

VALIDATION REPORT

SANIBEY DAM AND HYDROELECTRIC POWER PLANT



BUREAU VERITAS CERTIFICATION

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Summary:

Bureau Veritas Certification has made the validation of "SaniBey Dam and Hydroelectric Power Plant". The project activity involves the installation of a 310.66MWe also energy structures consisting of two penstocks and a power plant building including two units having outputs of 155.33MWe each are located on the downstream of the dam body. hydroelectric power plant (HEPP) located on the Seyhan River basin, in Turkey's Eastern Mediterranean Region. The project comes under Type-I Renewable Energy Project as per Appendix B of the procedures for CDM project activities. The expected annual emission reduction is 524,729 tonnes of CO₂e.

The validation objective included an assessment of compliance with VCS Standard (version 3.1), VCS Program Guide (version 3.1) and the likelihood that the implementation of the planned GHG project will result in the quantified GHG emission reductions as stated by the project participant (ISO 14064-3:2006). This validation assessed the GHG emission reductions of a hydropower project against the CDM methodology ACM0002 (version 12.2.0) in Sectoral Scope 1 (Energy – renewable/non-renewable). The scope of the validation included the GHG project and baseline scenarios; physical infrastructure, technologies and processes of the GHG project; GHG sources, sinks and/or reservoirs; types of GHG's; and time periods covered. The validation criteria followed the guidance documents provided by VCS and included the following: VCS Program Guide (19 October 2011, v3.1) and VCS Standard (15 July 2011, v3.1). Validation protocol for the project is included in Annex B, the information references is attached in Annex A. There are no restrictions of uncertainty.

The validation scope is defined as an independent and objective review of the VCS project description, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following five phases; i) desk review of the project design and the baseline and monitoring plan; ii) Review of the baseline methodology by the specialist and the validator; iii) Review of the investment analysis by the specialist and the validator iv) follow-up interviews and on site visit; v) resolution of outstanding issues and the issuance of the final validation report and opinion.

The overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures. The first output of the validation process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Annex II in the Validation Protocol. The project proponent subsequently revised the Project Description as Version 06 dated 15/02/2012 to resolve the issues that have risen during the interviews and subsequent interactions.

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies the baseline and monitoring methodology ACM0002, version 12.1.0 and meets the relevant VCS Version 03 requirements and local legislation.

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Abbreviations List:

HEPP	: Hydro Electric Power Plant
CL	: Clarification
CAR	: Corrective Action Request
FAR	: Forward Action Request
MP	: Monitoring Plan
VCS	: Verified Carbon Standard
VCU	: Voluntary Carbon Unit
VER	: Voluntary Emissions Reductions / Verified Emissions Reductions
PD	: Project Description
EMRA	: Electricity Market Regulatory Authority (EPDK)
EPDK	: Elektrik Piyasasi Duzenleme Kurulu (EMRA)
TEIAS	: Turkiye Elektrik Iletim A.S. (Turkish Electricity Transmission Company)
DSI	: Devlet Su Isleri (State Hydraulic Works)
PP	: Project Participant
CDM	: Clean Development Mechanism
HES	: Hidro Elektrik Santrali (Hydro Electric Power Plant)
FSR	: Feasibility Study Report



INTRODUCTION

1.1 Objective

The validation serves as project design verification and is a requirement of all voluntary emission reduction projects. The validation is an independent third party assessment of the project design. In particular, the monitoring plan (MP), and the project's compliance with relevant VCS criteria which are valeted in order to confirm that the project design, as documented, is sound and reasonable and meets the stated requirements and identification criteria. Validation is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of Voluntary Carbon Units (VCUs).

1.2 Scope and Criteria

The validation scope is defined as an independent and objective review of the VCS project description, the project's baseline study and monitoring plan, the project's investment analysis and other relevant documents. The information in these documents is reviewed against the methodologies and tools that are given under the Clean Development Mechanisms of Kyoto Protocol, VCS Version 3.0 rules and associated interpretations. The validation is not meant to provide any consulting towards the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Level of assurance

The level of assurance of the validation report is defined as high.

1.4 Summary Description of the Project

Bureau Veritas Certification has made the validation of "Sani Bey Dam and Hydroelectric Power Plant". The project activity involves the installation of a 310.66MWe also energy structures consisting of two penstocks and a power plant building including two units having outputs of 155.33MWe each are located on the downstream of the dam body. hydroelectric power plant (HEPP) located on the Seyhan River basin, in Turkey's Eastern Mediterranean Region. The project comes under Type-I Renewable Energy Project as per Appendix B of the procedures for CDM project activities. The expected annual emission reduction is 524,729 tonnes of CO₂e.

2 VALIDATION PROCESS

2.1 Method and Criteria

The overall validation, from contract review to validation report & opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a validation protocol was customized for the project. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements of a VCS project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

2.2 Document Review

The Project Description (PD) submitted by Sani Bey Barajı Elektrik Uretim ve Ticaret A.S. (Sani Bey Barajı Elektrik) and additional background documents related to the project design and baseline, i.e. relevant Law, VCS Project Description Template, Approved Methodology and tools under the CDM of Kyoto Protocol, Clarifications (CL), Corrective Action Requests (CAR) and Forward Action Request (FAR) on validation requirements were reviewed.

To address Bureau Veritas Certification corrective action requests and clarification requests, Sani Bey Barajı Elektrik revised the PD several times, VCS PD version 08 dated 03/05/2012 being the last version, which was submitted to the validation team on 02/02/2012. After further clarifications, all corrective action request and clarification requests were closed on 15/02/2012. The validation of the Project resulted in 34 Corrective Action Request, 42 Clarification Requests and 0 Forward Action Request.

All documents were reviewed under the requirements of the CDM Methodologies as these methodologies are approved under the VCS.

2.3 Interviews

Between April 2011 and February 2012 Bureau Veritas Certification performed interviews with Sani Bey Barajı Elektrik regarding the grid emission factor, investment analysis, project specific questions and Clarification and Corrective Actions Requests documented in the validation protocol. A list of the persons interviewed is given under section 5.2 of this report. After the discussions, the validation team closed on 15/02/2012 all documented CL and CAR in the validation protocol.

Interviewed organization	Interview topics
Sani Bey Barajı Elektrik Üretim ve Ticaret A.Ş	✓ Design of the project activity ✓ The planning and the construction phase of the project ✓ Sustainable development in the region ✓ Local stakeholder consultation meeting ✓ Training of the employees ✓ Fish passage ✓ Working conditions ✓ Sediment Management
LOCAL Stakeholder	✓ Sustainable development in the region ✓ Local stakeholder consultation meeting ✓ Project's impact on local economy
GAIA Carbon Finance (Consultant)	✓ Local stakeholder consultation meeting ✓ Consideration of comments from the stakeholders ✓ Sustainable development in the region ✓ Additionality of the project activity ✓ Investment analysis ✓ Baseline determination ✓ Emission reduction calculations ✓ Fish passage ✓ Training of the employees ✓ Sediment Management

2.4 Site Inspections

On 05-06/07/2011 Bureau Veritas Certification performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Sani Bey Barajı Elektrik and GAIA Carbon Finance.

2.5 Resolution of Any Material Discrepancy

During the validation, there were no material discrepancies that were identified.

3 VALIDATION FINDINGS

3.1 Project Design

The project comes under Type I – Renewable Energy Project as per 4/CMP.1, Annex II, Appendix B. The project is a 310.66MWe HEPP and it uses renewable sources to produce electricity. Since the installed capacity of the planned HEPP is bigger than 15 MW; it is a large scale renewable energy project activity. As per the justifications given above, the project activity is eligible under VCS. Sani Bey Dam and Hydroelectric Power Plant is not a debundled component of a larger project activity as defined in the VCS PD version 08. The project activity is neither in existing facilities nor in utilizing existing equipments. During the site visit, it was confirmed that project activity is a greenfield project.

The project activity is implemented on 02/12/2010 and 26/01/2011 as was validated through the "Provisional Acceptance Certificate" approved by The Ministry of Energy and Natural Resources. The carbon crediting period and therefore the monitoring starts when the plant commences electricity generation. The crediting life is a maximum of ten years that may be renewed at most two times.

Sani Bey Dam HEPP project entails the construction and operation of a 310.66MWe hydroelectric power plant (HEPP) on the Seyhan River basin, in Turkey's Eastern Mediterranean Region. The location of the project activity was validated during the site visit.

The implementation of the project consists of construction of the following main items:

- Reservoir area : 14,299,205.52 m² (at 235m level)
- Maximum Operation Level of reservoir : 235 m
- Number of Penstocks : 2
- Length of penstocks : 393; 382
- A powerhouse consists of two Francis type vertical turbine each with the capacity of 155.33MWe

The net electricity delivery to the grid by the project is estimated to be 768.66GWh per annum. Generated electricity is supplied to the grid. The project design was validated during the site visit and feasibility study report of the project activity. The estimated annual emission reduction is 524,729 tonnes of CO₂e.

The technical lifetime of project activity is defined as 35 years as per the feasibility study report. The defined technical lifetime was accepted by the validation team as per the EB50 Annex 15 and sectoral expert found acceptable the defined lifetime. The technical lifetime of the project activity is longer than the total crediting period. As a result, validation team approves that the technology used in project activity is state of the art and all the equipment used in the project are new.

The project is in line with country specific requirements. The project complies with Electricity Law and Law in utilization of Renewable Energy Resources for the purpose of generating electricity energy. The "EIA Positive Certificate" dated 06/06/2007 was provided to the validation team as a proof in compliance with Environmental Law. In addition the application letter to the Ministry of Environment and Urban Planning for the change of title of the project dated 23.08.2011 was provided to the validation team.

Sani Bey Dam HEPP is operated and owned by Sani Bey Barajı Elektrik Uretim ve Ticaret A.S and the generation license belongs to Sani Bey Barajı Elektrik Uretim ve Ticaret A.S. A copy of the generation license and The application letter to the Ministry of Environment and Urban Planning for the change of title of the project were given Annex 1 and Annex 13 of the PD. The VCS project proponent is Sani Bey Barajı Elektrik uretim ve Ticaret A.S.. Sani Bey Barajı Elektrik is involved in the engineering tasks of the project and also responsible party for the management of the VER project.

Net GHG emission reductions or removals generated by the project will not be used for compliance with an emissions trading program or to meet binding limits on GHG emissions. The project has not

been registered or seeking registration under other GHG programs. The project has not created another form of Environmental Credit. The project has not been rejected by other GHG programs.

The DOE hereby confirms that the project description in VCS-PD (Section 1.1) is accurate and complete in all respects.

3.2 Application of Methodology

3.2.1 Title and Reference

The baseline for "Sani Bey Dam and Hydroelectric Power Plant" project is established by the UNFCCC official methodology ACM0002, version 12.1.0, namely "Consolidated baseline methodology for grid-connected electricity generation from renewable sources".

For the calculation of the grid emission factor, UNFCCC Methodological Tool "Tool to Calculate Emission Factor of an Electricity System" version 02 is used.

For the assessment and demonstration of additionality, UNFCCC Methodological Tool "Tool for the Demonstration and Assessment of Additionality", Version 05.2 is used.

Both of the tools are referred in the applied methodology. Both the tools and the methodology are the latest available versions at the time of PD submission to the DOE, and are found appropriate by the validation team. Clean Development Mechanism Methodologies are approved under the VCS program.

The investment Analysis and Common Practice Analysis have been applied for the project activity. The input values were confirmed through the feasibility of the project activity and other sectoral data's were confirmed by the financial specialist through the sectoral knowledge. Common Practice analysis data's were checked from TEIAS Statistics.

