Pre-Issuance Verification Report for the First Bond under Huadian New Energy Group Corporation Limited Climate Bonds Program



iGreenBank (Beijing) Investment Service Co., Ltd August 17, 2023

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1. Scope and Objectives

Huadian New Energy Group Corporation Limited ("the Issuer" or "Huadian New Energy") is considering the issuance of the first Bond under the Huadian New Energy Group Corporation Limited Climate Bonds Program ("the Program") following the requirements of Climate Bonds Standard Version 3 and Version 4 (the "CBS").

iGreenBank (Beijing) Investment Service Co., Ltd ("iGreenbank") has been commissioned by Huadian New Energy to perform the pre-issuance verification of the first Bond issuance under the Program as an independent verifier approved by CBI under the CBS.

2. Disclaimer

The verification was carried out on and before August 16, 2023 and no assessment was performed after that date. The verification opinion is based on information provided by the Issuer and the Issuer is responsible for the integrity, accuracy and timeliness of the information. This report is prepared solely for the purpose of assessing the conformance of the first Bond issuance under the Program to the CBS. No interest of any other party has been considered in the report.

This report is made solely to the Issuer in accordance with the agreed term of disclosure arrangement and then provided to the CBS Secretariat as part of the Certification Process. The verification opinion shall not be interpreted as any indication or guarantee for relevant bond investment decisions. In no case may the opinion hereof operate as the interpretation or guarantee for economic performance or credit rating of the bonds under the Program.

3. Compliance Evaluation and Quality Control

The verification team has performed verification in accordance with the CBS and complied with the independence and quality control requirements of the assurance approach which is in line with the International Standard on Assurance Engagements 3000 (ISAE 3000): Assurance Engagements other than Audits or Reviews of Historical Financial Information. The verification team has the competency and experience required for this assurance engagement.

4. The Issuer's Responsibility

Huadian New Energy is responsible for providing accurate information and documentation relating to the green bond issuance and nominated project details, including description of projects, total development cost of each project and use of proceeds, and for generating the Pre-Issuance Disclosure Documentation for the

First Bond under Climate Bonds Program of Huadian New Energy Group Corporation Limited ("the Disclosure Documentation")¹.

5. Verifier's responsibility

iGreenBank conducted the pre-issuance verification in accordance with the CBS and the International Standard on Assurance Engagements 3000 (ISAE 3000): Assurance Engagements other than Audits or Reviews of Historical Information.

iGreenbank is not responsible for any aspects of investment or financing decision other than the assessment of the alignment of the bond issuance with the CBS and sector eligibility criteria. The iGreenbank shall not be held liable if any of the information or data provided by the Issuer and used as a basis for this assessment was not correct or complete.

6. Work Undertaken

The verification team has reviewed information provided by the Issuer about the Project Approvals from DRC, EIA Approvals and Land Use Approvals of the nominated projects listed in the Appendix 1 of the Disclosure Documentation, the Feasibility Study Report of nominated projects of first Bond The verification team conducted interview with the management team of the Issuer and communication with relevant staff to verify the conformance of the first Bond issuance under the Program with the requirements of the CBS from July 25, 2023 to August 16, 2023. The core subject matters for the assurance of the Bond issuance are the following:

- Use of Proceeds,
- Process for Evaluation and Selection of Projects & Assets,
- Management of Proceeds,
- Reporting Prior to Issuance,
- Sector Eligibility Criteria.

The first Bond issuance involoved a total of 13 projects, 10 onshore solar power projects and 3 onshore wind power projects ("the nominated projects") listing as Appendix 1 in Disclosure Documentation. Among them, the "Tianjin Huadian Haijing 1000MW Solar Power Farm Project" comes from the pool of Program, and remaining nominated projects of first Bond are new projects. Except the "Tianjin Huadian Haijing 1000MW Solar Power Farm Project", the rest will still be kept the same as proposed nominated projects of the pool of Program for the follow-up bond issuance.

