

ENERGY ABSOLUTE GREEN BOND

DNV GL PRE ISSUANCE VERIFICATION ASSURANCE OPINION

Scope and Objectives

Energy Absolute Public Company Limited (“EA” or “Issuer”) is considering the issuance of a THB 10 billion green bond (henceforth referred to as “BOND”) and has submitted the proposed bond for verification and certification against the **Climate Bond Standard** (CBS) and alignment with the **Green Bond Principles 2018**. The issuance has also been verified for compliance against the **ASEAN Green Bond Standards** (ASEAN GBS).

EA intends to use the proceeds of the BOND to finance a nominated projects and assets falling under the following categories:

- Renewable Energy – Wind

DNV GL Business Assurance Australia Pty Ltd (henceforth referred to as “DNV GL”) has been commissioned by EA to provide verification of the BOND as an independent and approved verifier under the Climate Bond Standard and ASEAN Green Bond Standards. Our criteria and information covered to achieve this is described under ‘Work Undertaken’ below.

No assurance is provided regarding the financial performance of the BOND, the value of any investments in the BONDS, or the long term environmental benefits of the transaction. Our objective has been to provide an assessment that the BOND has met the criteria of the Climate Bond Standard and the associated Technical Criteria and the ASEAN Green Bond Standards on the basis set out below.

The scope of this DNV GL opinion is limited to:

- the Climate Bond Standard Version 2.1 and the following associated Sector Technical Criteria:
 - Wind Power
- the ASEAN Green Bond Standards 2018

Responsibilities of the Management of EA and DNV GL

The management of EA has provided the information and data used by DNV GL during the delivery of this review. Our statement represents an independent opinion and is intended to inform EA management and other interested stakeholders in the BOND as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by EA.

DNV GL is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV GL shall not be held liable if any of the information or data provided by EA’s management and used as a basis for this assessment were not correct or complete.

Basis of DNV GL's opinion

DNV GL has conducted the verification against the CBS v2.1 and associated Sector Technical Criteria through the creation and execution of a verification protocol addressing each requirements of the CBS v2.1 and the Wind Power Technical Criteria. The detail of areas covered in the DNV GL verification is summarised in Schedule 2 below.

DNV GL has conducted the verification against the ASEAN GBS in parallel to the CBS v2.1 Pre Issuance Verification. A summary of compliance with the ASEAN GBS is included in Schedule 3 below.

Work undertaken

Our work constituted a high level review of the available information, based on the understanding that this information was provided to us by EA in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion included:

- Creation and execution of a Climate Bond Standard Protocol, adapted to include the relevant Sector Technical Criteria for the BOND nominated projects and assets, as described above and in Schedule 2 to this Opinion;
 - Verification of compliance with the ASEAN Green Bond Standards as described above and in Schedule 3 to this Opinion;
 - Assessment of documentary evidence provided by EA on the BOND and supplemented by a high-level desktop research, onsite visit for documentation review and interviews with key personnel from the issuer EA. These checks refer to current assessment best practices and standards methodology;
 - Discussions with EA management, and review of relevant documentation;
 - Inspection of a sample of nominated project sites;
 - Documentation of findings against each element of the criteria. Our opinion as detailed below is a summary of these findings.
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Findings and DNV GL's opinion

DNV GL has performed the Pre Issuance Verification of the EA Green Bond. It is DNV GL's responsibility to provide an independent verification statement on the compliance of the EA Green Bond with the Climate Bond Standard and ASEAN Green Bond Standards.

DNV GL conducted the verification in accordance with the Climate Bond Standard Version 2.1, the ASEAN Green Bond Standards and with International Standard on Assurance Engagements *3000 Assurance Engagements other than Audits or Reviews of Historical Information*. The verification included i) checking whether the provisions of the Climate Bond Standard and ASEAN Green Bond Standard were consistently and appropriately applied and ii) the collection of evidence supporting the verification.

DNV GL's verification approach draws on an understanding of the risks associated with conforming to the Climate Bond Standard, the ASEAN Green Bond Standards and the controls in place to mitigate these. DNV GL planned and performed the verification by obtaining evidence and other information and explanations that DNV GL considers necessary to give limited assurance that the EA Green Bond meets the requirements of the Climate Bond Standard and ASEAN Green Bond Standards.

