

VCS PROJECT REVIEW REPORT

Project ID	1186
Project Name	Viñales Biomass Power Plant
Project Proponent	Celulosa Arauco y Constitución S.A.
Methodology	ACM0006, "Electricity and heat generation from biomass", version 12.1.1
Sectoral Scope(s)	1. Energy (renewable/non-renewable)
Validation/Verification Body (VVB)	LGAI Technological Center, S.A. (APPLUS+ LGAI)
Registry	Markit

Assessment Criteria	ACM0006, "Electricity and heat generation from biomass", version 12.1.1, <i>VCS Standard, v3.7</i>
Date of First Issue	27 September 2017
Date of Final Issue	16 January 2018

Summary:

An accuracy review of the "Viñales Biomass Power Plant" issuance request has been conducted by VCS in accordance with Section 4.3 of the *Registration and Issuance Process*.

The accuracy review has raised 6 assessment findings and 1 minor finding, detailed below. The VVB, in coordination with the project proponent, is hereby required to provide a response to the assessment findings presented in Section 1. The 6 assessment findings must be addressed to the satisfaction of VCS. The VVB need not address the minor finding during this review. Please note, however, that where VCS finds consistent minor findings by the VVB in future reviews, minor findings shall be escalated to assessment findings.

This findings report may be made publically available. Confidential information may be provided as separate attachments.

1 ASSESSMENT FINDINGS

Finding 1

Section 3.11.3 of the *VCS Standard, v3.7* states that “Projects may generate other forms of GHG-related environmental credits, such as renewable energy certificates (RECs), though GHG emission reductions and removals presented for VCU issuance shall not also be recognized as another form of GHG-related environmental credit.”

Section 2.2.4 of the *VCS Issuance Representation, v3.5*, the project proponent is required to attest that they “have not submitted, sought, requested or received any recognition of the Reductions generated by the Project during the Verification Period and for which I am requesting VCU issuance from any GHG Program other than under the VCS Program or as any other form of GHG- or renewable energy-related environmental credit (including without limitation as renewable energy certificates), or I have provided evidence to the VCS Registry in accordance with the VCS Rules that any such credits have not been used and have been cancelled under the relevant environmental credit program.

Section 1.12.3 of the project description states that “The Viñales project will participate in the ERNC market, created under the Law N° 20,257 of April, 2008 and therefore will generate non-conventional energy certificates. This mechanism, however, is a non-GHG related environmental mechanism, so there are no double-counting issues involved with the VCS program in this case. However, in case the VCS standard considers there are double-counting issues with the ERNC mechanism or any other mechanism the Viñales project might participate in the future, the Project Proponent will take all the necessary measures and safeguards in order to avoid any doublecounting issues.”

Section 1.9 of the monitoring report states that “The Viñales project participated in the ERNC market, created under the Law N°20.257, April, 2008 and therefore generated non-conventional energy certificates. This mechanism, however, is a non-GHG related environmental mechanism, so there are no double-counting issues involved with the VCS program in this case.”

Section 4 of the verification report states that the project is not involved in another form of GHG-related environmental credit for emission reductions and removals other than the VCS Program.

As the above references in the *VCS Standard, v3.7* and *VCS Issuance Representation, v3.5* describe, VCS projects may not generate renewable energy-related environmental credit (including renewable energy credits) and VCUs for the same emission reductions unless such other environmental credits have been cancelled under the relevant environmental credit program.

The VVB is requested to clarify the distinction between the renewable energy-related environmental credits (including renewable energy credits) subject to restrictions by VCS and the “non-conventional energy certificates” described in the project description, monitoring report and verification report.

Where no such distinction is apparent, the VVB is requested to ensure that the monitoring report and verification report are revised accordingly to take into account Section 3.11.3 of the *VCS Standard, v3.7* to ensure double counting is not occurring.

