



# GAP VALIDATION OF HUINENG LOW CONCENTRATION COAL MINE METHANE UTILIZATION PROJECT



Document Prepared by Shenzhen CTI International Certification Co., Ltd

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| <b>Report Title</b>  | Gap validation of Huineng Low Concentration Coal Mine Methane Utilization Project                          |
| <b>Client</b>        | Vitol SA                                                                                                   |
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## Summary:

Vitol (China) Energy Co., Ltd. has commissioned Shenzhen CTI International Certification Co., Ltd. (hereafter referred to as "CTI") to carry out the gap validation of registered CDM project activity "Huineng Low Concentration Coal Mine Methane Utilization Project" (UNFCCC Ref. No. 8006) with regard to the relevant requirements of VCS standard Version 4.2 and Clarification 1 of Errata and Clarifications, VCS Standard Version 4.0.

The proposed project is a newly built associated gas recovery and processing project located in Xincheng Village, Zhangzhuang Town, Pingding County, Yangquan City, Shanxi Province, People's Republic of China. The project activity is designed to capture a large part of the coal mine methane (CMM) gas and destroy it through utilizing it for electricity production and deliver to NCPG. It reduces GHG emissions caused by the CMM gas which would be vented into the atmosphere as well as the emissions by the fossil-fuel based power plant of NCPG. The estimated amount of net electricity generated during the crediting period is 68,500MWh per year. The project activity is expected to reduce emissions by approximately 352,106 tCO<sub>2</sub>e annually and 3,399,511 tCO<sub>2</sub>e in total over the crediting period from 04/11/2013-30/06/2023, only emission reductions from 01/01/2016 will be claimed with expected amounts of 2,639,348 tCO<sub>2</sub>e.

The validation purpose is an independent assessment by a Third Party of a proposed project activity against all defined criteria set for the registration under the VCS. In order to confirm that the project activity, as documented, is sound reasonable and meets the identified criteria. The validation scope involves the assessment of the project's compliance with the VCS Program rules regarding to the gap validation for the projects registered under the CDM, including the eligibility to complete the gap validation and transfer to the VCS program and the cover page and sections 1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.12, 1.13, 1.14, 1.15.1, 1.16, 1.17, 1.18 and 3.6 of the VCS project description (PD). Validation is a requirement and is seen as necessary to provide assurance to stakeholders of the quality of project and its intended generation of VCU. Validation is part of the VCS project cycle and will finally result in a conclusion by the executing VVB whether a project activity is valid to be submitted for registration to VCS registry.

Validation is conducted using Shenzhen CTI International Certification Co., Ltd (CTI) procedures in line with the requirements specified in the latest version of the VCS Validation and Verification Manual and applying auditing techniques. The validation team assessed the project activity's compliance against the VCS Standard Version 4.2,

the selected CDM methodology and the project description. The project is eligible under Project Scope 8 and Scope 10. The validation criteria followed the guidance documents provided by VCS included the following:

- VCS Standard Version 4.2
- Clarification 1 of Errata and Clarifications, VCS Standard Version 4.0
- VCS Program Guide Version 4.1
- VCS Validation and Verification Manual Version 3.2
- The applied CDM methodology "ACM0008 Consolidated methodology for coal bed methane, coal mine methane and ventilation air methane capture and use for power (electrical or motive) and heat and/or destruction through flaring or flameless oxidation, Version 07.0", and relevant UNFCCC requirements

In the course of the validation, 2 Corrective Action Requests (CARs), 3 Clarification Requests (CLs) were raised and successfully closed. The assessment is included in the report.

There are no restrictions of uncertainty for both validation and verification.

The review of the PD and the information made available to the validation team determined the fulfillment of stated criteria. CTI concludes that the project activity "Huineng Low Concentration Coal Mine Methane Utilization Project", as described in the PD version 4.0 dated 14/07/2022 meets all relevant requirements for VCS gap validation and the relevant host country criteria, and qualifies as a VCS project.

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# 1 INTRODUCTION

## 1.1 Objective

As commissioned by Vitol (China) Energy Co., Ltd, Shenzhen CTI International Certification Co., Ltd performed the gap validation of registered CDM project activity “Huineng Low Concentration Coal Mine Methane Utilization Project” (UNFCCC Ref. No. 8006)

The objective of validation is an independent assessment by a Third Party of a proposed project activity against all defined criteria set for the gap validation under the VCS program. The validation involves the assessment of the project’s compliance with the VCS Standard Version 4.2 in order to confirm that the project activity, as documented, is sound reasonable and meets the identified criteria. Validation is a requirement and is seen as necessary to provide assurance to stakeholders of the quality of project and its intended generation of VCUs. Validation is part of the VCS project cycle and will finally result in a conclusion by the executing VVB whether a project activity is valid to be submitted for registration to VCS registry.

## 1.2 Scope and Criteria

The validation scope is defined as an independent and objective review of the project description (PD) to validate the project’s compliance with the VCS Program rules regarding to the gap validation for the projects registered under the CDM, including the eligibility to complete the gap validation, and the information accuracy provided in cover page and sections 1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.12, 1.13, 1.14, 1.15.1, 1.16, 1.17, 1.18 and 3.6 of the VCS PD. The PD is reviewed against the criteria stated in VCS standard Version 4.2/27/, Clarification 1 of Errata and Clarifications, VCS Standard Version 4.0/30/, the CDM approved PDD/4/, and the applied CDM methodology “ACM0008 Consolidated methodology for coal bed methane, coal mine methane and ventilation air methane capture and use for power (electrical or motive) and heat and/or destruction through flaring or flameless oxidation, Version 07.0” /36/. The validation was based on the requirements of VCS Validation and Verification Manual Version 3.2/29/, VCS Program Guide Version 4.1/28/ and VCS Standards Version 4.2/27/ to apply auditing techniques. The validation is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design.

## 1.3 Level of Assurance

The project is expected to generated average of 352,106 VCUs per year, and therefore categorized as a large project as per the VCS rules, in regards to its scale, subject to a materiality threshold of 1% with respect to omission or misstatements concerning reported quantities of the project activity.

The assessment was conducted to provide a reasonable level of assurance of compliance against the defined audit criteria and materiality threshold within the audit scope. Based on the audit findings, the

validation statement reasonably assures that the GHG assertion is materially correct and is a fair representation of the GHG data and information.

