PROJECT REVIEW REPORT

Project ID	713
Project Name	KOYULHISAR HYDRO ELECTRICITY POWER PLANT
Program(s)	VCS Program
Verification Period	01 August 2013 – 16 November 2019
Project Proponent	AYDEM YENILENEBILIR ENERJI A.S.
Methodology	ACM002, Grid-connected electricity generation from renewable sources, v12.1.0
Sectoral Scope(s)	1. Energy industries (renewable/non-renewable)
Validation/Verification Body (VVB)	KBS Certification Services Pvt. Ltd.

Assessment Criteria	*VCS Standard, v4.0*
Date of First Issue	6 January 2021
Date of Final Issue	4 March 2021

Summary:

An accuracy review of the KOYULHISAR HYDRO ELECTRICITY POWER PLANT verification approval request has been conducted by Verra in accordance with Section 4.3 of the *Registration and Issuance Process*.

The accuracy review has raised nine assessment findings and no minor findings, 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 nine assessment findings must be addressed to the satisfaction of Verra.

This project review report will be made publicly available. Confidential information may be provided as separate attachments.

1. ASSESSMENT FINDINGS

Finding 1
With the development and release of the *VCS Standard, v4.0*, Verra articulated its position that certain project types in certain contexts have moved beyond their need to be supported by carbon financing. The rationale and logic behind this position was described in consultations held in May 2018 and in June 2019. In this particular case, Verra acknowledges the current registered status of this project and the additionality demonstration in the project description. However, given how the project has not issued VCUs since 2014, Verra remains concerned about the additionality of the project. The project proponent is requested to provide additional justification and elaboration on the project's need for carbon finance and how the project has operated without carbon finance since the last VCU issuance on 26 March 2014. The VVB is requested to assess the updates and update the verification report, as needed.

VVB Response:

As can be seen from the registry records the PP has sold almost the entire amount which have been issued except about 63 K that was left behind. The issued tonnes were agreed to be sold at around 1.1 USD where the delivery would have been in 4 batches but even this deal have failed and cancelled contract after the 3rd batch.

Please note that the additionality of the project was defended based on the CDM rules and tools. However, one may think that the project didn't pursue the monitoring phase and didn't get a verification report and didn't try to issue the verified tonnes so the efforts and attempts related to carbon finance was decorative but not really needed. Yet this is really not the case. And the PP would like to set their case in two parts:

1- *<u>The explanation on why the project owner did not act until 2019 when they have contracted Ekobil Ltd. for the verification process:</u>*

As can be seen from the registry records the PP have sold almost the entire amount have issued after the first monitoring period, except about 63 K that was left behind. The issued tonnes were agreed to be sold at around 1.1 USD where the delivery would have been in 4 batches but even this deal have failed and cancelled contract after the 3rd batch. And we were unable to find an other buyer

The cost of Validation and verification (payed back in 2011) is very significant. In addition to this the project proponent has also paid Ekobil a consultancy fee so that Ekobil could manage their project, and this was a significant cost for the project owner. On top of those the verification and issuance of the project needed further payments which were not efficient to be paid unless a potential buyer could be found or significant transactions indicating demand for VCUs show up. Selling VCUs to a buyer willing to pay higher than the cost of a VCU that would provide a good price and that would as well cover the amount of money that was spent and would be spent for the development, monitoring and issuance of the VCUs. Yet, during the time period from 2012 when the project was completed, until 2019 the prices of the VCUs were merely around 0.20 USD. Which was not enough to cover the cost of developing VCUs. So the project owner had to wait.

2- *<u>The Financial difficulties the project has faced and keep facing and the proof of the need for carbon money:</u>* Seeing the hopes brought to the climate negotiations by the Paris agreement since year 2015 the project company was positive about finding a buyer that would pay enough to cover the expenses made to pursue and obtain the carbon certificates. However, in 2016 host country being hit by the Coup D'etat attempt made things even worse. As can be seen from the attached public news all the renewable energy sector had hardship paying the project loans and called the financers to the table to restructure the debt around 2017. This is not only due to increased TL/USD exchange rate but also due to the drought the country is facing since the last decade. The production numbers have fallen under the value expected and sited in the validated PDD. The decline in production numbers were in average 15% over the crediting period of 2009 to 2019 The realized production numbers have shown a drop in production in the last 3 years of the monitoring period by 20%. In addition to this the technical barrier that was mentioned on page 24 of the validated PDD, is another cause of reduced project revenue. The water conveyance canal that is located over the North Anatolian Faut zone is causing the project to stop and make significant repairs that are also increasing the operation cost. The end result is a cumulative decrease in production numbers thus the project revenue. Eventually this results in a decrease in the project and equity IRRs below the levels that we was anticipated at the time of investment decision aka lower than the values indicated in the validated PDD, a fact that can as well be considered as an additional proof of the need for the carbon money.