3.2.2 Applicability

The choice of methodology ACM0002, version 12.1.0 is justified as the proposed project activity meets relevant applicability criteria:

- Sani Bey Dam HEPP is grid connected renewable electricity generation project information is confirmed through the generation license of the project and with the site visit.
- During the site visit, it was confirmed that the project does not involve switching from fossil fuel use to renewable energy at the site of the project activity.
- The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available from TEIAS. All used information has been checked through the official web page.
- The power density of the proposed project activity is 21.72 W/m^2 that is greater than 4 W/m^2 as calculated in the VCS PD. The calculation was confirmed and data's were verified through the generation license and technical drawing of the project activity.

Reservoir area which is used in power density calculation is derived from FSR section 1.3.2 it is indicated footnote 51.

The baseline scenario was applied correctly and the justification for the choice of the baseline methodology is found appropriate by the validation team. All assumptions and data used by the project participants are listed in VCD-PD, including their references and sources, all documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the VCS-PD.

3.2.3 Project Boundary

For the baseline, CO₂ emissions are included in baseline calculation since fossil fuels fired for electricity generation. CH₄ and N₂O emissions are neglected regarding to the methodology. For the project activity, project emissions are neglected regarding to the methodology since the power density of the project activity is above 10W/m². There is no other emission source regarding to the approved methodology. The DOE validated the project boundary by Site visit and the reference documentation. The only greenhouse gas (GHG) to be considered in the baseline and project scenario has been identified as CO₂.

3.2.4 Baseline Scenario

The baseline for "Sani Bey Dam and Hydroelectric Power Plant" project is established by using the UNFCCC official methodology ACM0002, version 12.1.0, namely "Consolidated baseline methodology for grid-connected electricity generation from renewable sources".

For the calculation of the grid emission factor, UNFCCC Methodological Tool "Tool to Calculate Emission Factor of an Electricity System" version 02 is used.

For the assessment and demonstration additionality, UNFCCC Methodological Tool étool for the Demonstration and Assessment of Additionality", Version 05.2 is used.

The PD was submitted on 02.02.2012. Both tools and the methodology are the latest available versions at the time of PD submission to the DOE, and are found appropriate by the validation team. Clean Development Mechanism Methodologies are approved under the VCS program.

The baseline scenario is defined as follows: "The electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources."

The defined baseline scenario is in line with the methodology. The above setting of the baseline scenario is found appropriate by the validation team. The PP has been identified the most reasonable baseline scenario and the identified baseline scenario reasonably represents what occur in the absence of the proposed VCS project activity.

The VCS-PD provides a clear description of the baseline scenario(s) which includes a description of the technology and the activities that would take place in the absence of the project activity.

3.2.5 Additionality

The assessment and demonstration of additionality of the project is done by using UNFCCC Methodological Tool "Tool for the Demonstration and Assessment of Additionality" Version 05.2.

Under sub-step 1a, the following four alternatives are identified as the alternative scenarios that are likely to happen in the absence of the project activity:

Alternative 1 : The proposed project activity undertaken without being registered as VCS project activity.

Alternative 2 : Construction of a thermal power plant with equivalent installed capacity or annual electricity generation.

Alternative 3 : Construction of a new power plant generating the same annual power generation from other renewable sources such as wind power, solar power and thermal energy.

Alternative 4 : The continuation of the current situation. The equivalent electricity will be provided by the existing power units connected to the national grid.

From the above mentioned alternatives 1,2 and 4 are assessed to be realistic and credible alternatives. It is seen that all scenarios are consistent with the baseline definition of ACM0002, version 12.1.0.

Under sub-step 1b, applicable mandatory laws and regulations have been identified and analysed. Installation of new thermal power plants (Alternative 2) is subject to Electricity Market Law, Natural Gas Market Law, Forest Law and Environment Law. These projects are also assessed and delivered licenses by EMRA in line with the relevant laws and regulations. The renewable energy generation license for proposed project not undertaken as a VER project activity (Alternative 1) has been issued considering electricity Law and Law in utilization of Renewable Energy Resources for the purpose of generating electricity energy. The "Alternative 1" also in complies with Energy Efficiency Law. Environment Law is met by the alternative project activity. Forest Law, which specifies that forest areas can be allocated by Ministry of Environment and Forestry to institutions or individuals for energy, plants if the project implementation serves common good for public. Continuation of the current situation supply of equal amount of electricity by the grid connected power plants (Alternative 4) comply with legal requirements, as it is practices currently present in the host country.

The project proponent used Step 2 "Investment Analysis" for the demonstration of the additionality of the project activity.

Under Step 2 – Investment Analysis there are four sub-steps.

Under sub-step 2a, Benchmark Analysis (Option III) is chosen. This chosen is also assessed to be appropriate by the validation team. The simple cost analysis (Option I) cannot be taken since the proposed project generates financial and economic benefits through the sales of electricity other than Voluntary Emissions Reduction (VCS-VER) related income. (Option II) is only applicable to projects where alternatives should be similar investment projects.

Under sub-step 2b, Equity IRR is selected as a financial indicator. The selected benchmark is assessed to be applicable to the type of IRR calculated as per the guidelines given in "The tool for the demonstration and assessment additionality" According to the tool a relevant benchmark for equity IRR can be derived from Government bond rates. As per the tool, the Government bond rates available at the of investment decision have been used increased by a suitable risk premium to reflect private investment.

The Government bond rate was validated through the given references (<http://www.ziraat.com.tr/tr/p/n/ContentMain.aspx?id=205>). The figures at the investment decision date are used. The investment decision date is 25.12.2006 that is the date of electro-mechanic equipment agreement as validated through the agreement. The Government bond rates are given below:

Government Bond	Auction Date	Currency	Rate
US900123AY60	17.03.2036	USD	7,25

The benchmark value was calculated as 16.49% by adding the estimated country risk rate of Turkey (9.41%) to Government Bond rate (7.43%). The country risk premium is taken from the study of Prof. Aswath Damodara.

The IRR analysis is done based on the after tax values and the benchmark is applied accordingly. Interest expenses are taken into consideration.

Project proponents have also submitted an excel sheet showing the details of the calculations. Some revisions have been made to these calculations until the latest version, which was submitted to the validation team together with the final VCS PD. The investment decision date of Board Decision 25.12.2006. The reference documents for the IRR input were submitted to the validation team

	Data	Unit	Reference
Capacity	310.66	MWe	The Generation License
Estimation of annual grid-connected power generation	966,530	GWh	Presentation, The Generation License
Average sales price	0.055	EUR cent/kWh	The Law on Utilization of Renewable Energy Sources for the Purpose of Generating Electrical Energy, Part 3 Section C (published in the Official Gazette No. 27052)
Total investment	359,196,000	USD	FSR page 6-4.
Annual operational costs	3,591,000	USD	Presentation, FSR section 7.2
Operational life	35	Years	Technical life time of electromechanical equipments suggested by DSI
Interest Rate	8.87% Libor +3.5%		See: IRR excel sheet, "Financing" page
Crediting period	20	Years	
Anticipated price of VCS-VERs	5.0	USD/tCO ₂	Expected by the Consultant

Total project costs details are given following table,

	Data	Unit	Reference
Dam	64,734,075	USD	FSR Section 6 Table 4.2
Energy Transmission Line	7,000,000	USD	FSR Section 6 Table 4.2
Unexpected Expenses	44,620,632	USD	FSR Section 6 Table 4.2
Weir	22,032,375	USD	FSR Section 6 Table 4.2
Total Construction Works	297,470,878	USD	FSR Section 6 Table 4.2
Total Project Costs	359,196,085	USD	FSR Section 6 Table 4.2

Under sub-step 2c, load factor of the project activity is calculated as:

$(\text{Annual generation} / \text{installed capacity}) / 8.760$

$= (966,530 / 317) / 8.760$

$= 0.3480$

Based on the parameters above, the equity IRRs with and without the VCS-VERs sales revenues are calculated and shown following table.

	IRR
Without VCS-VERs revenues	13.12%
With VCS-VERs revenues	13.74%

Under Sub-step 2d, Sensitivity analysis has been applied to the investment cost operating cost for a decrease of 10%, 5% and for an increase of 5%, 10%. Sensitivity analysis has been applied to the electricity tariff and generation for a decrease of 10%, 5% and for an increase of 5%, 10% and 15%.

According to this sensitivity analysis:

Within the project context, the range of variations regarding the electricity sales price has been widened to +15% as per EB 62 Annex 5. It came out that the IRR increased to 16.11%, which is still a lower figure than the benchmark, which is 16.26%.

The above benchmark and accompanying sensitivity analyses reveal the fact that no alternative scenario can make the project pass the benchmark IRR expectation. Therefore, the project is not financially attractive. The DOE, based on the assessment result by the financial expert engaged, hereby confirms that the underlying assumptions are appropriate and the financial calculations are correct. The DOE, confirms that PDD and associated annexes are consistent with the FSR.

	-10%	-5%	0%	+5%	+10%	+15%
Annual Operational Costs	13.24%	13.18%	13.12%	13.06%	13.01%	
Electricity Production	11.18%	12.14%	13.12%	14.11%	15.11%	
Electricity Price	11.18%	12.14%	13.12%	14.11%	15.11%	16.11%
Investment Costs	13.28%	13.20%	13.12%	13.04%	12.97%	

The common practice analysis:

Under the common practice analysis section, hydro projects with similar installed capacity in the same region have been compared to the proposed project activity.

All in all, the share of electricity generation from hydropower corresponds to 18% of the total generation. When it comes to privately owned hydropower plants, the share of electricity generation drops to only 4.9% of total generation.

This statements given under the common practice was validated based on the statistics of Turkish Electricity Transmission Company given as reference in the PD. The validation team has concluded that the proposed project activity is not common practice in the region due to the reasons that are explained above.

The steps taken and sources of information used, to cross-check the information contained in the VCS-PD on this matter are described below: "Tool for the demonstration and assessment of additionality" Version 05.2 has been used to demonstrate additionality. Under demonstration of additionality first of all alternative projects has been identified and consistency with mandatory laws and regulations have been demonstrated. The investment Analysis and Common Practice Analysis have been applied for the project activity. The input values were confirmed through the feasibility of the project activity and other sectoral data's were confirmed by the financial specialist through the sectoral knowledge. Common Practice analysis data's were checked from TEIAS Statistics.

Under the common practice analysis section, hydro projects with similar installed capacity in the same region have been compared to the proposed project activity. Common practice analysis for hydro projects, an assessment taking into consideration of the relevant basin has to be made. Turkey has been divided into 26 basins and Sanibey Dam&HEPP is located in the Seyhan Basin, covering the Adana and Kahramanmaraş provinces. Similar projects are given as Goktas HEPP, Kavsak HEPP and Kandil Energy project.

The hydroelectric power plants put into operation between 2002 and 2009 is given in a tabular form in the PDD. The new capacity from privately owned hydro facilities represents a friction of new facilities added to Turkey's capacity every year.