## 1.4 Summary Description of the Project

The purpose of the project activity is to capture CMM gas and destroy it through utilizing it for electricity generation. The electricity is exported to the North China Power Grid (NCPG) dominated by fossil-fuel-fired power generation. The project reduces GHG emissions caused by the CMM gas which would be vented into the atmosphere as well as the emissions by the fossil-fuel based power plant of NCPG. The total capacity of the gas generators installed at the project site is 12MW. When fully operated, it utilizes 24,792,000 Nm<sup>3</sup> of pure methane annually from captured CMM gas for power generation while the CMM gas with a concentration of around 25%. The annual operating hours of the project activity are 6,000 h and the gross production is 72,000 MWh of electricity per year. The annual net generation of 68,500 MWh of electricity is delivered to the North China Power Grid (NCPG). The project activity also installed the waste heat recovery boilers to recover waste heat from each gas generator, however no GHG emission reductions from waste heat recovery are claimed. It has been confirmed by on-site inspection and desk review by checking the Feasibility Study Report of the project /19/ and the CDM approved PDD /4/.

The project activity generates GHG emission reductions by replacing electricity produced by fossil fuels-based power plant of NCPG and also avoids CH<sub>4</sub> from being emitted into the atmosphere. Thus, the project generates GHG emission reductions and produces financial, social and environmental benefits. The project is expected to achieve an annual emission reduction of 352,106 tCO<sub>2</sub>e and a total emission reduction of 3,399,511 tCO<sub>2</sub>e during the crediting period 04/11/2013-30/06/2023, only emission reductions from 01/01/2016 will be claimed with expected amounts of 2,639,348 tCO<sub>2</sub>e..

The baseline scenario is the same to the status prior to the implementation of the project, i.e. gas extraction is a combination of pre and post mining CMM extraction, all the CMM is vented into the atmosphere without destruction or utilization, and an equivalent amount of electricity is generated in the NCPG which is dominated by thermal power.

# 2 VALIDATION PROCESS

## 2.1 Method and Criteria

A project specific validation plan was developed to guide the validation auditing process to ensure efficiency and effectiveness. According to the ISO14064-3, the criteria are the policy, procedure or requirement used as reference against which evidence is compared. Therefore, validation of the project description was measured for compliance against the following criteria:

- VCS Standard Version 4.2/27/
- Clarification 1 of Errata and Clarifications, VCS Standard Version 4.0/30/

- VCS Program Guide Version 4.1/28/
- VCS Validation and Verification Manual Version 3.2/29/
- VCS project description template Version 4.1/31/
- The applied CDM methodology “ACM0008 Consolidated methodology for coal bed methane, coal mine methane and ventilation air methane capture and use for power (electrical or motive) and heat and/or destruction through flaring or flameless oxidation, Version 07.0” /36/, and relevant UNFCCC requirements/32/-/34/

The validation process derived from all items in the validation and verification criteria stated above. The validation consisted of the following three phase:

- Document review
- On-site inspection
- The resolution of outstanding issues and the issuance of the final validation report and certification.

On-site inspection and techniques based on the reported information in the project description, scope and best professional judgement of the validation team in order to meet a reasonable level of assurance. There is no sampling approach utilized by PP and VVB during validation.

## 2.2 Document Review

Documents review was conducted to ensure consistency with and identify any deviation from VCS program requirements. The public VCS PD Version 2.0 dated 11/02/2022, and updated VCS PD version 4.0 dated 14/07/2022/1/ were assessed as part of the validation. In addition, the approved CDM PDD version 05 dated 02/05/2017 /4/ and the corresponding CDM validation report version 04 dated 21/12/2012 and Validation Opinion version 02 dated 08/05/2017 /5/ were reviewed. Furthermore, the validation team used additional documentation by third parties like host party legislation and technical reports referring to the project design details. The references used in the course of this validation are summarized in Appendix 3.

The validation was performed basing on the documents check and on-site inspection, refer to the section 3 of this report and corresponding documents review.

## 2.3 Interviews

The objective of the interview process was to solicit important information from personnel related to project and relevant to the validation process. An on-site inspection and information discussions were conducted on 01/03/2022 with project proponent Beijing Yonder Environmental Energy Technology Co., Ltd. and the project operator Pingding County Yonder Coal Mine Methane Development Co., Ltd. and the project's VCS account manager Vitol SA , and the following is a list of the main interviewees and subject.

| NO. | Interviewee |            |                                                                | Subject                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Team member                |
|-----|-------------|------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|     | Last name   | First name | Affiliation                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |
| 1.  | Jiao        | Xuefeng    | Pingding County Yonder Coal Mine Methane Development Co., Ltd. | <ul style="list-style-type: none"> <li>- Project design and operation of the project activity;</li> <li>- Project proponent and ownership;</li> <li>- Project start date and crediting period;</li> <li>- Project location;</li> <li>- Baseline Scenario;</li> <li>- Data collection and ER calculation;</li> <li>- Applicable laws, statutes and other regulatory frameworks;</li> <li>- Participation under other GHG programs/emissions trading programs and other binding limits/other forms of environmental credit;</li> <li>- Sustainable development contributions;</li> <li>- Additional information relevant to the project</li> </ul> | Tong Dezheng and Feng Tian |
| 2.  | Zhao        | Shuhua     |                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |
| 3.  | Wang        | Chao       | Beijing Yonder Environmental Energy Technology Co., Ltd.       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |
| 4.  | Li          | Ning       | Vitol SA                                                       | <ul style="list-style-type: none"> <li>- Preparation of VCS PD;</li> <li>- Project's compliance with the VCS program;</li> <li>- Data and calculation of GHG emission reductions</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Tong Dezheng and Feng Tian |

## 2.4 Site Inspections

Via the assessment in course of the on-site inspection on 01/03/2022, a ground inspection of the project was conducted during the site visit and the validation team interviewed project implementer representative and operation staffs.

The information presented in the project description were assessed by review of the detailed project documentation, interviewing with personnel from the project proponent Beijing Yonder Environmental Energy Technology Co., Ltd, the project operator Pingding County Yonder Coal Mine Methane Development Co., Ltd. and project's VCS account manager Vitol SA , as well as by on-site inspection with regards to the project operation. This has enabled the validation team to assess the accuracy and completeness of reported information, to verify the project's compliance with the requirement of VCS gap validation.

## 2.5 Resolution of Findings

Material discrepancies identified in the course of the validation are addressed either as CARs, CLs or FARs.

A Corrective Action Request (CAR) is established where:

- The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- The VCS requirements have not been met;
- There is a risk that the emission reductions cannot be monitored or calculated.

A Clarification Request (CL) will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

A Forward Action Request (FAR) will be issued when certain issues related to project implementation should be reviewed during the next verification.

A detailed list of the CARs, CLs and FAR raised and discussed in the course of this validation is included in Appendix 4 of this report.

