts receivable	17,443,269
Purchase consideration	285,509,000

The Group completely measured the fair value of the net identifiable assets acquired and completed purchase price allocation at the acquisition date as follows:

	Consolidated financial statements As at acquisition date Baht
Recognised amount of identifiable assets acquired and liabilities assumed (Proportion of 100%)	
Property, plant and equipment, net	398,960,500
Trade and other accounts payable	(27,863)
Deferred tax liabilities	(45,961,168)
Fair value of net assets	352,971,469
<u>Less</u> Non-controlling interests	(105,891,441)
Goodwill	38,428,972
Purchase consideration	285,509,000

Net loss contributed by Combine Energy Tech Co., Ltd. since the date of the Group obtained control which included in the consolidated income statement for the year ended 31 December 2020 was Baht 0.09 million.

Acquisition-related costs included in administrative expenses in the consolidated income statement for the year ended 31 December 2020 is Baht 0.70 million.

Kanjanadit Palm Oil Co., Ltd.

On 1 July 2020, the Group acquired ordinary shares of Kanjanadit Palm Oil Co., Ltd. from its former shareholder according to a Share Purchase Agreement and a Shareholder Agreement with the former shareholder. The Group made payment for 337,500 ordinary shares at Baht 111.20 per share, totalling Baht 37.53 million. As a result, the Group holds 75% of the issued and paid-up ordinary share capital. Kanjanadit Palm Oil Co., Ltd. engages in the business of palm crushing mills electric power plants and development projects for biomass and biogas.

Details of consideration paid at acquisition date are as follows:

	Consolidated financial statements As at acquisition date Baht
Cash	37,530,000
Purchase consideration	37,530,000

Details of estimated fair value of the net assets acquired recognised at the acquisition date are as follows:

	Consolidated financial statements As at acquisition date Baht
Cash and cash equivalents	258,997
Trade and other accounts receivable	23,813,257
Short-term loans receivables	7,265,407
Inventories	4,442,563
Deposits at financial institutions used as collateral	20,859,223
Property, plant and equipment, net	222,494,143
Other non-current assets	1,658,665
Trade and other accounts payable	(40,485,822)
Short-term loans	(253,098,128)
Long-term loans	(152,623,990)
Other liabilities	(11,013,531)
Identifiable liabilities, net	(176,429,216)
<u>Less</u> Non-controlling interests	44,107,304
Goodwill	169,851,912
Purchase consideration	37,530,000

As at 31 December 2020, the Group is in the process of determining the fair value of the net identifiable assets acquired from business acquisition. The above goodwill needs to be further adjusted to the fair value of the net assets acquired which must be completed within 12 months from the business acquisition date.

Revenue from sales and net loss contributed by Kanjanadit Palm Oil Co., Ltd. since the date of the Group obtained control which included in the consolidated income statement for the year ended 31 December 2020 were Baht 132.08 million and Baht 37.80 million, respectively.

Subsequently, at the Extraordinary Shareholders' Meeting of Kanjanadit Palm Oil Co., Ltd. on 1 July 2020, the shareholders passed a resolution increasing in the authorised share capital from Baht 45 million to Baht 195 million by issuing new ordinary share of 1,500,000 shares with a par value of Baht 100 per share, totalling Baht 150 million. The Group already made a payment for proportion of share amounting to Baht 112.50 million in the period.

Chaophraya River Line Co., Ltd.

On 23 November 2020, the Group acquired ordinary shares in Chaophraya River Line Co., Ltd. from its former shareholder. According to a share purchase agreement and a shareholder agreement with the former shareholder, the Group made payment for 650,000 ordinary shares at Baht 85.70 per share, totalling Baht 55.71 million. As a result, the Group holds 99.99% of the issued and paid-up ordinary share capital. Chaophraya River Line Co., Ltd. engages in the business of a ferry transportation and tourism service provider.

Details of consideration paid at acquisition date are as follows:

	Consolidated financial statements As at acquisition date Baht
Cash	55,704,829
Purchase consideration	55,704,829

Details of estimated fair value of the net assets acquired recognised at the acquisition date are as follows:

	Consolidated financial statements As at acquisition date Baht
Cash and cash equivalents	2,339,498
Trade and other accounts receivable	3,438,204
Property, plant and equipment, net	27,669,834
Right-of-use assets	55,470,529
Intangible assets	466,331
Other non-current assets	279,873
Trade and other accounts payable	(9,209,042)
Lease liabilities	(33,508,652)
Other liabilities	(222,343)
Identifiable assets, net	46,724,232
<u>Less</u> Non-controlling interests	(4,673)
Goodwill	8,985,270
Purchase consideration	55,704,829

As at 31 December 2020, the Group is in the process of determining the fair value of the net identifiable assets acquired from business acquisition. The above goodwill needs to be further adjusted to the fair value of the net assets acquired which must be completed within 12 months from the business acquisition date.

Revenue from sales and net loss contributed by Chaophraya River Line Co., Ltd. since the date of the Group obtained control which included in the consolidated income statement for the year ended 31 December 2020 were Baht 0.12 million and Baht 2.85 million, respectively.

17.1.2 The movement of the investments in associates during the year ended 31 December 2020 are as follows:

Indirect associate

Acquisition of investment in associate

NEX Point Public Co., Ltd.

On 24 July 2020, the Group acquired newly issued ordinary shares of NEX Point Public Co., Ltd. through a Private Placement method for a capital increase at Baht 2.20 per share. The Group made payment of Baht 1,474 million for 670,000,000 shares. As a result, the Group holds 40.01% of issued and paid-up ordinary shares. NEX Point Public Co., Ltd. engages in the business of service of property rental, sale and rent a bus service, supply assets service and investing in other business.

Details of consideration paid at acquisition date are as follows:

	Consolidated financial statements As at acquisition date Baht
Purchase consideration	1,474,000,000
Book value of the net assets under interest acquired	1,283,287,275
Exceed of acquisition cost over net assets acquired	190,712,725

As at 31 December 2020, the Group is in the process of determining fair value of the net identifiable assets and reviewing purchase price allocation (PPA). Therefore, the differences between the acquisition cost and net assets' carrying value are subjected to further adjustments depending on the determination of fair value and the results of the PPA. The Group expected to finalise its fair value calculation within 12 months from the acquisition date of such investments in an associate.

TF Tech Holding Co., Ltd.

On 7 October 2020, the Group jointly incorporated TF Tech Holding Co., Ltd. The said Company has registered capital of 2,000,000 shares at a par value of Baht 100 per share. The Group made payment for 800,000 shares at Baht 25 per share, totalling Baht 20 million. As a result of, the Group holds 40% of the issued and paid-up ordinary shares. TF Tech Holding Co., Ltd. engages in the business of investing in renewable energy business.

On 25 November 2020, at the Board of Directors' Meeting of TF tech Holding Co., Ltd., the Board of Directors passed a resolution calling for additional paid-up share capital at Baht 25 per share. The Company made a payment for additional paid-up share capital of 800,000 shares, totalling Baht 20 million in the period.

Disposal of investment in associates

Zept Inc.

On 20 November 2020, the Group sold back its entire shareholding in Zept Inc. to the major shareholder of Zept in the amount of US Dollars 13.45 million or equivalent to Baht 14.20 million. During the year ended 31 December 2020, the Group received payment for this in full. Consequently, the Group recognised a net gain on disposal of its investment in an associate, under the equity method, of Baht 3.79 million in the consolidated statement of comprehensive income for the year ended 31 December 2020.

TF Tech Co., Ltd.

On 1 December 2020, the Group sold its entire share held in TF Tech Co., Ltd. to TF Tech Holding Co., Ltd. totalling Baht 20 million. During the year ended 31 December 2020, the Group received payment for this in full. Consequently, the Group recognised a net gain on disposal of its investment in an associate, under the equity method, of Baht 0.91 million in the consolidated statement of income comprehensive for the year ended 31 December 2020.

- 17.1.3 The movement of the investment in a joint venture during the year ended 31 December 2020 is as follows:

Direct joint venture

Shenzhen Ateess Power Technology Co., Ltd.

On 25 June 2020, the Company entered into the Equity Transfer Agreement and received transferred interest from a particular joint venturer of US Dollars 0.07 million or equivalent to Baht 2.19 million, from its joint venture with interest 1.875% of total registered capital. As a result, the Company's interest portion increased from portion 36.67% to 38.58% of total registered capital. The Company was entitled to additional transferred interest in the year.