Based on the limited assurance procedures conducted, nothing has come to our attention that causes us to believe that the EA Green Bond is not, in all material respects, in accordance with the Pre Issuance requirements of the Climate Bond Standard Version 2.1, Associated Wind Power Technical Criteria and the ASEAN Green Bond Standards 2018. DNV GL confirmed that the EA Green Bond Framework and proposed EA Green Bond are aligned with the International Capital Markets Associated Green Bond Principles 2018.

for DNV GL Business Assurance Australia Pty Ltd

Sydney, 27 August 2019



Mark Robinson
Manager, Sustainability Services
DNV GL – Business Assurance

About DNV GL

Driven by our purpose of safeguarding life, property and the environment, DNV GL enables organisations to advance the safety and sustainability of their business. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight. With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.

SCHEDULE 1: DESCRIPTION OF NOMINATED ASSETS

Eligible Projects & Assets Category	Sub category	Projects	EA Exposure (THB billion)
Renewable Energy	Wind	260 MW Hanuman Wind Power Project	20
Total			20

SCHEDULE 2: CLIMATE BONDS STANDARD VERIFICATION CRITERIA

Summary criteria for assertions of compliance with the Climate Bond Standard v2.1

The criteria against which EA and its nominated projects and assets have been reviewed prior to inclusion in the Bond are grouped under the requirements as detailed within the Climate Bond Standard Version 2.1 including:

Part A: General Requirements

Area	Requirement
Project Nomination	The Climate Bond issued must specify the project collateral or physical assets with which it is associated
Use of Proceeds	Proceeds must be allocated to Nominated Project(s)
Non-Contamination	Issuers are permitted a grace period to allocate or re-allocate funds to Nominated Project(s)
Confidentiality	The information disclosed to the Verifier and the Climate Bond Standards Board may be subject to confidentiality arrangements
Reporting	Reporting on use of proceeds and nominated projects and assets

Part B: Low Carbon Contribution - Eligible projects and physical assets

Nominated projects and assets include financing of or investments in equipment and systems which enable the mitigation of greenhouse gasses, as detailed in Appendix B.

Area	Requirement
Wind Energy Generation	Wind energy generation facilities

Part C: Bond structures

Area	Requirement
Project Holding	The issuer of a Corporate Climate Bond with Nominated Projects linked to a portfolio of assets must continue to hold eligible assets at least equal to the Fair Market Value at the time of issuance of the original principal
Settlement Period	Climate Bond issuing entities must demonstrate that the proceeds of a Climate Bond have been allocated to the Nominated Project(s) within 24 months after the bond is issued
Earmarking	The issuer of the bond shall maintain the earmarking process to manage and account for funding to the nominated projects and assets.

SCHEDULE 3: ASEAN GREEN BOND STANDARDS VERIFICATION

Summary criteria for assertions of compliance with the ASEAN Green Bond Standards 2018 and compliance conclusion.

The criteria against which EA and its nominated projects and assets have been reviewed prior to inclusion in the Bond are grouped under the requirements as detailed within the ASEAN Green Bond Standards 2018.

The Climate Bonds Standard is fully consistent with the GBP and this Annex provides ‘mapping’ of the requirements in the Standard to the four Green Bond Principles plus the GBP’s assurance recommendations. Certification of a bond under the Climate Bonds Standard provides confidence that the issuer of that bond is adhering to all of the Green Bond Principles as well as fully conforming to the Climate Bonds Standard.

3.0: Criteria for ASEAN Green Bonds

Criteria	Requirement	Demonstrated Compliance
3.1	(i) Must be an ASEAN Issuer, or; (ii) In the case of a Non-ASEAN Issuer, the eligible Green Projects must be located in any of the ASEAN countries.	The Bond Issuer and nominated project is located in Thailand, an ASEAN member country.
3.2	ASEAN Green Bonds issuances must be originated from any of the ASEAN member countries.	The bond is to be originated from Thailand and issued in THB.

4.0: Guidance for the Four Components of the GBP

4.1 Use of Proceeds

Criteria	Requirement	Demonstrated Compliance
4.1.1	The utilisation of proceeds from the ASEAN Green Bonds must be described in the documentation for issuance of the ASEAN Green Bonds.	Demonstrated through verification of CBS v2.1 clause 1, 9 and 10.
4.1.2	In relation to 4.1.1, the Issuer must disclose the following information:	Demonstrated through verification of CBS v2.1 clause 1, 9 and 10.