¹ A Disclosure Documentation is the documentation associated with the issuance of a bond, prepared before a bond is issued and made available to potential investors as per Section 4.2 of CBS Version 3.0.

According to the Green Bond Framework of Huadian New Energy Group Corporation Limited ("the Framework") and the Disclosure Documentation provided by Huadian New Energy, the nominated projects & assets and proposed nominated projects on which the net proceeds will be allocated fall under the following Sectors as per the CBS:

- Onshore Solar Energy
- Onshore Wind Energy

Summary of the verification procedure is shown in the following table:

CBS	CBS	Verification Procedures		
Item	Requirement			
1	Use of Proceeds	Reviewed the Framework and the Disclosure Documentation for the use of proceeds on Nominated Projects & Assets.		
		10 onshore solar and 3 onshore wind power generation projects are listed as nominated projects to be sponsored by proceeds of the first Bond under the Program.		
		5 onshore solar and 1 onshore wind power generation projects are listed as prospective nominated projects to be sponsored by proceeds of the subsequent bonds under the Program.		
2	Process for Evaluation and Selection of Projects & Assets	Reviewed the Framework and the Disclosure Documentation to confirm the process for Projects & Assets evaluation and selection are in place and will be followed.		
3	Management of Proceeds	Reviewed the Framework and the Disclosure Documentation to confirm the proceeds from the first Bond are to be managed properly.		
4	Reporting Prior to Issuance	Reviewed the Disclosure Documentation to confirm reporting prior to issuance was done properly and post-issuance reporting is to be arranged.		
9	Climate Bonds Taxonomy	As confirmed by the Issuer, the full pool of projects & assets of the bonds under the Program are onshore solar and onshore wind power projects, which according to Climate Bonds Taxonomy fall under Solar Energy and Wind Energy.		
		Nonimated projects of the first Bond have been reviewed against the Climated Bonds Taxonomy to confirm that they fall under Solar Energy and Wind Energy.		
		Prospective nominated projects & assets of the subsequent bonds are the same as those listed in the pre-issuance documentation under the Program, except for "Tianjin Huadian Haijing 1000MW Solar Power Farm Project", which has been confirmed under the first Bond.		
		Nominated projects of the first Bond and prospective nominated projects of the subsequent bonds are included in the Appendix 1 & 2 of the Disclosure Documentation.		
10	Sector Eligibility Criteria	The Sector Eligibility Criteria for Solar and Wind Energy have been reviewed to confirm the nominated projects of the first Bond meet the Sector Eligibility Criteria. As confirmed by the Issuer, the prospective Nominated Projects & Assets of the bonds under the Program are onshore solar and onshore wind electricity generation projects.		
		In the list of nominated projects of the first Bond, 10 onshore solar electricity generation projects and 3 onshore wind energy generation projects which are under construction or planned to be constructed are included, leading to an expected annual emission reduction of 6.29 Million tCO ₂ e when operation formally achieved. Information of nominated project name, installed capacity, location, lifespan, information about construction start, necessary approvals for project construction and operation, expected environmental benefits, as well as the total investments of the project are fully described in the Appendix 1 of Disclosure Documentation, making it meeting the Criteria requirements for Solar/Wind Energy as per the Solar/Wind Energy Sector Eligibility Criteria.		
		Prospective nominated projects of the subsequent bonds which are kept the same as		