17.2 Investments in subsidiaries

	Business	Consolidated and separate financial statements									
		Portion of ordinary shares held by the Company			Portion of ordinary shares held by the Group			Cost method		Dividend for the year	
		31 December 2020	31 December 2019	%	31 December 2020	31 December 2019	%	31 December 2020	31 December 2019	31 December 2020	31 December 2019
		%	%		%	%		Baht	Baht	Baht	Baht
The details of direct subsidiaries incorporated in Thailand											
Surachai (1997) Co., Ltd.	Investing in manufacturing and distributing electricity from solar energy	99.90	99.90	-	-	-	-	231,550,000	231,550,000	-	-
EA Solar Co., Ltd.	Manufacturing and distributing electricity from solar energy	49.00	49.00	51.00	51.00	51.00		313,030,000	313,030,000	70,635,924	69,450,124
EA Solar Nakomsawan Co., Ltd.	Manufacturing and distributing electricity from solar energy	99.99	99.99	-	-	-	-	5,589,999,970	5,589,999,970	1,224,209,995	1,302,469,995
Energy Solution Management Co., Ltd.	Consulting in the construction project	99.99	99.99	-	-	-	-	529,999,500	109,999,500	-	-
EA Renewable Holding Co., Ltd.	Investing in manufacturing group of electricity energy	99.99	99.99	-	-	-	-	7,383,699,970	7,383,699,970	2,576,690,790	3,373,444,387
Wind Nayangkriak Co., Ltd.	Investing in manufacturing group of electricity energy	99.99	99.99	-	-	-	-	1,879,499,970	1,879,499,970	-	-
Wind Progressive Co., Ltd.	Investing in manufacturing group of electricity energy	99.99	99.99	-	-	-	-	1,879,499,970	1,879,499,970	-	-
Wind Tossaphum Co., Ltd.	Investing in manufacturing group of electricity energy	99.99	99.99	-	-	-	-	1,669,999,970	1,669,999,970	-	-
Enma Corporation Co., Ltd.	Research and development of electricity equipment (not commercial operations yet)	50.00	50.00	-	-	-	-	50,000	50,000	-	-
Thepsathit Wind Farm Co., Ltd.	Manufacturing and distributing electricity from wind power (not commercial operations yet)	99.99	99.99	-	-	-	-	1	1	-	-
Energy Mahanakhon Co., Ltd.	Charging station	50.00	50.00	2.11	2.11	2.11		99,999,970	99,999,970	-	-
Green Technology Research Co., Ltd.	Research and Development of biodiesel	99.99	99.99	-	-	-	-	111,999,970	99,039,970	-	-
Mine Mobility Research Co., Ltd.	Research and Development of electricity vehicle	99.99	99.99	-	-	-	-	399,999,970	229,999,970	-	-
Energy Beyond Research Co., Ltd.	Research and Development of battery (not commercial operations yet)	99.99	99.99	-	-	-	-	5,074,970	5,074,970	-	-
EA Bio Innovation Co., Ltd.	Manufacturing and distributing biodiesel	99.99	99.99	-	-	-	-	400,099,970	400,099,970	-	-
Mine Mobility Corporation Co., Ltd.	Manufacturing and distributing electricity vehicle (not commercial operations yet)	-	-	-	-	-	-	-	437,499,970	-	-
E Smart Transport Co., Ltd.	Service of ferry transportation and tourism	-	-	-	-	-	-	-	249,992	-	-
Smart Waste Management Co., Ltd.	Service of waste management	99.99	99.99	-	-	-	-	9,999,970	9,999,970	-	-
EV Now Co., Ltd.	(not commercial operations yet) Manufacturing and distributing electricity vehicle	-	74.99	74.99	74.99	-	-	-	37,494,970	-	-
EA Palm Network Co., Ltd.	Investing in manufacturing and distributing crude palm oil and service of shore tanks rental	99.99	-	-	-	-	-	799,999,970	-	-	-

Consolidated and separate financial statements												
Business	Portion of ordinary shares held by the Company				Portion of ordinary shares held by the Group				Cost method		Dividend for the year	
	31 December 2020	31 December 2019	%		31 December 2020	31 December 2019	%		31 December 2020	31 December 2019		
	%	%			%	%			Baht	Baht	Baht	
The details of direct subsidiaries incorporated in Thailand (continued)												
EA Mobility Holding Co., Ltd. (Former EA Wind Hankanghan 1 Co., Ltd.)	99.99	-	-	-	99.99	2,718,469,970	-	-	-	-	-	-
Investing in electric vehicle business												
EA Waste Management Co., Ltd.	99.97	-	-	-	-	99,970	-	-	-	-	-	-
Investing in waste management, manufacturing and distributing electricity from waste (not commercial operations yet)												
Total						24,023,074,081	20,376,789,103	3,871,536,709	4,745,364,506			
The details of direct subsidiaries incorporated in other countries												
Amita Technologies Inc. (Incorporated in the Republic of China (Taiwan))	65.61	65.61	9.10	9.10	9.10	3,680,011,745	3,680,011,745	-	-	-	-	-
Developing, manufacturing and distributing battery												
EA Con Dao (SG) Pte. Ltd. (Incorporated in Singapore)	95.00	95.00	-	-	-	-	-	-	-	-	-	-
Investing in manufacturing of electricity energy business (not commercial operations yet)												
EA BVI Holding Limited (Incorporated in British Virgin Islands)	100	100	-	-	-	16,036,600	16,036,600	-	-	-	-	-
Investing in developing, manufacturing and distributing battery												
Total						3,696,048,345	3,696,048,345	-	-	-	-	-
Total investments and dividend form subsidiaries						27,719,122,426	24,072,837,448	3,871,536,709	4,745,364,506			

Investment in Thepsathit Wind Farm Co., Ltd., a subsidiary of the Company, amounting to Baht 1 is recorded by using cost method and is not consolidated to the consolidated financial statements as at 31 December 2020 and 2019 since such company's financial statements are not material to the Group.

	Consolidated and separate financial statements									
	Portion of ordinary shares held by the Company				Portion of ordinary shares held by the Group				Cost method	
	31 December 2020	31 December 2019	%	%	31 December 2020	31 December 2019	%	%	31 December 2020 Baht	31 December 2019 Baht
Business										
The details of indirect subsidiaries incorporated in Thailand										
Surachai (1997) Solar Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
EA Solar Phitsanulok Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
EA Wind Hadkanghan 2 Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
EA Wind Hadkanghan 3 Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
EA Solar Lampang Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
Nayangklaek Development Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
Nayangklaek Wind Power Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
Benjarat Development Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
Pongnok Development Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
Banchuan Development Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
Paypop Co., Ltd.			-	-	99.97	99.97	99.97	-	-	-
Amila Technology (Thailand) Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
EA Station Co., Ltd.			-	-	99.94	99.94	99.94	-	-	-
Associate Infinity Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
Larp Pakdee Palm Co., Ltd.			-	-	74.99	74.99	74.99	-	-	-
Subyai Wind Farm (1) Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
Combine Energy Tech Co., Ltd.			-	-	70.00	70.00	70.00	-	-	-
Absolute Assembly Co., Ltd.			-	-	54.90	54.90	54.90	-	-	-
Kanjanadit Palm Oil Co., Ltd.			-	-	75.00	75.00	75.00	-	-	-
E Smart Transport Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
Mine Mobility Corporation Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
EV Now Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-
Chaopraya River Line Co., Ltd.			-	-	99.99	99.99	99.99	-	-	-

	Consolidated and separate financial statements									
	Portion of ordinary shares held by the Company		Portion of ordinary shares held by the Group		Cost method		Dividend for the year			
	31 December 2020	31 December 2019	31 December 2020	31 December 2019	31 December 2020	31 December 2019	31 December 2020	31 December 2019	31 December 2020	31 December 2019
Business	%	%	%	%	Baht'000	Baht'000	Baht'000	Baht'000	Baht'000	Baht'000
The details of indirect subsidiaries incorporated in other countries										
Amita New Technologies Pte. Ltd. (Incorporated in Singapore)	-	-	100	100	-	-	-	-	-	-
Sun Field Investments Co., Ltd. (Incorporated in Samoa)	-	-	100	100	-	-	-	-	-	-
EA (BVI) 1 Limited (Incorporated in British Virgin Islands)	-	-	100	100	-	-	-	-	-	-
EA (BVI) 2 Limited (Incorporated in British Virgin Islands)	-	-	100	100	-	-	-	-	-	-
Investing in manufacturing and distributing battery										
Investing in battery business										
Investing in developing, manufacturing, and distributing battery										
Investing in developing, manufacturing, and distributing battery										

Summarised financial information on subsidiaries with material non-controlling interests

Set out below are the summarised financial information for each subsidiary that has non-controlling interests that are material to the Group. The amounts disclosed for each subsidiary are before inter-company eliminations.

Summarised statement of financial position

As at 31 December	Amita Technologies Inc.		Energy Mahanakorn Co., Ltd.		Total	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Current assets	1,066,596,070	2,286,173,860	143,935,478	235,052,200	1,210,531,548	2,521,226,060
Current liabilities	2,135,159,849	123,239,502	12,389,966	2,602,791	2,147,549,815	125,842,293
Total current net assets	(1,068,563,779)	2,162,934,358	131,545,512	232,449,409	(937,018,267)	2,395,383,767
Non-current assets	4,922,953,134	1,083,158,562	372,318,371	319,742,985	5,295,271,505	1,402,901,547
Non-current liabilities	834,999,549	18,973,862	11,748,757	2,410,846	846,748,306	21,384,708
Total non-current net assets	4,087,953,585	1,064,184,700	360,569,614	317,332,139	4,448,523,199	1,381,516,839
Net assets	3,019,389,806	3,227,119,058	492,115,126	549,781,548	3,511,504,932	3,776,900,606
Non-controlling interests	763,603,682	1,237,244,596	235,723,145	244,046,878	999,326,827	1,481,291,474

Summarised statement of comprehensive income

For the years ended 31 December	Amita Technologies Inc.		Energy Mahanakorn Co., Ltd.		Total	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Revenue	283,238,354	210,296,485	7,185,086	4,179,608	290,423,440	214,676,093
Loss	(335,806,972)	(146,657,544)	(57,666,422)	(26,149,589)	(393,473,394)	(172,807,133)
Other comprehensive income (expense)	117,634,294	(42,992,219)	-	90,497	117,634,294	(42,901,722)
Total comprehensive expense	(218,172,678)	(189,649,763)	(57,666,422)	(26,059,092)	(275,839,100)	(215,708,855)
Loss allocated to non-controlling interests	(55,175,870)	(101,397,979)	(27,622,216)	(12,531,050)	(82,798,086)	(113,929,029)
Dividends paid to non-controlling interests	-	-	-	-	-	-

Summarised statement of cash flows

For the years ended 31 December	Amita Technologies Inc.		Energy Mahanakorn Co., Ltd.		Total	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Net cash payment in from operating activities	(233,879,151)	(251,085,089)	(27,928,948)	(41,280,889)	(261,808,099)	(292,365,978)
Net cash payment in investing activities	(2,919,039,893)	(811,423,145)	(68,872,601)	(139,377,710)	(2,987,912,494)	(950,800,855)
Net cash receipts from financing activities	1,910,745,876	1,390,592,171	200,000	-	1,910,945,876	1,390,592,171
Net increase (decrease) in cash and cash equivalents	(1,242,173,168)	328,083,937	(96,601,549)	(180,658,599)	(1,338,774,717)	147,425,338
Cash and cash equivalents at beginning of year	1,831,676,315	1,547,306,702	207,069,415	387,728,014	2,038,745,730	1,935,034,716
Exchange losses on cash and cash equivalents	(9,351,233)	(43,714,324)	-	-	(9,351,233)	(43,714,324)
Cash and cash equivalents at the end of year	580,151,914	1,831,676,315	110,467,866	207,069,415	690,619,780	2,038,745,730

17.3 Investments in associates

The details of the investments in associates

Indirect associates incorporated in Thailand

TF Tech Co., Ltd.

