



Energy Absolute



ENERGY ABSOLUTE PUBLIC COMPANY LIMITED

GREEN FINANCING FRAMEWORK

v. JULY 2023

NATURE OF BUSINESS

EA has continuously developed since carries out biodiesel and renewable power plant business to more advanced technologies to conform to the energy demand in the future such as the electric charging station under the brand “EA Anywhere”, the electric automobile business under the brand “MINE Mobility” including battery and energy storage system business to create a cost-effective use of energy as well as the highest benefits, especially, the clean energy right from nature. Moreover, EA continues conducting researches and development of technologies, utilizing current innovation to carry on business to leverage product quality, resulting in cost-effective use of raw materials and resources such as the development of Green Diesel and Bio-PCM which enhancing our competitiveness to regional and the world scale according to the long term strategic plan of EA, to become a leader of the energy business and related business by using the cutting edge technology which is harmless to the environment.

Nature of business can be divided to 4 groups as follow:

1) Biodiesel Business (through EA and EA’s Subsidiaries)

- a. Produces and Distributes biodiesel (B100)
- b. Purified glycerin
- c. Byproducts
- d. Phase Change Material, PCM
- e. Green Diesel, GD

2) Renewable Power Plant Business (through EA’s Subsidiaries)

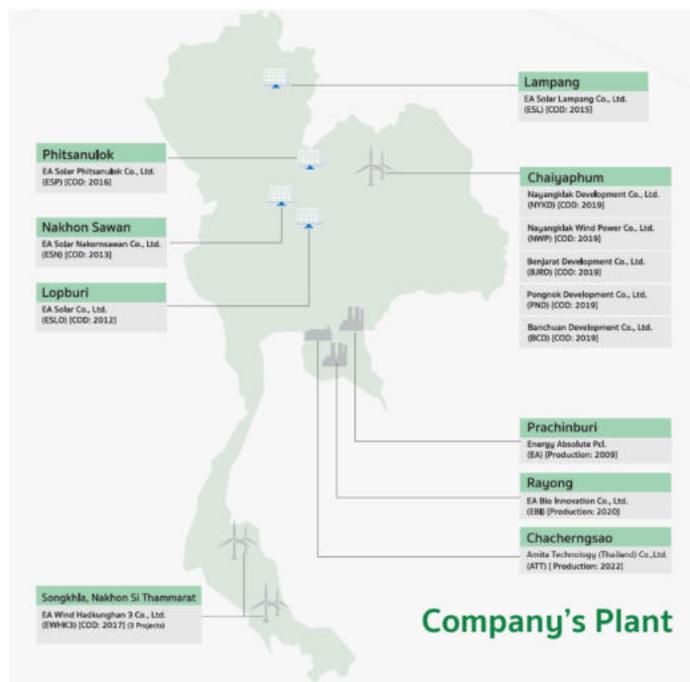
- a. Produces and Distributes solar electric power
- b. Produces and Distributes wind electric power

3) Electric Vehicle and Energy Storage System Business

- a. Battery development, manufacturing, and distribution business
- b. Electric charging station service business (For electric vehicle)
- c. Electric Vehicle Business

4) Other business

- a. Battery Electric Vehicle and Electronic Products Testing Center
- b. Research and Development



Energy Absolute PCL is engaged in the production of biodiesel and bio-products from crude palm oil, as well as the production of electricity from wind and solar, and it is expanding its business to energy storage systems, electric vehicles, and other clean energy related businesses in order to create sustainability for the country through renewable energy technology and environmentally friendly modern innovations.

RENEWABLE ENERGY BUSINESS GROUP

EA expands its business to produce and distribute solar and wind electric power generated from renewable energy according 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, EA operates 12 projects as detailed below:

1) Solar Power Plant

4 Projects with total production capacity of 278 megawatts.

EA Solar Farm : Phatthana Nikhom District / Lopburi Province	8 megawatts
Project 1 : Takhli district /Nakhon Sawan Province	90 megawatts
Project 2 : Mueang Lampang District / Lampang Province	90 megawatts
Project 3 : Phrom Phiram District / Phitsanulok Province	90 megawatts

2) Wind Power Plant 8 Projects with total production capacity of 386 megawatts.