In the course of the validation 2 Corrective Action Requests (CARs), 3 Clarification Requests (CLs) were raised and successfully closed. The assessment is included in the report.

### 2.5.1 Forward Action Requests

As this is the gap validation for the project, there are no FARs involved in the validation process.

## 3 VALIDATION FINDINGS

### 3.1 Project Details

According to the VCS Standard Version 4.2 for projects registered under the CDM, the cover page and sections 1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.12, 1.13, 1.14, 1.15.1, 1.16, 1.17, 1.18 and 3.6 of the VCS Project Description Template shall be completed and a VVB shall undertake a validation of same to provide a gap validation for the project's compliance with the VCS rule.

CTI verified the information reported in the VCS PD/1/ against the approved CDM PDD/4/ and CDM validation report/5/, previous CDM MR and verification reports/6/ and by the on-site inspection. The detailed validation process is documented below:

#### **Summary Description of the Project**

It is confirmed that the project is a newly-built CMM gas utilizing project which utilizes the CMM gas captured from Huineng Low Concentration Coal Mine located in Xincheng Village, Zhangzhuang Town, Pingding County, Yangquan City, Shanxi Province, People's Republic of China for power generation by checking the Approval of EIA /8/ and the CDM validation report, and via the interview through the on-site inspection. It is verified by interview with the project proponent and the on-site staff of the operator and via checking the technical specifications/15/ that the project installed gas generators with total capacity of 12MW. When fully operated, it utilizes 24,792,000 Nm<sup>3</sup> of pure methane annually from captured CMM

gas for power generation while the CMM gas with a concentration of around 25%. The annual operating hours of the project activity are 6,000 h and the gross production is 72,000 MWh of electricity per year. The annual net generation of 68,500 MWh of electricity is delivered to the North China Power Grid (NCPG).

The project activity reduces CO<sub>2</sub> emissions by replacing electricity produced by fossil fuels and also avoids CH<sub>4</sub> from being emitted into the atmosphere. The emission reductions are estimated to be average 352,106tCO<sub>2</sub>e per year and for the VCS crediting period, only emission reductions from 01/01/2016 will be claimed with expected amounts of 2,639,348 tCO<sub>2</sub>e.

### **Sectoral Scope and Project Type**

The project activity is the utilization of CMM gas for power generation at Huineng Low Concentration Coal Mine, thus it falls under Sectoral scope 8: Mining/mineral production and Sectoral scope 10: Fugitive emissions from fuels (solid, oil and gas) as confirmed as per the UNFCCC Standard “Applicability of sectoral scopes version 01.0”/35/. It was confirmed that the project is not a grouped project.

### **Project Eligibility**

The PP has described and justified how the project is eligible under the scope of the VCS Program in PD as per the section 2.1.1 of VCS Standard Version 4.2 and the Clarification 1 of Errata and Clarifications, VCS Standard Version 4.0. The assessment is provided as below:

Eligibility under the scope of the VCS Program

- The project activity generates GHG emission reductions including CO<sub>2</sub> and CH<sub>4</sub> which belong to the six Kyoto Protocol greenhouse gases attributed to scope 1 of section 2.1.1 of VCS Standards Version 4.2.
- The project activity adopted CDM methodology ACM0008 Version 07.0 which is approved under a VCS approved GHG program, attributed to scope 4 of section 2.1.1 of VCS Standards Version 4.2.
- Via checking the CDM approved PDD and validation report of the project, it is verified that the project is implemented to recovery and utilize of CMM gas captured from Huineng Low Concentration Coal Mine for electricity generation and delivering to NCPG. It reduces GHG emissions caused by the CMM gas which would be vented into the atmosphere as well as the emissions by the fossil-fuel based power plant of NCPG, and the additionality is verified as actual, thus there is no assumption of having generated GHG emissions primarily for the purpose of their subsequent reduction, removal or destruction for this project.
- Via checking all the excluded project activities in the table, it is verified that this project type is not excluded by the scope of VCS program.

In conclusion, the project is eligible to the scope of the VCS Program.

Criteria under Clarification 1 of Errata and Clarifications, VCS Standard Version 4.0

The project activity is eligible to the scope of the VCS Program, and does not include afforestation and/or reforestation activities. Via checking the CDM registration interface of the project/37/ it is confirmed the project was registered as CDM project on 28/12/2012 with the CDM crediting period starting from 01/07/2013 and the project has CERs issued on 09/11/2017 which is in compliance with the criteria of

Clarification 1 (b) in Errata and Clarifications, VCS Standard Version 4.0 /30/. The project proponent initiated the pipeline listing on 23/12/2021 and the PD of the project were listed for public comments on 22/02/2022. The gap validation conducted by CTI was completed on 25/03/2022. The validation team confirms the project complies with the criteria to complete the gap validation set up in the Clarification 1 of Errata and Clarifications, VCS Standard Version 4.0.

Therefore, the project is eligible to complete a gap validation and/or transfer to the VCS Program.

### **Project Proponent and other entities involved in the project**

Through document review by checking the Business Licenses /20/,/21/, Statement on the ownership of the project /14/, approvals of EIA and FSR/8//9/ and via on-site inspection, the validation team confirmed the project is owned and operated by Pingding County Yonder Coal Mine Methane Development Co., Ltd. which is a fully owned subsidiary of Beijing Yonder Environmental Energy Technology Co., Ltd as verified by checking the National Enterprise Credit Information Publicity System/23/. Therefore, Beijing Yonder Environmental Energy Technology Co., Ltd is with fully legal right to the project activity. Moreover, Pingding County Yonder Coal Mine Methane Development Co., Ltd authorizes Beijing Yonder Environmental Energy Technology Co., Ltd. to act as the project proponent for the comprehensive implementation and management of the VCS project development/14/. Furthermore, the project proponent Beijing Yonder Environmental Energy Technology Co., Ltd and the contact information reported in section 1.5 of the VCS PD have been confirmed to be correct through checking the Business License/20/ and interviewing with the PP representative through the on-site inspection.

The other entity involved in the Project Vitol SA is appointed as the VCS account manager to handle and manage the registration of the project under VCS, to communicate with Verra and to request for issuance or transfer any VCU from the project as verified by checking the joint statement issued by the project proponent and Vitol SA /14/. The contact information reported in section 1.6 of PD has been confirmed to be correct through checking the Business License /22/and interviewing the representative of this company.