NEX Point Public Co., Ltd.

TF Tech Holding Co., Ltd.

Indirect associates incorporated in the Republic of China (Taiwan)

Zept Inc.

Wan Meng Automatic Precision Co., Ltd.

Total investment in associates

Business	Portion of ordinary shares held by the Group				Cost method				Equity method				Dividend for the period			
	31 December 2020	31 December 2019	%		31 December 2020	31 December 2019			31 December 2020	31 December 2019			31 December 2020	31 December 2019		
	%				Baht	Baht			Baht	Baht			Baht	Baht		
Manufacturing electricity generated from floating and rooftop solar power	-	40.00			-	19,999,975			-	19,999,975			-	-		
Service of property rental, sale and rent a bus service, supply assets service and investing in other businesses	40.01	-			1,474,000,000	-			1,414,406,595	-			-	-		
Investing in renewable energy businesses	40.00	-			40,000,000	-			40,763,506	-			-	-		
Developing, designing and manufacturing electric vehicle	-	45.28			-	10,163,000			-	13,540,305			-	-		
Distributing electric equipment and machinery	36.04	36.04			39,988,080	39,988,080			45,311,406	35,990,095			-	-		
					1,553,988,080	70,151,055			1,500,481,507	69,530,375			-	-		

Summarised financial information for associates

The table below is the summarised financial information for an associate that is material to the Group. The financial information is included in its own financial statements which has been adjusted with adjustments for the equity method, including fair value adjustments and modifications for differences in accounting policies.

Summarised statement of financial position

	NEX Point PCL
	2020
	Million Baht
As at 31 December	
Total current assets	1,763
Total non-current assets	1,747
Total current liabilities	(285)
Total non-current liabilities	(167)
Net assets	3,058

Summarised statement of comprehensive income

	NEX Point PCL
	2020
	Million Baht
For the period ended 24 July (the acquisition date) to 31 December	
Revenue	449
Loss from continuing operations	(149)
Reconciliation to carrying amounts:	
Opening net assets at the acquisition date	3,207
Loss for the period	(149)
Closing net assets	3,058
Group's share in associates (%)	40.01%
Group's share in associates	1,223
Goodwill	191
Associate carrying amount	1,414

As at 31 December 2020, the fair value of the Group's interest in NEX Point Public Co., Ltd., a listed company in Stock Exchange of Thailand, is Baht 2,814 million.

Individually immaterial associates

In addition to the interests in the associate disclosed above, the Group also has interests in a number of individually immaterial associates that are accounted for using the equity method as follows:

	Consolidated financial statements	
	2020	2019
	Million Baht	Million Baht
Aggregate carrying amount of individually immaterial associates	86	70
The Group's share of:		
Profit from continuing operations	(3)	(5)
Other comprehensive income	2	-
Total comprehensive income	(1)	(5)

17.4 Investments in a joint venture

Consolidated and separate financial statements																
	Portion of contribution by the Group						Cost method				Equity method				Dividend for the year	
	31 December 2020		31 December 2019		%		31 December 2020		31 December 2019		%		31 December 2020		31 December 2019	
	Baht		Baht		Baht		Baht		Baht		Baht		Baht		Baht	
Business																

18 Investment property, net

	Consolidated financial statements		
	Land Baht	Buildings and improvements Baht	Total Baht
As at 1 January 2019			
Cost	-	42,047,226	42,047,226
<u>Less</u> Accumulated depreciation	-	(9,442,259)	(9,442,259)
Net book value	-	32,604,967	32,604,967
Fair value	-	38,990,000	38,990,000
For the year ended 31 December 2019			
Opening net book value	-	32,604,967	32,604,967
Addition	38,790,830	-	38,790,830
Depreciation charge	-	(2,100,553)	(2,100,553)
Closing net book value	38,790,830	30,504,414	69,295,244
As at 31 December 2019			
Cost	38,790,830	42,047,226	80,838,056
<u>Less</u> Accumulated depreciation	-	(11,542,812)	(11,542,812)
Net book value	38,790,830	30,504,414	69,295,244
Fair value	52,265,790	38,990,000	91,255,790
For the year ended 31 December 2020			
Opening net book value	38,790,830	30,504,414	69,295,244
Depreciation charge	-	(2,101,068)	(2,101,068)
Closing net book value	38,790,830	28,403,346	67,194,176
As at 31 December 2020			
Cost	38,790,830	42,047,226	80,838,056
<u>Less</u> Accumulated depreciation	-	(13,643,880)	(13,643,880)
Net book value	38,790,830	28,403,346	67,194,176
Fair value	52,265,790	38,990,000	91,225,790

	Separate financial statements		
	Land	Buildings and improvements	Total
	Baht	Baht	Baht
As at 1 January 2019			
Cost	1,002,290,265	42,047,226	1,044,337,491
<u>Less</u> Accumulated depreciation	-	(9,442,259)	(9,442,259)
Net book value	1,002,290,265	32,604,967	1,034,895,232
Fair value	1,122,171,831	38,990,000	1,161,161,831
For the year ended 31 December 2019			
Opening net book value	1,002,290,265	32,604,967	1,034,895,232
Additions	8,472,839	-	8,472,839
Disposals, net	(322,438)	-	(322,438)
Depreciation charge	-	(2,100,553)	(2,100,553)
Closing net book value	1,010,440,666	30,504,414	1,040,945,080
As at 31 December 2019			
Cost	1,010,440,666	42,047,226	1,052,487,892
<u>Less</u> Accumulated depreciation	-	(11,542,812)	(11,542,812)
Net book value	1,010,440,666	30,504,414	1,040,945,080
Fair value	1,130,644,670	38,990,000	1,169,634,670
For the year ended 31 December 2020			
Opening net book value	1,010,440,666	30,504,414	1,040,945,080
Depreciation charge	-	(2,101,068)	(2,101,068)
Closing net book value	1,010,440,666	28,403,346	1,038,844,012
As at 31 December 2020			
Cost	1,010,440,666	42,047,226	1,052,487,892
<u>Less</u> Accumulated depreciation	-	(13,643,880)	(13,643,880)
Net book value	1,010,440,666	28,403,346	1,038,844,012
Fair value	1,130,644,670	38,990,000	1,169,634,670

The Group measure fair value of investment properties by appointing an independent appraisal with professional qualification. The valuation technique used for measurement was classified as level 3. The valuation technique used by the Group is Market Approach which located in nearby location and that have similar purpose of use.

As at 31 December 2020 and 2019, investment property of the Company represented land leased to its subsidiaries for the operations of solar power plant and wind farm and the commercial buildings leased to its subsidiaries and external parties for purpose of office building.

As at 31 December 2020 and 2019, investment property of the Group represented land held for undetermined future use and the commercial buildings leased to external parties for purpose of office building.

Amount recognised in profit and loss that are related to investment property are as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Rental income	720,000	720,000	57,223,098	58,336,279

19 Property, plant and equipment, net

	Consolidated financial statements						
	Land Baht	Buildings and improvement buildings Baht	Machines and equipment Baht	Power plants, substation, transmission system and components Baht	Office equipment, furniture, computers and motor vehicles Baht	Construction in progress Baht	Total Baht
As at 1 January 2019							
Cost	1,083,437,089	789,789,891	2,592,001,962	33,437,407,728	173,959,074	15,569,723,926	53,646,319,670
Less Accumulated depreciation	-	(204,393,123)	(1,407,233,661)	(4,337,174,901)	(110,306,053)	-	(6,059,107,738)
Net book value	1,083,437,089	585,396,768	1,184,768,301	29,100,232,827	63,653,021	15,569,723,926	47,587,211,932
For the year ended 31 December 2019							
Opening net book value	1,083,437,089	585,396,768	1,184,768,301	29,100,232,827	63,653,021	15,569,723,926	47,587,211,932
Additions	150,702,953	9,265,145	129,109,963	86,665,851	30,969,464	5,458,697,174	5,865,410,550
Transfer the construction cost of high voltage power station to right to use transmission line, net	-	-	-	-	-	(893,021,349)	(893,021,349)
Revise provision for decommissioning costs	-	-	698,688	1,214,111,593	-	-	1,214,810,281
Disposals, net	-	-	(13,943)	-	-	-	(13,943)
Write off, net	(322,438)	(505,923)	(373,093)	(2,637,237)	(98,662)	-	(3,937,353)
Transfer	236,087	102,978,840	255,334,111	18,549,498,578	11,184,300	(18,919,231,916)	-
Depreciation charge	-	(40,559,961)	(323,130,233)	(1,997,223,217)	(27,706,001)	-	(2,388,619,412)
Currency translation differences	-	(545,090)	(3,528,271)	-	(330,376)	(6,342,082)	(10,745,819)
Closing net book value	1,234,053,691	656,029,779	1,242,865,523	46,950,648,395	77,671,746	1,209,825,753	51,371,094,887
As at 31 December 2019							
Cost	1,234,053,691	892,965,228	2,985,427,782	53,284,452,401	212,488,541	1,209,825,753	59,819,213,396
Less Accumulated depreciation	-	(236,935,449)	(1,742,562,259)	(6,333,804,006)	(134,816,795)	-	(8,448,118,509)
Net book value	1,234,053,691	656,029,779	1,242,865,523	46,950,648,395	77,671,746	1,209,825,753	51,371,094,887