8 Projects with total production capacity of 386 megawatts.

Hadkanghan 1 : Ranod District / Songkhla Province	36 megawatts
Hadkanghan 2 : Huasai District /Nakhon Si Thammarat Province	45 megawatts
Hadkanghan 3 : Pak Panang District /Nakhon Si Thammarat Province	45 megawatts
Hanuman 1 : Subyai District/ Chaiyaphum Province	45 megawatts
Hanuman 5 : Thep Sathit District/ Chaiyaphum Province	48 megawatts
Hanuman 8 : Subyai District/ Chaiyaphum Province	45 megawatts
Hanuman 9 : Thep Sathit District/ Chaiyaphum Province	42 megawatts
Hanuman 10 : Bamnet Narong District/ Chaiyaphum Province	80 megawatts

EA operates a business of produces and distributes electric power generated from renewable energy form the sun and wind distribute to the Provincial Electricity Authority (PEA) and the Electricity Generating Authority of Thailand (EGAT) with a power purchase agreement (PPA)



ELECTRIC VEHICLE AND ENERGY STORAGE SYSTEM

1) Battery Development, Manufacturing and Distribution Business

To enhance competitiveness in the renewable energy business and to comply with the business operation policy of EA's Group, EA 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, EA has established a subsidiary, i.e. Amita Technology (Thailand) Co., Ltd. to develop, manufacture, and distribute lithium-ion batteries. At present, the plant has already started phase 1 production (1 GWh per year) in late 2021. Thereafter, the production capacity will be gradually increased in the next phase to meet the market demand. At the beginning, EA distributed to electric vehicle business within the group, such as E-Bus, E-Ferry and Battery Locomotive. EA has built multi-faceted knowledge base covering research and development of products through collaboration with public and private sectors both domestically and overseas and development of its personnel's manufacturing expertise so that they would be able to accommodate production lines in advanced industries toward the targets set forth.

Nature of Products

Characteristics of lithium-ion battery is an energy storage unit that has high electric power storage capacity and is rechargeable upon the battery energy running out as it contains chemicals that allow for reversible reaction with recharging capability by such a device as "charger." Generally, the battery properties depend on the substances used as the battery electrode components. EA has redesigned the new type of battery to possess distinctive properties with higher energy storage capacity, lighter weight, longer useful life and better response to demand for fast charging. EA's lithium-ion battery contains no environmentally hazardous components like liquid, acid or lead.

With strong commitment and determination, it has developed and produced lithium-ion batteries for diverse applications domestically as follows:

(1) Electric Vehicle

These electric passenger cars, electric trucks, electric ferries and Battery Locomotive, 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 nighttime.
- 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.



2) Electric charging station service business (For electric vehicle)

EA has expanded its business to large-scale electric vehicle charging stations to a greater extent to serve 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.



Ultra-Fast Charge : DC 150/300/360 kW

- DC 360 kW and DC 300 kW, the fastest charger that can serve large battery electric vehicles such as electric ferries, electric buses.
- 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

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



Normal Charge : DC 22 kW

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

3) Electric Vehicle Business

The prevailing global warming situation has caused rising global temperature while the PM 2.5 problem from incomplete combustion in diesel engine results in toxic emissions from vehicle exhaust, i.e., Particulate matter and black soot, etc. Commercial vehicles used in Thailand which are rather old and create black soot particles are a major source of carbon emissions and PM 2.5. Recognizing the significance of such problem, EA has expanded its business to commercial electric vehicles, starting with construction of the assembly plant of large commercial electric vehicles in Ban Pho district, Chachoengsao province which covers an area of about 55,000 square meters. EA's electric vehicle business is environmentally friendly and enables EA to utilize electric vehicles in its operation with lower fuel cost than using combustion-engine vehicles. The Company has policies to upgrade public transport, to make it more convenient, make it more modern, and reduce the amount of air pollution contributed by public transport. These efforts will show the success of the electric vehicle industry, which is becoming a new S-Curve industry in Thailand. It also supports the National Energy Plan to drive Thailand towards clean energy and to reduce carbon emission to achieve net zero carbon emission within 2065-2070.

