PROJECT REVIEW REPORT

This project review report includes findings raised during Verra's review of the project specified below. The VVB must address the findings before the project request can be considered for approval by Verra. The project review report will be made publicly available on the Verra Registry. Confidential information may be provided in separate attachments.

Project ID	3348
Project Name	Huizhou Landfill Gas Power Generation Phase III and IV Project
Review Type	Registration
Program(s)	VCS Program
Project Proponent	Shenzhen PhasCon Technologies Co., Ltd.
Methodology	ACM0001, *¨Flaring or use of landfill gas¨*, version 19.0
VVB	LGAI Technological Center, S.A. (Applus+)
Assessment Criteria	*VCS Standard, v4.3*
Date of First Issue	14 March 2023
Review Conclusion	Approved
Date of Final Issue	12/06/2023

FINDINGS

#	Finding Description	VVB Response	Status
1	**Further information required on baseline scenario justification and assessment**		
	Issue Section 3.4 of the project description states that the baseline scenario has been identified as ¨*LFG from Huizhou landfill site is emitted to the atmosphere directly*¨. However as per Item 11.1.3 of GB 50869-2013 (page 34 of the project description) it is stipulated that that *if the LFG does not have the conditions for LFG utilization,, the flare method shall be adopted for combustion treatment, and the process that can effectively reduce the generation and emission of methane shall be adopted*. As per the information described above related to item 11.1.3, it is not clear how the use of LFG for electricity generation (i.e., utilization) has not been considered as the baseline scenario. Action item 1. The VVB must request the project proponent to further elaborate the identification and justification of the baseline scenario (and further demonstration of additionality) considering the legal requirements established in the "Technical Code for Municipal Solid Waste Sanitary Landfill" (GB 50869-2013), issued by the Ministry of Construction in 2013. 2. The VVB must further elaborate how the use of LFG for electricity generation has been ruled out from the baseline	**Round 1** VVB Response According to the Chinese DNA, from the following link: https://www.mohurd.gov.cn/gongkai/fdzdgknr/tzgg/201308/20130820_224784.html the "Technical Code for Sanitary Landfill Treatment of Domestic Waste" is now approved as a national standard, numbered GB50869-2013, and has been implemented from 01/03/2014. Among them, Item 3.0.3, 4.0.2, 8.1.1, 10.1.1, 11.1.1, 11.6.1, 11.6.3, 11.6.4 and 15.0.5 are mandatory provisions and must be strictly implemented. But Item 11.1.3 is a voluntary provision, and it is a common practice in China that the LFG from landfill sites is vented to the atmosphere directly. VVB has confirmed the correctness of above description. Verra Response The justification has been provided. This finding is closed. **Round 2** VVB Response	Closed

	scenario considering the requirements of the referred Technical Code. Program rule(s) *VCS Standard v.4.3*, Sections 3.12 and 3.13	Verra Response	

2	**Further information and assessment on monitoring of LFG flow**		
	Issue The validation report states that emission reductions from the flaring of the LFG are not claimed under the project activity. However, the project description does not indicate the exact location of the flow meter used to measure the LFG (i.e., if it is located before or after the flaring system installed) in order to ensure that if any LFG is flared it is not accounted in the calculation of $F_{CH4,PJ,y}$. **Action item** 1) The VVB must ensure that the project proponent describes the exact location of the flow meter in order to confirm that no GHG emission reductions are being claimed in the case the flare is used. 2) The VVB must further validate this information and update Section 3.3.8 of the validation report as needed. Program Rule(s) *VCS Project Description Template v.4.1*, Section 5.3 *VCS Validation Report Template v.4.1*, Section 3.3.8	**Round 1** VVB Response The emission reductions from the flaring of the LFG are not claimed under the project activity. The reason is that the location of the flow meter used to measure the LFG are after the flaring system installed, and just before the gas generator. It also mentioned in the PD, "LFG fed to the Power Plant". The location of flow meter has been confirmed through site visit and such description has been made in the FVR. Verra Response The information on location of flow meter has been provided. This finding is closed.	Closed

3	**Further information and assessment on applicability and additionality**		
	<u>Issue</u> A. It is not clear how project satisfies applicability conditions set in para 3(a) or (b) of ACM0001, v19 since PP has mentioned that neither of the applicability conditions are applicable to project activity in section 3.2 of PD. B. The project description mentions that there exists a CDM project activity with reference number 3201 that utilizes the LFG from the same landfill as the proposed project activity for electricity generation. Given that the proposed project applied para. 5.1.1 of the TOOL32, v.04.0 it is not clear how it has been demonstrated that prior to the implementation of the project the LFG was only vented and or flared (in the case of brownfield projects) or would have been only vented and/or flared (in the case of greenfield projects) but not utilized for energy generation. <u>Action item</u> 1) The VVB must ensure that PP clarifies on how the project activity satisfies the applicability conditions of methodology. 2) The VVB must ensure that the project proponent includes in Section 3.5 of the project description a description of the situation of the CDM activity with reference number 3201 (such as details of operation, if issuance have been requested, electricity has been generated, etc.) in order to further substantiate that the proposed project activity would not have occurred in the absence of the incentive provided by carbon markets. 3) The VVB must further validate this information and update validation report as needed. <u>Program Rule(s)</u> TOOL32, v.04.0; ACM0001, version 19 *VCS Project Description Template v.4.1*, Section 3.2 and 3.5 *VCS Validation Report Template v.4.1*, Section 3.3.2 and 3.3.5	**Round 1** <u>VVB Response</u> Twenty years ago, China was a poor country, and it's a common practice to construct the project by phase I to phase II, III, IV or more. With rapidly urbanization, more and more solid waste is produced in China. Even though the name of the landfill site did not change, different phases of the project are located in different locations. For the Project Phase III and IV, it is located at the different location, and has no connection to the CDM project activity with reference number 3201.  Such description has been included in both PD and FVR. <u>Verra Response</u> It is still not clear how project satisfies applicability conditions set in para 3(a) or (b) of ACM0001, v19 since PP has mentioned that neither of the applicability conditions are applicable to project activity in section 3.2 of PD. The VVB must ensure that PP clarifies on how the project activity satisfies the applicability conditions of methodology, specifically para 3 (a) or 3 (b) of ACM0001, v19. The VVB must reassess the applicability condition and revise validation report as needed.	Closed