As at 1 January 2020

Cost
Less Accumulated depreciation

Net book value

For the year ended 31 December 2020

Opening net book value
Additions
Revise provision for decommissioning costs
Disposals, net
Write off, net
Transfer
Increases from business acquisition
Depreciation charge
Currency translation differences

Closing net book value

As at 31 December 2020

Cost
Less Accumulated depreciation

Net book value

Consolidated financial statements						
	Land Baht	Buildings and buildings improvement Baht	Machines and equipment Baht	Power plants, substation, transmission system and components Baht	Office equipment, furniture, computers and motor vehicles Baht	Construction in progress Baht
						Total Baht
1,234,053,691	892,965,228	2,985,427,782	53,284,452,401	212,488,541	1,209,825,753	59,819,213,396
-	(236,935,449)	(1,742,562,259)	(6,333,804,006)	(134,816,795)	-	(8,448,118,509)
1,234,053,691	656,029,779	1,242,865,523	46,950,648,395	77,671,746	1,209,825,753	51,371,094,887
1,234,053,691	656,029,779	1,242,865,523	46,950,648,395	77,671,746	1,209,825,753	51,371,094,887
386,361,558	344,491,428	378,030,371	48,830,779	43,917,356	4,843,603,605	6,045,235,097
-	-	8,277,470	(37,232,528)	-	-	(28,955,058)
-	(1,447,867)	(14,741,063)	(95,380,595)	(286,488)	-	(111,856,013)
-	-	-	(1,310,447)	-	(2,063,007)	(3,373,454)
30,841,122	221,499,512	925,890,857	5,270,121	770,100	(1,184,271,712)	-
455,709,060	144,611,467	371,609,445	-	6,123,647	383,210	978,436,829
-	(48,258,106)	(237,629,780)	(2,158,093,076)	(30,873,925)	-	(2,474,854,887)
-	786,656	12,369,533	-	433,617	67,621,345	81,211,151
2,106,965,431	1,317,712,869	2,686,672,356	44,712,732,649	97,756,053	4,935,099,194	55,856,938,552
2,106,965,431	1,668,676,758	4,946,889,492	53,170,095,212	293,976,421	4,935,099,194	67,121,702,508
-	(350,963,889)	(2,260,217,136)	(8,457,362,563)	(196,220,368)	-	(11,264,763,956)
2,106,965,431	1,317,712,869	2,686,672,356	44,712,732,649	97,756,053	4,935,099,194	55,856,938,552

		Separate financial statements				
		Buildings and buildings improvement	Machines and equipment	Office equipment, furniture, computers and motor vehicles	Construction in progress	Total
	Land Baht	Baht	Baht	Baht	Baht	Baht
As at 1 January 2019						
Cost	55,788,998	158,598,142	908,516,583	46,349,910	19,596,676	1,188,850,309
Less Accumulated depreciation	-	(86,369,231)	(654,854,717)	(24,638,770)	-	(765,862,718)
Net book value	55,788,998	72,228,911	253,661,866	21,711,140	19,596,676	422,987,591
For the year ended 31 December 2019						
Opening net book value	55,788,998	72,228,911	253,661,866	21,711,140	19,596,676	422,987,591
Additions	-	2,847,271	2,154,921	23,232,838	15,552,899	43,787,929
Disposals, net	-	-	(8,046)	-	-	(8,046)
Transfer	-	9,860,296	70,785	1,910,510	(11,841,591)	-
Depreciation charge	-	(8,423,124)	(70,445,128)	(8,647,583)	-	(87,515,835)
Closing net book value	55,788,998	76,513,354	185,434,398	38,206,905	23,307,984	379,251,639
As at 31 December 2019						
Cost	55,788,998	171,305,709	910,712,989	71,493,258	23,307,984	1,232,608,938
Less Accumulated depreciation	-	(94,792,355)	(725,278,591)	(33,286,353)	-	(853,357,299)
Net book value	55,788,998	76,513,354	185,434,398	38,206,905	23,307,984	379,251,639

As at 1 January 2019

Cost
Less Accumulated depreciation

Net book value

For the year ended 31 December 2019

Opening net book value

Additions

Disposals, net

Transfer

Depreciation charge

Closing net book value

As at 31 December 2019

Cost

Less Accumulated depreciation

Net book value

As at 1 January 2020

Cost	
Less Accumulated depreciation	
Net book value	

For the year ended 31 December 2020

Opening net book value	
Additions	
Disposals, net	
Transfer	
Depreciation charge	
Closing net book value	

As at 31 December 2020

Cost	
Less Accumulated depreciation	
Net book value	

Separate financial statements						
	Land Baht	Buildings and buildings improvement Baht	Machines and equipment Baht	Office equipment, furniture, computers and motor vehicles Baht	Construction in progress Baht	Total Baht
As at 1 January 2020						
Cost	55,788,998	171,305,709	910,712,989	71,493,258	23,307,984	1,232,608,938
Less Accumulated depreciation	-	(94,792,355)	(725,278,591)	(33,286,353)	-	(853,357,299)
Net book value	55,788,998	76,513,354	185,434,398	38,206,905	23,307,984	379,251,639
For the year ended 31 December 2020						
Opening net book value	55,788,998	76,513,354	185,434,398	38,206,905	23,307,984	379,251,639
Additions	-	-	1,655,915	7,879,351	44,587,759	54,123,025
Disposals, net	-	(1,447,866)	(7,652,621)	(1)	-	(9,100,488)
Transfer	-	1,639,581	7,942,871	-	(9,582,452)	-
Depreciation charge	-	(8,350,154)	(57,561,125)	(11,013,674)	-	(76,924,953)
Closing net book value	55,788,998	68,354,915	129,819,438	35,072,581	58,313,291	347,349,223
As at 31 December 2020						
Cost	55,788,998	171,218,375	902,099,709	79,197,612	58,313,291	1,266,617,985
Less Accumulated depreciation	-	(102,863,460)	(772,280,271)	(44,125,031)	-	(919,268,762)
Net book value	55,788,998	68,354,915	129,819,438	35,072,581	58,313,291	347,349,223

For the year ended 31 December 2020, borrowing costs of the Group amounting to Baht 8.95 million (2019: Baht 26.17 million) arising from general financing were capitalised and included in additions of property, plants and equipment during the period in the consolidated financial statement. The Group used capitalised rate at 3.25% (2019: 0.66%) in the calculation of which the rate referred from borrowing cost for the construction project.

As at 31 December 2020, property, plant and equipment with net book value amounting to Baht 1,593.09 million were mortgaged and pledged as collateral for credit facilities with a financial institution (2019: Baht 762.69 million) (Note 25 and 27).

20 Right-of-use, net

As at 31 December, right-of-use asset balance are as follows:

	Consolidated financial statements				
	Land Baht	Building Baht	Office equipment Baht	Motor vehicle Baht	Total Baht
Balance as at 1 January 2020 - Restated	903,691,851	110,093,377	1,850,210	17,150,012	1,032,785,450
Additions	752,731,087	11,284,412	-	4,052,375	768,067,874
Depreciation charge	(82,588,142)	(25,356,963)	-	(5,255,012)	(113,200,117)
Increase from business acquisition	-	-	-	55,470,529	55,470,529
Adjustments related Renewal and cancellation of contract	33,643,269	(2,029,029)	(1,850,210)	(3,277,597)	26,486,433
Currency translation differences	7,934,658	779,612	-	-	8,714,270
Closing net book value	1,615,412,723	94,771,409	-	68,140,307	1,778,324,439

	Separate financial statements			
	Land Baht	Building Baht	Motor vehicle Baht	Total Baht
Balance as at 1 January 2020 - Restated	285,897,099	35,748,059	1,186,063	322,831,221
Additions	148,878	-	-	148,878
Depreciation charge	(30,059,106)	(8,201,555)	(424,647)	(38,685,308)
Adjustments related renewal of contract	19,791,817	(297,620)	(9,920)	19,484,277
Closing net book value	275,778,688	27,248,884	751,496	303,779,068

Expenses relating to leases that are not included in the measurement of lease liabilities and right-of-use are as follows:

	Consolidated financial statements Baht	Separate financial statements Baht
For the year ended 31 December 2020		
Expense relating to leases of low-value assets	2,523,250	-
Total cash outflow for leases	115,475,792	11,788,998

21 Goodwill

	Consolidated financial statements	
	2020 Baht	2019 Baht
As at 1 January		
Cost	889,808,430	936,523,595
<u>Less</u> Provision for impairment	-	-
Net book value	889,808,430	936,523,595
For the years ended 31 December		
Opening net book value	889,808,430	936,523,595
Increase from business acquisition	387,931,219	-
Currency translation differences	59,592,919	(46,715,165)
Closing net book value	1,337,332,568	889,808,430
As at 31 December		
Cost	1,337,332,568	889,808,430
<u>Less</u> Provision for impairment	-	-
Net book value	1,337,332,568	889,808,430

Goodwill allocation for each material cash generation unit (CGU) is presented as:

	Consolidated financial statements			
	2020		2019	
	Battery developing, manufacturing and distributing business Million Baht	Palm crushing mills and biomass power plant business Million Baht	Battery developing, manufacturing and distributing business Million Baht	Palm crushing mills and biomass power plant business Million Baht
Goodwill allocation	949	335	890	-

Impairment tests for goodwill

The Group tests impairment of goodwill annually by comparing the net book value of goodwill with the recoverable amount of a CGU, which is determined based on value-in-use calculations. These calculations use cash flow projections from financial budgets that are approved by the management. Cash flows beyond the projected period are extrapolated using the estimated growth rates stated below. The growth rate does not exceed the average long-term growth rate for the business in which the CGU operates.