3.1) Electric Commercial Vehicle

○ Heavy Electric Vehicle

The Group (Energy Absolute Public Company Limited that operates in Thailand and the group company, in which the Company holds 100% of the shares and has operational control through the Board of Directors) completed construction an assembly plant for electric commercial vehicle which is 100% electric buses and electric truck using high quality lithium-ion batteries produced by the Group. The electric commercial vehicle assembly plant started commercial operation in 2021 has assembled and delivered over one thousand electric buses.

For electric bus manufactured by EA has driven efficiency and contain no internal combustion engine which would cause air and noise pollution. It can drive continuously on all types of roads, traffic and weather condition. Its reliability is no less than that of internal combustion engine vehicles. It is installed with 250-350 kWh high quality lithium-ion battery produced by EA, and this helps uplift eco-friendliness and sustainability of the road trip.

○ Light Electric Vehicle

EA conducted research and development of commercial electric vehicles and launched the 1-ton electric truck of Thai nationality "MINE MT30" under the concept: Driving Toward Net Zero by MINE MT30. This has been in line with EA's vision aiming at clean and eco-friendly energy and applying technology and innovation to develop business toward the net zero goal and drive Thailand toward the low carbon society.

3.2) Electric Ferry

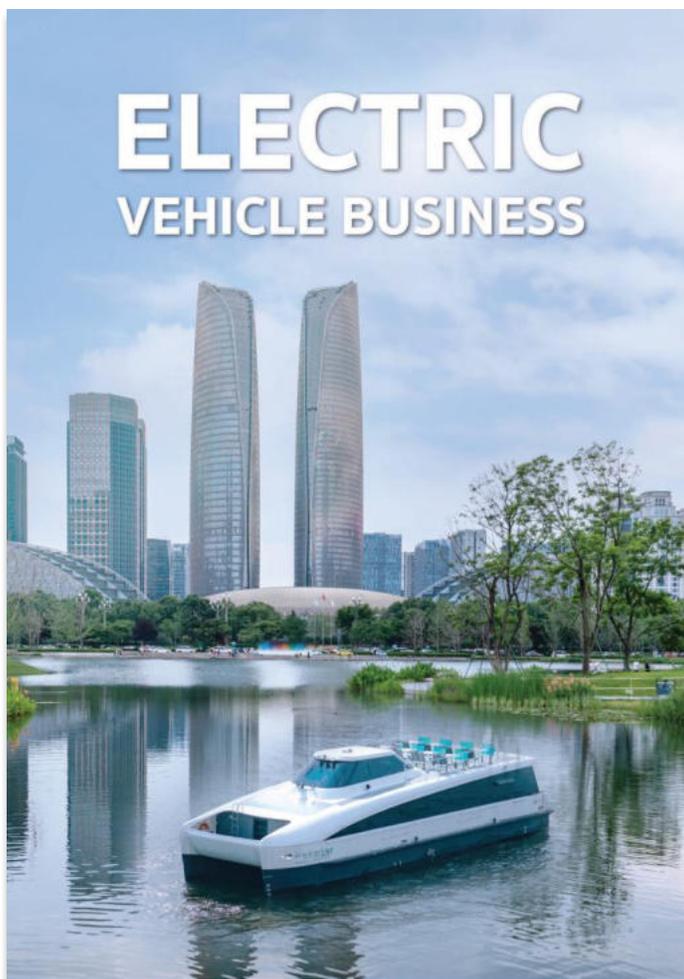
MINE SMART FERRY has been designed by the Group teams and produced 100% by Thai labor under the Corporate Social Innovation (CSI) concept with its potential and innovation availability. MINE SMART FERRY is a 24-meter catamaran boat with marine-grade aluminum alloy structure and 250-passenger capacity. Its maximum speed is up to 16 knots. With the use of 700-800 kWh lithium-ion battery produced by the Group and equipped with ultra-fast charge technology of EA Anywhere, the battery can be charged to 85% in only 15 minutes. The electric boat can travel by as high as 80 kilometers per one charge. In 2022, EA developed a new electric ferry fleet, with 20-meter long and 6-meter wide and 150-passenger-capacity boat

using 540 kWh lithium-ion battery equipped with ultra-fast charge technology. The electric ferry service will be provided along the Chao Phraya River to increase the number of electric ferries to adequately meet demand of customers looking forward. MINE SMART FERRY has turned around public transport along the Chao Phraya River by modernizing and making it more Eco-friendly and causing neither water pollution nor PM 2.5.