Prior Consideration

The timeline of the project activity is given below:

Activity	Date
Stakeholder consultation	12.12.2006
Economical analysis of the project	5.12.2006
First VER consideration	05.12.2006
Investment Decision – point of no return	25.12.2006
Contract signature for the construction	01.07.2007
EIA approval (by the Ministry of Environment and Forestry)	06.07.2007
Start of construction	01.07.2007
Contract signature for the equipments	20.03.2008

Loan signature	03.09.2008
Contract with a DOE	August 2010
PDD writing	April 2010
Commissioning date of the power plant (two phases)	02.12.2010 26.01.2011

Prior consideration is meet to EB 49 Annex 22 "Guidelines on the demonstration and assessment of prior consideration of the CDM"

3.2.6 Quantification of GHG Emission Reductions and Removals

Anthropogenic emission reduction is a function of the expected net amount of electricity produced, for the given project, which amounts to 768.66 GWh per annum. The annual emission reduction is 524,729 tCO₂e. Over the period of ten years, the total amount of emission reduction will reach 5,209,194.6 tCO₂e.

Project participants has used the official published data, TEIAS statistics, on operating and build margin emission factors. The years considered for OM are 2007,2008 and 2009 and the OM emission factor has calculated as 0.6613 tCO₂/MWh. The BM emission factor has calculated as 0.4246 tCO₂/MWh between 2006 and 2009. The project participant has applied weight average of the OM and BM as specified in the tool to arrive at the emission factor for the combined margin. Accordingly, the combined margin emission factor has calculated as 0.5429 tCO₂/MWh that was confirmed by the validation team with reviewing all the baseline calculation sheet equations and confirming the used parameters for the calculations.

Sani Bey Dam HEPP is implemented in on 02.12.2010 (first stage) and 26.01.2011 (second stage). The starting date of project activity is 02.12.2010, when the plant began to generate electricity. The carbon crediting period and therefore the monitoring starts when the plant commences electricity generation.

Year	Estimated baseline emission reductions (tCO ₂ e)	Estimated project emissions (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Annual estimation of emissions reductions (tCO ₂ e)
From 2 nd December to 31 st December 2010	20,845.4	0	0	20,845.4
2011	506,040.2	0	0	506,040.2

2012	524,729.1	0	0	524,729.1
2013	524,729.1	0	0	524,729.1
2014	524,729.1	0	0	524,729.1
2015	524,729.1	0	0	524,729.1
2016	524,729.1	0	0	524,729.1
2017	524,729.1	0	0	524,729.1
2018	524,729.1	0	0	524,729.1
2019	524,729.1	0	0	524,729.1
From January 1 st to December 1 st 2020	484,475.9	0	0	484,475.9
Total Estimated ER	5,209,194.6	0	0	5,209,194.6

The Project emissions are calculated with the formula mentioned in ACM0002/Version12.10. The following calculation of the PD and the assumptions for the Project Emissions and Leakage made afterwards, is found acceptable and suitable for the project activity by the validation team.

In our opinion, the project correctly applies and meets the relevant VCS requirements and the relevant host country criteria. The validation is based on the information made available to us and the engagement conditions detailed in this report. The baseline methodology is correctly applied to calculate project and baseline emissions, leakage and emission reductions for the calculation of emission reductions. The calculation of the baseline emissions are replicable using data and values listed in the VCS PD. The expected annual emission reduction is 524,729 tonnes of CO₂e.

The power density of the project activity is calculated as follows:

$$PD = \frac{Cap_{PJ} - Cap_{BL}}{A_{PJ} - A_{BL}}$$

Where:

PD : Power density of the project activity, in W/m²

Cap_{PJ} : Installed capacity of the hydro power plant after the implementation of the project activity (W)

Cap_{BL} : Installed capacity of the hydro power plant before the implementation of the project activity (W). For new hydro power plants, this value is zero

A_{PJ} : Area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (m²)

A_{BL} : Area of the reservoir measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m²). For new reservoirs, this value is zero.

$$Cap_{PJ} = 310,660,000 \text{ W}$$

$$Cap_{BL} = 0 \text{ (the project is a new hydro power plant)}$$

$$A_{PJ} = 14,299,205.52 \text{ m}^2$$

$$A_{BL} = 0 \text{ (the project is a new hydro power plant)}$$

$$PD = 310,660,000 \text{ W} / 14,299,205.52 \text{ m}^2$$

$$PD = 21.72 \text{ W/m}^2$$

Project emissions is assumed to be 0 since the power density of the project is greater than 10 W/m².

No leakage emissions are considered. The main emissions potentially giving rise to leakage in the context of electric sector projects are emissions arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing and transport). These emissions sources are neglected.

The baseline emissions BE_y are calculated as following:

$$BE_y = EG_y \times EF_{\text{grid,CM},y}$$

Where:

BE_y = Baseline emissions in year y (tCO₂e/yr)

EG_y = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)

EF_{grid,CM,y} = Baseline emission factor (tCO₂e/MWh)

Y = Refers to a given year

$$BE_y = 0.5429 \times (966,530 - 0) = 524,729 \text{ tCO}_2\text{e.}$$

Annual estimation of emissions reductions is calculated as follows in line with the ACM0002/Version 12.1.0:

$$ER_y = BE_y - PE_y - LE_y$$

Where:

ER_y = Emission reductions in year y (t CO₂e/yr)

BE_y = Baseline emissions in year y (t CO₂e/yr)

PE_y = Project emissions in year y (t CO₂/yr)

LE_y = Leakage emissions in year y (t CO₂/yr)

Therefore, the annual emission reduction is estimated as:

$$ER_y = 524,729 - 0$$

$$ER_y = 524,729 \text{ tCO}_2\text{e.}$$

- *The correctness and transparency of formulas and factors used,*

The formulas and factors used in the calculation of GHG emissions are found to be transparent and correct by the validation team. The emission factors of fuels that are used in the calculations are taken from the IPCC default values at the lower limit of uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter 1 of Vol.2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories, as suggested by the methodology. The efficiency factors of power plants are taken from Annex 1 of the "Tool to calculate the emission factor for an electricity system". The efficiency factors used are on the conservative side.

- *The assumptions made for estimating GHG emission reductions*

The only assumption is the one about leakage emissions that is assumed to be zero as per the methodology. Other unknown parameters like the emission factors of fuels are taken from the IPCC values as mentioned above.

- *Uncertainties*

All data presented in the baseline calculations are provided from official sources. Therefore, uncertainties of data sets were not estimated. There are no uncertainties in the calculations.

Based on the above assessment, the DOE hereby confirms that;

- (a) All assumptions and data used by the project participants are listed VCS PD. Including their references and sources;

- (b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the VCS PD;
- (c) All values used in the VCS PD are considered reasonable in the context of the proposed VCS project activity;
- (d) The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;
- (e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the VCS PD.

3.2.7 Methodology Deviations

There are no methodology deviations.

3.2.8 Monitoring Plan

The monitoring plan includes the monitoring of several parameters, the main parameter in the monitoring plan is the quantity of the net electricity that is delivered to the grid, and this parameter will be the basis for the emission reduction calculations. According to the methodology ACM0002 version 12.1.0, the parameters used to calculate the power density of HEPPs also need to be monitored.

- *Data and parameters available at validation*

The Combined Margin emission factor is calculated ex-ante; the parameters used in the calculation of the emission factor are available at validation. The parameters used to calculate the power density of HEPPs also are available at validation. The below table shows the data and parameters that are available at validation:

Parameter	Data Unit	Description
$EG_{Gross,y}$	GWh	Turkey's Gross Electricity Generated by primary energy source for the five most recent years (2005 – 2009).
Cap_{BL}	W	Installed capacity of the hydro power plant before the implementation of the project activity.
A_{BL}	m^2	Area of the reservoir measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m^2)
FC_{Ly}	Ton (m^3 for	Amount of fossil fuel type I consumed in the project

	natural gas)	electricity system in year y
NCV	TJ/ton (TJ/m ³ for natural gas)	Net calorific value of fossil fuel type
EFCO _{2,i,y}	tCO ₂ /MWh	Default CO ₂ emission factor of fossil fuel type i
Electricity Imports	GWh	Electricity imported to the grid from other countries
Electricity Capacity Additions	MW	Set of power capacity additions in the electricity system that comprise 20% of the system generation (in GWh) and that have been built most recently.
$\eta_{m,y}$	%	Average net energy conversion efficiency of power unit m in year y

Turkey's Gross Electricity Generated by primary energy source for the five most recent years (2005-2009), Net calorific value of fossil fuel type, electricity imported to the grid from other countries, electricity capacity addition and Amount of fossil fuel type *i* consumed in the project electricity system in year *y* are verified from Turkish Electricity Transmission Company (TEIAS). Default CO₂ emission factor of fossil fuel type *i* is verified from IPCC 2006 Volume 2 (Energy) Chapter 1 Table 1.4. Average net energy conversion efficiency of power unit *m* in year *y* is verified from "Tool to calculate the emission factor for an electricity system"

- *Data and parameters monitored*

The first data that should be monitored is the amount of electricity that is annually fed into the grid by the plant. There will be two meters which measures the generated electricity continuously. The electricity generation will be recorded monthly by the both TEIAS and the project staff. The generation data is also stored by PMUM on the web site. The Project owner has an ID and password to access this data on the web site. The electricity generation will be monitored through the monthly meter records and will be crosschecked by PMUM records. The project owner will store the either hardcopies or electronically until at least 2 years after the end of the crediting period.

The generated net electricity is continuously recorded by the project owner and is accessible in anytime. Two electricity meters (one main and one reserve) are placed at the substation. The accuracy class of the meters is defined as 0.2S as per the Article 11 of the Communiqué for meters in electricity market. The meters are sealed by the distribution company and the project owner has no control over, or access to the measurement devices and cannot perform any type of maintenance or calibration. TEIAS is responsible for calibration and maintenance. The meters give the total gross electricity generated and the total electricity consumed by the hydro power plant. The difference of these two data is the net electricity generated.

The second data to be monitored is the installed capacity of the project activity. The data will be monitored from the equipment labels that shows the installed capacity of the turbines and provisional acceptance letter given by Ministry of Energy and Natural Resources.

The third data to be monitored is the reservoir area. The reservoir area is monitored through the maps showing reservoir and region that is determined using topographical surveys or maps.

Operations Manager will be the VER coordinator. He will be in charge of:

- Ensuring that instrumentations and devices are available and properly suited to perform efficiently the monitoring.
- Communicating and coordinating the monitoring tasks of all business units.
- Developing, executing, analysing and improving the VER Monitoring/Reporting Procedures. This includes the crosschecking and consolidation (with multiple sources whenever possible) of the data obtained from the electrical engineers and the accounting manager. He will also record this operation properly to be able to provide it to the DOE during the verification process.
- Calculating and report the emission reductions, and
- Organizing in-house seminars to inform and train the company staff to the monitoring procedures.

The formulas and factors used in the calculation of GHG emissions are found to be transparent and correct by the validation team. The emission factors of fuels that are used in the calculations are taken from the IPCC default values at the lower limit of uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter 1 of Vol.2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories, as suggested by the methodology. The efficiency factors of power plants are taken from Annex 1 of the "Tool to calculate the emission factor for an electricity system". The efficiency factors used are on the conservative side.

The DOE hereby confirms that the monitoring plan complies with the requirements of the methodology and project participant could be implemented monitoring plan.

3.3 Environmental Impact

According to the Turkish law, a comprehensive EIA report is required to the projects which have a 25 MW or exceeding amount of installed capacity. In terms of its dimension, Sani Bey Dam & HEPP falls under the EIA requirement zone. Hence, an EIA report has been carried out and it has concluded that the project activity will not lead to significant negative impacts.

The EIA report did not only assess the environmental impacts but it also presented a monitoring plan to be implemented during construction and operation phases. Monitoring Forms has been prepared and presented to the Ministry within periods of six months.