	(i) The categories of eligible Green Projects to which the ASEAN Green Bonds proceeds will be allocated; and/or (ii) The information on specific Green Projects in the case where the Issuer has identified the specific Green Projects to which the ASEAN Green Bonds proceeds will be allocated.	
4.1.3	All designated Green Projects must provide clear environmental benefits, which will be assessed and, where feasible, quantified by the Issuer.	Demonstrated through verification of CBS v2.1 clause 10.
4.1.4	In the event that all or a proportion of the proceeds are or may be used for refinancing, it is recommended that Issuers provide an estimate of the share of financing and refinancing, and where appropriate, also clarify which investments or project portfolios may be refinanced and, to the extent relevant, the expected look-back period for refinanced Green Projects.	Demonstrated through verification of CBS v2.1 clause 5.
4.1.5	Green Bond Categories	Demonstrated through verification of CBS v2.1 clause 1, 9 and 10.
4.1.6	For clarification purposes, fossil fuel power generation projects are excluded from the ASEAN GBS.	Demonstrated through verification of CBS v2.1 clause 1, 9 and 10.

4.2: Process for Project Evaluation and Selection

Criteria	Requirement	Demonstrated Compliance
4.2.1	The Issuer of ASEAN Green Bonds must clearly communicate to investors– (i) the environmental sustainability objectives; (ii) the process by which the Issuer determines how the projects fit within the eligible Green Projects categories identified above; and (iii) the related eligibility criteria, including, if applicable, exclusion criteria or any other process applied to identify and manage potentially material environmental and social risks associated with the Green Projects.	Demonstrated through verification of CBS v2.1 clause 1, 9 and 10.

4.2.2	The Issuer must establish the process for project evaluation and selection prior to the issuance of the ASEAN Green Bonds and disclose the same to investors in the documentation for the issuance of the ASEAN Green Bonds.	Demonstrated through verification of CBS v2.1 clause 1.
4.2.3	Issuers are encouraged to position this information within the context of the Issuers' overarching objectives, strategy, policy and/or processes relating to environmental sustainability. Issuers are also encouraged to disclose any green standards or certifications referenced in project selection.	Issuance subject to Verification under the CBS v2.1.
4.2.4	It is recommended that the Issuer's process for project evaluation and selection be supported by an external review.	Issuance has been subject to Pre Issuance Verification and will be subject to Post Issuance Verification against the CBS v2.1
4.2.5	The Issuer must make the following publicly available on a website designated by the Issuer at the time of the issuance and throughout the tenure of ASEAN Green Bonds: (i) The process for project evaluation; (ii) The use of proceeds; and (iii) External review report on the process (if any).	Upon Pre Issuance Certification under the CBS v2.1 this Opinion will be made public on the Climate Bonds Initiative website for the term of the Bond. The issuer has defined the Use of Proceeds and Process for Project Evaluation and Selection as follows: Use of Proceeds: EA will include projects and assets falling under the category of Renewable Energy for inclusion in a Green Bond Issuance. Project Selection: EA proposes to select Hanuman Wind Project for inclusion into a Green Bond. Projects selected for inclusion will be selected based on compliance with the Climate Bonds Standard Sector Technical Requirements for Wind Power.

4.3: Management of Proceeds

Criteria	Requirement	Demonstrated Compliance
4.3.1	Prior to the issuance of the ASEAN Green Bonds, the Issuer must disclose to investors in the documentation for the issuance of the ASEAN Green Bonds the process for managing the net proceeds from the ASEAN Green Bonds.	The issuer has disclosed to bond placement investors that it will hold Green Bond proceeds raised in internal treasury cash accounts for allocation to existing equity and debt obligations associated with nominated projects and assets.
4.3.2	The net proceeds from the ASEAN Green Bonds, or an amount equal to these net proceeds, must be credited into a sub-account, moved to a sub-portfolio	Demonstrated through verification of CBS v2.1 clause 2.