### **Ownership**

By checking Statement on the ownership of the project /14/, the Business Licenses /20/, /21/, approval of EIA /8/ and FSR /9/, the validation team confirmed that the project proponent Beijing Yonder Environmental Energy Technology Co., Ltd has the legal right to control and operate the project activity through its fully owned subsidiary Pingding County Yonder Coal Mine Methane Development Co., Ltd. Also, Beijing Yonder Environmental Energy Technology Co., Ltd. has full legal and beneficial title to all of the GHG reductions generated by the Project.

### **Project Start Date**

The project start date is 04/11/2013 on which the project starts commissioning. Via checking the CDM approved PDD/4/ and commissioning report/10/, and confirmed during on-site inspection, it is verified the start date is correct and in line with the VCS standard Version 4.2.

### **Project Crediting Period**

As per the requirements of VCS standard 4.2 and Clarification to VCS Program Rules and Requirements, v4.0, the VCS crediting period should begin on the start dated of the project and where projects have been

registered under more than one other GHG program, they are not eligible for VCU issuance after the date that is the earliest end date of all applicable project crediting periods. As the project start date is 04/11/2013 and the project is registered under CDM with a fixed 10-year crediting period from 01/07/2013 to 30/06/2023, the project adopts a crediting period from 04/11/2013-30/06/2023 which is in line with the concept for crediting period in section 3.8 of the VCS standard 4.2. Furthermore, as per Clarification 1 of Errata and Clarifications, VCS Standard Version 4.0, for a project that does not include afforestation and/or reforestation activities, only emission reductions with vintages beginning on or after 1 January 2016 are eligible for VCU issuance. Thus, the project proponent will not claim VCUs for vintage prior to 01/01/2016.

### Project Scale and Estimated GHG Emission Reductions or Removals

The average annual GHG emission reductions of the project are 352,106 tCO<sub>2</sub>e, which is higher than the threshold of large-projects (300,000 tCO<sub>2</sub>e per year). Therefore, the project falls in the category of “Large Project” as per definition in VCS standard. And the total estimated GHG emission reductions during the VCS crediting period (04/11/2013-30/06/2023) is 3,399,511 tCO<sub>2</sub>e, only emission reductions from 01/01/2016 will be claimed with expected amounts of 2,639,348 tCO<sub>2</sub>e.

Through checking emission reductions calculation spreadsheets/2//3/provided by PP, the validation team was able to confirm that the estimated GHG emission reductions of the project activity are as follows:

| Year                                               | Estimated GHG emission reductions or removals (tCO <sub>2</sub> e) |
|----------------------------------------------------|--------------------------------------------------------------------|
| 04/11/2013-31/12/2013                              | 55,951*                                                            |
| 2014                                               | 352,106                                                            |
| 2015                                               | 352,106                                                            |
| 2016                                               | 352,106                                                            |
| 2017                                               | 352,106                                                            |
| 2018                                               | 352,106                                                            |
| 2019                                               | 352,106                                                            |
| 2020                                               | 352,106                                                            |
| 2021                                               | 352,106                                                            |
| 2022                                               | 352,106                                                            |
| 01/01/2023 –30/06/2023                             | 174,606**                                                          |
| <b>Total estimated ERs</b>                         | <b>3,399,511</b>                                                   |
| <b>Total estimated ERs from 01/01/2016 onwards</b> | <b>2,639,348</b>                                                   |

|                                        |                         |
|----------------------------------------|-------------------------|
| <b>Total number of crediting years</b> | <b>9 years 239 days</b> |
| <b>Average annual ERs</b>              | <b>352,106</b>          |

\* The period from 04/11/2013-31/12/2013 (both days included) covers 58days, thus the estimated GHG emission reductions for 04/11/2013-31/12/2013 is calculated as  $352,106/365d \times 58d = 55,951 \text{ tCO}_2\text{e}$ ;

\*\*The period from 01/01/2023-30/06/2023 (both days included) covers 181 days, thus the estimated GHG emission reductions for the period 01/01/2023 –30/06/2023 is calculated as:  $352,106/365d \times 181d = 174,606 \text{ tCO}_2\text{e}$ .

The above estimated emission reduction is confirmed by the validation team via checking the Feasibility Study Report /19/, emission reduction calculation spreadsheets /2//3/, the CDM approved PDD /4/ and validation report /5/, CTI Validation Team confirmed that the calculation is correct and conservative.

### Project location

The project activity is located at Xincheng Village, Zhangzhuang Town, Pingding County, Yangquan City, Shanxi Province, People's Republic of China. The geographical coordinates are  $113^{\circ}34'15'' \sim 113^{\circ}39'40''\text{E}$  and  $37^{\circ}41'11'' \sim 37^{\circ}43'57''\text{N}$ . It is confirmed via the on-site inspection by checking the on-site GPS readings /17/ and by checking the CDM approved PDD/4/ and validation report/5/, the previous CDM monitoring report and verification report/6/.

### Conditions prior to project initiation

The scenario existing prior to the start of the implementation of the project activity is that gas extraction is a combination of pre and post mining CMM extraction, all the CMM gas is vented into the atmosphere without destruction or utilization, and an equivalent amount of electricity is generated in the NCPG. The baseline scenario is the same as the scenario existing prior to the implementation of the project activity, which has been confirmed during the interview and checking CDM approved PDD and validation report.

Therefore, the project is confirmed not to be implemented to generate GHG emissions for the purpose of their subsequent reduction, removal or destruction.

### Project compliance with applicable laws, statutes and other regulatory frameworks

The PD has stated that the project is in line with the relevant laws and regulations i.e. Renewable Energy Law of the People's Republic of China; Guidance Catalogue for the Development of Renewable Energy Industry; Chinese National Coalmine Safety Regulation; Notice of the National Development and Reform Commission on the issuance of the twelfth Five-Year Plan for The Development and Utilization of Coalbed Methane /24/.

Via checking the Inspection and Completion acceptance report of the project /10/, it is verified that the construction is in line with the requirement of national laws and regulations. Also, the project is legally approved by Local government by checking the Approval of EIA issued by Shanxi Province Environmental Protection Bureau on 10/05/2011 /8/ and Approval of FSR issued by Shanxi Province Development and Reform Commission on 27/02/2012 /9/, which means that the project implementation is in line with the national and local laws and regulations. And as stated in the PD and confirmed interview, CTI verified that the project will be subject to regular inspection by local government during the implementation period to ensure continuous compliance.

In conclusion, the project complies with all relevant local, regional and national laws, statutes and regulatory frameworks in P.R.C.