3.4 Comments by stakeholders

The project developer has exercised two different activities to acquire requests and complaints of the stakeholders. The first one is the establishment of a call center which is a continuous process and the second activity is the stakeholder's meeting. free phone line has not been much used. Locals and other stakeholders rather prefer to call the construction officer directly to transmit their inquiries/complaints/feedbacks etc. 50 complaints and requests have been recorded so far. Generally speaking; some of the complaints were about muddy roads and dust pollution. Rest of

the complaints mainly focused on the damaged roads due to construction and damaged houses due to explosions. There was also a complaint about the explosions mentioning that an announcement has to be made beforehand. It is clearly observed that numbers of requests outweigh the number of complaints. Requests mainly focused on relocation of villagers' fruit trees in their gardens, donations for mosque repair, providing job opportunities, help for cutting trees and need of disabled vehicles. There were no negative comments there is no design change due to the stakeholder comments. During site visit the meeting with the stakeholders has been done and it is also confirmed that the locals has no negative opinion about the project.

4 VALIDATION CONCLUSION

Bureau Veritas Certification has made the validation of Sani Bey Dam and Hydroelectric Power Plant, in Adana, Turkey.

The validation was performed on the basis of VCS criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following five phases:

- i) Desk review of the project design and the baseline and monitoring plan;
- ii) Review of the baseline methodology by the specialist and the validator
- iii) Review of the investment analysis by the specialist and the validator
- iv) Follow-up interviews and on site visit;
- v) Resolution of outstanding issues and the issuance of the final validation report and opinion (February 2012)

Project participant/s used the latest tool for demonstration of the additionality. In line with this tool, the PD provides analysis of prevailing barriers to determine that the project activity itself is not the baseline scenario.

By generating electricity using renewable energy, the project is likely to result in reductions of GHG emissions partially displacing the electricity that would have been generated using fossil fuels. An analysis of the investment demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions. The review of the Project Description (Version 01 dated 22/04/2011 until Version 06 dated 02/02/2012), the site visit and the subsequent follow-up interviews (please see the list of the persons interviewed under section 5.2 of this report) have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. The Project Description was subsequently revised as Version 06 dated 02/02/2012 to resolve the issues that have arisen during the interviews and subsequent interactions. The validation of the Project resulted in 34 Corrective Action Requests (CARs), 35 Clarification Requests (CLs) and 0 Forward Action Request (FAR). The CARs and CLs were closed based on adequate responses from the Project Participant(s) which meet the applicable requirements. The have been reassessed before their formal acceptance and closure.

The review of the project design documentation (version 07) and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the CDM methodology, VCS Requirements Version 3.0 and the relevant host country criteria. Bureau

Veritas Certification thus requests registration of 'Sanibey HEPP' as VCS Project activity.

5 REFERENCES

5.1 Documents

Documents provided by Sani Bey Baraji Elektrik that relates directly to the GHG components of the project and other reference documents are given below:

1. PDD Version 01 dated 22/04/2011
2. PDD Version 02 dated 12/08/2011
3. PDD Version 03 dated 21/10/2011
4. PDD Version 04
5. PDD Version 05 dated 19/01/2012
6. PDD Version 06 dated 02/02/2012
7. Yedigoze_Baseline
8. Yedigoze IRR
9. Yedigoze_Baseline_v2_12.08.2011
10. Yedigoze IRR_v2_15.08.2011
11. Yedigoze_Baseline_v3_12.08.2011
12. Yedigoze IRR_v3_15.08.2011
13. Yedigoze IRR_v5_19.01.2012
14. Water Usage Agreement dated 07/07/2010
15. EIA Report dated May 2007
16. FSR dated November 2007
17. Bank Letter dated 23/09/2009
18. Production License 22/06/2006
19. Loan Agreement dated 03/09/2008
20. Board Decision 25/12/2006
21. Approved consolidated baseline and monitoring methodology ACM0002, version 12.1.0

22. UNFCCC's Methodological Tool: "Tool for the demonstration and assessment of additionality", version 05.2
23. UNFCCC's Methodological Tool: "Tool to calculate the emission factor for an electricity system", version 02
24. VCS Project Description Template, Version 03
25. VCS Validation Report Template, Version 03
26. Verified Carbon Standard, Version 03

5.2 Persons Interviewed

List persons interviewed during the validation and site visit, or persons that contributed with other information that are not included in the documents listed above.

1. Zafer Karakuzulu – Plant Manager
2. Muhsin Dervisogulları
3. Halil Unal – Muhktar of Egner Village
4. Omer Sariboga – Egner Village
5. Ahmet Unal – Egner Villager
6. Ali Celik – Muhktar of Ulucinar Village
7. Taner Sen – Ulucinar Village
8. Ahmet Akburak (Scada Operator)
9. Ali Sahin – Electrical Engineer

ANNEX I – Validators' Competence

Internal Technical Reviewer: Mrs. Burcu Mutman – Environmental Engineer

Bureau Veritas Certification SAS - Internal Technical Reviewer

Burcu Mutman is an auditor for environment, safety and quality management systems. She is also lead verifier for GHG Emission Reduction Projects.



Team Member: Mr. Mehmet Kumru – Environmental Engineer

Bureau Veritas Certification SAS – Team Member

Mehmet Kumru has over 5 years experience in environmental and energy sectors. He is worked renewable energy projects. He is a verifier for GHG emission reduction projects.

Team Member: Mrs. Isil Timuroglu – Environmental Engineer

Bureau Veritas Certification – Lead Verifier

Isil Timuroglu has over 5 years experience in environmental sectors. She worked about calculation of greenhouse gases. She is a lead verifier for GHG Emission Reduction Projects. She has participated online seminars in the Gold Standard Academy in 2010 and 2011.

Baseline Specialist: Mrs. Yildiz Arikan - Assoc. Professor Dr

Sabancı University, Faculty of Management, Orhanli, Tuzla, 34956, Istanbul, Turkey

Yildiz Arikan is an Electrical engineer and she has been working at Sabanci University. She has supported thesis related with energy. She has been conducting research studies on energy including "CO₂ Emission Research" Studies. Academically, Yildiz Arikan is working also on GHG project since 2005.

Investment Analysis Specialists: Mr. Murat Gencer – Master of Economics

RiskTürk Software Development and Consultancy – Head of Financial Analysis Team

Murat Gencer, consultant and a trainer, has over 11 years of experience in FMCG, software development and banking sectors. He is specialized in project finance, financial modelling, risk management and MS Excel applications

ANNEX II - VALIDATION PROTOCOL

CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
1. VCS Program Specific Issues					
a. Are the VCS PD, monitoring reports, and other documents required under the VCS Program in English?	VCS Ver03	2.2	VCS PD, IRR calculation sheet, combined margin emission factor calculation sheet are presented in English. Please also present the English translations of the documents given in Annex 1, Annex 2, Annex 4 and Annex 5.	CL01	OK
2. Project Requirements					
a. General Requirements					
a. Have the project proponents applied an approved VCS Program methodology or a methodology from an approved GHG Program based on the list of current VCS Program approved GHG Programs and methodologies as set out on www.v-c-s.org ?	VCS Ver03	3.1	The project proponent applied approved CDM methodology and tools as follows which are approved by VCS Program: - ACM0002 "Consolidated methodology for grid-connected electricity generation from renewable sources", Version 12.1.0 "Tool for the demonstration and assessment of additionality", Version 05.2 "Tool to calculate the emission factor for an electricity system", Version 02	OK	OK
b. Grouped Projects					
a. Is this a grouped project?	VCS Ver03	3.4	The project is not a grouped project as stated in section 1.2 of the VCS PD version 01. During the site visit, it was verified that the project activity is not a grouped project.	OK	OK
c. Content of the VCS PD					

VALIDATION REPORT: VCS Version 3

CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
a. Is the PD used as a basis for validation prepared in accordance with the latest template and guidance from the VCS?	VCS Ver03	3.19	The VCS PD Version 03 template given in the web address www.v-c-s.org is used.	OK	OK
b. Are the followings provided at the cover page in a tabular format?	PD temp Ver03	Cover Page	The project title, version, date of issue, the entity prepared the document and contact information are provided at the cover page of the VCS PD.	OK	OK
i. Name of the project?	PD temp Ver03	Cover Page	Yedigöze Dam and Hydroelectric Power Plant	OK	OK
ii. Version number of the VCS PD?	PD temp Ver03	Cover Page	Version 6	OK	OK
iii. The date of the document issued in DD-Month-YYYY format?	PD temp Ver03	Cover Page	02/02/2012	OK	OK
iv. Individual or entity that prepared the document?	PD temp Ver03	Cover Page	GAIA Carbon Finance	OK	OK
v. Physical address, telephone, email, website?	PD temp Ver03	Cover Page	Halaskargazi Cad. Zafer Sok. Manuel Apt. No.11/4 34 371 Sisli/Istanbul/Turkey Tel: 0 212 224 0450-51	OK	OK
c. Is a brief description of the project provided?	PD temp Ver03	1.1	A brief description of the project activity is provided under section 1.1 of the VCS PD version 01. The project is a 317 MWh hydro power plant. Generated electricity is being fed to the national grid. The annual average of emission reduction is estimated as 524,535 tCO ₂ e. The expected annually electricity generation is 966,530 MWh.	OK	OK

VALIDATION REPORT: VCS Version 3

CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
d. Are the sectoral scope(s) applicable to the project, the AFOLU project category and activity type (if applicable), and whether the project is a grouped project indicated?	PD temp Ver03	1.2	The project is in scope 1: "Energy Industries - Renewable Energy" as defined in section 1.2 of the VCS PD version 01. The project is not a grouped project as stated in section 1.2 of the VCS PD version 01. During the site visit, it was seen that the project activity is not a grouped project.	OK	OK
e. Are the contact information and roles/responsibilities for the project proponent(s) provided?	PD temp Ver03	1.3	The contact information and roles of the project proponents is provided under section 1.3 of the VCS PD version 01. The project proponents are identified as "Yedigöze Elektrik Üretim Sanayi ve Ticaret A.Ş.". Yedigöze Elektrik Üretim Sanayi ve Ticaret A.Ş. is a subsidiary of Sanko Enerji A.Ş.	OK	OK
f. Are the contact information and roles/responsibilities for any other entities involved in the development of the project provided?	PD temp Ver03	1.4	The contact information of the carbon consultant (GAIA Carbon Finance) responsible for the application of the baseline and monitoring methodology to the project activity is given under section 1.4 of the VCS PD version 01.	OK	OK
g. Is the project start date (the date on which the project began reducing or removing GHG emissions) indicated in day, month and year format?	PD temp Ver03	1.5	The project start date is given as 2 nd December 2010 which the project will begin reducing GHG emissions as per the VCS rules.	OK	OK
h. Is the starting and ending date of the project crediting period indicated in day, month and year format?	PD temp Ver03	1.6	The starting date of the first crediting period is given as 2 nd December 2010 under section 1.6 of the VCS PD version 01. Please also provide the ending date of the project crediting period in day, month and year format under section 1.6 of the VCS PD.	CL02	OK