		those listed in the pre-issuance documentation of the Program, except for "Tianjin Huadian Haijing 1000MW Solar Power Farm Project". Information about Project Approvals from DRC, EIA Approvals and Land Use Approvals of the proposed projects which is mandatory for construction and operation of projects is listed in Appendix 2 of the Disclosure Documentation. As for environmental benefits, an annual emission reduction of 3.78 Million tCO ₂ e is expected to generate from the prospective nominated projects when operation formally achieved.
		If projects from sectors other than wind and solar are to be included in nominated projects in future when bonds are issued, further assessment will be performed to make sure each sector eligibility Criteria is met.
-	Project Holding	Investment information about nominated projects listed in the Disclosure Documentation has been reviewed to confirm that the total investment of the listed projects which is more than 27 Billion RMB is more than the proceeds of the first Bond under the Program, 2 Billion RMB.
		As for the prospective nominated projects of subsequent bonds, the investment is more than 13 Billion RMB, greater than the amount of remaining proceeds, 8 Billion RMB.
-	Settlement Period	Reviewed the Framework and the Disclosure Documentation to check the allocation of the proceeds from the first Bond will be completed within 24 months from bond issuance.

7. Verification Team

The verification team is as follows:

Team Leader: Ya BU

Technical Reviewer: Xiaozhe SONG Authorized Signatory: Hanke ZHANG

8. Verification Opinion

The iGreenbank has performed the pre-issuance verification of the first Bond issuance under the Program in accordance with the CBS and sector eligiblity and the International Standard on Assurance Engagements 3000 (ISAE 3000): Assurance Engagements other than Audits or Reviews of Historical Financial Information.

Our verification approach relies on an understanding of the risks associated with the Bond's conforming to the CBS and the measures in place to mitigate them. We planned and performed the verification by obtaining evidence and information that we consider necessary to give limited assurance on the Bond issuance under the Program to meet the requirements of the CBS.

The assurance procedure includes document review, interview with the management team of the Issuer and communication with relevant staff. Based on the procedure conducted for limited assurance, nothing has come to our attention that the first Bond issuance under the Program is not in line with the requirements of the CBS and related Sector Criteria.

Verification Team Leader:

Authorized Signatory:

Date: August 17, 2023

About iGreenBank

iGreenBank (Beijing) Investment Service Co., Ltd. (iGreenBank) was established in 2015, with a registered capital of RMB 10 Million Yuan. iGreenBank is headquartered in Beijing and it has two branches in Shanghai and Guangzhou. The contact information of iGreenBank is as follows:

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iGreenBank is a professional comprehensive service provider focusing on green finance and carbon neutral business. We are the first green finance technology service provider in China. We are committed to using innovative business models and technologies to provide green finance solutions for governments, enterprises and financial institutions.

Our business scope covers almost all green finance fields, including green fintech solution design, green finance policy research, green enterprise/project evaluation, green bond evaluation, green finance product development, ESG evaluation, environmental risk management, etc.

To meet the needs of diversified green finance businesses, iGreenBank has built a cross-industry team, including experts from the fields of economics, investment, energy, environmental science and engineering, finance, certification, risk management, carbon accounting and digital technologies.

Professional Qualifications

iGreenBank is a member of the National Association of Financial Market Institutional Investors (NAFMII) and a verifier approved by the Climate Bonds Initiative (CBI). iGreenBank can conduct green finance assessments and third-party certifications for national and international clients. (https://www.climatebonds.net/certification/approved-verifiers)

iGreenBank is registered with Green Bond Standard Committee of China as one of the first green bond verification and certification entities in China. The registration is also filed with the People's Bank of China and China Securities Regulatory Commission.