### **Participation under other GHG programs**

The project has been registered as CDM project with UNFCCC Ref. No. 8006. Apart from CDM, the project has neither been registered nor seeking registration under any other GHG programs which has been confirmed via checking the UNFCCC, GS, VCS, China Certified Emission Reduction (CCER)/38/ and other GHG schemes' website. It is verified that the project is seeking registration only in VCS program.

### **Other forms of credit**

- Emissions trading programs and other binding limits

It is verified that the project proponent Beijing Yonder Environmental Energy Technology Co., Ltd and its fully owned subsidiary Pingding County Yonder Coal Mine Methane Development Co., Ltd. are not part of any emission trading program via checking the GS, China Certified Emission Reduction (CCER)/38/ and other GHG schemes' website. The net GHG emission reductions from the project will not be used for compliance with emission trading programs or to meet binding limits on GHG emissions.

The project is a completely voluntary CDM project, not included in an emissions trading program or any other mechanism that includes GHG allowance trading. Although the national emission trading scheme has been launched since 16/07/2021/21/. It is confirmed that the project proponent Beijing Yonder Environmental Energy Technology Co., Ltd and its fully owned subsidiary Pingding County Yonder Coal Mine Methane Development Co., Ltd are not included the mandatory Emission Trading Scheme (ETS) and there is no emission cap enforced for both of them by checking the enforced company list in public information/26/.

Furthermore, the validation team confirms by checking the Declaration /17/ submitted by the project proponent that the net GHG emission reductions generated by the project will not be used for compliance with an emissions trading program or to meet binding limits on GHG emissions. Thus, it is concluded that the project activity is not involved on other emissions trading programs and other binding limits.

- Other forms of environmental credit sought or received and eligible to be sought or received

Via interview with the project owner and based on above assessment, it is confirmed that the project has not created any other form of environmental credit.

### **Additional information relevant to the project**

#### *Leakage management for AFOLU projects*

The project activity is not a AFOLU project, therefore, this section is Not applicable.

#### *- Commercially sensitive information*

No commercially sensitive information has been excluded from the public version of the project description. The details are presented transparently to validation team for analysis which lead to positive conclusion for this validation.

#### *- Sustainable development contributions*

Via the on-site inspection and by checking the evidence provided, CTI verified that the project contributes

the sustainable development through the following aspects:

- **SDG8 “Promote inclusive and sustainable economic growth, employment and decent work for all”:** Implementation of the project generates employment opportunities for local communities and the operation and maintenance of the plant also creates long-term employment opportunities for the skilled workers. This contributes to one of the China’s actions for promoting sustainable developing, “Increase labor force participation rate through implementation of the classification policy. Vigorously enforce the Law on Promotion of Employment”
- **SDG13 “Take urgent action to combat climate change and its impacts”:** The project avoids GHG emissions by destroying CH<sub>4</sub> from CMM gas and utilizes it for electricity generation which would be otherwise generated by the fossil-fuel dominated power plants from NCPG. The project is expected to generate an average of 352,106tCO<sub>2e</sub> emission reductions annually. This complies with the goal sated in the Part 11 of China’s “14<sup>th</sup> Five-Year Plan for National Economic and Social Development and Long-Range Objectives for 2035: “Actively respond to climate change: implement national independent contribution targets for climate change response by 2030 and formulate an action plan to reach peak carbon emissions by 2030”
- **SDG7 “Ensure access to affordable, reliable, sustainable and modern energy”:** The project reduces the consumption of the fossil fuels of NCPG, which contributes to increasing China’s energy security. This contributes to the action that “Promoting coal substitution as well as transformation and upgrading” and “Vigorously developing new energy resources” of China’s “Action Plan for Carbon Dioxide Peaking Before 2030”.

Therefore, the assessment team confirmed that the gap VCS PD is accurate, complete, and provides an understanding of the nature of the project. Based on above assessment and demonstration, it is concluded that the description in the project description is accurate, complete, and the nature of the project is actual and understandable, and it is confirmed that the project has been implemented as described in the project description via the validation.

CL 01, CL 02, CL 03, CAR 01, CAR 02 were raised and successfully closed. Refer to Appendix 4 for detail assessment.

## 3.2 Safeguards

### 3.2.1 No Net Harm

NA

### 3.2.2 Local Stakeholder Consultation

NA

### 3.2.3 Environmental Impact

NA

### 3.2.4 Public Comments

NA

### 3.2.5 AFOLU-Specific Safeguards

NA

## 3.3 Application of Methodology

### 3.3.1 Title and Reference

The approved CDM methodology applied in the project activity is ACM0008: “Consolidated methodology for coal bed methane, coal mine methane and ventilation air methane capture and use for power (electrical or motive) and heat and/or destruction through flaring or flameless oxidation, Version 07.0”.

Related tools are:

Methodological tool “Tool to calculate the emission factor for an electricity system” Version 2.2.1

Methodological tool “Demonstration and assessment of additionality” Version 06.0.0.

### 3.3.2 Applicability

NA

### 3.3.3 Project Boundary

NA

### 3.3.4 Baseline Scenario

NA

### 3.3.5 Additionality

NA

### 3.3.6 Quantification of GHG Emission Reductions and Removals

NA

### 3.3.7 Methodology Deviations

There are no any methodology deviations applied to the project.

### 3.3.8 Monitoring Plan

NA

### 3.4 Non-Permanence Risk Analysis

NA

## 4 VALIDATION CONCLUSION

CTI has performed the gap validation of Huineng Low Concentration Coal Mine Methane Utilization Project (VCS Ref. No.2830) which is a CDM registered project (UNFCCC Ref No.8006). The baseline and monitoring methodology applied was ACM0008 “Consolidated methodology for coal bed methane, coal mine methane and ventilation air methane capture and use for power (electrical or motive) and heat and/or destruction through flaring or flameless oxidation, Version 07.0” which is an approved CDM methodology. The validation was performed based on the requirements set by VCS Standard Version 4.2 for gap validation, Clarification 1 of Errata and Clarifications, VCS Standard Version 4.0. and relevant guidance under VCS Program.

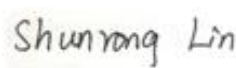
The gap validation consisted of the following three phases:

- i) desk review of the project design;
- ii) interviews with project stakeholders;
- iii) issuance of the final validation report

Vitol SA is responsible for the preparation of the VCS PD on the basis set out in VCS Standard Version 4.2 for gap validation. CTI has verified the public VCS PD Version 2.0 dated 11/02/2022 and updated VCS PD Version 4.0 dated 14/07/2022. Analysis as provided by the applied VCS program approved methodology demonstrates that the project activity is not a likely baseline scenario. Estimated emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented as designed as per the requirements of the approved CDM PDD, the project is likely to achieve the estimated amount of emission reductions as specified within the VCS PD Version 4.0 dated 14/07/2022 as observed from the gap validation performed as per VCS Standard Version 4.2 requirements stated above. The review of the VCS-PD and the information made available to the validation team determined the fulfillment of stated criteria. According to the validation team, the project correctly applies and meets the relevant VCS requirements and the relevant host country criteria and qualifies as a VCS project.