CHECKLIST QUESTION	Ref.	item	COMMENTS	Draft Concl	Final Concl
i. Is the total crediting period indicated? (VCS project crediting period: A maximum of ten years which may be renewed at most two times)	PD temp Ver03	1.6	The crediting period is defined under section 1.6 of the VCS PD version 01 as 10 years in line with the VCS rules. Please indicate under section 1.6 of the VCS PD that how many times the crediting period will be renewed.	CL03	OK
j. Is the scale of the project indicated? (Projects: Less than or equal to 1,000,000 tCO ₂ e per year; and Mega projects: Greater than 1,000,000 tCO ₂ e per year)	PD temp Ver03	1.7	The scale of the project is indicated under section 1.7 of the VCS PD version 01. The annual average of emission reduction is estimated as 524,535 tCO ₂ e. The annual average of emission reduction is less than 1,000,000 tCO ₂ e. Please indicate the project scale as per the "VCS Standard: VCS Version 3 (item 3.10)" and use the table given in the VCS PD Version 03 template.	CAR01	OK
k. Are the estimated annual GHG emission reductions or removals during the project crediting period indicated in a tabular format?	PD temp Ver03	1.7	The estimated annual GHG emission reductions during the project crediting period are indicated in a tabular format under section 1.7 of the VCS PD version 01.	OK	OK
l. Is the description of the project activity(s) including the technologies or measures employed provided?	PD temp Ver03	1.8	The technical description of the project activity is provided under section 1.8 of the VCS PD version 01. The proposed project activity consists of two Francis type vertical turbines each with the capacity of 158.5 MWm; the total capacities of the turbines are 317 MWm. The implementation of the project consists of rack fill dam, spillway, 2 penstocks (above ground) and a power house.	OK	OK
m. Is a description of how the project will	PD	1.8	It is explained under section 1.8 of the	OK	OK

VALIDATION REPORT: VCS Version 3

CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
achieve GHG emission reductions and/or removal enhancements provided?	temp Ver03		VCS PD that the proposed project activity reduces greenhouse gas emissions that would have otherwise occurred in the absence of the project activity by avoiding electricity generation from fossil fuel sources.		
n. Is the lifetime of the project activity(s) provided?	PD temp Ver03	1.8	The lifetime of the project activity is given 49 years under section 1.8 of the VCS PD. Please define the operational lifetime in line with the technical lifetime and provide objective evidence.	CAR02	OK
o. Is the project location and geographic boundaries (if applicable) provided?	PD temp Ver03	1.9	The detailed information on the project location including geographic map is provided under section 1.9 of the VCS PD version 01. The project activity is located in the Mediterranean Region of Turkey, within the boundaries of Imamoglu and Aladag Districts of Adana Province. The project's location is 37° 24' - 37° 38' north latitudes and 35° 25' - 35° 35' east longitudes. The location of the project activity was verified during the site visit by the GPS device.	OK	OK
p. Are the conditions prior to project initiation provided?	PD temp Ver03	1.10	Please describe the conditions existing prior to project initiation under section 1.10 of the VCS PD.	CAR03	OK
q. Is it demonstrated that the project has not been implemented to generate GHG emissions for the purpose of their subsequent reduction, removal or destruction?	PD temp Ver03	1.10	Please demonstrate that the project has not been implemented to generate GHG emissions for the purpose of their subsequent reduction under section 1.10 of the VCS PD.	CAR04	OK
r. Does the VCS PD include identification of	PD	1.11	The applicable mandatory laws that will be	OK	OK

CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
relevant local, regional and national laws, statutes and regulatory frameworks related to the project and demonstration of compliance with them?	temp Ver03		applied for the project is listed under section 1.11 of the VCS PD version 03.		
s. Was evidence of proof of title provided?	PD temp Ver03	1.12.1	The "Generation License" is provided under Annex 1 of the VCS PD version 01 as a proof of title. Please provide the whole "Generation License".	CL04	OK
t. Does the project reduce GHG emissions from activities that are included in an emissions trading program; or take place in a jurisdiction or sector in which binding limits are established on GHG emissions?	PD temp Ver03	1.12.2	It is explained in section 1.12.2 of the VCS PD version 01 that GHG emission reductions or removals generated by the proposed project will not be used for compliance with an emissions trading program or to meet binding limits on GHG emissions. There is no other form of environmental credit generated by the project because there is no such system within the host country.	OK	OK
u. If yes, have the project proponents provided evidence that the reductions or removals generated by the project have or will not be used in the emissions trading program or for the purpose of demonstrating compliance with the binding limits that are in place in that jurisdiction or sector?	PD temp Ver03	1.12.2	It is explained in section 1.12.2 of the VCS PD version 01 that GHG emission reductions or removals generated by the proposed project will not be used for compliance with an emissions trading program or to meet binding limits on GHG emissions. There is no other form of environmental credit generated by the project because there is no such system within the host country. Hence, the checklist question is N/A.	OK	OK
v. Have the project(s) indicate whether the project has been registered, or is seeking registration under any other GHG	PD temp	1.12.3	It is stated in section 1.12.3 of the VCS PD version 01 that the proposed project has not been registered, or is seeking	OK	OK

VALIDATION REPORT: VCS Version 3

CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
programs?	Ver03		registration under any other GHG programs.		
w. If Yes, have the project participants provided the registration number and details?	PD temp Ver03	1.12.3	It is stated in section 1.12.3 of the VCS PD version 01 that the proposed project has not been registered, or is seeking registration under any other GHG programs. Hence, the checklist question is N/A.	OK	OK
x. Have the project(s) created other forms of environmental credit (for example renewable energy certificates)?	PD temp Ver03	1.12.4	It is stated in section 1.12.4 of the VCS PD version 01 that the proposed project neither has nor intends to generate any other form of GHG-related environmental credit for GHG emission reductions or removals claimed under the VCS Program, or that any such credit has been or will be cancelled from the relevant program. The declaration letter of the project owner that the project activity has not created another form environmental credit is provided under Annex 3 of the VCS PD.	OK	OK
y. If Yes, have the project participants provided a letter from the program operator that the credit has not been used and has been cancelled from the relevant program?	PD temp Ver03	1.12.4	It is stated in section 1.12.4 of the VCS PD version 01 that the proposed project neither has nor intends to generate any other form of GHG-related environmental credit for GHG emission reductions or removals claimed under the VCS Program, or that any such credit has been or will be cancelled from the relevant program. Hence, the checklist question is N/A.	OK	OK
z. Was the proposed project rejected by other GHG Programs?	PD temp Ver03	1.12.5	It is stated in section 1.12.5 of the VCS PD version 01 that the proposed project has not been rejected by any other GHG programs.	OK	OK

CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
aa. If yes, have the project participants provided the relevant information?	PD temp Ver03	1.12.5	It is stated in section 1.12.5 of the VCS PD version 01 that the proposed project has not been rejected by any other GHG programs. Hence, the checklist question is N/A.	OK	OK
bb. Is the additional information relevant to the project as following provided?	PD temp Ver03	1.13	Please see below.		
i. Eligibility Criteria: Are the eligibility criteria for inclusion of new instances of each project activity identified for grouped projects?	PD temp Ver03	1.13	It is indicated under section 1.13 of the VCS PD that the project is not a grouped project.	OK	OK
ii. Leakage Management: Is a description of the leakage management plan and implementation of leakage and risk mitigation measures provided? (if applicable)	PD temp Ver03	1.13	The leakage is considered as zero as per the selected methodology, ACM0002.	OK	OK
iii. Commercially Sensitive Information: Is it indicated whether any commercially sensitive information has been excluded from the public version of the project description and briefly description of the items to which such information pertains provided?	PD temp Ver03	1.13	It is indicated under section 1.13 of the VCS PD that the project owner does not find ethical to announce social and financial aids, therefore sensitive information that needs to be excluded from the public version of the VCS PDD will be displayed on the VCS Project Database. Please provide a briefly description of the items to which such information pertains.	CAR05	OK
iv. Further Information: Is any additional relevant legislative, technical, economic, sectoral, social, environmental, geographic, site-specific and/or temporal	PD temp Ver03	1.13	The view of the project participants on the contribution of the project activity to sustainable is given under section 1.13 of the VCS PD version 01. - The irrigation water of Imamoglu	OK	OK

CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
information that may have a bearing on the eligibility of the project, the net GHG emission reductions or removals, or the quantification of the project's net GHG emission reductions or removals provided?			- village will be taken from the Yedigöze dam reservoir. The irrigation channel was seen during the site visit. - The proposed project activity has provided job opportunities in the local area. During the site visit, it was verified that 22 security personnel is employed as are local employment. In addition, 1 electrical engineer and 15 personnel are local people. - The project owner has provided necessary equipment for the construction and improvement of public buildings and infrastructure in the project area within the scope of the project. The related documents such as invoice, protocol were seen during the visit. - The project owner has given fifty seven students scholarship since 2008 as validated through the records during the site visit. - Air conditioners have been provided to the Aladag District Attorney's, the police station and gendarmerie commander's building and forest management directorate building of Imamoglu district. The records were seen during the site visit.		
cc. Are the title, reference and version number of the methodology(ies) applied to the project provided?	PD temp Ver03	2.1	The project proponent applied Clean Development Mechanism approved methodology and tools as follows which are approved by VCS Program: • ACM0002 "Consolidated methodology	OK	OK

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CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
			- for grid-connected electricity generation from renewable sources", Version 12.1.0 "Tool for the demonstration and assessment of additionality", Version 05.2 "Tool to calculate the emission factor for an electricity system", Version 02		
			It is stated in section 2.1 of the VCS PD version as follows: "Additionality, for the purpose of calculating the emission factor of the Turkish electricity grid," Tool to calculate emission factor for an electricity system", Version02 is employed". Please provide the title, reference and version number of the methodology or tools applied to the project under section 2.1.	CL05	OK
dd. Have the project participants demonstrated and justified that the project activity(s) meets the applicability conditions of the methodology(s) applied to the project?	PD temp Ver03	2.2	The justification of the choice of methodology is given under section 2.2 of the VCS PD version 01. - The project activity is the installation of a new hydro power plant and does not involve any retrofits, replacements or capacity additions. - The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available. - The project does not involve switching from fossil fuels to renewable energy sources at the site of the project	OK	OK

CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
ee. Is the project boundary defined in a tabular format?	PD temp Ver03	2.3	activity. - The power density of the project activity is higher than 10 W/m². Project boundary is given correctly under section 2.3 of the VCS PD version 01 for baseline and project activity. <u>Baseline:</u> CO₂ emissions are included in baseline calculation since fossil fuels fired for electricity generation. CH₄ and N₂O emissions are neglected regarding to the methodology. <u>Project Activity:</u> Project emissions are neglected regarding to the methodology since the power density of the project activity is higher than 10 W/m².	OK	OK
ff. Are GHG sources, sinks and reservoirs identified for the project and baseline scenarios? (including leakage if applicable)	PD temp Ver03	2.3	It is indicated under section 2.3 of the VCS PD version 01 that no GHG sources in terms of sinks and reservoirs could be identified for this project.	OK	OK
			The GHG sources, sinks and reservoirs for the baseline and project shall be identified under section 2.3 of the VCS PD. However, Turkish Electricity Sector has been identified. Please clarify.	CL06	OK
gg. Is it described how the baseline scenario is identified?	PD temp Ver03	2.4	The selected baseline scenario is the only option for the project activity. The baseline scenario is given under section 2.4 of the VCS PD version 01 in line with the methodology as follows: <i>"Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the</i>	OK	OK