As at 31 December 2020, the key assumptions used for value-in-use calculations are as follows:

	Consolidated financial statements			
	2020		2019	
	Battery developing, manufacturing and distributing business Percent	Palm crushing mills and biomass power plant business Percent	Battery developing, manufacturing and distributing business Percent	Palm crushing mills and biomass power plant business Percent
Growth rate	2	1	2	-
Discount rate	11.90 - 13.90	8.00 - 9.90	9.10 - 10.14	-

If the discount rate used in the calculation increases by 1.0% per annum, there is no impairment of goodwill recorded in the consolidated financial statements for the year ended 31 December 2020

22 Intangible assets, net

	Consolidated financial statements					
	Patents Baht	Brand Baht	Right to use transmission line Baht	Right to power purchase agreement Baht	Computer software Baht	Intangible assets under development Baht
As at 1 January 2019						
Cost	784,162,280	271,002,981	1,016,006,177	42,461,197	25,138,328	-
Less Accumulated amortisation	(39,043,957)	(13,464,184)	(124,128,877)	(10,543,370)	(10,463,857)	(197,644,245)
Net book value	745,118,323	257,538,797	891,877,300	31,917,827	14,674,471	-
For the year ended 31 December 2019						
Opening net book value	745,118,323	257,538,797	891,877,300	31,917,827	14,674,471	-
Additions	-	-	-	-	24,686,078	114,750,511
Transfer the construction cost of high voltage power station to right to use transmission line, net	-	-	893,021,349	-	-	-
Disposals, net	-	-	-	-	(1,056,075)	(1,056,075)
Amortisation	(37,722,703)	(13,008,554)	(69,967,443)	(1,698,448)	(6,435,078)	-
Currency translation differences	(37,327,585)	(13,459,415)	-	-	(125,302)	-
Closing net book value	670,068,035	231,070,828	1,714,931,206	30,219,379	31,744,094	114,750,511
As at 31 December 2019						
Cost	750,163,093	258,741,336	1,909,027,526	42,461,197	48,643,029	114,750,511
Less Accumulated amortisation	(80,095,058)	(27,670,508)	(194,096,320)	(12,241,818)	(16,898,935)	-
Net book value	670,068,035	231,070,828	1,714,931,206	30,219,379	31,744,094	114,750,511
						2,792,784,053

As at 1 January 2020

Cost	750,163,093	258,741,336	1,909,027,526	42,461,197	48,643,029	114,750,511	3,123,786,692
Less Accumulated amortisation	(80,095,058)	(27,670,508)	(194,096,320)	(12,241,818)	(16,898,935)	-	(331,002,639)
Net book value	670,068,035	231,070,828	1,714,931,206	30,219,379	31,744,094	114,750,511	2,792,784,053

For the year ended 31 December 2020

Opening net book value	670,068,035	231,070,828	1,714,931,206	30,219,379	31,744,094	114,750,511	2,792,784,053
Additions	-	-	-	-	13,778,884	64,082,672	77,861,556
Amortisation	(39,996,942)	(13,792,818)	(76,487,538)	(1,698,448)	(8,248,442)	-	(140,224,188)
Increase from business acquisition	-	-	-	-	466,330	-	466,330
Currency translation differences	45,381,395	15,649,629	-	-	661,568	-	61,692,592
Closing net book value	675,452,488	232,927,639	1,638,443,668	28,520,931	38,402,434	178,833,183	2,792,580,343

As at 31 December 2020

Cost	795,544,488	274,390,965	1,909,027,526	42,461,197	61,363,674	178,833,183	3,261,621,033
Less Accumulated amortisation	(120,092,000)	(41,463,326)	(270,583,858)	(13,940,266)	(22,961,240)	-	(469,040,690)
Net book value	675,452,488	232,927,639	1,638,443,668	28,520,931	38,402,434	178,833,183	2,792,580,343

Consolidated financial statements							
	Patents Baht	Brand Baht	Right to use transmission line Baht	Right to power purchase agreement Baht	Computer software Baht	Intangible assets under development Baht	Total Baht
As at 1 January 2020							
Cost	750,163,093	258,741,336	1,909,027,526	42,461,197	48,643,029	114,750,511	3,123,786,692
Less Accumulated amortisation	(80,095,058)	(27,670,508)	(194,096,320)	(12,241,818)	(16,898,935)	-	(331,002,639)
Net book value	670,068,035	231,070,828	1,714,931,206	30,219,379	31,744,094	114,750,511	2,792,784,053
For the year ended 31 December 2020							
Opening net book value	670,068,035	231,070,828	1,714,931,206	30,219,379	31,744,094	114,750,511	2,792,784,053
Additions	-	-	-	-	13,778,884	64,082,672	77,861,556
Amortisation	(39,996,942)	(13,792,818)	(76,487,538)	(1,698,448)	(8,248,442)	-	(140,224,188)
Increase from business acquisition	-	-	-	-	466,330	-	466,330
Currency translation differences	45,381,395	15,649,629	-	-	661,568	-	61,692,592
Closing net book value	675,452,488	232,927,639	1,638,443,668	28,520,931	38,402,434	178,833,183	2,792,580,343
As at 31 December 2020							
Cost	795,544,488	274,390,965	1,909,027,526	42,461,197	61,363,674	178,833,183	3,261,621,033
Less Accumulated amortisation	(120,092,000)	(41,463,326)	(270,583,858)	(13,940,266)	(22,961,240)	-	(469,040,690)
Net book value	675,452,488	232,927,639	1,638,443,668	28,520,931	38,402,434	178,833,183	2,792,580,343

	Separate financial statements
	Computer software Baht
As at 1 January 2019	
Cost	15,315,951
<u>Less</u> Accumulated amortisation	<u>(4,608,819)</u>
Net book value	<u>10,707,132</u>
For the year ended 31 December 2019	
Opening net book value	10,707,132
Additions	3,120,640
Write off, net	(1,056,075)
Amortisation	<u>(1,639,462)</u>
Closing net book value	<u>11,132,235</u>
As at 31 December 2019	
Cost	17,380,517
<u>Less</u> Accumulated amortisation	<u>(6,248,282)</u>
Net book value	<u>11,132,235</u>
For the year ended 31 December 2020	
Opening net book value	11,132,235
Additions	2,119,320
Amortisation	<u>(1,691,556)</u>
Closing net book value	<u>11,559,999</u>
As at 31 December 2020	
Cost	19,499,837
<u>Less</u> Accumulated amortisation	<u>(7,939,838)</u>
Net book value	<u>11,559,999</u>

23 Deferred income taxes

The analysis of deferred tax assets and deferred tax liabilities are as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Deferred tax assets:				
Deferred tax assets to be recovered within 12 months	12,196,140	1,555,669	1,278,150	1,555,669
Deferred tax assets to be recovered after more than 12 months	311,950,761	74,140,447	10,135,393	6,182,610
	324,146,901	75,696,116	11,413,543	7,738,279
Deferred tax liabilities:				
Deferred tax liabilities to be settled within 12 months	(33,289,517)	(10,649,494)	-	-
Deferred tax liability to be settled after more than 12 months	(475,914,780)	(169,578,278)	(69,050,515)	-
	(509,204,297)	(180,227,772)	(69,050,515)	-
Deferred income taxes, net	(185,057,396)	(104,531,656)	(57,636,972)	7,738,279

The movement of the deferred income tax account is as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
At 1 January	(104,531,656)	(135,824,882)	7,738,279	8,602,469
Tax credited (charged) to profit or loss	39,849,858	21,135,826	3,675,264	(864,190)
Tax charged to other comprehensive income	(72,776,712)	-	(69,050,515)	-
Increase from business acquisition	(35,662,606)	-	-	-
Currency translation differences	(11,936,280)	10,157,400	-	-
At 31 December	(185,057,396)	(104,531,656)	(57,636,972)	7,738,279

Consolidated financial statements									
Allowance for slow- moving inventories Baht	Retirement benefit obligations Baht	Property, plant and equipment Baht	Right to use transmission line Baht	Fair value from business acquisition Baht	Provision for decommissioning costs Baht	Lease liabilities Baht	Total Baht		
2,419,859 (864,190)	6,630,153 -	30,789,058 (7,199,666)	69,471 -	- -	24,878,337 19,053,430	(80,336) -	64,706,542 10,989,574		
1,555,669	6,630,153	23,589,392	69,471	-	43,931,767	(80,336)	75,696,116		
1,555,669 (277,519)	6,630,153 1,640,750	23,589,392 1,155,720	69,471 -	- 10,298,562	43,931,767 27,261,863	206,476,754 1,814,319	282,253,206 31,595,133		
-	-	-	-	-	-	-	10,298,562		
1,278,150	8,270,903	24,745,112	69,471	10,298,562	71,193,630	208,291,073	324,146,901		

Deferred tax assets

As at 1 January 2019
Tax (charged) credited to profit or loss

As at 31 December 2019

As at 1 January 2020 - Restated
Tax (charged) credited to profit or loss
Increase from business acquisition