MINE SMART FERRY has been registered as the first Thai electric ferry which has passed the examination, safety test and sailing standard of the Marine Department. It is a Thai innovation and won the National Innovation Awards 2020 for Economy from the National Innovation Agency.

3.3) Battery Locomotive and Powercar

EA had research and development on Battery Locomotive and Powercar base on State Railway of Thailand standard. Battery Locomotive will be tested and actual use instead of Diesel Electric Locomotive as company mission “Mission No Emission”. Battery Locomotive was designed under 20 ton-axle specification that can be use in any service included Shunting service at Krung Thep Aphiwat Central Terminal Station, Cargo delivery service between Laemchabang port and ICD Ladkrabang and Passenger delivery service in city route or inter city route. Battery Locomotive maximum speed is 120 kilometer per hour and maximum load is 2500 ton as State Railway of Thailand requirement. Battery Locomotive contains 821 kWh Battery and another 3.2 MWh Battery on Powercar. This battery can be fully charged by our developed station within 1 hour. Total service distance is 200-480 kilometer upon loading and usage condition. Battery Locomotive is actual run testing with State Railway of Thailand. Finally, Battery Locomotive can help operator not only reduce emission but also saving more than 40% of energy use.



ENERGY ABSOLUTE SUSTAINABLE DEVELOPMENT

Energy Absolute PCL's vision is to become a "Leader in the alternative energy business, using modern technology and environmentally friendly technology to maximize returns to all stakeholders, shareholders, partners, and employees with fairness" in line with EA's goal "Energy Transformation to the Future to a Low Carbon Society". EA also integrates the sustainable development goals into its business operations, allowing it to identify significant concerns relating to its operations in order to maximize positive impact or effectively eliminate the negative impact. Thus, the actual impacts can be reflected as part of defining the core strategy within the organization to enhance a capacity in risk and cost management, as well as develop innovations towards higher efficiency in business operations.

To drive the sustainability, EA and its subsidiaries operate business activities and related activities according to the GRI Standards and the United Nations Sustainable Development Goals (SDGs) by focusing on two approaches: the assessment of human and environmental risks arising from its business operations, both positive and negative, and the evaluation of guidelines for products, services, or investment to support the effective goals of sustainable development. EA commits to using our knowledge, capability, experience, and expertise in supporting 14 of the 17 Sustainable Development Goals (SDGs), which are relevant to EA's capacity and potential, to mobilize sustainable development in all steps of our production process, uplift quality of life and wellbeing of the stakeholders, and to promote the nation's sustainable economic growth.

ECONOMIC

Supporting economic development and enhancing the city's development to be Inclusive and sustainable



EA has set a goal to grow the business through the strategic implementation of innovation and operations for sustainable business growth by focusing on the organizational structure and management that is appropriate to supporting economic development and enhancing the city's development to be inclusive and sustainable as well as the competitiveness.

ENVIRONMENT

Optimizing the use of modern technology and being environmentally friendly



EA strives to be a leader in the alternative energy business by optimizing the use of modern technology and being environmentally friendly to combine the potential of the business through the operation process to deliver good products to customers while reducing the impact on people and the environment arising from business operations throughout the supply chain

SOCIAL

Building community and society well-being and developing the workforce according to the country's skills requirements



EA has social responsibility by respecting differences and using human rights principles as the basis of operations that emphasize creating shared values for sustainable growth. Moreover, relevant law and various international standards are accepted for building community and society well-being and developing the workforce according to the country's skills requirements

ENERGY ABSOLUTE GREEN FINANCING FRAMEWORK

EA's Green Financing Framework is established in accordance with the following principles and standards;

- Green Bond Principles (“GBP”), published by the International Capital Market Association (“ICMA”) in June 2021,
- ASEAN Green Bond Standards (“ASEAN GBS”), published by ASEAN Capital Markets Forum (“ACMF”) in October 2018,
- Green Loan Principles (“GLP”) 2023, published by the Loan Market Association (“LMA”), the Loan Syndications and Trading Association (“LSTA”), and the Asia Pacific Loan Market Association (“APLMA”)

The above principles and standards are a set of voluntary guidelines that recommend transparency and disclosure and promote integrity in the development of the sustainable finance market.