The following articles depict the hardship Turkish Renewable energy Industry is facing :

https://www.bloomberg.com/news/articles/2017-03-09/turkish-energy-producers-said-to-consider-refinancing-loans

https://www.bloombergquint.com/technology/turkish-energy-producers-said-to-consider-refinancing-loans

Although not named in these articles the project owner has also gone a loan restructuring, and this obviously added an increased financial burden (an effect that we have not calculated at the financial evaluation) over the project finances that the title holder company has also declared a negative balance in around 2018, see the attached balance sheet:

https://app.box.com/s/7yrjmn55pxyy3w5mhd0yz643y6t27c1s

As such the project is in hardship and desperately needs any extra value it can raise via Carbon finance.

Verra Response:

An explanation on additionality has been provided. This finding is now closed, and no further action is required.

Finding 2

Section 3.4.3 of the *VCS Standard, v4.0* states that "the project proponent shall use the *VCS Monitoring Report Template*... and adhere to all instructional text within the template."

Section 1.7 of the *VCS Monitoring Report Template* instructs the project proponent to indicate the project location including geodetic coordinates.

Section 1.7 of the monitoring report does not include the geodetic coordinates of the project.

The project proponent is requested to update Section 1.7 of the monitoring report to include information the geodetic coordinates of the project. The VVB is requested to assess the updates and update the verification report, as needed.

VVB Response:

The VVB confirms that the geodetic coordinates of the project has been now mentioned in the section 1.7 of the revised MR.

Verra Response:

Section 1.7 of the monitoring report has been updated to include the geodetic coordinates of the project. This finding is now closed, and no further action is required.

Finding 3

Section 3.4.3 of the *VCS Standard, v4.0* states that "the project proponent shall use the *VCS Monitoring Report Template*… and adhere to all instructional text within the template."

Section 4.1 of the *VCS Monitoring Report Template* instructs the project proponent to include the value applied to the data and parameters available at validation.

Section 4.1 of the monitoring report does not include the values of the data and parameters available at validation.

The project proponent is requested to update Section 4.1 of the monitoring report to include the values of the data and parameters available at validation. The VVB is requested to assess the updates and update the verification report, as needed.

VVB Response:

The VVB confirms that the values of the data and parameters available at validation have been included in appendix 3 of the revised MR.

Verra Response:

The monitoring report has been updated to include the values of the data and parameters. This finding is now closed, and no further action is required.

Finding 4

Section 3.4.3 of the *VCS Standard, v4.0* states that "the project proponent shall use the *VCS Monitoring Report Template*… and adhere to all instructional text within the template."

Section 3.1 of the *VCS Monitoring Report Template* instructs the project proponent to include any information on events that may impact the GHG emission reductions or removals or monitoring.

Section 3.1 of the monitoring does not include information on events that may impact the GHG emission reductions or removals.

Section 5.1 of the monitoring report indicates there have been several months without electricity production during the current monitoring period.

The project proponent is requested to update Section 3.1 of the monitoring report to include information on events that may impact the GHG emission reductions or removals or monitoring. The VVB is requested to assess the updates and update the verification report, as needed.

VVB Response:

The VVB confirms that the details regarding special events and other impacts have been now mentioned in section 3.1 of the revised MR and in section 4.5 of the revised verification report.

Verra Response:

Section 3.1 of the monitoring report and Section 4.5 of the verification report have been updated to confirm that there have been no special events which may have impacted the monitoring or GHG emission reductions or removals. This finding is now closed, and no further action is required.

Finding 5

Section 3.4.3 of the *VCS Standard, v4.0* states that "the project proponent shall use the *VCS Monitoring Report Template*... and adhere to all instructional text within the template."

Section 5.4 of the *VCS Monitoring Report Template* instructs the project proponent to include the value of project emissions or removals in the GHG emission reductions and removals table.

Section 5.4 of the monitoring report states that 19 tCO_2e is the value of project emissions or removals for each year in the monitoring period and the value for total project emissions or removals for the monitoring period.

The project proponent is requested to clarify the values of the project emissions or removals listed in the table in Section 5.4 of the monitoring report and update the monitoring report, as needed. The VVB is requested to assess the clarifications and update the verification report, as needed.