VVB Response:

According to the Chilean energy policy extract, two main actions were addressed by non-conventional renewable energy certificates of the Law 20.257:

The first action was to establish the market development for renewable energy technologies by reducing barriers and promoting confidence in the electric market.

The second action was related to reduce barriers that affect particularly to each of the renewable energy technologies and to promote market conditions to renewable energy technologies promoting competence.

It must be noticed that 1 non-conventional renewable certificates of Law 20.257 is equivalent to 1 MWh generated by renewable energy, and it was not used to mitigate and/or compensate emissions.

The Viñales project participated in the ERNC market, created under the Law N°20.257, April, 2008 and therefore generated non-conventional energy certificates. Law N°20.257, to promote the non-conventional renewable energy in Chile, requires that from the beginning of the year 2010 the energy companies of our country with installed capacity of over 200 MW must certify that an amount of energy equivalent to 10% of their own consumption in each year has been injected by non-conventional renewable generation sources, these may be their own or contracted. The law allows an energy company to transfer its surplus to another energy company, and it may be even among companies of different electrical systems.

As is possible to observe Law N°20.257 and the non-conventional energy certificates are referenced to energy consumption and transferences between energy companies is a non-GHG related environmental mechanism, so there are no double-counting issues involved with the VCS program in this case.

VCS Response:

Taking into account the above, and the letter provided by VCS dated 12 July 2013, no form of environmental credit is created under the ERNC law, and there is no mechanism by which an entity could purchase anything akin to a REC for the purposes of making a claim about emissions associated with the VCS project.

This finding is closed and no further action is required.

Finding 2

VCS *Monitoring Report Template, v3.4* was issued on 19 October 2016 and must be used starting on 19 April 2017.

VCS *Verification Report Template, v3.4* was issued on 19 October 2016 and must be used starting on 19 April 2017.

The monitoring report is dated 3 August 2017 and uses the VCS *Monitoring Report Template, v3.3*. The monitoring report subsequently omits any reference to sustainable development in Section 1.10 of the VCS *Monitoring Report Template, v3.3*.

The verification report is dated 5 August 2017 and uses the VCS *Verification Report Template, v3.3*.

The VVB is requested to ensure that the monitoring report and the verification report are updated to use the latest versions of the monitoring and verification report templates.

VVB Response:

The monitoring report template v3.4 is used as the monitoring report for Viñales project. In this regard,

the section 1.10 Sustainable Development was completed and reported as required.

The verification report has applied the latest version of reporting template.

VCS Response:

The monitoring report has been updated to use the *VCS Monitoring Report Template, v3.4* and includes Section 1.10 on sustainable development.

The verification report has been updated to use the *VCS Verification Report Template, v3.4*.

Considering the above this finding is closed and no further action is required.

Finding 3

Section 3.1 of the *VCS Monitoring Report Template, v3.3* requires that the monitoring report describe the “justification of choice of data or description of measurement methods and procedures applied” and the “purpose of the data” for each parameter available at validation.

Section 3.1 of the monitoring report omits the “justification of choice of data or description of measurement methods and procedures applied” and the “purpose of the data” for several parameters.

The VVB is requested to ensure that the “justification of choice of data or description of measurement methods and procedures applied” and the “purpose of the data” is included for every parameter in Section 3.1 of the monitoring report, updating the project documentation as required.

VVB Response:

Parameters in section 3.1 were updated as per required above either in the monitoring report, project documentation or both documents.

Px: Quantity of the main product of the production process produced in year x from plants operated at the project site.

- Justification of choice of data or description of measurement methods and procedures applied:

“Average between the productions of 2012 and 2013 is used respectively”.

- Purpose of data:

“Calculation of baseline emissions”.

The monitoring report and project documentation was updated as required.

GWP_{CH4}: Global Warming Potential of methane valid for the commitment period (tCO₂/tCH₄)

- Justification of choice of data or description of measurement methods and procedures applied:

“Until the next COP/MOP decision, it is the accepted value for emission reduction calculations”

- Purpose of data:

“Calculation of baseline and project emissions”.