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CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
hh. Is the justification of the baseline scenario is provided?	PD temp Ver03	2.4	The selected baseline scenario is the only option for the project activity.	OK	OK
ii. Has the additionality of the project activity been demonstrated and assessed in accordance with the applied methodology?	PD temp Ver03	2.5	The additionality of the project activity has been demonstrated and assessed in accordance with the applied methodology.	OK	OK
ji. Have the project proponents provided and justified methodology deviations?	PD temp Ver03	2.6	It is indicated under section 2.6 of the VCS PD version 01 that there are no methodology deviations.	OK	OK
kk. Have the project proponents a description of the procedure for quantification of the baseline emissions and/or removals including all relevant equations?	PD temp Ver03	3.1	The calculation of baseline emissions, applying all relevant equations provided in the approved methodology is given clearly under section 3.1 of the VCS PD.	OK	OK
ll. Have the project proponents a description of the procedure for quantification of the project emissions and/or removals including all relevant equations?	PD temp Ver03	3.2	The calculation of project emissions, applying all relevant equations provided in the approved methodology is given clearly under section 3.2 of the VCS PD. Project emissions are neglected regarding to the methodology since the power density of the project activity is above 10 W/m ² . The only emission source in the plant is the diesel generator, which is used as auxiliary power source when there is no electricity generation in the plant or supply by the grid. Project emissions are neglected since the	OK	OK

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CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
mm. Have the project proponents a description of the procedure for quantification of the leakage emissions and/or removals including all relevant equations?	PD temp Ver03	3.3	diesel generator is used for only emergency cases. The leakage is considered under section 3.3 of the VCS PD version 01 as zero as per the selected methodology, ACM0002.	OK	OK
nn. Have the project proponents a description of the procedure for quantification of the net GHG emission reductions and removals including all relevant equations?	PD temp Ver03	3.4	Please provide a description of the procedure for quantification of the net GHG emission reductions and removals including all relevant equations under section 3.4 of the VCS PD.	CAR06	OK
oo. Are the ex ante calculation (estimate) of baseline emissions/removals, project emissions/removals, leakage emissions and net emission reductions and removals provided in a tabular format?	PD temp Ver03	3.4	The estimation of the emission reductions are given in a tabular format under section 3.4 of the VCS PD version 01.	OK	OK
pp. Are data and parameters available at the validation described in the tabular form including:	PD temp Ver03	4.1	Please see below.		
i. Data unit/parameter?	PD temp Ver03	4.1	Data unit/parameter is given in the tabular format under section 4.1.	OK	OK
ii. Description?	PD temp Ver03	4.1	Description of the parameters is given in the tabular format under section 4.1.	OK	OK
iii. Source of data?	PD temp Ver03	4.1	Source of data are given in the tabular format under section 4.1. The OM calculation is based on the weighted average of the figures between 2006 and 2009. However, the references (TEIAS) do not	CAR07	OK

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CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
			Include the 2009 figures. Please clarify. The reference link given for value applied for the $EF_{CO2,i,y}$ does not run. Please clarify.		
iv. Value applied?	PD temp Ver03	4.1	Value applied of the parameters is given in the tabular format under section 4.1. The value applied refers to section 2.3 for the following parameters: $FC_{i,y}$, NCV , $EF_{CO2,i,y}$ However, the section 2.3 is "project boundary". Also, the value applied is not defined for the $EG_{gross,y}$. Please clarify.	CAR08	OK
v. Justification of choice of data or description of measurement methods and procedures applied?	PD temp Ver03	4.1	Justification of choice of data or description of measurement methods and procedures applied the parameters is given in the tabular format under section 4.1.	OK	OK
vi. Any comment?	PD temp Ver03	4.1	The comments if necessary are given in the tabular format under section 4.1.	OK	OK
q. Are data and parameters monitored subsequent to validation described in the tabular form including:	PD temp Ver03	4.2	Please see below.		
i. Data unit/parameter?	PD temp Ver03	4.2	Data unit/parameter is given in the tabular format under section 4.2.	OK	OK
ii. Data unit?	PD temp Ver03	4.2	Data unit of the monitored parameters is given in the tabular format under section 4.2.	OK	OK
iii. Description?	PD temp	4.2	Description of the monitored parameters is given in the tabular format under section 4.2. Please clarify the description	CLO7	OK

CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
iv. Source of data?	PD temp Ver03	4.2	of AP ₂ in line with the methodology. Source of data are given in the tabular format under section 4.2.	OK	OK
v. Description of measurement methods and procedures to be applied?	PD temp Ver03	4.2	Description of measurement methods and procedures to be applied are given in the tabular format under section 4.2. The Cap ₂ will be determined based on recognized standards. Please clarify the recognized standards.	CL08	OK
vi. Frequency of monitoring/recording?	PD temp Ver03	4.2	Frequencies of monitoring/recording are given in the tabular format under section 4.2.	OK	OK
vii. Value applied?	PD temp Ver03	4.2	Value applied of the monitored parameters is given in the tabular format under section 4.1.	OK	OK
viii. Monitoring equipment?	PD temp Ver03	4.2	Monitoring equipment is not indicated at the "data and parameters monitored" tables. Please clarify.	CL09	OK
ix. QA/QC procedures to be applied?	PD temp Ver03	4.2	Please define the QA/QC procedures for Cap ₂ .	CL10	OK
x. Calculation method?	PD temp Ver03	4.2	Calculation methods are not indicated at the tables. Please clarify.	CL11	OK
xi. Any comment?	PD temp Ver03	4.2	The comments if necessary are given in the tabular format under section 4.2.	OK	OK
xii. Is the monitoring plan described?	PD temp Ver03	4.3	Monitoring plan is described under section 4.3 of the VCS PD version 01.	OK	OK

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CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
ss. Are the organizational structure, responsibilities and competencies of the monitoring plan identified?	PD temp Ver03	4.3	The organizational structure, responsibilities of the monitoring plan is identified under section 4.3 of the VCS PD version 01.	OK	OK
tt. Are the methods for generating, recording, storing, aggregating, collating and reporting data on monitored parameters described?	PD temp Ver03	4.3	The methods for generating, recording, storing, aggregating, collating and reporting data on monitored parameters are described under section 4.3 of the VCS PD version 01.	OK	OK
uu. Are the procedures for handling internal auditing and non-conformities described?	PD temp Ver03	4.3	The electricity generation and consumption figures are measured by two meters. It is indicated under section 4.3 of the VCS PD that in the case of measuring difference between these two meters, the meters will be calibrated without waiting for the periodic calibration date. Please clarify how the record of these meters is monitored and what is the acceptable level of differences.	CL12	OK
vv. Are the line diagrams used to display the GHG collection and management system? (optional)	PD temp Ver03	4.3	The site organizational chart is presented at the Figure 8 under section 4.3 of the VCS PD version 01.	OK	OK
ww. Was a summary of environmental impact assessment carried out with respect to the project provided? (if applicable)	PD temp Ver03	5	The project has "EIA Positive Certificate" given by the Ministry of Environment and Forest dated 06/06/2007 in line with the Turkish laws. "EIA Positive Certificate" is provided under Annex 2 of the VCS PD. In addition, the project complies with the International Finance Corporation (IFC) Performance Standards (PS) on Social and Environmental Sustainability that form the basis of these Principles.	OK	OK

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CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
			A summary of environmental impact assessment and the precautions to be taken by the project owner is given under section 5 of the VCS PD version 01. It was verified during the site visit that the project activity complies with Environment Law. The agreements with the licensed waste collection companies were provided to the validation team during the site visit. - The project activity has a package treatment plant. The waste water are collected in a cesspool after the treatment and taken by the municipal. - The domestic solid wastes are transferred to the Akoren Municipal Waste Landfill. The records were seen. - Recyclable wastes are taken by the ANKA, which is licensed recycling facility. The agreement between the project company and project owner dated 15.06.2009 was seen. - Waste lubricant are taken by the PETDER (Petroleum Industry Association) and vegetable waste oil arte taken by the ALBIYOBIR. The agreement between ALBIYOBIR and project owner dated 22.09.2008 were seen during the site visit. - The medical wastes, because of infirmity, are transferred to the hospital since there is no medical waste storage area. - Waste battery are collected separately		

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CHECKLIST QUESTION	Ref.	Item	COMMENTS	Draft Concl	Final Concl
xx. Were relevant outcomes from stakeholder consultations and mechanisms for on-going communication provided?	PD temp	6	and taken by the TAP (Licensed Dry Battery Recover Company). The outcomes of stakeholder consultations and on-going communication are provided under section 6 of the VCS PD version 01. The project owner has established a free call-center for reporting requests and complaints and this line will not be removed after the construction phase. However, the stakeholders prefer to call the construction officer. About 50 complaints and requests have received until May 2011. The complaints are usually about the muddy roads, dust pollution, damaged houses due to explosions, relocation. All complaints have been taken into consideration by the project owner and closed up. This statement was also validated during the site visit via interviews with the stakeholders. Also, the forms filled up by the project owner were reviewed. A stakeholder meeting was hold as per the EIA laws on 12/12/2006 at the Aladag Villages. The main topics were expropriation and resettlement. It was verified during the site visit that the expropriation has resulted in a satisfactory way.	OK	OK

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CHECKLIST QUESTION	Ref.	\$	COUNTRY A	COUNTRY B	Draft Concl	Final Concl
1. Approval						
a. Have all Parties involved approved the project activity?	VVM	44	Turkey has ratified the Kyoto Protocol however not set any emission reduction target; hence, it is not listed as an Annex B country of the Kyoto Protocol and will not be a host for Clean Development Mechanism (CDM) or Joint Implementation (JI) projects until the end of 2012, because of its particular situation. There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK
b. Has the DNA of each Party indicated as being involved in the proposed CDM project activity in section A.3 of the VCS PD provided a written letter of approval? (If yes, provide the reference of the letter of approval, any supporting documentation, and specify if the letter was received from the project participant or directly from the DNA)	VVM	45	There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK
c. Does the letter of approval from DNA of each Party involved:	VVM	45	There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK
i. confirm that the Party is a Party of the Kyoto Protocol?	VVM	45.a	There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK
ii. confirm that participation is voluntary?	VVM	45.b	There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK
iii. confirm that, in the case of the host Party, the proposed CDM project activity contributes to the sustainable development of the country?	VVM	45.c	There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK
iv. Refers to the precise proposed CDM project	VVM	45.d	There is no DNA in Turkey. Hence,		OK	OK

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CHECKLIST QUESTION	Ref.	S	COMMENTS	Draft Concl	Final Concl
activity title in the PDD being submitted for registration?			the checklist question is N/A.		
d. Is(are) the letter(s) of approval unconditional with respect to (i) to (iv) above?	VVM	46	There is no DNA in Turkey. Hence, the checklist question is N/A.	OK	OK
e. Has(ve) the letter(s) of approval been issued by the respective Party's designated national authority (DNA) and is valid for the CDM project activity under validation?	VVM	47	There is no DNA in Turkey. Hence, the checklist question is N/A.	OK	OK
f. Is there doubt with respect to the authenticity of the letter of approval?	VVM	48	There is no DNA in Turkey. Hence, the checklist question is N/A.	OK	OK
g. If yes, was verified with the DNA that the letter of approval is authentic?	VVM	48	There is no DNA in Turkey. Hence, the checklist question is N/A.	OK	OK
2. Participation					
PP1 PP2					
a. Have all project participants been listed in a consistent manner in the project documentation?	VVM	51	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
b. Has the participation of the project participants in the project activity been approved by a Party to the Kyoto Protocol?	VVM	51	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
c. Are the project participants listed in tabular form in section A.3 of the VCS PD?	VVM	52	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
d. Is the information in section A.3 consistent with the contact details provided in annex 1 of the VCS PD?	VVM	52	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
e. Has the participation of each of the project participants been approved by at least one Party involved, either in a letter of approval or in a separate letter specifically to approve participation? (Provide reference of the approval document for each of the project participants)	VVM	52	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK

