

VERIFICATION REPORT

KEPEZKAYA HEPP

NO.: VCS-21220554



Document Prepared By TÜV Rheinland Energie und Umwelt GmbH

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Summary:

TÜV Rheinland Energie und Umwelt GmbH has performed a VCS verification of the project Kepezkaya Hydroelectric Power Plant, Turkey, with 28 MW_e installed capacity. The verification is based on the currently valid documentation of the VCS Version 3.2 based on the UN Framework Convention on Climate Change (UNFCCC), Article 12 of the Kyoto Protocol, the CDM modalities and procedures and subsequent decisions by CDM Executive Board.

The verification team concludes that the project as described in the VCS Monitoring Report, Version 2.00 as of 9th October 2012, covers all the relevant requirements of the criteria mentioned above. The development and maintenance of records and reporting procedures is consistent with this report. The calculation and determination of GHG emission reductions from the project lies within the responsibility of the management of the project and it is carried out as defined in the project description.

The verification team confirms that the project is implemented as planned and described in the validated and registered project design documents. Installed devices essential for gathering information about the electricity generation and self-consumption run reliably and the monitoring system is in place.

The verification team confirms that the GHG emissions reductions are calculated without material misstatements. The opinion relates to the project's emissions reductions reported and related to the valid and registered project baseline and monitoring, and its associated documents.

A brief overview of the verification steps covers the following points:

1. Desk Review of preliminary VCS monitoring report (Version 1, 6th September 2012), registered PDD (Version 2, 24th August 2012), validation report created by TÜV Rheinland Energie und Umwelt GmbH (11th September 2012, applied baseline and monitoring methodology ACM0002 "Consolidated methodology for grid-connected electricity generation from renewable sources", v.13 (EB67).
2. On-site visit (14th September 2012)
3. Issue of the checklist with corrective action request (CARs) and clarification requests (CLs) (see Annex 2)
4. Desk review of revised VCS monitoring report (version 1.2, 24th October 2012)
5. Review of proposed CARs and CLs
6. Issue of the final verification report & protocol (see Annex 1)

As a result TÜV Rheinland Energie und Umwelt GmbH issues a positive verification opinion to the project.

Based on the information we have seen and evaluated we confirm the following statement:

Reporting period: From 01-10-2010 to 31-08-2012 (includes both days)

Verified emission in the above reporting period:

Project emissions: 0 tCO₂

GHG Emission Reductions: 137,657 tCO₂

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1 INTRODUCTION

Selen Elektrik Üretim A.Ş. as the project owner has commissioned an independent verification by TÜV Rheinland Energie und Umwelt GmbH of the project: Kepezkaya Hydropower Plant 28 MWe. Ekobil Environmental Services and Consulting Ltd. is the responsible party for the quantification of emission reductions (ER).

The verification activity is the periodic independent review and ex-post determination by an independent entity of the monitored reductions in greenhouse gas (GHG) emissions during the defined verification period. TÜV Rheinland Energie und Umwelt GmbH as the verification body of the project has been accredited by the American National Standards Institute (ANSI) as a validation/verification body (VVB) and, in addition, meets the competence requirements as set out in ISO 14065:2007.

1.1 Objective

This initial verification is aimed at verifying and certifying the Voluntary Carbon Units (VCUs) reported for the Kepezkaya Hydropower Plant 28 MWe for the period 1st October 2010 to 31st August 2012. The final verification report will assure that the project is implemented as planned and confirm that the monitoring system is in place and fully functional.

For the verification of both quantitative and qualitative information on GHG emissions are being considered. Quantitative data comprises the monitoring reports submitted to the verifier by the project entity as well as underlying evidence such as calculation spreadsheets, monthly power production protocols, daily recoded power production data to be used as consistency check and electronic print-outs from the electricity regulation authority PMUM. Qualitative data comprises information on internal management controls, calculation procedures, procedures for data transfer and frequency of emissions reports, and internal audits of calculations and data transfers.

The verification follows the VCS Version 3 based on UNFCCC criteria, referring to the Kyoto Protocol criteria and the modalities as agreed in the Bonn Agreement and the Marrakech Accord.

1.2 Scope and Criteria

The verification comprises a review of the monitoring report over the monitoring period from 1st October 2010 to 31st August 2012, based on the registered Project Description Document in part of the project design, monitoring parameters, monitoring plan, emission reduction calculation, monitoring methodology and all related evidences provided by project participant. Those documents have been reviewed and verified against VCS Version 3 requirements, UNFCCC rules and associated interpretations. The verification is based on validated project design document including baseline calculations.

The main scopes of this verification are:

- Verify whether the emission reductions generated by the project are in line with the VCS Verification Protocol and the information provided by the project participants contains all the necessary information to evidence the project's compliance with all criteria in the VCS.
- Verify that the project has been implemented as described in the Project Design Document (VCS PD) during the verification period.
- Confirm that the monitoring plan was implemented and fully functional to generate voluntary carbon units (VCU) without any double counting during the whole verification period.
- Give a conclusion whether reported data are accurate, complete, consistent, and transparent, with a high level of assurance and free of material error or misstatement.

In particular, the project baseline, monitoring plan and the project compliance with relevant applicable protocols and criteria (i.e. UNFCCC, VCS, host Party and others) are to be verified in order to confirm that the project implementation, as documented, is sound and reasonable and meets the applicable criteria.

The correct application of the CDM approved baseline and monitoring methodologies: ACM0002 "Consolidated methodology for grid-connected electricity generation from renewable sources", v.13 (EB67) and "Tool to calculate the emission factor for an electricity system", v.02 were already validated by TÜV Rheinland GmbH on September 11th, 2012.

1.3 Level of assurance

VCS v.3 requires the assurance level of the verified emission reductions to be reasonable. Therefore TÜV Rheinland Energie und Umwelt GmbH has focused on providing a reasonable level of assurance that the emission reduction methodology is appropriate and correctly applied, and that the emission reductions have been accurately monitored. If required, TÜV Rheinland Energie und Umwelt GmbH may discount verified emission reductions or request a discount of these by applying conservative assumptions for uncertainties in emission reduction calculations that cannot be fully quantified or that cannot give the desired level of assurance.

1.4 Summary Description of the Project

The run-of-river Kepezkaya hydroelectric power plant (HEPP) project is located in the Eastern Mediterranean Region of Turkey. A 80 m long concrete weir (with geographic coordinates 36° 57'52.52"N 32°58'09.12"E) dams the Göksu river and a 3,610 m long conveyance tunnel with diameter of 4 m and average flow of 40 m³/s channels the water to a head pond, the two penstocks and finally the powerhouse (with geographic coordinates 36° 57'10.97"N 33°0'29.91"E). Two vertical Francis turbines (2x14.0 MWe) are utilized for electricity generation, providing a total installed capacity of 28.00 MWe.