The monitoring report and project documentation was updated as required.

VCS Response:

Section 3.1 of the monitoring report has been updated to include the “justification of choice of data or description of measurement methods and procedures applied” and the “purpose of the data” for every parameter.

Considering the above, this finding is closed and no further action is required.

Finding 4

The emission reduction totals per vintage are rounded in the monitoring report to equal 241,788 and 264,988. The sum of those rounded figures equals 506,776.

The monitoring/verification period emission reduction total is represented as 506,775 in section 4.4 of the monitoring report and sections 4 and 6 in the verification report, suggesting that the 241,788 and 264,988 vintage totals are rounded up instead of down. Note that VCU totals must be rounded down to the nearest whole number.

The VVB is requested to please ensure that the vintage period emission reduction totals are rounded down and that the sum of each equals the sum of the verification report emission reduction total. The VVB is requested to ensure that the project documentation is updated accordingly.

VVB Response:

In a conservative way, the baseline emissions calculations in the monitoring report were rounded down, which result in 519.145 tCO₂ for the whole monitored period from 01 Jan, 2015 to 31 Dec, 2016. On the other side, and for the same monitored period, the total project emissions were rounded up, in a conservative way, to 12.370 tCO₂.

In the most conservative way, the net emissions results in 506,775 tCO₂ i.e. (519,145tCO₂ - 12,370tCO₂). Details are shown as follows:

Year	Baseline emissions or removals (tCO ₂ e)*	Project emissions or removals (tCO ₂ e)**	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2015 (01/01/2015-31/12/2015)	247,642	5,854	0	241,788
2016 (01/01/2016-31/12/2016)	271,504	6,515	0	264,988
Total	519,145	12,370	0	506,775

VCS Response:

The VVB has provided the spreadsheet of emission reduction calculations, which demonstrates that the 2015 and 2016 vintages have been rounded correctly.

Considering the above, this finding is closed and no further action is required.

Finding 5

The summary section of the VCS *Verification Report Template*, v3.4 instructs the VVB to provide a brief summary of the monitoring period.

The summary section of the verification report does not reference the monitoring period.

The VVB is requested to provide a brief summary of the monitoring period and update the verification report accordingly.

VVB Response:

The monitoring period has been indicated in the updated verification report to be during 01-January-2015 to 31-December-2016.

VCS Response:

The verification report has been updated to provide a brief summary of the monitoring period.

Considering the above, this finding is closed and no further action is required.

Finding 6

The “Resolution of Findings” section of the verification report states that “As a result of the assessment conduction, 1 CLs and 1 CARs were raised for this verification period.” The section continues to reference 1 CL and 2 CARs, as does Appendix 2.

The VVB is requested to address this discrepancy and update the project documentation as necessary.

VVB Response:

The mentioned number of CARs in “Resolution of Findings” is due to typo error. The same has been corrected in the verification report.

VCS Response:

The “Resolution of Findings” section of the verification report has been updated to state that 1 CL and 2 CARs were raised for this verification period.

Considering the above, this finding is closed and no further action is required.

2 MINOR FINDINGS

Finding 1

The verification report does not number the sub-section headers as required in the VCS *Verification Report Template, v3.4*.

This finding need not be addressed during this review. Please note, however, that where VCS finds consistent minor findings in future reviews, minor findings shall be escalated to assessment findings.

3 ASSESSMENT CONCLUSION

On 27 September 2017, VCS issued this project review report to LGAI Technological Center, S.A. (APPLUS+ LGAI).

On 16 November 2017, LGAI Technological Center, S.A. (APPLUS+ LGAI) provided responses to the findings to VCS with an updated monitoring and verification report. Supplemental information was provided by the project proponent on 19 December 2017.

On 16 January 2018, VCS closed all findings and no further information was required.