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CHECKLIST QUESTION	Ref.	\$	COMMENTS	Draft Concl	Final Concl
f. Are any entities other than those approved as project participants included in these sections of the VCS PD?	VVM	52	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
g. Has the approval of participation issued from the relevant DNA?	VVM	53	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
h. Is there doubt with respect to (g) above?	VVM	53	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
i. If yes, was verified with the DNA that the approval of participation is valid for the proposed CDM project participant?	VVM	53	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
3. Project design document					
a. Is the PDD used as a basis for validation prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website?	VVM	55	The project activity is developed under Voluntary Carbon Standard Version 03 and the latest VCS Project Description Template Version 03 is used.	OK	OK
b. Is the PDD in accordance with the applicable CDM requirements for completing the PDD?	VVM	56	The VCS PD is accordance with the "VCS Project Description Template - v3.0".	OK	OK
c. In CDM-PDD section A.1 are the following provided?	EB 41	Ann 12	<i>Please see below.</i>		
i. Title of project	EB 41	Ann 12	The title of the project is given at the cover page of the VCS PD version 01 as following: "Yedigöze Dam and Hydroelectric Power Plant"	OK	OK
ii. Current version number and date of document	EB 41	Ann 12	The version number and date of the project is given at the cover page of the VCS PD as following: Version number of the document:	OK	OK

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CHECKLIST QUESTION	Ref.	\$	COMMENTS	Draft Concl	Final Concl
			06 Date: 02/02/2012		
d. In CDM-PDD section A.2 are following provided (max. one page)?	EB 41	Ann 12	Please see below.		
i. A brief description of the project activity covering purpose which includes the scenario existing prior to the start of project, present scenario and baseline scenario	EB 41	Ann 12	A brief description of the project activity is provided under section 1.1 of the VCS PD version 01. The project is a 317 MWh hydro power plant. Generated electricity is being fed to the national grid. The annual average of emission reduction is estimated as 524,535 tCO ₂ e. The expected annually electricity generation is 966,530 MWh.	OK	OK
ii. Explanation on how the GHG emission reductions are effected	EB 41	Ann 12	An explanation on how the GHG emission reductions are effected is provided under section 1.1 of the VCS PD version 01. The project activity reduces GHG emissions that would have otherwise occurred in the absence of the project activity by avoiding electricity generation from fossil fuel sources.	OK	OK
iii. The PP's vies on the contribution of project activity to sustainable development	EB 41	Ann 12	The view of the project participants on the contribution of the project activity to sustainable is given under section 1.13 of the VCS PD version 01. - The irrigation water of Imamoglu village will be taken from the Yedigöze dam reservoir. The irrigation channel was seen	OK	OK

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CHECKLIST QUESTION	Ref.	\$	COMMENTS	Draft Concl	Final Concl
			- during the site visit. - The proposed project activity has provided job opportunities in the local area. During the site visit, it was verified that 22 security personnel is employed as are local employment. In addition, 1 electrical engineer and 15 personnel are local people. - The project owner has provided necessary equipment for the construction and improvement of public buildings and infrastructure in the project area within the scope of the project. The related documents such as invoice, protocol were seen during the visit. - The project owner has given fifty seven students scholarship since 2008 as validated through the records during the site visit. - Air conditioners have been provided to the Aladag District Attorney's, the police station and gendarmerie commander's building and forest management directorate building of Imamoglu district. The records were seen during the site visit.		
iv. Are there any changes/modifications compared to the webhosted PDD?	EB 41	Ann 12	The proposed project activity is developed under the VCS Version 03. Therefore, the VCS PD is not webhosted.	OK	OK

CHECKLIST QUESTION	Ref.	\$	COMMENTS	Draft Concl	Final Concl
e. In CDM-PDD section A.3 are following provided in the tabular format?	EB 41	Ann 12	Please see below.		
i. List of project participants and parties	EB 41	Ann 12	The project participant is listed under section 1.3. Yedigöze Elektrik Üretim Sanayi ve Ticaret A.Ş. is defined as project participants.	OK	OK
ii. Identification of Host Party	EB 41	Ann 12	N/A	OK	OK
iii. Indication whether the Party wishes to be considered as project participant	EB 41	Ann 12	N/A	OK	OK
f. In CDM-PDD section A.4.1 are following provided?	EB 41	Ann 12	Please see below.		
i. Technical description, location, host party(ies) and address as required	EB 41	Ann 12	The technical description of the project activity is given under section 1.8 of the VCS PD and the location of the project activity is defined under section 1.9 of the VCS PD. The proposed project activity consists of two Francis type vertical turbines each with the capacity of 158.5 MWm; the total capacities of the turbines are 317 MWm. The project activity is located in the Mediterranean Region of Turkey, within the boundaries of Imamoglu and Aladag Districts of Adana Province.	OK	OK
ii. Detailed physical location with unique identification of the project activity (e.g. Longitude/latitude) – not to exceed one page	EB 41	Ann 12	The detailed information on the project location including geographic map is provided under section 1.9 of the VCS PD version 01. The project's location is 37° 24' -	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			37° 38' north latitudes and 35° 25' - 35° 35' east longitudes. The location of the project activity was verified during the site visit by the GPS device.		
iii. Are there any changes/modifications compared to the webhosted PDD?	EB 41	Ann 12	The proposed project activity is developed under the VCS Version 03. Therefore, the VCS PD is not webhosted.	OK	OK
9. In CDM-PDD section A.4.2 is the list of categories of project activities provided?	EB 41	Ann 12	The project is in scope 1: "Energy Industries – Renewable Energy" as defined in section 1.2 of the VCS PD version 01.	OK	OK
h. In CDM-PDD section A.4.3 are following provided?	EB 41	Ann 12	Please see below.		
i. A description of how environmentally safe and sound technology, and know-how, is transferred to the Host Party(ies)	EB 41	Ann 12	A description of technology of the proposed project activity is given under section 1.8 of the VCS PD version 01. It is explained that the turbines have environment friendly technologies with air quality control system, low maintenance needs as well as low noise and low environmental impact.	OK	OK
ii. Explanation of purpose of project activity with scenario existing prior to the start of project, scope or present activities and the baseline scenario	EB 41	Ann 12	The baseline scenario is the same as the scenario existing prior to the start of implementation of the project activity.	OK	OK
iii. List and arrangement of the main manufacturing/production technologies, systems and equipments involved	EB 41	Ann 12	The proposed project activity consists of two Francis type vertical turbines each with the capacity of 158.5 Mwm; the total capacities of	OK	OK

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CHECKLIST QUESTION	Ref.	\$	COMMENTS	Draft Concl	Final Concl
iv. The emissions sources and GHGs involved	EB 41	Ann 12	It is indicated under section 2.3 of the VCS PD version 01 that no GHG sources in terms of sinks and reservoirs could be identified for this project.	OK	OK
v. Are there any changes/modifications compared to the webhosted PDD?	EB 41	Ann 12	The proposed project activity is developed under the VCS Version 03. Therefore, the VCS PD is not webhosted.	OK	OK
i. In CDM-PDD section A.4.4 is the estimation of emission reductions provided as requested in a tabular format?	EB 41	Ann 12	The estimation of the emission reductions are given in a tabular format under section 1.7 of the VCS PD version 01.	OK	OK
j. In CDM-PDD section A.4.5 is Information regarding Public funding provided?	EB 41	Ann 12	The project does not obtain public funding.	OK	OK
k. In CDM-PDD section B.1 are following provided?	EB 41	Ann 12	Please see below.		
i. The approved methodology and version number	EB 41	Ann 12	The applied methodology and version number are given under section 2.1 of the VCS PD version 01. The project proponent applied Clean Development Mechanism approved methodology and tools as follows which are approved by VCS Program: "ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", Version 12.1.0	OK	OK
ii. Any methodologies or tools which the above approved methodology draws upon and their version	EB 41	Ann 12	The tools applied are as follows: "Tool to calculate the emission factor for an electricity system",	OK	OK

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CHECKLIST QUESTION number	Ref.	S	COMMENTS	Draft Concl	Final Concl
I. In CDM-PDD section B.2 are following provided?	EB 41	Ann 12	Version 02 "Tool for the demonstration and assessment of additionality," Version 05.2 Please see below.		
I. Justification of the choice of methodology that the project activity meets each of the applicability conditions	EB 41	Ann 12	The justification of the choice of methodology is given under section 2.2 of the VCS PD version 01. - The project activity is the installation of a new hydro power plant and does not involve any retrofits, replacements or capacity additions. - The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available. - The project does not involve switching from fossil fuels to renewable energy sources at the site of the project activity. - The power density of the project activity is higher than 10 W/m ² .	OK	OK
ii. Documentations with references that had been used. This can be provided in Annex 3 instead	EB 41	Ann 12	It was validated during the site visit that the project activity is a greenfield project. The values used for baseline emission factor calculation is given Annex 7 of the VCS PD version 01.	OK	OK
m. In CDM-PDD section B.3 are following provided?	EB	Ann	Please see below.		

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. Description of all sources and gases included in the project boundary in the table	41 EB 41	12 Ann 12	Project boundary is given correctly under section 2.3 of the VCS PD version 01 for baseline and project activity. <u>Baseline:</u> CO ₂ emissions are included in baseline calculation since fossil fuels fired for electricity generation. CH ₄ and N ₂ O emissions are neglected regarding to the methodology. <u>Project Activity:</u> Project emissions are neglected regarding to the methodology since the power density of the project activity is higher than 10 W/m ² .	OK	OK
ii. A flow diagram of the project boundary physically delineating the project activity	EB 41	Ann 12	The physical delineation of the project activity is given at the Figure 4 of the VCS PD version 01. However, the figure is not readable and clear. Please clarify.	CL13	OK
iii. The flow diagram with all equipments, systems and flows of mass and energy etc.	EB 41	Ann 12	The physical delineation of the project activity is given at the Figure 4 of the VCS PD version 01.	OK	OK
n. In CDM-PDD section B.4 are following provided?	EB 41	Ann 12	Please see below.		
i. Explanation how the most plausible baseline scenario is identified in accordance with the selected baseline methodology	EB 41	Ann 12	The selected baseline scenario is the only option for the project activity. The baseline scenario is given under section 2.4 of the VCS PD version 01 in line with the methodology as follows: "Electricity delivered to the grid by	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			<i>the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system."</i>		
ii. Justification of key assumptions and rationales	EB 41	Ann 12	The selected baseline scenario is the only option for the project activity. Therefore, there is no explanation and justification key assumptions and rationale.	OK	OK
iii. Transparent illustration of all data used to determine the baseline scenario (variables, parameters, data sources, etc.)	EB 41	Ann 12	The selected baseline scenario is the only option for the project activity. Therefore, no data, parameters etc. is used to determine the baseline scenario.	OK	OK
iv. A transparent and detailed description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed project activity	EB 41	Ann 12	The selected baseline scenario is the only option for the project activity. Therefore, no data, parameters etc. is used to determine the baseline scenario.	OK	OK
v. Are there any changes/modifications compared to the webhosted PDD?	EB 41	Ann 12	The proposed project activity is developed under the VCS Version 03. Therefore, the VCS PD is not webhosted.	OK	OK
o. In CDM-PDD section B.5 are following provided?	EB 41	Ann 12	Please see below.		
i. Explanation of how and why this project activity is additional and therefore not the	EB 41	Ann 12	The explanation of how and why this project activity is additional and	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
baseline scenario in accordance with the selected baseline methodology			therefore not the baseline scenario in accordance with the selected baseline methodology is given under section 2.5 of the VCS PD. Additionality of the project activity is assessed under section 6 of this table.		
ii. Justification of key assumptions and rationales	EB 41	Ann 12	The justification of key assumptions and rationales are given under section 2.5 of the VCS PD. Additionality of the project activity is assessed under section 6 of this table.	OK	OK
iii. Transparent illustration of all data used to determine the baseline scenario (variables, parameters, data sources etc)	EB 41	Ann 12	The transparent illustration of all data used to determine the baseline scenario is given under section 2.5 of the VCS PD. Additionality of the project activity is assessed under section 6 of this table.	OK	OK
iv. Evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity, if the starting date of the project activity is before the date of validation	EB 41	Ann 12	The timeline of the proposed project is provided at the Table 17 of the VCS PD version 01. It is stated at the Table 19 that the project owner contacted with a PDD consultant February 2011. Please provide objective evidence proofs that carbon reduction revenue was seriously considered in the decision to proceed with the project activity. Please also justify the dates given in the table 17 of the VCS PD version 01 by providing objective evidence.	CAR09	OK
p. In CDM-PDD section B.6.1 are following provided?	EB	Ann	Please see below.		