Annex 1. Conformance to the Pre-Issuance Certification requirements of the CBS²

1. Use of Proceeds			
Climate Bonds Standard Requirement	Findings	Requirement Met	
1.1 The Issuer shall document the Nominated Projects & Assets which are proposed to be associated with the Bond and which have been assessed as likely to be Eligible Projects & Assets. The Issuer shall establish a list of Nominated Projects & Assets which can be kept UpToDate during the term of the Bond.	Reviewed the Framework and the Disclosure Documentation and found that Issuer confirmed that the Nominated Projects & Assets from the Program will be in sectors which are eligible in accordance with CBS. In the attachment of the Disclosure Documentation, a list of nominated projects of first Bond has been laid out. The issuer has confirmed to keep the list updated during the term of the Bonds.	Yes	
1.2. The expected Net Proceeds of the Bond shall be no greater than the Issuer's total investment exposure to the proposed Nominated Projects & Assets, or the relevant proportion of the total Market Value of the proposed Nominated Projects & Assets which are owned or funded by the Issuer.	Issuer has claimed that the Framework was compiled in alignment with the CBS, where the requirements have been followed which means that Net Proceeds shall not be greater than the total investment exposure to the Nominated Projects & Assets. In the Appendix 1 of the Disclosure Documentation, the total investment of nominated projects of the first Bond is more than 27 Billion RMB, which is greater than the Proceeds of the first Bond under the Program, 2 Billion RMB.	Yes	
1.3 Nominated Projects & Assets shall not be nominated to other Certified Climate Bonds, Certified Climate Loans, Certified Climate Debt Instruments, green bonds, green loans or other labelled instruments (such as social bonds or SDG bonds) unless it is demonstrated by the Issuer that: 1.3.1 Distinct portions of the Nominated Projects & Assets are being funded by different Certified Climate Bonds, Certified Climate Loans, Certified Climate Debt Instruments, green bond, green loans or other labelled instruments or; 1.3.2 The existing Certified Climate Bond, Certified Climate Loan or Certified Climate Debt Instrument is being refinanced via another Certified Climate Bond, Certified Climate Loan or Certified Climate Debt Instrument.	Reviewed the Disclosure Documentation to confirm the Nominated Projects & Assets will not be nominated to other debt instruments.	Yes	

² The Annex 1 is laid out with accordance to the checklist of CBS V3.0.

2. Process for Evaluation and Selection of Projects and Assets		
Climate Bonds Standard Requirement	Findings	Requirement Met
2.1. The Issuer shall establish, document and maintain a decision-making process which it uses to determine the eligibility of the Nominated Projects & Assets. The decision-making process shall include, without limitation:	Reviewed Chapter 3 of the Framework and confirmed the decision-making process for the determination of projects & assets' eligibility are in place and documented. The Issuer complied with the statements in the Framework that provided for pre-issuance verification of the Program	Yes
2.1.1. A statement on the climate-related objectives of the Bond.	In the Framework, the Issuer stated the bonds to be issued under the Program would benefit the achievement of the goal of Carbon Neutrality.	Yes
2.1.2 How the climate-related objectives of the Bond are positioned within the context of the Issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability.	The Issuer is the sole platform for renewable energy business of China Huadian Group, with a long-term objective of sustainable development and help achieve the target of carbon peak and carbon neutrality. The issuance of green (climate) bonds fits well in the Issuer's development strategy.	Yes
2.1.3 Issuer's rationale for issuing the Bond.	The issuer is one of the biggest renewable energy companies in China, with wind and solar projects all over China. The issuance of bonds under the Program with proceeds to be used on onshore wind and solar projects would help increase the issuer's installed capacities of renewable energy.	Yes
2.1.4 A process to determine whether the Nominated Projects & Assets meet the eligibility requirements specified in Part C of the Climate Bonds Standard.	As Chapter 2 of the Framework stated, the Financial Department of the issuer is responsible for evaluation and selection of eligible projects and assets. In the Chapter 3 of the Framework, the Financial Department defines the process for projects and assets determination in order to meet the eligibility requirements specified in Part C of the Climate Bonds Standard.	Yes
2.2 Issuer should include under Clause 2.1 further aspects of the decision-making process, including:	Chapter 3 of the Framework was reviewed to confirm that the requirement is met. The Issuer complied with the statements in the Framework that provided for pre-issuance verification of the Program.	Yes