In addition to alignment with the GBP, ASEAN GBS and GLP, EA may choose to seek certification in compliance with the requirements of the Climate Bonds Initiative (“CBI”) Climate Bonds Standard (V4.0) (“CBS”) where the availability of applicable sector specific technical criteria allows.

In aligning with the above principles and guidelines, EA's Green Financing Framework is presented through the GBP's four core components as well as its recommendation for External Review:

- 1) Use of Proceeds
- 2) Process for Project Evaluation and Selection
- 3) Management of Proceeds
- 4) Reporting
- 5) External Review (for heightened transparency)

The Green Financing Framework may, from time to time, be updated and expanded as the market practices evolve.

1. USE OF PROCEEDS

1.1. ELIGIBLE GREEN PROJECTS

Proceeds from the issuance of Energy Absolute (“EA”) green bonds and/or loans will be exclusively used to finance and/or refinance investments that promote the transition to low carbon and climate resilient growth as determined by EA including, but not limited to, renewable energy, other clean energy, and low carbon technologies.

Eligible Green Categories and Alignment with UN SDGs	Scope and definition for Eligible Green Expenditure	Examples of Projects
Renewable Energy  	Investments and/or expenditures for the acquisition, expansion, renovation, construction, development and/or installation of new and existing renewable energy production facilities	<ul style="list-style-type: none"> • Wind Power Project • Solar Power Project
Clean Transportation    	<ul style="list-style-type: none"> • Investments, financing, and/or expenditures related to manufacturing, operating, modernization, maintenance, and refurbishment of EA’s Electric Vehicle business • Investments and/or expenditures related to construction, installation, maintenance, and improvement of infrastructure supporting the clean transportation operations e.g., EA’s Electric Charging Station business 	<ul style="list-style-type: none"> • Electric Vehicle <ul style="list-style-type: none"> ○ Electric Buses ○ Electric Car ○ Electric Ferry • Battery Locomotive and Powercar • Electric Charging Stations • Hire-Purchase E- Bus
Energy Efficiency  	<ul style="list-style-type: none"> • Investments and/or expenditures related to development, construction, installation, maintenance, and improvement of Energy Storage Facilities • Investments and/or expenditures in development, manufacturing, and distribution of energy storage unit 	<ul style="list-style-type: none"> • Lithium-Ion Battery • Energy Storage System (ESS)

1.2. EXCLUSIONS

For the avoidance of doubt, any project related to the following activities will be excluded from Eligible Green Assets/Projects:

- Any activity or technology associated with the extraction, production, refining, transmission and distribution of fossil fuels
- Nuclear power generation
- Activities/projects associated with child labor/forced labor

2. PROCESS OF PROJECT EVALUATION AND SELECTION

To ensure eligibility for green financing, EA has set up the “Green Finance Working Group” in charge of the evaluation and selection of the Eligible Green Projects, in accordance with an applicable sector criterion under principle and/or standards including ICMA’s Green Bond Principles (“GBP”), ACMF’s ASEAN Green Bond Standards (“ASEAN GBS”), and CBI’s Climate Bond Standards (“CBS”) defined in the Use of Proceeds.

The Green Finance Working Group comprises of representatives from Strategy Development and Investment Planning Department, and, on case-by-case basis, representatives from business units.

The Green Finance Working Group meets on an annual basis, including on an ad hoc basis when amendments are required to the Eligible Green Project Portfolio.

The Green Finance Working Group is responsible for:

- Reviewing and screening Eligible Green Projects to ensure eligibility for green financing
- Approving the Eligible Green Projects and notifying any updates to the EA Executive Committee (ExC)
- Undertaking regular monitoring of the asset pool to ensure the eligibility of projects, whilst replacing any ineligible projects with new green assets
- Verifying compliance of the green projects with EA's policy and internal environmental and social standards
- Ensuring that the allocation of proceeds is aligned with the eligibility criteria
- Facilitating regular reporting on any green financing instruments in alignment with 'EA Green Financing Framework's Section 4.) Reporting
- Managing any future updates to the Framework

3. MANAGEMENT OF PROCEEDS

EA has committed to hold green financing proceeds raised in internally separable accounts for subsequent allocation to equity and debt obligations associated with Eligible Green Projects. .