	or otherwise tracked by the Issuer in an appropriate manner and attested to by a formal internal process linked to the Issuer’s lending and investment operations for Green Projects. The total amount deployed from the net proceeds for the eligible Green Projects need not occur simultaneously.	
4.3.3	As long as the ASEAN Green Bonds are outstanding, the balance of tracked proceeds must be periodically adjusted to match allocations to eligible Green Projects made during that period.	Demonstrated through verification of CBS v2.1 clause 6.
4.3.4	The Issuer must also disclose to investors in the documentation for the issuance of the ASEAN Green Bonds the intended types of temporary placement for the balance of unallocated proceeds.	Demonstrated through verification of CBS v2.1 clause 3 and 6.
4.3.5	It is recommended that the Issuer’s management of proceeds be supplemented by the use of an auditor, or other third party to verify the internal tracking method and the allocation of funds from the ASEAN Green Bonds proceeds.	Demonstrated through verification of CBS v2.1 clause 2.
4.3.6	Where the Issuer appoints an auditor or other third party to verify the Issuer’s management of proceeds, the Issuer must make the report produced by the auditor or other third party publicly available on a website designated by the Issuer at the time of the issuance of the ASEAN Green Bonds.	Upon Pre Issuance Certification under the CBS v2.1 this Opinion will be made public on the Climate Bonds Initiative website for the term of the Bond.

4.4: Reporting

Criteria	Requirement	Demonstrated Compliance
4.4.1	Issuers must report to investors at least on an annual basis and encouraged to make more frequent reporting on the use of proceeds until full allocation, and as necessary thereafter in the event of material developments. This should include a list of the projects to which the ASEAN Green Bonds proceeds have been allocated, as well as a brief description of the projects and the amounts allocated and their expected impact.	Demonstrated through verification of CBS v2.1 clause 3 and 8.
4.4.2	Where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the amount of detail that can be made	Demonstrated through verification of CBS v2.1 clause 3 and 8.

	available, the Issuer may present the information in generic terms or on an aggregated portfolio basis.	
4.4.3	It is recommended that Issuers use qualitative performance indicators, and where feasible, quantitative performance measures and disclosure of the key underlying methodology and/or assumptions used in the quantitative determination.	Demonstrated through verification of CBS v2.1 clause 3 and 8.
4.4.4	It is recommended that the Issuer’s annual reporting on the use of proceeds be supplemented by a confirmation of such use of proceeds by an external reviewer along with any relevant updates of the external review.	The Bond proceeds are proposed to be fully and immediately allocated to the nominated projects and assets, this allocation will be confirmed at Post Issuance Verification and the resulting Post Issuance Verification Opinion will be disclosed on the CBI website for the term of the bond. No subsequent Periodic Ongoing Verification will be undertaken.
4.4.5	The Issuer must provide to investors the annual reporting and the external review on the annual reporting, if any, through a website designated by the Issuer and/ or annual reports throughout the tenure of the ASEAN Green Bonds.	Demonstrated through verification of CBS v2.1 clause 3 and 8.

5.0: External Review

Criteria	Requirement	Demonstrated Compliance
5.1	Issuers are recommended to appoint external review providers for their ASEAN Green Bonds issuances.	DNV GL has been appointed as Verifier of the Green Bond Issuance.
5.2	The external review may be partial, covering only certain aspects of the Issuer’s ASEAN Green Bonds framework or full, assessing alignment with all four core components as stated in the ASEAN GBS.	The scope of this verification is full compliance with the four core components as stated in the ASEAN GBS.
5.3	The external review provider must have the relevant expertise and experience in the components of the ASEAN Green Bonds which they are reviewing.	DNV GL is an Accredited Verifier under the Climate Bonds Standard with global experience providing Green Bond Verification and Services since 2011.
5.4	The external review provider must also disclose their relevant credentials and expertise, and the scope of the review conducted in the review report.	DNV GL’s credentials and expertise have been disclosed in this Opinion. The scope of this Verification has been detailed in the “Scope and Objective” section.

5.5	There are a variety of ways for Issuers to obtain outside input into the formulation of their ASEAN Green Bonds process and there are several levels and types of review that can be conducted.	This Verification has been conducted to achieve Pre Issuance Certification under the Climate Bonds Standard v2.1 and to Verify compliance with the ASEAN GBS 2018.
5.6	Independent external reviews may vary in scope and may address an ASEAN Green Bonds framework/programme, an individual ASEAN Green Bonds issuance, the underlying assets and/or procedures.	This Verification has been conducted to achieve Pre Issuance Certification under the Climate Bonds Standard v2.1 and to Verify compliance with the ASEAN GBS 2018.