Upstream of Kepezkaya HPP a large-scale irrigation project is conducted by General Directorate of State Hydraulic Works (DSİ) which will include the construction of three dams (namely

Bağbaşı, Afşar and Bozkır dams) and one conveyance tunnel (i.e. Mavi tunnel). The project has been estimated to yield an average annual electricity generation of 107,587 MWh/year over the first crediting period, taking into consideration the impact of the upstream large-scale irrigation project. Based on the combined emission factor of the Turkish national electricity grid, annual average emission reduction of 61,443 tCO₂/year has been determined. Kepezkaya HEPP started supplying electricity to the Turkish national grid on 1 October 2010 via a 33 kV transmission line.

No EIA regulatory procedures had to be observed because the project was exempt from the regulations. The EIA exempt certificate (24) has been provided to TÜV Rheinland Energie und Umwelt GmbH. However, an EIA project identifier file has been submitted to the environmental directorate as part of the standard procedure.

The project has been developed by Selen Elektrik Üretim A.Ş. (one of the AES-IC İÇTAŞ Enerji Üretim ve Ticaret A.Ş. affiliates). The project participants and the carbon consultant present at the on-site assessment on 14 September 2012 included:

- Koray Keskin, Selen Elektrik Üretim A.Ş., plant manager of Kepezkaya HEPP (project participant)
- Orkun Çetinkaya, Selen Elektrik Üretim A.Ş., shift leader (project participant)
- İsmail Çetinkaya, Selen Elektrik Üretim A.Ş., shift technician (project participant)
- Aslı Sezer Özçelik and Murat F. Özçelik, Ekobil Çevre Hizmetleri Danışmanlık Ltd. Şti., managing partners (carbon consultant)

2 VALIDATION PROCESS, FINDINGS AND CONCLUSION

2.1 Validation Process

Table 1 outlines the validation schedule that was followed by the TÜV Rheinland Energie und Umwelt GmbH validation team.

Table 1: Validation schedule

20/07/2012	Contract award for validation
27/07/2012	Receipt of draft VCS PD
02-03/08/2012	On-site assessment
03/09/2012	Draft validation report
07/09/2012	Internal technical review
11/09/2012	Final validation report

The methods and criteria applied during the validation process were aimed at gathering the relevant information to confirm statements and assumptions made by the responsible party in the VCS PD (6), especially the spreadsheet to calculate the baseline, grid emission factor and the emission reductions.

The revised data comprised the gross electricity generation, the electricity self-consumption and the net generated electricity fed in the grid. The calculation of the baseline emissions was validated by means of re-computation according to the approved methodology “Tool to calculate the emission factor for an electricity system”, v.02 based on the spreadsheet provided. The use of this tool by the responsible party is in line with the VCS v.3 requirements as approved methodologies and related tools shall be used for identification of the baseline emissions.

Additionally, all primary data that was found in said spreadsheet was routed back to its origin supplied by TEİAŞ (grid operator in Turkey) and double checked with the imported figures.

A feasibility study (27) conducted by “EN-SU Mühendislik Müşavirlik Ltd. Şti.” has been used to validate all relevant project details concerning the technical design and the plausibility of claimed achievable emission reductions.

In the course of the site inspection, TÜV Rheinland validation team carried out interviews with project representatives, carbon consultant, and relevant project stakeholders (Table 2).

Table 2: Overview of interviews during the on-site validation visit

Name	Position/ Organisation	Topic
Asli Sezer Özçelik	Carbon Consultant, Ekobil Ltd.	- Physical conditions, project history and barriers; - Project start and implementation; - Applied project technology; - Local permits and local requirements; - Discussion on additionality, baseline scenario and emission reduction calculation; - Feasibility study; - Environmental and social impacts and/or community benefits;
Murat Özçelik	Carbon Consultant, Ekobil Ltd.	- Financial issues; - Supporting documents.
U. Alp Demir	Engineering Manager, Selen Elektrik Üretim A.Ş	- General project perception; - Project history and implementation - Financial issues, substantiation of loan and loan conditions, clarification on high project cost; - Contribution to the regional sustainable development; - Safety training of employees; - Supporting documents.
Mahmut Yanar	Chief Technician, Selen Elektrik Üretim A.Ş	- Health and safety trainings; - Explanation on electricity meters.
Koray Keskin	Plant Manager, Selen Elektrik Üretim A.Ş	

Upon receipt of the draft VCS PD a list of CAR/CL was forwarded to the responsible party solely derived from the desk review of the draft VCS PD, including requests for documents. By providing all requested documentation TÜV Rheinland GmbH was able to validate the assertions made in the VCS PD. For reason of confidentiality some information concerning the financial details of the project may not be disclosed, however the received documents were revised for the purpose of validation. No material discrepancies were observed during the validation process.

2.2 Validation Findings

2.2.1 Gap Validation

Not applicable.

2.2.2 Methodology Deviations

No methodology deviations were observed.

The determination of the baseline was done according to the following methodologies: ACM0002 “Consolidated methodology for grid-connected electricity generation from renewable sources”, v.13 (EB67) and the UNFCCC methodological tool to calculate the emission factor for an electricity system, v.02, applicable under VCS Version 3.

The justification of the baseline was comprehensively given in the VCS PD (6) taking into account: the scale of the project (being > 15MW), VCS Version 3 requirements, the fact that the project results in the creation of a new reservoir (greenfield) and the project boundaries.

The project emissions from the reservoir are considered “0” because the power density is greater than 10 W/m². Project emissions related to fuel combustion by the two on-site diesel generators, however, are subject to monitoring (as indicated in the monitoring plan, section 4.3 of the Kepezkaya VCS PD v.2; 6).

As per the methodology outlined in the “Tool for the Demonstration and Assessment of Additionality” v6.0.0, the additionality assessment was performed in three steps: “Identification of project alternatives”, “Investment analysis” and “Common practice analysis”. Based on this assessment the validation team concluded that the project is additional.

2.2.3 New Project Activity Instances

This section does not apply because Kepezkaya HEPP does not constitute of grouped projects.