Mr. Tong Dezheng  
Team Leader  
14/07/2022



Ms Lin Shunrong  
Technical Reviewer  
14/07/2022

# APPENDIX I: ABBREVIATIONS

| Abbreviations     | Full texts                                            |
|-------------------|-------------------------------------------------------|
| AFOLU             | Agriculture, Forestry, and Other Land Use             |
| CCER              | China Certified Emission Reduction                    |
| CDM               | Clean Development Mechanism                           |
| CMM               | Coal Mine Methane                                     |
| CO <sub>2</sub>   | Carbon dioxide                                        |
| CO <sub>2</sub> e | Carbon dioxide equivalent                             |
| DNA               | Designated National Authority                         |
| ETS               | Emission Trading Scheme                               |
| GHG               | Greenhouse gas(es)                                    |
| GS                | Gold Standard                                         |
| EIA               | Environmental Impact Assessment                       |
| ER                | Emission Reduction                                    |
| FAR               | Forward Action Request                                |
| FSR               | Feasibility Study Report                              |
| GHG               | Greenhouse gas(es)                                    |
| PD                | Project Description                                   |
| PDD               | Project Design Document                               |
| PP                | Project Participant                                   |
| UNFCCC            | United Nations Framework Convention on Climate Change |
| VVS               | Validation and Verification Standard                  |
| VCS               | Verified Carbon Standard                              |
| VCSA              | Verified Carbon Standard Association                  |
| VCU               | Verified Carbon Unit                                  |
| VVB               | Validation/Verification Body                          |

# APPENDIX 2: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

Mr. Dezheng TONG

Satisfies the requirements of competence management system of CTI Certification, and is hereby appointed as:

| Qualification |             |           |          |             |                    |                  |
|---------------|-------------|-----------|----------|-------------|--------------------|------------------|
| Status        | GHG Auditor | Validator | Verifier | Team Leader | Technical Reviewer | Technical Expert |
| Date          | √           | √         | √        | √           | -                  | √                |

| Scope                                                     | Technical Area                                          |
|-----------------------------------------------------------|---------------------------------------------------------|
| SS 1: Energy industries (renewable/non-renewable sources) | TA 1.2: Energy generation from renewable energy sources |
| SS 8: Mining/mineral production                           | TA 8.1: Mining/mineral production                       |
| SS 10: Fugitive emissions from fuels (solid, oil and gas) | TA 10.1: Fugitive emissions from oil and gas            |

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

*Wu Lin*

Wu LIN

Technical Competent Manager

Shenzhen, 01/07/2019

## Mr. Tian FENG

Satisfies the requirements of competence management system of CTI Certification, and is hereby appointed as:

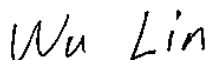
| Qualification |           |          |             |                    |                  |
|---------------|-----------|----------|-------------|--------------------|------------------|
| GHG Auditor   | Validator | Verifier | Team Leader | Technical Reviewer | Technical Expert |
| √             | -         | -        | -           | -                  | -                |

| Scope                                                     | Technical Area                                          |
|-----------------------------------------------------------|---------------------------------------------------------|
| SS 1: Energy industries (renewable/non-renewable sources) | TA 1.2: Energy generation from renewable energy sources |

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

Wu LIN



Technical Competent Manager

Shenzhen, 25/01/2022

## Ms. Shu'E JIANG

Satisfies the requirements of competence management system of CTI Certification, and is hereby appointed as:

| Qualification |             |           |          |             |                    |                  |
|---------------|-------------|-----------|----------|-------------|--------------------|------------------|
| Status        | GHG Auditor | Validator | Verifier | Team Leader | Technical Reviewer | Technical Expert |
| Date          | -           | -         | -        | -           | -                  | √                |

| Scope                                                     | Technical Area                               |
|-----------------------------------------------------------|----------------------------------------------|
| SS 6: Construction                                        | TA 6.1: Construction                         |
| SS 8: Mining/mineral production                           | TA 8.1: Mining/mineral production            |
| SS 10: Fugitive emissions from fuels (solid, oil and gas) | TA 10.1: Fugitive emissions from oil and gas |

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

*Wu Lin*

Wu LIN

Technical Competent Manager

Shenzhen, 01/01/2021

## Ms. Shunrong LIN

Satisfies the requirements of competence management system of CTI Certification, and is hereby appointed as:

| Qualification |             |           |          |             |                    |                  |
|---------------|-------------|-----------|----------|-------------|--------------------|------------------|
| Status        | GHG Auditor | Validator | Verifier | Team Leader | Technical Reviewer | Technical Expert |
| Date          | √           | √         | √        | √           | √                  | √                |

| Scope                                                     | Technical Area                                          |
|-----------------------------------------------------------|---------------------------------------------------------|
| SS 1: Energy industries (renewable/non-renewable sources) | TA 1.2: Energy generation from renewable energy sources |
| SS 14: Afforestation and reforestation                    | TA 14.1: Afforestation and reforestation                |
| SS 15: Agriculture                                        | TA 15.1: Agriculture                                    |