As at 31 December 2020

	Consolidated financial statements					
	Remeasurement of investment in equity instruments			Fair value from business acquisition		Total Baht
	Patents Baht	Brand Baht	instruments Baht	equity Baht	Right of use asset Baht	
Deferred tax liabilities						
As at 1 January 2019	149,023,665	51,507,759	-	-	-	200,531,424
Tax credited to profit or loss	(7,544,541)	(2,601,711)	-	-	-	(10,146,252)
Currency translation differences	(7,465,517)	(2,691,883)	-	-	-	(10,157,400)
As at 31 December 2019	134,013,607	46,214,165	-	-	-	180,227,772
As at 1 January 2020 - Restated	134,013,607	46,214,165	-	-	206,557,090	386,784,862
Tax charged (credited) to profit or loss	(7,822,585)	(2,697,594)	-	-	2,265,454	(8,254,725)
Tax charged to other comprehensive income	-	-	72,776,712	-	-	72,776,712
Increase from business acquisition	-	-	-	-	-	45,961,168
Currency translation differences	8,899,477	3,068,957	-	-	(32,154)	11,936,280
As at 31 December 2020	135,090,499	46,585,528	72,776,712	45,961,168	208,790,390	509,204,297

Deferred tax assets and liabilities of Baht 206 million resulted from the first-time adoption of the new financial reporting standard in 2020 were presented as net amount in the consolidated statement of financial position as at 1 January 2020.

	Separate financial statements			
	Allowance for inventories Baht	Retirement benefit obligations Baht	Right of use assets Baht	Total Baht
Deferred tax assets				
As at 1 January 2019	2,419,859	6,182,610	-	8,602,469
Tax charged to profit or loss	(864,190)	-	-	(864,190)
As at 31 December 2019	1,555,669	6,182,610	-	7,738,279
As at 1 January 2020	1,555,669	6,182,610	-	7,738,279
Tax charged (credited) to profit or loss	(277,519)	1,640,750	2,312,033	3,675,264
As at 31 December 2020	1,278,150	7,823,360	2,312,033	11,413,543

	Separate financial statements	
	Remeasurement of investment in an equity instrument Baht	Total Baht
Deferred tax liabilities		
As at 1 January 2020	-	-
Tax charged to other comprehensive income	(69,050,515)	(69,050,515)
As at 31 December 2020	(69,050,515)	(69,050,515)

24 Other non-current assets, net

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Withholding tax	89,236,600	76,436,496	36,123,777	25,257,533
Refundable input tax	-	23,804,731	-	-
Advance payment for equipment and assets purchase	1,728,796,971	486,094,812	882,519,228	11,491,998
Deposits	22,306,229	26,263,090	22,306,229	22,306,229
Long-term deposits	48,705,660	22,402,850	2,938,888	2,870,372
Prepaid for land leasehold right	-	7,659,727	-	7,659,727
Refundable import duty	-	19,625,222	-	-
Others	32,357,015	44,664,345	1,086,214	1,087,214
Less Allowance for impairment	(8,909,508)	(8,909,508)	(8,909,508)	(8,909,508)
Total other non-current assets, net	1,912,492,967	698,041,765	936,064,828	61,763,565

Allowance for an impairment of assets amounting to Baht 8.91 million is an allowance for advance payment for purchase of raw materials paid to a particular supplier who could not deliver raw materials and return such advance payment to the Company due to its financial difficulties.

25 Short-term loans from financial institutions, net

The short-term loans from financial institutions are as follows:

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Bank Overdraft	26,109,976	-	-	-
Promissory note	2,349,951,915	-	200,000,000	-
Trust receipts	245,678,657	645,835,869	162,176,922	482,886,986
Letter of credit	18,574,345	14,026,600	-	-
Total short-term loans from financial institutions, net	2,640,314,893	659,862,469	362,176,922	482,886,986

As at 31 December 2020, short-term loans from financial institutions of the Company and subsidiaries are as follows:

Loans of the Company

Type	Million Baht	Interest rate	Available credit facilities
Promissory note	200	Fixed interest rate per annum at 1.20%	2,096
Trust receipts	162	Fixed interest rate per annum at 1.21%	1,775
Total	362		

Loans of subsidiaries

Type	Balance		Interest rate	Available credit facilities	
	Million Taiwan Dollar	Million Baht		Million Taiwan Dollar	Million Baht
Bank overdraft	-	26	Variable interest rate per annum between MOR less fixed discount and MOR	-	14
Promissory note	-	2,150	Fixed interest rate per annum at 1.71% - 1.75% and variable interest rate per annum between MLR less fixed discount and MLR	-	2,160
Trust receipts	-	255	Fixed interest rate per annum at 1.21%	-	316
Letter of credit	17	-	Fixed interest rate per annum at 1.59% - 1.75%	23	-
Total	17	2,260			

The loans are secured by the overseas subsidiary's fixed deposits, some part of land, buildings, machines, and equipment of the Group. The Group must comply with certain terms and conditions as specified in the short-term loan agreements with financial institutions: for example, by maintaining the debt to equity ratio and the debt service coverage ratio at the specified level, etc.

The movement of short-term loans from financial institutions can be analysed as follows:

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020	2019	2020	2019
	Baht	Baht	Baht	Baht
Opening net book value	659,862,469	1,817,015,028	482,886,986	1,814,602,635
Cash flows:				
Additional loans during the year	4,898,169,125	8,150,946,615	2,789,197,544	7,932,797,861
Loan repayments during the year	(3,303,185,833)	(9,307,937,046)	(2,913,016,424)	(9,264,513,510)
Other non-cash movements:				
Increase from business acquisition	369,685,165	-	-	-
Bill of Exchange amortisation	3,108,816	-	3,108,816	-
Currency translation differences	12,675,151	(162,128)	-	-
Closing net book value	2,640,314,893	659,862,469	362,176,922	482,886,986

26 Other accounts payable

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020	2019	2020	2019
	Baht	Baht	Baht	Baht
Other accounts payable				
- third parties	241,817,802	146,225,646	33,229,038	37,690,831
- related parties (Note 40.3)	-	-	163,363,442	58,936,114
Undue output VAT	145,501,420	156,617,891	1,403,743	5,382,551
Revenue department payable	108,071,281	79,556,972	42,091,249	23,783,900
Accrued expenses	171,878,301	74,913,765	4,866,340	1,868,384
Interest payable	223,029,041	220,610,922	187,529,949	191,760,955
Deferred revenue	14,808,501	38,652,439	56,849,957	56,960,839
Others	10,843,173	19,163,674	190,886	229,200
Total other accounts payable	915,949,519	735,741,309	489,524,604	376,612,774

27 Long-term loans from financial institutions, net

27.1 The long-term loans from financial institutions are as follows:

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020	2019	2020	2019
	Baht	Baht	Baht	Baht
Long-term loans from financial institutions	24,411,654,688	24,521,957,306	5,430,000,000	5,700,000,000
<u>Less</u> Deferred financing fee	(171,698,519)	(228,280,184)	(8,007,167)	(22,529,812)
	24,239,956,169	24,293,677,122	5,421,992,833	5,677,470,188
<u>Less</u> Current portion of long-term loans from financial institutions, net	(5,342,357,161)	(1,307,686,226)	(3,535,124,780)	-
Total long-term loans from financial institutions, net	18,897,599,008	22,985,990,896	1,886,868,053	5,677,470,188

The movement of long-term loans from financial institutions can be analysed as follows:

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Opening net book value	24,293,677,122	19,406,521,957	5,677,470,188	789,875,817
Cash flows:				
Additional loans during the year	1,302,200,424	5,125,585,306	-	4,900,000,000
Loan repayments during the year	(1,845,026,605)	(266,025,473)	(270,000,000)	-
Payment for deferred financing fee during the year	(694,173)	(24,937,500)	-	(24,000,000)
Other non-cash movements:				
Amortisation of deferred financing fee	57,275,839	52,468,228	14,522,645	11,594,371
Increase from business acquisition	431,617,570	-	-	-
Currency translation differences	905,992	64,604	-	-
	24,239,956,169	24,293,677,122	5,421,992,833	5,677,470,188
<u>Less</u> Current portion of long-term loans from financial institutions, net	(5,342,357,161)	(1,307,686,226)	(3,535,124,780)	-
Closing net book value	18,897,599,008	22,985,990,896	1,886,868,053	5,677,470,188

As at 31 December, long-term loans from financial institutions of the Company and subsidiaries are as follows:

Loan of the Company

Number	2020 (Million Baht)	2019 (Million Baht)	Interest rate	Principal repayment term	Interest payment period
1	2,430	2,700	Fixed interest rate per annum at 2.77% - 3.80%	Repayment every six months from December 2020	Payment every six months
2	3,000	3,000	THBFIX six-month plus a certain margin per annum	Repayment within two years since the agreement date	Payment every three months
Total	5,430	5,700			

Long-term loans denominated in Thai Baht are unsecured long-term loans of the Company, the Company has to comply with certain procedures and conditions as specified in the long-term loan agreement with financial institution: for example, maintaining the debt to equity ratio and the debt service coverage ratio at the specified level.