2.3 Validation Conclusion

TÜV Rheinland Energie und Umwelt GmbH conducted the validation of the GHG assertion in accordance with the requirements of the VCS Version 3, the standard ISO 14064-3 and the approved UNFCCC methodology ACM0002, v13.0.0 to a reasonable level of assurance by applying a materiality threshold of 5%. In the course of the validation process, the submitted VCS PD (6), substantiations and any additional supportive documents reflected in Chapter 2.2, have been reviewed in the validation report issued on 11/09/2012.

The validation team came to the conclusion that based on the review and all available documentation the GHG assertion was made in accordance with the requirements of the VCS program and fairly represents the GHG emissions data and information without material discrepancies.

3 VERIFICATION PROCESS

3.1 Method and Criteria

The verification is based on the validated project design document, including baseline, and the monitoring report. These documents are reviewed against VCS Version 3 requirements. TÜV Rheinland Energie und Umwelt GmbH has, based on the recommendations in the "Validation and Verification Manual", employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generation of emission reductions.

The verification includes the next steps: a desk review of the project design documents and monitoring report; an on-site visit and follow-up interviews; resolution of outstanding issues; and the issuance of the final verification report and opinion.

3.2 Document Review

Table 3 outlines the documentation reviewed during the verification process.

Table 3: List of reviewed documents

No	Document	Comment
1	UNFCCC CDM Validation and Verification Manual	Official reference, v.01.2, EB55 Annex 1
2	UNFCCC ACM0002	Official reference, "Consolidated methodology for grid-connected electricity generation from renewable sources", v.13, EB67
3	UNFCCC calculation tool for emission factor	Official reference, "Tool to calculate the emission factor for an electricity system". V.02.2.1, EB 63 Annex 19
4	UNFCCC additionality tool	Official reference, "Tool for the demonstration and assessment of additionality", v.06.0.0, EB65 Annex 21
5	VCS Program Version 3	Official reference, www.v-c-s.org
6	VCS Project Description for Kepezkaya HEPP v2.0	VCS PD registered, Version 2.0
7	VCS Validation Report for Kepezkaya HEPP	Final validation report by TÜV Rheinland from 11.09.2012
8	VCS Monitoring Report for Kepezkaya HEPP v.1	First draft monitoring report
9	VCS Monitoring Report for Kepezkaya HEPP v2.00	Final monitoring report
10	Emission reduction calculations spreadsheet	Spreadsheet part of the monitoring report
11	Meter calibrations certificates	Calibration certificates for main meters (Unit 1 and Unit 2) and back-up meters (Unit 1 and Unit 2) from 16. November 2012
12	Notice of Substantial Completion	Notice letter for readiness to Substantial

		Completion sent to Selen Elektrik Üretim A.S. by IC Insaat (EPC Contractor)
13	TEIAS protocols, Oct2010-Aug2012	Monthly power production protocols recorded by TEIAS and emailed to the PO. Includes gross production and self-consumption data.
14	PMUM MFRC spreadsheets, Sep2010-Aug2012	Spreadsheet with electronic copies of the direct PMUM generation data including daily records – used for consistency check
15	SCADA records for electricity generation and consumption, Sep2010 - Jul2012	Spreadsheet with records of gross electricity production at the power plant – used for plausibility check
16	Data transfer from TEIAS to PO (Nov & Dec 2011)	Emails from TEIAS to PO with monthly gross electricity production and self-consumption data.
18	SCADA water level readings, Jan-Dec2012 (2010 & 2011)	Spreadsheet with hourly water level data recorded by the SCADA system – used to indirectly measure the surface area of the water reservoir.
19	Diesel generator 1 - Technical data sheet	Manufacturer's information on technical data of the diesel generator located at the powerhouse incl. fuel consumption at different load factors.
20	Diesel generator 2 - Technical data sheet	Manufacturer's information on technical data of the diesel generator located at the weir incl. fuel consumption at different load factors.
21	Diesel generator 1 - total working hours (photo)	Photo showing the total work hours of the diesel generator located at the powerhouse on 31. Aug 2012
22	Diesel generator 2 - total working hours (photo)	Photo showing the total work hours of the diesel generator located at the weir on 31. Aug 2012
23	Screenshots of SCADA system readings	At full operational capacity & nameplates of turbines with technical data.
24	EIA exemption certificate	Certificate by the Ministry of Environment and Urban Planning for EIA exemption
25	Connection agreement	Agreement between TEİAŞ at the PO, outlining the monitoring protocol of the electricity generation and consumption.
26	Single line diagram	Diagram displaying the recording of electricity generation and consumption by two main and two back-up meters
27	Feasibility Report	Feasibility study outlining the planned project details including the anticipated achievable emission reductions.
28	Google Earth image of reservoir	Google Earth image providing an overview of the reservoir from September 2011.
29	Generation License	Generation license for Kepezkaya HEPP stating the installed capacity registered.

3.3 Interviews

Table 4: Overview of interviews during the on-site verification visit

Name	Position/ Organisation	Topic
Koray Keskin	Plant Manager, Selen Elektrik Üretim A.Ş.	Operation, maintenance, regulation, coordination of electricity accounting, rules and regulation compliance, responsible for data management.
Orkun Çetinkaya	Shift Leader, Selen Elektrik Üretim A.Ş.	Data recording and monitoring.
Özgür Koçak	Environmental officer, Ministry of the Environment and Urban Planning	Environmental permits
Asli Sezer Özçelik	Carbon Consultant, Ekobil Ltd.	Primary contact for verification
Murat Özçelik	Carbon Consultant, Ekobil Ltd.	

3.4 Site Inspections

An on-site inspection was conducted with the purpose to clarify whether the project had been carried out as described in the VCS PD (6), assess relevant documents and interview people in order to verify the project conditions.

Table 5: Audit plan for the VCS verification onsite visit

Audit, 14 Sep 2012		
09:00	Hotel in Karaman	Transfer to MoEUP
09:30	Ministry of Environment and Urban Planning	Environmental permit - Interview: Özgün Kocar
10:30		Transfer to Kepezkaya HEPP
11:30	Kepezkaya HPP, Office	Audit related to responsibilities and general performance, general document check (incl. SC VAL) - Interview: Koray Keskin
13:00	Lunch	
13:30	Kepezkaya HPP, Office	SC VAL
15:00	Kepezkaya HPP, Powerhouse	Document check for power production, SCADA gear, control meters, backup generator 1, investigation of site specifics according to monitoring plan - Interview: Koray Keskin, Orkun Çetinkaya
17:00	Weir, gate/spillway, backup generator, reservoir	Inspection of relevant attributes according to monitoring plan
19:00		Transfer to Karaman

The on-site visit at the Kepezkaya Hydropower Station confirmed that monitoring and reporting is carried out consistently and in line with established procedures and as per the requirements of the monitoring plan mentioned in the registered VCS PD (6).