Any unallocated proceeds will be held in cash or cash equivalents, invested in short and liquid marketable securities which are not inconsistent with the delivery of a low carbon and climate resilient economy and/or applied to temporarily reduce indebtedness of a revolving nature, where the original loan of which is not inconsistent with the delivery of a low carbon and climate resilient economy, before being redrawn for investments or disbursements to Eligible Green Projects.

EA will apply an amount equal to the green financing proceeds to the Eligible Green Projects within 24 months of the bond issuance.

4. REPORTING

Approximately one year following the settlement of green financing instruments, EA will conduct Green Financing Allocation Reporting to investors on an annual basis including a summary of projects, the characteristics of the green financing, the use of proceeds, the allocation and outstanding amounts of green financing proceeds, and any unallocated proceeds.

Where possible, EA will also provide operational performance details (examples of metrics in 4.2.1). The report will be available publicly on the EA website.

4.1. ALLOCATION REPORT

Until the proceeds are fully allocated, EA will prepare EA Green Financing Allocation report certifying information where feasible such as:

- Summary of Green Projects financed by Green Bond and/or loans
- The issuance amount or percentage of allocation to the eligible Green Projects

- The portion of net proceeds used for financing vs. refinancing
- Balance of unallocated proceeds raised via a Green Bond and/or loans issuance

4.2. IMPACT REPORT

Subjected to data availability, EA intends to report on the relevant environmental impact created by Green Projects financed and/or refinanced by the green bonds and/or loans proceeds on an annual basis. The impact reporting will also disclose measurement methodology for quantitative indicators. The table below shows the examples of impact indicators that may be reported.

4.2.1. EXAMPLE OF INDICATORS AND METRICS:

Eligible Green Categories	Example of Projects	Example of Impact Indicators
Renewable Energy	<ul style="list-style-type: none"> • Wind Power Project • Solar Power Project 	<ul style="list-style-type: none"> • Annual GHG emissions reduced/avoided (in tonnes of CO₂ equivalent) • Annual renewable energy generation (in MWh or GWg) • Additional Capacity of renewable energy plant(s) constructed or rehabilitated (in MegaWatt)
Clean Transportation	<ul style="list-style-type: none"> • Electric Vehicle <ul style="list-style-type: none"> ○ Electric Buses ○ Electric Car ○ Electric Ferry ○ Battery Locomotive • Electric Charging Stations • Hire-Purchase E- Bus 	<ul style="list-style-type: none"> • Numbers of EVs produced/financed • Passenger-kilometres (i.e. the transport of one passenger over one kilometre) and/or passengers; or tonne-kilometres (i.e. the transport of one tonne over one kilometre) and/or tonnes • Annual GHG emissions reduced/avoided in tCO₂-e p.a.
Energy Efficiency	<ul style="list-style-type: none"> • Lithium-Ion Battery • Energy Storage System (ESS) 	<ul style="list-style-type: none"> • Annual energy savings in MWh or GWh (electricity) and GJ or TJ (other energy savings) • Annual GHG emissions reduced/avoided in tonnes of CO₂ equivalent • Number of EV batteries supplied

5. EXTERNAL REVIEW

5.1. SECOND PARTY OPINION:

EA engaged DNV GL (“DNV”), a provider of environmental, social and governance (ESG) research and analysis, to provide an independent Second Party Opinion (“SPO”) on this Green Financing Framework. The Second Party Opinion ensures the Framework is aligned with global benchmarks as defined by the GBP, ASEAN GBS and GLP, and market best practices.

The Second Party Opinion, together with this Green Financing Framework, is available on EA’s website at https://www.energyabsolute.co.th/green_bond

5.2. EXTERNAL VERIFIER:

Where feasible, EA intends to engage an External Verifier to provide an external verification on the alignment of the disbursement of funds with Framework’s criteria and the alignment of and the environmental impacts of investments. The verification report (if any) will be made available for investors on EA website at https://www.energyabsolute.co.th/green_bond

AMENDMENT TO THIS FRAMEWORK

The Green Finance Working Group will review this Framework on a regular basis, including its alignment to updated versions of the Principles as and when they are released, with the aim of adhering to best practices in the market. Such review may result in this Framework being updated and amended.

Any future updated version of this Framework that may exist will either keep or improve the current levels of transparency and reporting disclosures, including the corresponding review by an External Reviewer. The updated Framework, if any, will be published on EA website and will replace this Framework.