Loan of subsidiaries denominated in Thai Baht

Number	2020 (Million Baht)	2019 (Million Baht)	Interest rate	Principal repayment term	Interest payment period
1	20	110	THBFIX three-month plus a certain margin per annum	Repayment every three months from June 2016	Payment every three months
2	17,251	18,486	Fixed interest rate per annum at 3.30% - 4.37%	Repayment every year from December 2020	Payment every six months
3	666	226	Fixed interest rate per annum at 3.55%	Repayment every three months from September 2020	Payment every three months
4	694	-	MLR interest rate plus a certain margin per annum	Repayment every three months from December 2020	Payment every three months
5	274	-	Fixed interest rate per annum at 4.97%	Repayment every month from October 2020	Payment every month
Total	18,905	18,822			

Loan of subsidiaries in denominated in Taiwan Dollar

Number	2020 (Million Taiwan Dollar)	2019 (Million Taiwan Dollar)	Interest rate	Principal repayment term	Interest payment period
1	72	-	Fixed interest rate per annum at 4.62%	Repayment every month from January 2021	Payment every month
Total	72	-			

Long-term loan denominated in Thai Baht no.1, 3, 4 and 5 of the Group is the loan, secured with the bank deposit, land, factory building, machinery and equipment and right to collect proceeds from land and factory building rental contract of the Group. These loans were collateral by the Ultimate parent of the Group. The Group must comply with certain terms and conditions as specified in the long-term loan agreement with financial institutions: for example, by maintaining the debt to equity ratio and the debt service coverage ratio at the specified level.

Long-term loans denominated in Thai Baht no. 2 of the Group are unsecured long-term loans, the Group must comply with certain procedures and conditions as specified in the long-term loan agreements with financial institutions: for example, maintaining the debt to equity ratio and the debt service coverage ratio at the specified level.

27.2 Terms of maturity of long-term loans from financial institutions are as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Within 1 year	3,101,048,724	1,307,686,226	3,540,000,000	-
Later than 1 year and Not later than 5 years	10,321,148,829	19,753,627,830	1,890,000,000	5,700,000,000
Later than 5 years	14,175,872,830	3,460,643,250	-	-
Total long-term loans from financial institutions	27,598,070,383	24,521,957,306	5,430,000,000	5,700,000,000

28 Debentures, net

The details of debentures can be analysed as follows:

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Debentures	16,200,000,000	17,000,000,000	16,200,000,000	17,000,000,000
<u>Less</u> Deferred financing fee	(8,233,199)	(9,138,638)	(8,233,199)	(9,138,638)
	16,191,766,801	16,990,861,362	16,191,766,801	16,990,861,362
<u>Less</u> Current portion of debentures, net	(3,999,465,959)	(2,999,498,444)	(3,999,465,959)	(2,999,498,444)
Debentures, net	12,192,300,842	13,991,362,918	12,192,300,842	13,991,362,918

The movement of debentures can be analysed as follows:

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Opening net book value	16,990,861,362	7,995,922,457	16,990,861,362	7,995,922,457
Cash flows:				
Issuance of debentures during the year ⁽¹⁾	2,200,000,000	10,000,000,000	2,200,000,000	10,000,000,000
Repayment of debenture during the year	(3,000,000,000)	(1,000,000,000)	(3,000,000,000)	(1,000,000,000)
Payment for deferred financing fee during the year	(2,200,000)	(7,700,000)	(2,200,000)	(7,700,000)
Other non-cash movements:				
Amortisation of deferred financing fee	3,105,439	2,638,905	3,105,439	2,638,905
	16,191,766,801	16,990,861,362	16,191,766,801	16,990,861,362
<u>Less</u> Current portion of debentures, net	(3,999,465,959)	(2,999,498,444)	(3,999,465,959)	(2,999,498,444)
Closing net book value	12,192,300,842	13,991,362,918	12,192,300,842	13,991,362,918

- (1) The debentures are name-registered, unsubordinated, and unsecured with a debenture holders' representative. The objectives of issuing debentures were to repay the Company's existing debentures and to be used in the general operations of the Company and its affiliates. The issuance was approved in the resolution of the Annual General Shareholders' Meeting on 23 April 2020, which granted the Company the right to issue up to Baht 15,000 million of secured or unsecured debentures with terms of up to ten years.

Debentures of Baht 4,000 million are secured by letters of guarantee issued by a financial institution and the remaining Baht 12,200 million of debentures are unsecured. The Company is required to comply with certain specified terms and conditions; for example, maintaining debt to equity ratio as specified in the agreement.

The effective interest rates of the fixed interest rate of the Company's debentures were between 2.09% and 3.15% per annum (31 December 2019: between 2.09% and 3.15% per annum).

Maturity terms of debentures are as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Maturity less than 1 year	4,000,000,000	3,000,000,000	4,000,000,000	3,000,000,000
Maturity more than 1 to 5 year	5,200,000,000	5,500,000,000	5,200,000,000	5,500,000,000
Maturity more than 5 year	7,000,000,000	8,500,000,000	7,000,000,000	8,500,000,000
Total debentures	16,200,000,000	17,000,000,000	16,200,000,000	17,000,000,000

29 Provision for decommissioning costs

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Opening balance	2,056,008,666	799,685,112	1,592,750	1,592,750
Increase (decrease) in provision	(28,955,058)	1,214,810,281	-	-
Finance costs	46,629,213	41,513,273	-	-
Closing balance	2,073,682,821	2,056,008,666	1,592,750	1,592,750

30 Legal reserve

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
As at 1 January	37,300,000	37,300,000	37,300,000	37,300,000
Appropriation during the year	-	-	-	-
As at 31 December	37,300,000	37,300,000	37,300,000	37,300,000

Under the Public Companies Act B.E. 2535, the Company is required to set aside as a legal reserve at least 5% of its net profit after accumulated deficit brought forward (if any) until the reserve is not less than 10% of the registered capital. The legal reserve is non-distributable.

31 Revenue from sales and services

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Sales of crude palm oil and biodiesel	5,977,678,333	3,423,241,100	5,434,095,207	3,418,227,238
Sales of glycerine	266,675,643	228,932,711	266,675,643	228,932,711
Sales of by-products	17,932,825	25,509,932	4,771,440	25,509,932
Sales of electricity ^(a)	3,977,266,843	4,209,923,697	-	-
Sales of services	74,693,256	24,919,998	-	-
Sales of battery, electricity vehicles and EV charging station	140,947,810	209,985,946	-	-
Total revenue from sales and services	10,455,194,710	8,122,513,384	5,705,542,290	3,672,669,881

- (a) The Group has entered into eleven and two power purchase agreements with Electricity Generating Authority of Thailand (EGAT) and Provincial Electricity Authority (PEA), respectively. The agreement is effective for a period of 5 years commencing from agreement effective date and the Group has the right to extend the term for consecutive periods of 5 years each. Such agreement will be effective until the Group notifies the termination of sales of electricity by voluntary termination or any party did not comply with the agreements. The sales quantity and its price must be complied with the agreements.

32 Revenue from subsidy for adders

Revenue from subsidy for adders represented income received from Provincial Electricity Authority from sales of solar electricity at Thai Baht 8 per kilowatt-hour and Electricity Generating Authority of Thailand from sales of solar electricity and wind power at Thai Baht 6.5 per kilowatt-hour and Thai Baht 3.5 per kilowatt-hour, respective for the period of 10 years since commercial operation date. The Group recognised such adders as revenue at whole amount according to the actual electricity production.

33 Other income

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Land rental income	-	-	57,223,098	56,960,839
Interest income	30,528,099	41,920,480	431,106,923	312,676,969
Research project grant	-	4,442,679	-	-
Insurance claim income	24,319,762	-	-	-
Income from sales of assets, net	35,723,438	-	1,360,837	-
Others	29,014,004	21,310,616	23,908,665	24,302,998
Total other income	119,585,303	67,673,775	513,599,523	393,940,806

34 Finance costs

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Interest paid to third parties	1,405,434,928	1,111,397,306	660,687,900	516,599,318
Interest paid to related parties	-	-	94,039,337	54,589,032
Deferred interest of lease liabilities amortisation	52,265,516	-	10,244,403	-
Letter guarantee fee amortisation	62,520,771	82,029,247	62,401,936	82,029,247
Loss from interest rate swap contracts	55,767,101	95,144,207	-	-
Other finance costs	60,808,710	97,695,118	17,635,053	14,770,871
Total finance costs	1,636,797,026	1,386,265,878	845,008,629	667,988,468

35 Expense by nature

The following expenditure items have been charged in arriving at net profit:

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Changes in inventories of finished goods and work in process	(111,419,024)	353,130,144	55,533,275	63,567,623
Raw material and consumables used	4,998,175,315	3,504,707,198	4,991,701,049	3,485,259,293
Staff costs	580,902,009	453,837,411	289,248,565	179,673,972
Directors and management compensation	205,749,777	189,737,435	191,638,675	172,419,033
Depreciation	2,590,156,072	2,388,819,142	117,711,329	89,616,388
Amortisation	140,224,188	128,832,226	1,691,556	1,639,462
Loss from (reversal of) provision for inventories	6,265,237	6,848,215	(1,387,595)	(5,939,934)
Finance costs	1,636,797,026	1,391,375,416	845,008,629	667,988,468
Delivery and export expenses	62,685,039	63,344,329	53,947,930	61,620,355

36 Income tax

The Group calculated income tax for the year ended 31 December 2020 and 2019 from net taxable profit of which not includes share from investments in associates and a joint venture by using tax rate as follows:

	2020	2019
Thailand	20%	20%
Republic of China (Taiwan)	20%	20%
Republic of Singapore	17%	17%

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Current tax	21,626,965	10,383,307	-	-
Deferred tax	(39,849,858)	(21,135,826)	(3,675,264)	864,190
Total income tax	(18,222,893)	(10,752,519)	(3,675,264)	864,190

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the basic tax rate of the home country of the parent company as follows:

	Consolidated financial statements		Separate financial statements	
For the years ended 31 December	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Profit before tax	5,029	6,016	3,354	3,909
Tax calculated at a tax rate of 20% (2019: 20%)				
The result of the accounting profit multiplied by the income tax rate	(1,006)	(1,203)	(671)	(782)
Tax effect of :				
Income not subject to tax	962	1,170	655	765
Expenses not deductible for tax purpose	33	14	(1)	(6)
Revenues that are granted income tax exemption or expenses that are deductible at a greater amount	29	30	21	22
Income tax	18	11	4	(1)

The weighted average applicable tax rate for the Group and the Company were 0.65% and 0.11%, respectively (2019: 0.18% and 0.02%, respectively).