3.5 Resolution of Any Material Discrepancy

This process is aimed at resolving any outstanding issues which need to be clarified prior to TÜV Rheinland GmbH's conclusion on the project design and monitoring results. In order to ensure transparency a verification protocol is customised for the project. The protocol shows in a transparent manner criteria (requirements), means of verification and their results against the identified criteria.

Findings established during the verification can either be seen as a non-fulfilment of CDM criteria and VCS Version 3, or where a risk to the fulfilment of project objectives is identified. Corrective action requests (CAR) were issued where mistakes have been made with a direct influence on project results. Moreover, clarifications (CL) were requested where additional information is needed to fully clarify an issue.

4 VERIFICATION FINDINGS

The findings of the verification are stated in the following sections. The verification criteria (requirements), the means of verification and its results against the identified criteria are derived from an internal verification protocol and reflect the requirements of VCS v.3.

4.1 Project Implementation Status

The project has started operation in October 2010. The verification of the project directly follows the validation process that was conducted towards the end of the two year eligibility period for retroactive validation.

The project activity is a newly built hydro power station, which has generated GHG emission reductions by avoiding CO₂ emissions from electricity generation from fossil fuels. Operation of the project does not lead to GHG emissions in itself. Thus, it is confirmed that the project was not implemented to create GHG emissions primarily for the purpose of subsequent removal or destruction.

During the onsite assessment, it was physically observed by the verification team that the power generation equipment and necessary facilities are in place as described in the registered VCS PD (6). By checking their nameplates (23), the project activity was confirmed to install two water turbines with a combined installed capacity of 28 MWe (23).

The monitoring plan in the VCS PD (6) describes how the requirements related to the data acquisition and storage are being met. As described in the monitoring report and physically observed by the verification team during the on-site visit, four bidirectional meters (26) were installed at the powerhouse of the project site to measure electricity exported to and imported from the grid. The meters are identified as the main meter (serial number: 401726) and back-up meter (serial number: 401725) for Unit 1, and the main meter (serial number: 401723) and back-

up meter (serial number: 401724) for Unit 2. The back-up meters ensure accuracy and exclusion of false readings. Both the values for the gross electricity generation and self-consumption are measured by these devices.

All four monitoring meters have been checked prior to the start of the project and are in compliance with the relevant regulation. The verification team has reviewed the calibration records (11) of the installed monitoring meters and confirmed that their calibration frequencies and measurement accuracies are in compliance with the monitoring plan of the registered VCS PD (6) and hence all concerned meters were effective during this monitoring period.

Table 6: Main and back-up meters installed at the Kepezkaya powerhouse

	Unit 1		Unit 2	
Function	Main meter	Back-up meter	Main meter	Back-up meter
Serial No.	401726	401725	401723	401724
Calibration date	16. November 2009			

TEİAŞ monitors the meter readings remotely and is responsible for transmitting the information onto to the PMUM database (14). In addition, the meter readings are being emailed to the plant manager on a monthly basis (16). The plant manager ensures correctness of the data by cross checking it against the online PMUM records as well as the internal readings by its SCADA system (15). The verification team assessed the data collection procedures by means of physical observation, interview and documentation review. There were no deviations to the monitoring activity as described in the VCS PD (6).

In addition to the capacity installed and the electricity generation and consumption, the SCADA system records the water levels which are utilized to monitor the reservoir's area and calculate its power density. Hourly records of water levels for the year 2012 (18) were made available to the verification team.

The two diesel generators, located inside the Kepezkaya powerhouse and at the weir respectively, were inspected during the onsite visit and the current hours of usage displayed by the generators were checked for plausibility, thus verifying the data (21, 22) used for the calculation of the associated GHG emissions.

4.2 Accuracy of GHG Emission Reduction or Removal Calculations

The project owner claims the reduction of CO₂ emission by replacement of grid emission factor based electricity generation. The emission reductions are the baseline emissions using the combined margin emission factor of the grid.

The GHG emission reductions were calculated correctly using the quantity of net electricity generated and the CO₂ emission factor for an electricity system of 0.571103 tCO₂/MWh in accordance with the baseline methodology outlined in the validated VCS PD (6) and applicable under VCS Version 3 (5).

The emission reductions of the project were calculated as the baseline emissions with consideration of both project emission and leakage as zero.

The accuracy of the main and back-up meters is less than 0.2% (CLASS2) as required by national legislation ("Elektrik Piyasasında Kullanılacak Sayaçlar Hakkında Teblig" – Communiqué for metering devices to be used in the electricity market). All four meters are in compliance with the communiqué (11).

All calculations made in the emission reduction calculation spreadsheets (10) have been verified through recomputation by the verification team. The data used in the spreadsheet has been transferred manually and was tracked back to its origin at a coverage rate of 100% using the monthly TEİAŞ records (13) for the entire monitoring period of October 2010 to August 2012. The consistency of all values and monthly generation amounts has been verified. The monthly generation data was again spot checked for consistency with data from the company's SCADA system (15).

The total electricity generation during the monitoring period have been verified as shown in Table 7.

Table 7: Overview of the electricity generation during the monitoring period

Monitoring period	Gross electricity generation (MWh)	Self-consumption electricity (MWh)	Net electricity generation (MWh)
01. October 2010 – 31. August 2012	242,117.2	1,078.5	241,038.7

The net amount of electricity supplied to the grid is determined as 241,038.7 MWh. The GHG emissions in the given monitoring period are therefore calculation as:

$$\begin{aligned}
 BE_y &= EG_{PJ,y} * EF_{grid,CM,y} \\
 &= 241,038.7 \text{ MWh} * 0.571103 \text{ tCO}_2/\text{MWh} \\
 &= \mathbf{137,657 \text{ tCO}_2} \text{ (conservatively rounded down)}
 \end{aligned}$$

The verification team considered that the monitoring of the project is complete and in compliance with the selected monitoring methodology, UNFCCC methodology AMS I.D. Grid connected renewable electricity generation, v.13 and the grid emission factor in compliance with the "Tool to calculate the emission factor for an electricity system", v.02.

4.3 Quality of Evidence to Determine GHG Emission Reductions or Removals

TÜV Rheinland GmbH was able to verify that adequate monitoring mechanisms have been implemented at Kepezkaya HEPP. The required parameters have been monitored on a monthly basis. This was verified during the site visit when the plant records were verified to assess the correctness of the reported data.