2.2.1 Related eligibility criteria, including, if applicable, exclusion criteria or any other process, applied to identify and manage potentially material environmental, social or governance risks associated with the Nominated Projects & Assets.	As stated in IPO prospectus and publicly available documentations, the Issuer has developed internal environmental protection frameworks regarding the projects, such as Measures for Environmental Protection	Yes
	As for the nominated projects, the Issuer has commissioned the external party to help identify the environmental related risks demonstrating in the Feasibility Study Report. As stated in Framework, they will follow the designated mitigation and prevention approaches described in the EIA Approvals.	
2.2.2 Green standards or certifications referenced in the selection of Nominated Projects & Assets.	According to the Framework, Green Bond Endorsed Projects Catalogue (2021 Edition), Green Industry Guidance Catalogue (2019 Edition) and Climate Bonds Taxonomy are referenced.	Yes
2.2.3 The issuer shall assess that all proposed Nominated Projects & Assets to be associated with the Bond meet the documented objectives as stated under Clause 2.1.1 and are likely to conform to the relevant eligibility requirements under Part C of the Climate Bonds Standard.	Chapters 2 & 3 of the Framework describe the process and responsibilities for evaluation and selection of eligible projects and assets. All nominated projects were reviewed as "eligible" against sector criteria which show great potential to reduce GHG emissions and help mitigate climate change.	Yes

3. Management of Proceeds			
Climate Bonds Standard Requirement	Findings	Requirement Met	
3.1 The systems, policies and processes to be used for management of the Net Proceeds shall be documented by the Issuer and disclosed to the Verifier, and shall include arrangements for the following activities:	The Framework and the Disclosure Documentation were reviewed to confirm this requirement is met. The Issuer complied with the statements in the Framework and Disclosure Documentation that provided for pre-issuance verification of the Program.	Yes	
3.1.1 The Net Proceeds of the Bond can be credited to a sub- account, moved to a sub-portfolio, or otherwise tracked by the Issuer in an appropriate manner and documented.	As per stated in the Chapter 4 of the Framework, a designated account will be established to track the allocation of The Net Proceeds of the Bond.	Yes	
3.1.2 The balance of unallocated Net Proceeds can be managed as per the requirements in Clause 7.3.	As per stated in the Section 17 of Chapter 4 of the Framework, unallocated Net Proceeds may be carried out cash management and temporarily invested in products with high safety and good liquidity, such as treasury bonds and government bonds. The unallocated proceeds shall not be invested in high-polluting and carbon-intensive projects and assets.	Yes	
3.1.3 The earmarking process can be used to manage and account for funding to the Nominated Projects & Assets and enables estimation of the share of the Net Proceeds being used for financing and refinancing.	As per stated in the Chapter 4 of the Framework, a designated account will be established solely to track the earmarking process of the Net Proceeds from green bonds.	Yes	

4. Reporting Prior To Issuance		
Climate Bonds Standard Requirement	Findings	Requirement Met
4.1 The Issuer shall prepare a Green Bond Framework and make it publicly available prior to Issuance or at the time of Issuance. The Green Bond Framework shall include, without limitation:	The Framework was reviewed to confirm this requirement is met. The Issuer complied with the statements in the Framework and Disclosure Documentation that provided for pre-issuance verification of the Program.	Yes
4.1.1 Confirmation that the Bonds issued under the Green Bond Framework are aligned with the Climate Bonds Standard. This may include statements of alignment with other applicable standards, such as the EU Green Bond Standard, the ASEAN Green Bond Standard, Chinese domestic regulations, Japanese Green Bond Guidelines, etc.	As per stated in the Chapters 1 and 3 of the Framework, CBS and Chinese domestic regulations such as <i>Green Bond Endorsed Projects Catalogue (2021 Edition)</i> , <i>Green Industry Guidance Catalogue (2019 Edition)</i> are mentioned to be aligned with.	Yes
4.1.2 A summary of the expected use of proceeds, as defined under Clause 1.1, and the expected contribution of the relevant sectors or sub-sectors to the rapid transition required to achieve the goals of the Paris Climate Agreement.	The Appendix 1 of the Disclosure Documentation has been reviewed to confirm the proceeds of the first Bond under the Program are going to allocated to 10 solar and 3 wind energy projects. Provided that the nominated projects of all bonds are Solar/Wind Energy, the use of proceeds contributes to generate GHG emission reductions in energy industry.	Yes
4.1.3 A description of the decision-making process, as defined under Clause 2.1, with particular reference to the requirements in Clause 2.1.2.	Chapter 3 of the Framework was reviewed to confirm the eligible project selection process has been documented.	Yes
4.1.4 On the methodology and assumptions to be used for: confirming, where required by relevant Sector Eligibility Criteria, the characteristics or performance of Nominated Projects & Assets required to conform to the relevant eligibility requirements under Part C of the Climate Bonds Standard; and any other additional impact metrics that the issuer will define.	Section 8 of the Framework was reviewed and confirm this requirement has been met. As listed in the Appendix 1 of the Disclosure Documentation, the nominated projects of the first Bond would likely to generate annual GHG emission reductions of 6.29 Million tCO2e when they are fully operated compared with the electricity generation from burning fossil energy.	Yes
4.1.5 A summary of the approach to the management of unallocated Net Proceeds in accordance with Clause 3.1.	Refer to 3.1.	Yes
4.1.6 The intended approach to providing Update Reports to reaffirm	As stated in the Chapter 5 of the Framework and the Disclosure	Yes