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

Wu LIN

*Wu Lin*

Technical Competent Manager

Shenzhen, 01/01/2021

## APPENDIX 3: REFERENCE LIST

|      |                                                                                                                                                                                  |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| /1/  | VCS Project Description, version 2.0 dated 11/02/2022, version 3.0 dated 22/03/2022, version 4.0 dated 14/07/2022                                                                |
| /2/  | Estimated ER calculation spreadsheet for VCS Project Description                                                                                                                 |
| /3/  | Estimated ER calculation spreadsheet for CDM Registered Project Design Document                                                                                                  |
| /4/  | CDM Registered Project Design Document, version 05 dated 02/05/2017                                                                                                              |
| /5/  | CDM Validation Report version 04 dated 21/12/2012 and Validation Opinion dated 08/05/2017                                                                                        |
| /6/  | Previous CDM Monitoring Report and Verification Report for the 1 <sup>st</sup> monitoring period                                                                                 |
| /7/  | Letter of Approval issued by China DNA on 07/09/2012                                                                                                                             |
| /8/  | Approval of EIA (No. [2011]744) issued by Shanxi Province Environmental Protection Bureau on 10/05/2011                                                                          |
| /9/  | Approval of FSR (No. Jin Fa Gai Xinnengyuan Fa [2012]156) issued by Shanxi Province Development and Reform Commission on 27/02/2012                                              |
| /10/ | Completion acceptance report of the project issued by Pingding County Yonder Coal Mine Methane Development Co., Ltd.                                                             |
| /11/ | Power Purchase Agreement for Huineng Low Concentration Coal Mine Methane Utilization Project                                                                                     |
| /12/ | Approval for Grid Connection                                                                                                                                                     |
| /13/ | Ownership of Beijing Yonder Environmental Energy Technology Co., Ltd                                                                                                             |
| /14/ | Statement on: Pingding County Yonder Coal Mine Methane Development Co., Ltd as authorized by the project owner Beijing Yonder Environmental Energy Technology Co., Ltd           |
| /15/ | Technical Agreement for gas generators with 500kW dated 09/2012 and 11/2013                                                                                                      |
| /16/ | NMHC sampling test report for Huineng Low Concentration Coal Mine Methane Utilization Project                                                                                    |
| /17/ | Declaration on emission reductions not be used for compliance with an emissions trading program or to meet binding limits on GHG emissions by project proponent dated 01/03/2022 |
| /18/ | EIA of Huineng Low Concentration Coal Mine Methane Utilization Project conducted by Shanxi Coal Management Academy in Nov 2010                                                   |
| /19/ | Feasibility Study Report of Huineng Low Concentration Coal Mine Methane Utilization Project conducted by Taiyuan Coal Industry Design Institute in Dec 2011                      |
| /20/ | Business License of Beijing Yonder Environmental Energy Technology Co., Ltd                                                                                                      |

|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| /21/ | Business License of Pingding County Yonder Coal Mine Methane Development Co., Ltd.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| /22/ | Business License of Vitol SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| /23/ | Registration information of Pingding County Yonder Coal Mine Methane Development Co., Ltd. in National Enterprise Credit Information Publicity System:<br><a href="http://www.gsxt.gov.cn/index.html?uniscid=91140321592954464K">http://www.gsxt.gov.cn/index.html?uniscid=91140321592954464K</a>                                                                                                                                                                                                                                                                                    |
| /24/ | National and local laws/regulations:<br>(1). Renewable Energy Law of the People's Republic of China;<br>(2). Guidance Catalogue for the Development of Renewable Energy Industry;<br>(3). Opinions of the General Office of the State Council on Further Accelerating the Extraction and Utilization of Coalbed Methane (Coal Mine Gas);<br>(4). Chinese National Coalmine Safety Regulation;<br>(5). Notice of the National Development and Reform Commission on the issuance of the twelfth Five-Year Plan for The Development and Utilization of Coalbed Methane (Coal Mine Gas). |
| /25/ | Measures for the Administration of Carbon Emission Trading, issued by Ministry of Ecology and Environment of China, dated 31/12/2020                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| /26/ | Enforced company list in China cap & trade scheme, issued by Ministry of Ecology and Environment of China                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| /27/ | VCS Standard version 4.2, updated on 20/01/2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| /28/ | VCS Programme Guide version 4.1, updated on 20/01/2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| /29/ | VCS Validation and Verification Manual, version 3.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| /30/ | Errata & Clarifications, VCS Standard version 4.0, issued on 05/02/2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| /31/ | VCS project description template Version 4.1, updated on 20/01/2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| /32/ | CDM Validation and Verification Standard for project activities version 03.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| /33/ | CDM Project Standard for project activities version 03.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| /34/ | CDM project cycle procedure for project activities version 03.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| /35/ | Applicability of sectoral scopes version 01.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| /36/ | Approved methodology ACM0008: Consolidated methodology for coal bed methane, coal mine methane and ventilation air methane capture and use for power (electrical or motive) and heat and/or destruction through flaring or flameless oxidation, Version 07.0                                                                                                                                                                                                                                                                                                                         |
| /37/ | CDM Registration Interface of The Project:<br><a href="https://cdm.unfccc.int/Projects/DB/CEC1351854040.36/view">https://cdm.unfccc.int/Projects/DB/CEC1351854040.36/view</a>                                                                                                                                                                                                                                                                                                                                                                                                        |
| /38/ | UNFCCC: <a href="http://cdm.unfccc.int">http://cdm.unfccc.int</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|      |                                                                                                                                                                                                                                      |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | VCS: <a href="http://verra.org">http://verra.org</a><br>GS: <a href="https://www.goldstandard.org/">https://www.goldstandard.org/</a><br>CCER: <a href="http://cdm.ccchina.org.cn/ccer.aspx">http://cdm.ccchina.org.cn/ccer.aspx</a> |
| /39/ | Clarification to VCS Program Rules and Requirements, v4.0, issued on 19/04/2022                                                                                                                                                      |

# APPENDIX 4: CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS, FORWARD ACTION REQUESTS (CAR/CL/FAR)

|                                                                                                                                                                                                                                                                                                                                                |    |             |     |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------|-----|------------------|
| CL ID                                                                                                                                                                                                                                                                                                                                          | 01 | Section no. | 1.3 | Date: 01/03/2022 |
| <b>Description of CL</b>                                                                                                                                                                                                                                                                                                                       |    |             |     |                  |
| PP is requested to clarify the following items and supplement the same in Section 1.3 of the VCS PD;<br>- The eligibility of the project activity for the gap validation as per the Clarification 1 of Errata and Clarifications, VCS Standard, version 4.0<br>- The scope of the VCS Program as per Section 2.1.1 of VCS Standard Version 4.2 |    |             |     |                  |
| <b>Project proponent response</b>                                                                                                                                                                                                                                                                                                              |    |             |     | Date: 22/03/2022 |
| The updated PD version 3.0 dated 22 March 2022 have included the clarifications.                                                                                                                                                                                                                                                               |    |             |     |                  |
| <b>Documentation provided by project proponent</b>                                                                                                                                                                                                                                                                                             |    |             |     |                  |
| Updated VCS PD Version 3.0 dated 22/03/2022                                                                                                                                                                                                                                                                                                    |    |             |     |                  |
| <b>DOE assessment</b>                                                                                                                                                                                                                                                                                                                          |    |             |     | Date: 25/03/2022 |
| It is confirmed that the project eligibility has been clearly clarified in the updated PD as per the VCS Standard requirement. The clarifications are found to be correct by checking the CDM PDD and CDM registration interface of the project. Thus, CL 01 is closed.                                                                        |    |             |     |                  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |             |      |                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------|------|------------------|
| CL ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 02 | Section no. | 1.14 | Date: 01/03/2022 |
| <b>Description of CL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |             |      |                  |
| Specific local/national laws, statutes and regulations are required to be identified and demonstrate compliance of the project activity in Section 1.14 as per the requirement of the PD template.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    |             |      |                  |
| <b>Project proponent response</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |             |      | Date: 22/03/2022 |
| The project complies with all Chinese relevant laws and regulations. Mainly include:<br>1. Renewable Energy Law of the People's Republic of China;<br>2. Guidance Catalogue for the Development of Renewable Energy Industry;<br>3. Opinions of the General Office of the State Council on Further Accelerating the Extraction and Utilization of Coalbed Methane (Coal Mine Gas);<br>4. Chinese National Coalmine Safety Regulation;<br>5. Notice of the National Development and Reform Commission on the issuance of the twelfth Five-Year Plan for The Development and Utilization of Coalbed Methane (Coal Mine Gas).<br>The updated PD version 3.0 dated 22 March 2022 have included above. |    |             |      |                  |
| <b>Documentation provided by project proponent</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    |             |      |                  |