The plant manager has shown evidence of the meter's calibration (11) as requested by "Measurement and Measuring Tools Inspection Regulation", Date: 24/07/1994, Official Gazette Number: 22000 - Article 9, in which periodical inspections of "gauges for electric, water, coal gas, natural gas and, current and voltage measuring transformers has to be made once in 10 years". This is in line with the monitoring plan and national requirements. The accuracy of the meters is high, relative to the applied materiality threshold of 5%. Errors in meter readings are monitored by the operator TEİAŞ by comparison of both meter readings (13) from the main and back-up meters. In case the deviation between the two meters exceeds 0.2%, they are replaced by TEİAŞ.

The emission reductions have been correctly calculated as **137,657 tCO₂**. A complete set of data (monthly TEİAŞ records - 13, PMUM data - 14, SCADA recordings - 15) was available for the entire monitoring period of 01. October 2010 to 31th August 2012. As no further uncertainties or quality restrictions affect the calculations, the verification team has reviewed the above-mentioned evidences and considered that the calculations are in compliance with VCS v.3 requirements.

4.4 Management and Operational System

The monitoring plan used for determining the emission reduction by the project is based on the approved methodology ACM0002. The aim of the plan is to maintain credible and transparent measurement and collection of data for precise calculation of emission reduction during the crediting period.

The monitoring plan includes two parameters for the calculation of the emission reduction, namely the electricity gross production (EG_{PP-gross, y}) and the electricity self-consumption (EG_{PP-self consumption, y}). These two parameters are continuously monitored by two independent metering devices.

TEİAŞ is the responsible party for recording the electricity generation, ensuring the accuracy of the meter readings and uploading the data to the PMUM database. A metering protocol (25) has been signed by both TEİAŞ and a Kepezkaya plant employee. The TEİAŞ records provide the data for the monthly invoicing and are accessible via the official PMUM website.

The data collection process in place has been verified onsite to be as follows:

- TEİAŞ remotely reads the metering devices and thus monitors the electricity generation and consumption on a continuous basis.
- TEİAŞ sends monthly records of the electricity generation and consumption data by email to the PO. The document is valid without a signature.
- The PO cross-checks the records against PMUM and SCADA data, stores the records electronically and backs them up on a hard drive as well as a CD.
- The PO forwards the electronic copies to the carbon consultant for the purpose of emission reduction calculations.

- The carbon consultant transfers the data into the excel spreadsheet for the emission reduction calculations.

The data management procedures for all monitored parameters are outlined in Table 8.

The data is collected according to well defined data collection procedures. The monitoring and reporting of parameters is in accordance with the established operational procedures as observed during the onsite visit. No documented instructions were requested and reviewed.

Table 8: Monitoring and data collection procedures for monitored parameters

Parameter	Monitoring location	Responsibility	Procedure (monitoring and calibration)	Data collection and archiving
EG _y	Four electricity meters (two main and two back-up) are installed at the Kepezkaya powerhouse for reading electricity generation and self-consumption.	TEİAŞ inspector & Project Owner's Representative	Continuous measuring and monthly recording: Meter readings are carried out remotely by TEİAŞ at 00:00 on the last day of every month from the main as well as the back-up meter. A form, which shows the measured data, is then e-mailed TEİAŞ to the "Kepezkaya HPP Manager", who approves the data via e-mail correspondence. The two meters are factory calibrated directly at the installation point by the grid company (TEİAŞ) supplier representative. A periodic or random examination of the calibration takes place for all four meters by the grid operator. The calibration of the meters is valid for the next 10 years after calibration.	The meter reading data is sent to PMUM which is "Financial Settlement Centre" a branch of system operator and is responsible for preparing the invoices for the market participants. On the 18th of every next month, PMUM publishes the settlement amount, sends invoices to the energy purchasers and receive the invoices from the sellers. In reference to the checked data from the protocol and the PMUM data-base, the PO prepares the invoice for the generated electricity. The monthly meter reading documents are stored by PO and TEİAŞ on electronic spreadsheets with back-up files.
Cap _{PJ}	Installed capacity of the hydropower plant after the implementation of the Project Activity.	Project Owner's Assigned Technician	Using the SCADA system installed capacity is measured automatically.	The installed capacity of the plants is measured from SCADA system once a year while the plant is operated with full load and the related data is stored as per the monitoring program.
AP _j	Surface area of the reservoir at full capacity after the implementation of the Project Activity.	Project Owner's Assigned Technician	The reservoir surface area at maximum operational level is determined according to the topographical maps. A correlation graphic that exhibits the relationship between the water depth, reservoir surface area and the volume of the reservoir is plotted against a graphic.	The water depth is recorded hourly by the SCADA system. The monthly maximum water depth is used to identify the corresponding reservoir surface area from the correlation graphic.
FC _{j,y}	Quantity of fuel type <i>i</i> combusted in process <i>j</i> during the year <i>y</i>	Project Owner's Assigned Technician	The auxiliary diesel generator work hours are recorded by the data recorders of the generators. The annual work hours are summed up and conservatively rounded up to the nearest whole hour.	At the end of the monitoring period a photo is taken and stored in the Kepezkaya HPP Manager's log files. The value is then recorded in the relevant sheet of the excel work book that will be used to monitor all the data related to emission reduction monitoring. The excel sheet will be backed up and copied to a CD.

5 VERIFICATION CONCLUSION

The verification team of TÜV Rheinland Energie und Umwelt GmbH has performed a verification for the Kepezkaya HEPP in Turkey on the requirements of VCS Version 3 and UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The verification team concluded that the project as described in the VCS Monitoring Report (version 2.00, 09. October 2012), meets all relevant requirements of the above-defined criteria. TÜV Rheinland Energie und Umwelt GmbH therefore issues a positive verification opinion.

The verified emission reductions during the concerned monitoring period (01. October 2010 – 31. August 2012) are displayed as follows:

GHG Emission Reductions or Removals	tCO ₂ e			
	1 October, 2010 – 31 December, 2010	1 January, 2011 – 31 December, 2011	1 January, 2012 – 31 August, 2012	Total
Baseline Emissions	8,416	73,309	55,932	137,657
Project Emissions	0	0	0	0
Leakage	0	0	0	0
Net GHG emission reductions or removals				137,657

6 VERIFICATION STATEMENT

Selen Elektrik Üretim A. Ş.
Çetin Emeç, Bulvari 65. Sk.
No 4 Balgat, ANKARA
Turkey

11 October 2012

RE: Verification Statement Kepezkaya Hydro Electricity Power Plant, Turkey under VCS, first monitoring period from 01.10.2010 to 31.08.2012

Selen Elektrik Üretim A. Ş with registered office at Çetin Emeç, Bulvari 65. Sk. No 4 Balgat, ANKARA, Turkey, has engaged TÜV Rheinland Energie und Umwelt GmbH to review and verify the VCS Monitoring Report and all assertions related to the GHG project under VCS v.3.