37 Earnings per share

Basic earnings per share is calculated by dividing the net profit attributable to shareholders of the Company by the weighted average number of ordinary shares.

	Consolidated financial statements		Separate financial statements	
	2020	2019	2020	2019
Basic earnings per share				
Net profit attributable to ordinary shareholders of the parent (Million Baht)	5,205	6,082	3,358	3,908
Weighted average number of ordinary shares outstanding (Million Shares)	3,730	3,730	3,730	3,730
Basic earnings per share (Baht per share)	1.40	1.63	0.90	1.05

There are no dilutive potential ordinary shares in issue during the periods presented, so no diluted earnings per share are presented.

38 Dividend

On 23 April 2020, at the Annual General Shareholders' Meeting, the shareholders approved annual dividend payments from non-BOI retained earnings as at 31 December 2019 at Baht 0.30 per share, totalling Baht 1,119 million. The Company paid the dividend to shareholders in May 2020.

On 25 April 2019, at the Annual General Shareholders' Meeting, the shareholders approved annual dividend payments from non-BOI retained earnings as at 31 December 2018 at Baht 0.25 per share, totalling Baht 932.50 million. The Company paid the dividend to shareholders in May 2019.

39 Promotional privileges

The Group has been granted promotional privileges by the Office of the Board of Investment under promotion certificates in respect of manufacturing of biodiesel, oil and fat produced from plant or animal and electricity. The Company and fourteen subsidiaries have been granted exemption from certain taxes and duties as detailed in the certificates including exemption from corporate income tax for a period of eight years from the date of first revenue. As promoted entities, these subsidiaries are required to comply with the terms and conditions specified in the promotion certificates.

40 Related party transactions

As at 31 December 2020, the major shareholders of the Company are UBS AG Singapore Branch and Mr. Somphote Ahunai who held ordinary shares portion of 23.50% and 23.23%, respectively. The remaining portion of ordinary shares were held by others.

Details of subsidiaries are disclosed in Note 17.

The following material transactions are carried out with related parties:

40.1 Revenue from services

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Revenue from management fees - Subsidiaries	-	-	18,720,000	16,450,000
Revenue from rental - Subsidiaries	-	-	57,223,098	60,161,618

40.2 Other income

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Interest income - Subsidiaries	-	-	412,449,407	292,671,009

40.3 Other receivables from and other payables to related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Other receivables (including interest receivable (Note 40.4)) - Subsidiaries	-	-	229,379,012	209,009,715
Other payables (including interest payable (Note 40.5)) - Subsidiaries	-	-	163,363,442	58,936,114

40.4 Short-term loans and long-term loans to related parties and related interests

As at 31 December 2020, the Company issued promissory notes to related parties amounting to Baht 1,830.54 million. The promissory notes bore fixed interest between 1.50% and 3.36% per annum. (As at 31 December 2019: Baht 1,013.43 million bore fixed interest between 2.14% and 7.13% per annum). The terms of principal repayment and interest repayment are specific schedules and at call. The said promissory notes are unsecured.

As at 31 December 2020, the Company had long-term loans to related parties amounting to Baht 7,386 million with fixed interest between 2.55% and 4.00% per annum and amounting to Baht 3,000 million with floating interest at 6M THBFIX plus constant rate per annum (31 December 2019: Baht 10,000 million with fixed interest between 2.55% and 3.73% per annum and Baht 3,000 million with floating interest at 6M THBFIX plus constant rate per annum). The terms of principal repayment and interest repayment are specific schedule. The said long-term loans are unsecured.

The movement of short-term loans to related parties can be analysed as follows:

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Opening balance	-	-	1,013,424,990	2,233,750,000
Impact of adoption of the new financial reporting standard	-	-	(3,350,000)	-
Opening balance, net as restated	-	-	1,010,074,990	2,233,750,000
Cash flows:				
Additions during the year	-	-	2,472,000,000	12,128,346,000
Repayments during the year	-	-	(1,400,000,000)	(341,799,000)
Other non-cash movements:				
Unrealised loss on exchange rate	-	-	(1,531,350)	(6,872,010)
Reclassify to long-terms loans	-	-	(250,000,000)	(13,000,000,000)
Closing balance	-	-	1,830,543,640	1,013,424,990

The movement of long-term loans to related parties can be analysed as follows:

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Opening balance	-	-	13,000,000,000	-
Cash flows:				
Additions during the year	-	-	165,000,000	-
Repayments during the year	-	-	(3,029,000,000)	-
Other non-cash movements:				
Reclassify from short-term loans	-	-	250,000,000	13,000,000,000
<u>Less</u> Current portion of long-term loans to related parties	-	-	(52,446,741)	-
Closing balance	-	-	10,333,553,259	13,000,000,000

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Interest receivable				
- Subsidiaries	-	-	221,714,145	122,222,244
	-	-	221,714,145	122,222,244
For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Interest income				
- Subsidiaries	-	-	412,449,407	292,671,009
	-	-	412,449,407	292,671,009

40.5 Short-term loans from related parties and related interests

As at 31 December 2020, the company had short-term loans from related parties amounting to Baht 4,780 million. The short-term loans bore fixed interest between 0.45% and 3.60% per annum (31 December 2019: Baht 2,537 million bore fixed interest rate between 1.10% and 1.55% per annum. The terms of principle repayment are at call. The said short-term loans are unsecured.

The movement of short-term loans from related parties can be analysed as follows:

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Opening balance	-	-	2,536,710,000	494,000,000
Cash flows:				
Additions during the year	-	-	2,380,000,000	2,051,000,000
Repayments during the year	-	-	(136,806,260)	(8,290,000)
Closing balance	-	-	4,779,903,740	2,536,710,000
As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Interest payables				
- Subsidiaries	-	-	151,613,574	58,867,936
	-	-	151,613,574	58,867,936
For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Interest expenses				
- Subsidiaries	-	-	94,039,337	54,589,032
	-	-	94,039,337	54,589,032

40.6 Advance receipts for land rental from related parties

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Opening balance	-	-	790,529,615	546,158,723
Increase during the year	-	-	93,200,902	296,512,976
Decrease during the year	-	-	(57,150,326)	(52,142,084)
			826,580,191	790,529,615
<u>Less</u> Current portion of advance receipts for land rental from related parties	-	-	(56,849,957)	(56,960,838)
Closing balance	-	-	769,730,234	733,568,777

40.7 Dividend income

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Dividend income from subsidiaries	-	-	3,871,536,709	4,745,364,506
	-	-	3,871,536,709	4,745,364,506

40.8 Key management compensation

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Short-term employee benefits	201,749,764	184,925,225	188,469,501	169,147,610
Post-retirement benefits	4,000,013	4,812,210	3,169,174	3,271,423
Total key management compensation	205,749,777	189,737,435	191,638,675	172,419,033

41 Commitments and contingent liabilities

41.1 Capital expenditure obligations

Capital expenditure contracted as at the statement of financial position date but not recognised in the financial statements is as follows:

	Consolidated financial statements											
	2020						2019					
	Million Chinese Yuan	Million Japanese Yen	Million Taiwan Dollar	Million Singapore Dollar	Million US Dollar	Million Baht	Million Chinese Yuan	Million Japanese Yen	Million Taiwan Dollar	Million Singapore Dollar	Million US Dollar	Million Baht
Building and machine under installation	80	147	49	-	344	1,376	37	257	21	2	17	439
Project design consultant and other service fees	-	-	-	-	-	342	-	-	-	-	-	45
Research and development consultant fee	-	-	-	-	2	-	-	-	-	-	-	7
	80	147	49	-	346	1,718	37	257	21	2	17	491

	Separate financial statements	
	2020 Million Baht	2019 Million Baht
Machine under installation	19	13

41.2 Service agreements commitments

The Group and the Company have non-cancellable service contracts are as follows:

	Consolidated financial statements						
	2020				2019		
	Million Euro	Million Taiwan Dollar	Million US Dollar	Million Baht	Million Euro	Million Taiwan Dollar	Million US Dollar
Payable within:							
Less than 1 year	4	2	5	39	4	16	4
More than 1 to 5 years	2	7	11	137	6	52	15
More than 5 years	-	29	-	398	-	13	-
	6	38	16	574	10	81	19

	Separate financial statements					
	2020			2019		
	Million Taiwan Dollar	Million US Dollar	Million Baht	Million Taiwan Dollar	Million US Dollar	Million Baht
Payable within:						
Less than 1 year	1	2	6	1	-	1
More than 1 to 5 years	-	7	1	3	-	-
More than 5 years	-	30	-	5	-	-
	1	39	7	9	-	1

41.3 Bank guarantee

As at 31 December 2020, the Group and the Company had outstanding letters of guarantee issued by government sector and private sector of Baht 318 million and Baht 4,050 million, respectively. (2019: Baht 677.05 million and Baht 7,085.30 million, respectively).

42 Events after the reporting period

At the Board of director's meeting of EA Mobility Holding Co., Ltd. on 19 January 2021, the directors of the subsidiary passed a resolution to call for additional payment of unpaid share capital at Baht 3 per share for ordinary shares of 105,000,000 shares, totalling of Baht 315 million. The Company made a payment after the reporting date.



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