VVB Response:

The VVB confirms that the project emissions have been revised and updated both in MR and FVR. A detailed clarification has been provided in section 5.2 of the MR as well.

Verra Response:

Section 5.4 of the monitoring report and Section 5 of the verification report have been updated to confirm GHG emission reductions and removals. This finding is now closed, and no further action is required.

Finding 6

Section 4.1.14 of the VCS Standard, v4.0 states that the validation/verification body shall use the *VCS Verification Report Template*... and adhere to all instructional text within the template.

Section 2.5 of the *VCS Verification Report Template* instructs the VVB to state the total number of corrective action requests raised during the verification.

Section 2.5 of the verification report states that three CARs were raised during verification.

Appendix II of the verification report includes two CARs raised during the verification.

The VVB is requested to update clarify the total number of corrective action requests raised during the verification and update Section 2.5 or Appendix II of the verification report accordingly.

VVB Response:

The verification team confirms that only 2 CARs were raised. The same has been now mentioned in section 2.5 of the revised verification report attached with the responses.

Verra Response:

Section 2.5 of the verification report has been updated to confirm that two CARs were raised during the verification. This finding is now closed, and no further action is required.

Finding 7
Section 4.1.14 of the VCS Standard, v4.0 states that the validation/verification body shall use the *VCS Verification Report Template*… and adhere to all instructional text within the template. Section 4.1 of the *VCS Verification Report Template* instructs the VVB to assess whether the project has received or sought any other form of environmental credit, whether the GHG emission reductions or removals generated by the project have become included in an emissions trading program, and the project's sustainable development contributions. Section 4.1 of the verification report does not include an assessment on whether the project as received or sought any other form of environmental credit, whether the GHG emission reductions or removals generated by the project have become included in an emissions trading program, and the project's sustainable development contributions. The VVB is requested to update Section 4.1 of the verification report to include an assessment on whether the project as received or sought any other form of environmental credit, whether the GHG emission reductions or removals generated by the project have become included in an emissions trading program, and the project's sustainable development contributions.
VVB Response: Verification team would like to confirm that the information on whether the project has received or sought any other form of environmental credit is available under the headline "Ownerships and other programs" (page 14 of section 4.1). For further clarification environmental/carbon credit has been mentioned instead of carbon credits. Please see the revised section 4.1 of the verification report, information of sustainable development contributions has been added.
Verra Response: Section 4.1 of the verification report has been updated to confirm that the project will not receive or seek any other form of environmental credit. This finding is now closed, and no further action is required.

Finding 8
Section 4.1.14 of the VCS Standard, v4.0 states that the validation/verification body shall use the *VCS Verification Report Template*… and adhere to all instructional text within the template. Section 4.4 of the *VCS Verification Report Template* instructs the VVB to describe the steps taken to assess whether manual transposition errors between data sets have occurred. Section 4.4 of the verification report does not include an assessment on whether manual transposition errors between data sets have occurred. The VVB is requested to update Section 4.4 of the verification report to include an assessment on whether manual transposition errors between data sets have occurred.
VVB Response: The verification team confirms that no manual transposition errors between data sets have occurred during the monitoring period. The same has been now mentioned in section 4.4 of the revised

verification report attached with the responses.

Verra Response:

Section 4.4 of the verification report has been updated to confirm that no manual transposition errors between data sets have occurred. This finding is now closed, and no further action is required.

Finding 9
Section 4.1.14 of the VCS Standard, v4.0 states that the validation/verification body shall use the *VCS Verification Report Template*… and adhere to all instructional text within the template. Section 4.5 of the *VCS Verification Report Template* instructs the VVB to include details of how the information flow from data generation and aggregation, to recording, calculation and final transposition into the monitoring report was assessed. Section 4.5 of the verification report does not include of how the information flow from data generation and aggregation, to recording, calculation and final transposition into the monitoring report was assessed. The VVB is requested to update Section 4.5 of the verification report to include the details of how the information flow from data generation and aggregation, to recording, calculation and final transposition into the monitoring report was assessed.
VVB Response: The verification team confirms that the details regarding information flow from data generation and aggregation, to recording, calculation and final transposition into the monitoring report has been now assessed in the revised verification report.
Verra Response: Sections 4.1 and 4.5 of the verification report have been updated to include details of the data information flow. This finding is now closed, and no further action is required.

2. MINOR FINDINGS

No minor findings were raised.

3. ASSESSMENT CONCLUSION

On 6 January 2021, Verra sent KBS Certification Services Pvt. Ltd. the project review report with nine assessment findings and no minor findings.

On 4 March 2021, Verra closed the review and no further action was required.