We have conducted the VCS Verification in accordance with the requirements of the VCS Version 3 based on the UN Framework Convention on Climate Change (UNFCCC), Article 12 of the Kyoto Protocol, the CDM modalities and procedures. The project information has been verified and the VCS Verification Report "VERIFICATION REPORT 21220554 - Kepezkaya HEPP, Turkey" delivered on 15 October 2012 includes all relevant information and evidence acquired during the Verification process.

We have come to the conclusion that based on our review and all available documentation the assertions are made in accordance with the requirements of the VCS program and are material correct and fairly represents the required parameters without material discrepancies. The Emission Reductions claimed for the monitoring period 1st October 2010 – 31st August 2012 are verified to be 137,657 tCO₂ for each Vintage Year as indicated below:

GHG Emission Reductions or Removals	tCO ₂ e			
	1 October, 2010 – 31 December, 2010	1 January, 2011 – 31 December, 2011	1 January, 2012 – 31 August, 2012	Total
Baseline Emissions	8,416	73,309	55,932	137,657
Project Emissions	0	0	0	0
Leakage	0	0	0	0
Net GHG emission reductions or removals				137,657

Cologne, 11 October 2012



Roland Wollenweber

ANNEX 1: VERIFICATION PROTOCOL¹

Assessment Issue	Ref.	MoV ²	Findings, comments, references, data sources	Draft conclusion	Final conclusion
1. Implementation of the project					
1.1 Have all physical features proposed in the registered PDD been implemented at the project site? <i>Validated 2 turbines 14 MW each</i> <i>Validated reservoir</i> <i>Validated net head 81.57 meters</i> <i>Check meter installations and coverage</i>		FA FA FA FA	The project has been implemented as validated. The installed capacity of the turbines as per nameplate is 14820 kW (see 4.3 for details).		Ok
1.2 Has the project activity been operated in accordance with the project scenario described in the registered PDD and relevant guidance?	6, 7, 9	DR FA	During the retroactive validation procedure it has already been confirmed that the project is operating in accordance with the scenario described in the registered PDD and relevant guidance. During the on-site visit for the verification process it could be confirmed again that the project is operating as planned and approved.		Ok
1.3 If the project activity is implemented on a number of different locations, has the monitoring report provided the verifiable starting dates for each site?			Not applicable since the project the project is located at one single site.		N/A

¹ Verification requirements (based on VCS Standard Version 3.2; §56, §57 and §62 of the CDM Modalities and Procedures and on CDM Verification and Verification Manual, Annex 1 of EB55)

² MoV = Means of Verification, FA = Field Assessment, DR = Document Review, I = Interview

2. Monitoring plan and methodology					
2.1 Is the monitoring plan established in accordance with the monitoring methodology? <i>Version 13.0.0 ACM0002</i>	6, 7, 9	DR	Applied methodology consistent throughout all documents. No parameters have been neglected.		Ok
2.2 In case the implemented monitoring plan differs from the monitoring methodology, has any requests for revision to or deviation from the monitoring methodology been officially communicated to the CDM EB (if applicable methodology is subject to EB approval)?			The implemented monitoring plan does not differ from the initial monitoring methodology		N/A
2.2.1 Have the above changes to the monitoring plan been approved by the CDM EB?			Not applicable as no changes have been made.		N/A
3. Monitoring and the monitoring plan					
3.1 Is monitoring established in full compliance with the monitoring plan, contained in the registered PDD (or new monitoring plan approved by the applicable standard) <i>Monitoring period</i> <i>Parameters</i> <i>Meter Ser.-No., physical location, transcription</i>	6, 7, 9 6, 9	DR DR FA	Monitoring Period consistent with crediting period and PDD - hourly meter readings and recordings; remote monthly readings by TEIAS who emails this data to plant manager; the meters used are as described in the monitoring plan. Parameters in line with PDD Meters as described in PDD	.	Ok
3.2 Are all baseline emission parameters monitored and updated in accordance with monitoring plan, monitoring methodology and relevant CDM EB decisions? <i>EF(combined)</i> <i>EG(PP-gross) and EG(PP-selfconsumption) see below parameters</i>	6, 9	DR	The combined emission factor (EF) has been determined ex-ante and is applicable for the entire crediting period. EF (combined) has been validated.		Ok
3.2.1. Was the monitoring equipment for baseline emission parameters controlled and monitoring results recorded as per approved frequency? <i>Check on-site implementation of data transfer and management</i>	13, 15, 16	DR	Continuous recording of data (quarter-hourly) through the main and back-up meters. Track of data: TEIAS reads meters remotely once per months and emails the detailed data to the plant	CL1 - Clarification of cross-check by the plant manager. The plant manager stores this information electronically and backs in	Ok

		FA	manager.	up on hard disk. The data is cross checked against PMUM and SCADA records.	
3.2.2 Was the monitoring equipment for baseline emission parameters calibrated in accordance with QA&QC procedures described in the registered monitoring plan? <i>Calibration Certificates for all used meters</i>	11	DR I	The calibration records for all meters are in order and up to date.	CL4 - Control of difference between main and back-up meter. TEIAS checks the remotely received data for differences between the main and the back-up meter readings. When the difference exceeds +- 0.2%, TEIAS contacts the plant manager.	Ok
3.3 Are all project emission parameters monitored and updated in accordance with monitoring plan, monitoring methodology and relevant CDM EB decisions? <i>FC(iy) and A(PJ) see below parameters</i>	6, 9	DR	Project emissions through on-site fuel consumption and reservoir emissions were identified in line with the monitoring methodology.		Ok
3.3.1 Was the monitoring equipment for project emission parameters controlled and monitoring results recorded as per approved frequency? <i>Check transcription procedure on site</i>	18, 21, 22	DR FA	Hourly recordings of the water level using the SCADA system only available for 2012. Regular checks of the working hours of the diesel generator - evaluation of the records at the end of each monitoring period.	CAR 2 – Water level recordings for 2010&2011. Recordings are only available for 2010, but it is technically impossible for the weir structure to hold water above the maximum operable water level, and therefore the reservoir area cannot be larger than 267000 m2 in which case the power density cannot be lower than about 90W/m2.	Ok
3.3.2 Was the monitoring equipment for project emission parameters calibrated in accordance with QA&QC procedures described in the registered monitoring plan? <i>Check name plates of turbines, google earth image</i>	23, 28		The monitoring equipment was in accordance with the QA&QC procedures described in the monitoring plan. Name plates, screenshots of the SCADA system at full capacity and Google Earth Images were available to check the project emissions parameters		Ok