conformance with the Climate Bonds Standard while the Bond remains outstanding.	Documentation, the Issuer will compile the Update Reports annually during the term of the bonds.	
4.1.7 The list of proposed Nominated Projects & Assets associated with the Bond and the investment areas, as provided in Clause 9.1, into which the Nominated Projects & Assets fall. Where there are limits on the amount of detail that can be made available about specific Nominated Projects & Assets, information shall be presented on the investment areas which the Nominated Projects & Assets fall into, provided in Clause 9.1, and the Issuer shall provide an explanation of why details on Nominated Projects & Assets is limited.	The Nominated Projects of first Bond have been listed in the Appendix 1 of the Disclosure Documentation, which was reviewed to confirm this requirement has been met.	Yes
4.1.8 Where a proportion of the Net Proceeds are used for refinancing, an estimate of the share of the Net Proceeds used for financing and refinancing, and the relevant Nominated Projects & Assets or investment areas which may be refinanced. This may also include the expected look-back period for refinanced Nominated Projects & Assets.	As per stated in the Section 13 of the Framework, the Net Proceeds can be used for refinancing which is aligned with Chinese regulations. In the Framework, there is no limitation of the proportion of refinancing, which does not violate CBS requirements. As for the first Bond under the Program, the Issuer has confirmed in the Disclosure Documentation that there is no proportion for refinancing of the net proceeds.	Yes
4.2 The Issuer shall include in the Disclosure Documentation:	The Disclosure Documentation was reviewed to confirm this requirement is met.	Yes
4.2.1 The investment areas, as provided in Clause 9.1, into which the Nominated Projects & Assets fall.	The Disclosure Documentation has been reviewed to confirm the projects on which the proceeds will be used are onshore solar/wind projects. A list of nominated projects of the first Bond is given in the Disclosure Documentation.	Yes
4.2.2 The intended types of temporary investment instruments for the management of unallocated Net Proceeds in accordance with Clause 7.3.	According to the Disclosure Documentation and the Framework, National bonds, Government bonds, etc. are mentioned for temporary use of unallocated proceeds.	Yes
4.2.3 The Verifier engaged by the Issuer for the mandatory verification engagements.	The iGreenBank has been commissioned to perform the verification.	Yes
4.2.4 The intended approach to providing Update Reports to reaffirm conformance with the Climate Bonds Standard while the Bond remains outstanding, including the location of the published documents.	According to the Disclosure Documentation, the Issuer has confirmed the Update Reports will be annually disclosed on ChinaMoney, Shanghai Clearing House or other official channels.	Yes
4.2.5 The CBI Disclaimer provided in the Certification Agreement.	Disclaimer is included in the Disclosure Documentation.	Yes