|                                                                                                                                                                                                                                                                                                                                                                               |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Updated VCS PD Version 3.0 dated 22/03/2022                                                                                                                                                                                                                                                                                                                                   |                         |
| <b>DOE assessment</b>                                                                                                                                                                                                                                                                                                                                                         | <b>Date: 25/03/2022</b> |
| It is confirmed that the relative laws, statutes and regulations are identified and compliance of the project have been included in the updated PD. All information provided are verified to be authentic by checking the Approvals of EIA and FSR, Completion acceptance report of the project and the laws and regulations stated in the updated PD. Thus, CL 02 is closed. |                         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                    |      |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------|------|-------------------------|
| <b>CL ID</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 03 | <b>Section no.</b> | 1.16 | <b>Date: 01/03/2022</b> |
| <b>Description of CL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                    |      |                         |
| As per the requirement of VCS PD template, PP is requested to provide clarification in Section 1.16 as following:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                    |      |                         |
| <ul style="list-style-type: none"> <li>- Demonstrate if any emission trading program, GHG allowance mechanism in China</li> <li>- Demonstrate that GHG emission reductions and removals generated by the project will not be used for compliance under such programs or mechanisms.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                    |      |                         |
| <b>Project proponent response</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                    |      | <b>Date: 22/03/2022</b> |
| <p>-The project has not been, and will not apply for China Certified Emission Reduction (CCER), and is not in the project data base of CCER;</p> <p>-Beijing Yonder Environmental Energy Technology Co., Ltd and its subsidiary Pingding County Yonder Coal Mine Methane Development Co., Ltd, who is in operation of the project activity, is not included in the compliance entity list by China national ETS. Shanxi Province, where the project is located, have not been implemented for pilot ETS scheme.</p> <p>-The project is not involved in an emission trading program or any other mechanism that includes GHG allowance trading. The GHG emission reductions and removals generated by the project will not be used for compliance in China. The project proponent has signed declaration on not being used for the compliance and no double counting claiming of the credits.</p> <p>The updated PD version 3.0 dated 22 March 2022 have included above.</p> |    |                    |      |                         |
| <b>Documentation provided by project proponent</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                    |      |                         |
| Updated VCS PD Version 3.0 dated 22/03/2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                    |      |                         |
| <b>DOE assessment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                    |      | <b>Date: 25/03/2022</b> |
| It is confirmed that the project is not included in any other GHG programs, emissions trading programs or other binding limits by checking the UNFCCC, GS, VCS, China Certified Emission Reduction (CCER), other GHG schemes' website, ETS company list and the Declaration issued by project proponent dated 01/03/2022. Thus, CL 03 is closed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                    |      |                         |

|                                                                                                                                     |    |                    |     |                         |
|-------------------------------------------------------------------------------------------------------------------------------------|----|--------------------|-----|-------------------------|
| <b>CAR ID</b>                                                                                                                       | 01 | <b>Section no.</b> | 1.1 | <b>Date: 01/03/2022</b> |
| <b>Description of CAR</b>                                                                                                           |    |                    |     |                         |
| The PD is requested to be updated according the requirement of VCS Standard version 4.2 and the latest VCS PD template version 4.1. |    |                    |     |                         |

|                                                                                                                                                                                                                                             |                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>Project proponent response</b>                                                                                                                                                                                                           | <b>Date: 22/03/2022</b> |
| The PD has been updated as per VCS PD template version 4.1.                                                                                                                                                                                 |                         |
| <b>Documentation provided by project proponent</b>                                                                                                                                                                                          |                         |
| Updated VCS PD Version 3.0 dated 22/03/2022                                                                                                                                                                                                 |                         |
| <b>DOE assessment</b>                                                                                                                                                                                                                       | <b>Date: 25/03/2022</b> |
| It is confirmed by checking the updated PD against the latest PD template v4.1, information presenting the updated VCS PD is verified to be correct and compliance with the requirements of the latest PD template. Thus, CAR 01 is closed. |                         |

|                                                                                                                                                                                                                                                    |    |                    |      |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------|------|-------------------------|
| <b>CAR ID</b>                                                                                                                                                                                                                                      | 02 | <b>Section no.</b> | 1.17 | <b>Date: 01/03/2022</b> |
| <b>Description of CAR</b>                                                                                                                                                                                                                          |    |                    |      |                         |
| Section 1.17 is not in line with the requirement of the VCS PD template, PP is requested to:                                                                                                                                                       |    |                    |      |                         |
| <ul style="list-style-type: none"> <li>- Explain how project activities will result in expected SD contributions</li> <li>- Describe how the project contributes to achieving any nationally stated sustainable development priorities.</li> </ul> |    |                    |      |                         |
| <b>Project proponent response</b>                                                                                                                                                                                                                  |    |                    |      | <b>Date: 22/03/2022</b> |
| Section 1.17 has been updated to include the SD contributions.                                                                                                                                                                                     |    |                    |      |                         |
| <b>Documentation provided by project proponent</b>                                                                                                                                                                                                 |    |                    |      |                         |
| Updated VCS PD Version 3.0 dated 22/03/2022                                                                                                                                                                                                        |    |                    |      |                         |
| <b>DOE assessment</b>                                                                                                                                                                                                                              |    |                    |      | <b>Date: 25/03/2022</b> |
| It is confirmed by checking the updated PD against the UN SDGs, the project contributes sustainable development involving SDGs 7, 8 and 13, the description is verified to be correct and appropriate, thus, CAR 02 is closed.                     |    |                    |      |                         |