3.4 Are all leakage emission parameters monitored and updated in accordance with monitoring plan, monitoring methodology and relevant CDM EB decisions?	6, 7		Not applicable - Leakage emission equal zero as per ACM0002.		N/A
3.4.1 Was the monitoring equipment for leakage emission parameters controlled and monitoring results recorded as per approved frequency?			N/A		N/A
3.4.2 Was the monitoring equipment for leakage emission parameters calibrated in accordance with QA&QC procedures described in the registered monitoring plan?			N/A		N/A
3.5 Were all monitoring parameters available and verifiable through the whole monitoring period? <i>See below parameters under 4</i>			See below.		
3.6 In case, only partial monitoring data is available and PP(s) provide estimations or assumptions for the rest of data, was it possible to verify those estimations and assumptions? Reference: < http://cdm.unfccc.int/EB/026/eb26rep.pdf >, §109(b)			Data for water levels was only available for 2012. But it is technically impossible for the weir structure to hold water above the maximum operable water level, and therefore the reservoir area cannot be larger than 267000 m2 in which case the power density cannot be lower than about 90W/m2. So reasonable assumptions can be made for the rest of the data.		Ok
3.7 Was management and operation system established and operated in accordance with the monitoring plan? <i>Interview</i>		I	Responsibilities are being carried out as described in the MR.		Ok
3.8 Was it possible to verify that involved management and operation personal is fully aware of the responsibilities and perform all operations according to the registered monitoring plan and internally developed manuals?		FA I	Staff is aware of responsibilities described in MR.		Ok

4. Parameters					
4.1 Monitored parameter Title: Quantity of electricity imported by the power plant from the Grid for selfconsumption, in year y Indication: EGPP-self consumption, y Units: MWh Estimated value (ex-ante): N/A Measured value (ex-post): 75.43 (2010) <i>Cross check TEAIS readings with PMUM and SCADA data</i> <i>Serial numbers of meter & location</i>	10, 13, 15	DR FA	TEIAS data was available for the entire monitoring period of Oct 2010–Aug 2012. SCADA records were available for Sep 2010–Jul 2012; the TEIAS data was checked against SCADA for plausibility. PMUM data was available from Sep 2010 – Aug 2012; the TEIAS data was checked against PMUM. The transfer from TEIAS' monthly records to carbon consultant's calculation sheet was checked. Serial numbers and locations of meters were confirmed during onsite visit.		Ok
4.2 Monitored parameter Title: Quantity of electricity produced by the power plant, in y Indication: EGPP-gross, y Units: MWh Estimated value (ex-ante): 107,587 (annum) Measured value (ex-post): 2010 (3 months): 14,825; 2011 (12 months): 129,281; 2012 (8 months): 98,012 <i>Cross check TEAIS readings with PMUM and SCADA data</i> <i>Serial numbers of meter & location</i>	10, 13, 15	DR FA	TEIAS data was available for the entire monitoring period of Oct 2010–Aug 2012. SCADA records were available for Sep 2010–Jul 2012; the TEIAS data was checked against SCADA for plausibility. PMUM data was available from Sep 2010 – Aug 2012; the TEIAS data was checked against PMUM. The transfer from TEIAS' monthly records to carbon consultant's calculation sheet was checked. Serial numbers and locations of meters were confirmed during onsite visit.		Ok
4.3 Monitored parameter Title: Installed capacity of the hydropower plants after the implementation of the project activity Indication: CapPJ Units: W			During the on-site visit, the two Francis turbines with an installed capacity of 14826 kW_m each (according to their nameplates) were inspected. The SCADA system showed a real-	CL 10 - Please clarify the difference between the registered capacity and the capacity displayed on the name plates / SCADA system.	Ok

Estimated value (ex-ante): 28,000,000 Measured value (ex-post): 28,750,000 <i>Site inspection of turbines</i> <i>Cross-check against Scada system, name plates</i>	23	FA DR	time output of 14.030 MW and 14.720 MW, for Unit 1 and Unit 2 respectively.	The design plates show the mechanical capacities which is higher than the electrical capacity that the project registration refers to. Please see the registration licence with states "29,40 MWm / 28,00 MWe"	
4.4 Monitored parameter Title: Area of the reservoir surface after the implementation of the project activity, when the reservoir is full Indication: APJ Units: m² Estimated value (ex-ante): 166,258.0 (PDD) Measured value (ex-post): 197,724.0 <i>Electronic spreadsheet (SCADA) with daily records of water level</i> <i>Cross-check against SCADA system readings onsite</i>	9, 18	DR FA	Hourly data of the water level is available throughout 2012. The maximum water level in 2012 was 502.98 m as stated in the report. Sample SCADA reading confirmed approximate water level. Using graph from feasibility report, the final value was identified as 197,724.0 m².	CAR 2 – see clarifications under 3.3.1 above.	Ok
4.5 Monitored parameter Title: Quantity of fuel type i combusted in process j during year y Indication: FCjy Units: L Estimated value (ex-ante): 3352 L/a Measured value (ex-post): 10,689.1 L for entire monitoring period <i>Diesel generators at project site (Generator A: 131h 39 min; Generator B: 491h)</i> <i>Check generator manufacturer's fact sheet for standard fuel use (indicated in the report as: 56.8L at 75% load factor - Volvo TAD94 1GE model BCV 360-50 E2 Diesel)</i>	21, 22 19, 20	FA, DR FA, DR	Both diesel generators were inspected. The recorded working hours during the site visit (14.09.2012) were in line with what was recorded at the end of the monitoring period (01.09.2012). The make of the diesel generator at the powerhouse was confirmed in the onsite visit. The manufacturer's fact sheet states the fuel consumption of 56.8 l/h at 75% load factor of a stand-by machine.	CL2 – clarification on load factor; and CL3 – manufacturer's information on 2nd diesel generator.	Ok