		This finding is open. ***Background Information*** *ACM0001, v19:* *3. The methodology is applicable under the following conditions:* *(a) Install a new LFG capture system in an existing or new (Greenfield) SWDS where no LFG capture system was or would have been installed prior to the implementation of the project activity; or* *(b) Make an investment into an existing LFG capture system to increase the recovery rate or change the use of the captured LFG, provided that:* *(i) The captured LFG was vented or flared and not used prior to the implementation of the project activity; and* *(ii) In the case of an existing active LFG capture system for which the amount of LFG cannot be collected separately from the project system after the implementation of the project activity and its efficiency is not impacted on by the project system: historical data on the amount of LFG capture and flared is available;* **Round 2** VVB Response The assessment team checked the registered CDM Project 3201: Huizhou Landfill Gas Recovery and Utilization Project. CDM Project 3201 is an LFG power plant associated with the original Huizhou Landfill; the VCS Project 3348 is associated with Huizhou Landfill Phase III and IV. As it has been showed in the PD Figure 1.6, page 11, the two projects have separate LFG collection system and separate power generators, and they are operated independently of each other. So, the project 3348 satisfies applicability conditions set in para 3(a) of ACM0001, v19. Therefore, the assessment team confirms that CDM Project 3201 and the VCS Project 3348 are two different LFG power generation projects, which has been added in the section 3.2 of the Verification Report.	

		Related description has been revised in both PD and FVR. Verra Response The justification has been added. This finding is closed.	

4	**Further information and assessment on ex-ante estimation of emission reductions**		
	Issue Section 4.1 of the project description calculates the BECH4,SWDS,y considering the ¨amount of solid waste type j disposed or prevented from disposal in the SWDS¨ (Wx). It is not clear how the implications of the CDM project activity with reference number 3201 have been considered in the calculation of Wx during 2000-2024 given that the CDM project is located in the same landfill as the proposed project activity. **Action item** 1) The VVB must ensure that the project proponent considers the implications of the CDM project activity with reference number 3201 when calculating the ex-ante emission reductions. 2) The VVB must further validate this information and update Section 3.3.6 of the validation report as needed. Program Rule(s) *VCS Project Description Template v.4.1*, Section 4.1	**Round 1** VVB Response As China is a developing country, it is a common practice to construct the project by phase I to phase II, III, IV or more. With rapidly urbanization, more and more solid waste is produced in China. Even though the name of the landfill site did not change, different phases of the project are located in different locations. For the Project Phase III and IV, it is located in the different location, and has no connection to the CDM project activity with reference number 3201. The data of 2000-2024 in Phase III and IV did not include data of the CDM project. By checking FSR and site visit, VVB is able to confirm the same. Verra Response Further information has been provided on baseline landfill scenario. This finding is closed.	Closed

	VCS Validation Report Template v.4.1, Section 3.3.6		

5	**Further assessment required on project start date**		
	Issue Section 1.8 of the project description states that the project start date is defined as 14/12/2020 (commercial operation started date of phase III). However, it remains unclear if this is the earliest date on which GHG emission reductions occurred. Action Required 1. The VVB must explain how they can confirm that no GHG emission reductions occurred before 14/12/2020, providing that the LFG collection and potential destruction through flaring is also considered an activity to reduce GHG emissions (even if the electricity generators were still not working). Program Rule(s) *VCS Standard v.4.4*, Section 3.7 *VCS Validation Report Template v.4.2*, Section 3.1	**Round 1** VVB Response The project start date 14/12/2020 is confirmed from the generators testing record and running log of the project which is earliest date of generation of emission reductions. VVB confirmed the same by checking operation log. Verra Response Justification for start date has been provided. This finding is closed.	Closed

6	**Missing information for parameter '$F_{CH4,BL,R,y}$'**		
	Issue In section 5.2, the value applied for ex-ante estimations for the parameter '**$F_{CH4,BL,R,y}$**' is missing in the table. **Action item** The VVB must ensure that PP provides complete information for the parameter in the table.	**Round 1** VVB Response In section 5.2 of PD, the value applied for ex-ante estimations for the parameter '$F_{CH4,BL,R,y}$' 20% is added in the PD. VVB is able to confirm the correctness of value of parameter. Verra Response The value has been added in PD. This finding is closed.	Closed

	Program Rule(s) *VCS Project Description Template v.4.1*, Section 5.2		