5. Calculations					
5.1 Have all the calculations related to the baseline emissions been carried out according to the formulae and methods described in the registered PDD and applied methodology? <i>Validated CM EF 0.571103 tCO₂e/MWh</i>	1-6, 9, 10	DR	The calculations for the baseline emissions are correct and in accordance with the methods outlined in the PDD.		Ok
5.2 Have all the calculations related to the project emissions been carried according to the formulae and methods described in the registered PDD and applied methodology?	1-6, 9, 10	DR	Calculations for identifying PE from the reservoir are correct. Calculations for identifying PE from diesel generator are correct. In the final calculations the PE from the diesel generator are not listed.	CAR 10 - Please include the PE (= "0" due to the insignificant amount) from the diesel generator in Section 4.4.	Ok
5.3 Have all the calculations related to the leakage emissions been carried according to the formulae and methods described in the registered PDD and applied methodology?			Not applicable - leakage emission equal zero as per ACM0002.		N/A

ANNEX 2: LIST OF CORRECTIVE ACTION REQUESTS (CAR) AND CLARIFICATION (CL)

CAR	CL	List of Requests for Corrective Action (CAR) and Clarification (CL)			
		Observation (CAR/CL)	Reference	Summary of project owner response	Validation team conclusion
1		Please correct the indicated Monitoring Period on cover sheet (currently 01. October 2012 to 31. August 2012)	Cover sheet	Corrected, please see version 1.2 of the MR.	Ok. CAR CLOSED
	1	Please explain how the data is utilized & stored by the plant manager when he receives the monthly email from TEIAS and how the cross-check with other data takes place. Which data is used for the cross-check (e.g. PMUM data or own meter readings)?		The data is stored electronically and backed up both in hard drives and in a CD. The data is cross checked by looking at the PMUM records, and scada records. The data is also recorded in the "Kepezkaya veriformtoTUV-RnotforPublication.xlsx" excel book's raw data sheet.	Ok. On-site interview with plant manager confirmed process. CAR CLOSED
2		We only have the water level data for 2012. Please submit data for 2010 and 2011.		We will be doing our best to provide that data if available but please note that technically it is impossible for the weir structure to hold water above the maximum operable water level, and therefore the reservoir area cannot be larger than 267000 m2 in which case the power density cannot be lower than about 90W/m2. Please see the original excel file of the graphic.	Ok. Data for 2010 and 2011 cannot be provided due to problems with the SCADA system. Data for 2012 is sufficient. CAR CLOSED
	2	Please explain why a load factor of 75% was chosen to identify the fuel consumption for the diesel generator.	MR, Section 3.2, p18	Since we do not have the total diesel consumption data we have taken the maximum fuel consumption per hour data provided in the technical specification sheet of the diesel generator and this corresponds to 75% load. We believe this is a conservative and appropriate approach. Please also see the updated excel book for maximum and average diesel consumption values.	Ok. CAR CLOSED

	3	Please explain process of identifying and calculating the fuel consumption for the diesel generator on the weir. The technical data sheet given for this generator does not seem to provide information on fuel consumption. If possible, please provide the relevant technical fact sheet.			Ok. The technical data sheet has been provided and its fuel consumption pointed out. CAR CLOSED
3		Table 5: FC(j,y) Includes the fuel consumption of generator at the power house (56.8L) but not the fuel consumption for the generator at the weir (6.5L).	MR1.2, p21	Updated	Ok. CAR CLOSED
	4	Please explain when TEIAS informs plant manager about irregularities between the readings from the main and the back-up meters, i.e. how large does the difference (%) have to be for them to inform the plant manager?		As indicated in the QA/QC part of the relevant parameters given on page 14 of the MR, the difference should be more than $\pm 0.2\%$ for them to inform plant manager.	Ok. Process confirmed in interview with plant manager on-site. CAR CLOSED
4		Please provide PMUM data for Aug2012.		Provided.	Ok. CAR CLOSED
	5	Please state the source of the graph in Annex 1 (Volume vs Area Curve) of the monitoring report.	MR, Annex 1, p30	The source is the DSI approved feasibility study report, this is also indicated as an explanation in Annex 1 in the new version (version 1.2) of the MR.	Ok. CAR CLOSED
	6	02.04.2008: "Project Owner Was Granted the Ultimate Forestry Permit to operate within the jurisdictions of the forestry authorities lands" Please provide documentation.	MR, p4	The Forestry permits have been provided.	Ok. CAR CLOSED
	7	The document „09-Kepezkaya-MinistryofEnergy-PreliminaryApprovalto Operatei“ gives only a preliminary approval, is that correct? Is there an ultimate approval from the Ministry?	MR, p4	The ultimate approval generally comes two years after the preliminary approval. The project owner makes sure that they complete all the items indicated in the punch list of the preliminary government approval before starting operations. But in addition to this the project owner, waited for its turnkey construction and purchase contractor to complete their own punch list	Ok. CAR CLOSED

				and didn't start operating before that.	
	8	Reading of the monthly generation data: It is understood from the interview with the plant manager, that the data is always recorded remotely rather than a TEIAS officer reading the data onsite. Can you pls confirm?	MR, p22, 1st paragraph	That explanation is corrected in the version 1.2 of the MR	Ok. CAR CLOSED
5		QC/QA states: "The Project Owner will sign an agreement with the grid operator to specify the QA procedure..." Please point out this document. If it has not been submitted yet, please provide.	MR, p22, last paragraph	The Grid connection agreement is covering this issue and outlining in page 4 paragraph d that the project owner and the TEIAS is going to co-operate in the recording and testing of the measurement systems.	Ok. CAR CLOSED
6		Section 4.4 only includes the reservoir emissions (=0) for project emissions. Please also include the PE from the diesel generator here.	MR1.2, p26	A ratio is added at the explanation at the last paragraph of section 4.2 of Mrversion 1.2 on page 26 and two lines to show that the diesel generator limited PE is neglected and the total PE was 0 is added to table 9.0	Ok. CAR CLOSED
7		Total VCUs on p24 (137,657 t) and p27 (137,658 t) are not identical! On p24 the annual data for 2010, 2011 and 2012 is each conservatively rounded down and then added up. On p27 the baseline emissions for each year are calculated to the exact amount and then added. Please amend to ensure consistency.	MR1.2, p24 & 27	Updated	Ok. CAR CLOSED
	9	The self-consumption in May 2011 is a lot higher than in the other months of the monitoring period. Is there an explanation for this?	MR1.2, p24	On a phone call the plant coordinator has explained that in general in May the water availability is good enough to run all the units at their full capacities, therefore the internal consumption needs of the pumps and other equipment are relatively higher.	Ok. CAR CLOSED
	10	The design plates of the turbines state an installed capacity of 14826 kW (x2) compared to the 28 MW capacity that the project is registered for. How can this difference be explained?		The design plates show the mechanical capacities which are higher than the electrical capacity that the project registration refers to. Please see the registration license with states "29,40 MWm/28,00 MWe".	Ok. CAR CLOSED