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. Explanation as to how the procedures, in the approved methodology to calculate project emissions, baseline emissions, leakage emissions and emission reductions are applied to the proposed project activity	41	12	It is clearly explained under section 3 of the VCS PD version 01 how the project emissions, baseline emissions, leakage emissions and emission reductions are applied to the proposed project activity.	OK	OK
ii. Equations used in calculating emission reductions	EB 41	Ann 12	The equations used in calculating emission reductions are given under section 3 of the VCS PD version 01.	OK	OK
iii. Explanation and justification for all relevant methodological choices, including different scenarios or cases, options and default values	EB 41	Ann 12	The explanation and justification for all relevant methodological choices, including different options and default values are provided under section 3 of the VCS PD version 01.	OK	OK
q. In CDM-PDD section B.6.2 are following provided?	EB 41	Ann 12	Please see below.		
i. A compilation of information on the data and parameters that are not monitored throughout the crediting period but that are determined only once and thus remains fixed throughout the crediting period and that are available when validation is undertaken	EB 41	Ann 12	The data and parameters that are not monitored throughout the crediting period is given under section 4.1 of the VCS PD version 01. However, section 4.1 does not include all necessary parameters as per the tool and methodology. Please see above for details: EG_y should be monitored throughout the crediting period since the Simple OM-Option B is selected. Please clarify. Cap_{BL} and A_{BL} should be monitored throughout the crediting period since the project has a reservoir area.	CAR10	

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
ii. The actual value period	EB 41	Ann 12	Value applied of the parameters is given in the tabular format under section 4.1.	OK	OK
iii. Explanation and justification for the choice of the source of data	EB 41	Ann 12	The choice of the source of data is explained and justified under section 4.1 of the VCS PD version 01.	OK	OK
iv. Clear and transparent references or additional documentation in Annex 3	EB 41	Ann 12	The background information (tables with time series data) used in the application of the baseline methodology is given Annex 7 of the VCS PD version 01.	OK	OK
v. Where values have been measured, a description of the measurement methods and procedures (e.g. which standards have been used), indicated the responsible person/entity having undertaken the measurement, the date of measurement(s) and the measurement results	EB 41	Ann 12	The values used in the calculations are not measured.	OK	OK
r. In CDM-PDD section B.6.3 are following provided?	EB 41	Ann 12	Please see below.		
i. A transparent ex ante calculation of project emissions, baseline emissions (or, where applicable, direct calculation of emission reductions) and leakage emissions expected during the crediting period, applying all relevant equations provided in the approved methodology	EB 41	Ann 12	The ex-ante calculation of emission reductions, applying all relevant equations provided in the approved methodology is given clearly under section 3 of the VCS PD.	OK	OK
ii. Documentation how each equation is applied, in a manner that enables the reader to reproduce the calculation	EB 41	Ann 12	The documentation how each equation is applied, in a manner that enables the reader to reproduce the calculation is provided under section 3 of the VCS PD.	OK	OK
iii. Additional background information and or	EB	Ann	The background information (tables	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
data in Annex 3, including relevant electronic files (i.e. spreadsheets)	41	12	with time series data) used in the application of the baseline methodology is given Annex 7 of the VCS PD version 01.		
s. In CDM-PDD section B.6.4 are the results of the ex ante estimation of emission reductions for all years of the crediting period, provided in a tabular format?	EB 41	Ann 12	The estimation of the emission reductions are given in a tabular format under section 3.4 of the VCS PD version 01.	OK	OK
t. In CDM-PDD section B.7.1 are following provided?	EB 41	Ann 12	Please see below.		
i. Specific information on how the data and parameters that need to be monitored would actually be collected during monitoring for the project activity	EB 41	Ann 12	The specific information on how the data and parameters that need to be monitored would actually be collected during monitoring for the project activity is provided under section 4.2 of the VCS PD version 01.	OK	OK
			Please clarify the notation of the "quantity of net electricity generation supplied by the project to the grid in year y" as per the methodology.	CAR11	OK
ii. For each parameter the following below information, using the table provided:	EB 41	Ann 12	Please see below.		
a. The source(s) of data that will be actually used for the proposed project activity (e.g. which exact national statistics). Where several sources may be used, explain and justify which data sources should be preferred.	EB 41	Ann 12	The source of data for the net electricity fed to grid is defined as project site. Please clarify which record will be used for monitoring.	CL14	
b. Where data or parameters are supposed to be measured, specify the measurement methods and procedures, including a	EB 41	Ann 12	Please define the QA/QC procedures for Capri.	CL10	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
specification which accepted industry standards or national or international standards will be applied, which measurement equipment is used, how the measurement is undertaken, which calibration procedures are applied, what is the accuracy of the measurement method, who is the responsible person/entity that should undertake the measurements and what is the measurement interval; (i) A description of the QA/QC procedures (if any) that should be applied; (ii) Where relevant: any further comment. Provide any relevant further background documentation in Annex 4.					
			For the net electricity fed to grid it is indicated as follows: "Cross check measurements results with records for sold electricity" Please clarify which record will be basis of crosscheck.	CL15	OK
u. In CDM-PDD section B.7.2 are following provided?	EB 41	Ann 12	Please see below.		
i. A detailed description of the monitoring plan	EB 41	Ann 12	Monitoring plan is described under section 4.3 of the VCS PD version 01.	OK	OK
ii. The operational and management structure that the project operator will implement in order to monitor emission reductions and any leakage effects generated by the project activity	EB 41	Ann 12	The organizational structure, responsibilities of the monitoring plan is identified under section 4.3 of the VCS PD version 01.	OK	OK
			It is indicated in Figure 9 of the VCS PD version 01 that if net electricity	CAR12	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
iii. The responsibilities for and institutional arrangements for data collection and archiving	EB 41	Ann 12	delivered to the grid according to PMUM is equals to net electricity delivered to the grid according to the on-site readings it will be validated. However, these data can not be same always because of the transmission line losses. Please clarify. The methods for generating, recording, storing, aggregating, collating and reporting data on monitored parameters are described under section 4.3 of the VCS PD version 01.	OK	OK
			It is defined under section 4.3 of the VCS PD that electrical engineers will receive sufficient and continues trainings in terms of monitoring and verification aspects. Please define the frequency.	CL16	OK
iv. Indication that the monitoring plan reflect good monitoring practice appropriate to the type of project activity	EB 41	Ann 12	The monitoring plan reflects good monitoring practice appropriate to the type of project activity.	OK	OK
v. Relevant further background information in Annex 4	EB 41	Ann 12	The detail of the monitoring plan is given in section 4.3 of the VCS PD version 01.	OK	OK
v. In CDM-PDD section B.8 are following provided?	EB 41	Ann 12	Please see below.		
i. Date of completion of the methodology to the project activity study in DD/MM/YYYY	EB 41	Ann 12	The date of completion of the application of the methodology to the project activity study is the date of VCS PD version 01, 22/04/2011.	OK	OK
ii. Contact information of the person(s)/entity(ies)	EB	Ann	The contact information of the	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
responsible for the application of the baseline and monitoring methodology to the project activity	41	12	carbon consultant (GAIA Carbon Finance) responsible for the application of the baseline and monitoring methodology to the project activity is given under section 1.4 of the VCS PD version 01.		
iii. Indication if the person/entity is also a project participant listed in Annex 1	EB 41	Ann 12	The carbon consultant (GAIA Carbon Finance) is not listed as a project participant listed.	OK	OK
w. In CDM-PDD section C.1.1 are following provided?	EB 41	Ann 12	Please see below.		
i. The starting date of a CDM project activity, which is the earliest of the date(s) on which the implementation or construction or real action of a project activity begins/has begun (EB33, Para 76/CDM Glossary of terms/EB41, Para 67)	EB 41	Ann 12	Starting date of the project activity is given as 2 nd December 2010 which the project will begin reducing GHG emissions as per the VCS rules.	OK	OK
ii. A description of how this start date has been determined, and a description of the evidence available to support this start date	EB 41	Ann 12	The project start date is given as 2 nd December 2010 which the project will begin reducing GHG emissions as per the VCS rules.	OK	OK
iii. If this starting date is earlier than the date of publication of the CDM-PDD for global stakeholder consultation by a DOE, description in Section B.5 contain of how the benefits of the CDM were seriously considered prior to the starting date (EB41, Para 68).	EB 41	Ann 12	The proposed project activity is developed under VCS. The VCS PD is not made public available according to the VCS rules. Therefore, this checklist question is N/A.	OK	OK
x. In CDM-PDD section C.1.2 is the expected operational lifetime of the project activity in years and months provided?	EB 41	Ann 12	The lifetime of the project activity is given 49 years under section 1.8 of the VCS PD. Please define the operational lifetime in line with the technical lifetime and provide objective evidence.	CAR02	OK

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y. In CDM-PDD section C.2 is it stated whether the project activity will use a renewable or a fixed crediting period and is C.2.1 or C.2.2 completed accordingly?	EB 41	Ann 12	It is not indicated under section 1.6 of the VCS PD version 01 that project activity will use a renewable crediting period or a fixed crediting period. Please clarify.	CL17	OK
z. In CDM-PDD section C.2.1 is it indicated that each crediting period shall be at most 7 years and may be renewed at most two times, provided that, for each renewal, a designated operational entity determines and informs the Executive Board that the original project baseline is still valid or has been updated taking account of new data where applicable?	EB 41	Ann 12	The crediting period is defined under section 1.6 of the VCS PD version 01 as 10 years in line with the VCS rules. Please indicate under section 1.6 of the VCS PD that how many times the crediting period will be renewed.	CL03	OK
aa. In CDM-PDD section C.2.1.1 are dates in the following format: (DD/MM/YYYY) provided?	EB 41	Ann 12	The starting date of the first crediting period is given as 2nd December 2010 under section 1.6 of the VCS PD version 01. Please also provide the ending date of the project crediting period in day, month and year format under section 1.6 of the VCS PD.	CL02	OK
bb. In CDM-PDD section C.2.1.2 is the length of the first crediting period in years and months provided?	EB 41	Ann 12	The length of the first crediting period is defined as 10 years in line with the VCS rules.	OK	OK
cc. In CDM-PDD section C.2.2 is the fixed crediting period at most ten (10) years provided?	EB 41	Ann 12	Renewable crediting period is selected for the project activity. Therefore, this checklist question is N/A.	OK	OK
dd. In CDM-PDD section C.2.2.1 are the dates provided in the following format: (DD/MM/YYYY)?	EB 41	Ann 12	Renewable crediting period is selected for the project activity. Therefore, this checklist question is N/A.	OK	OK
ee. In CDM-PDD section C.2.2.2 is the length of the	EB	Ann	Renewable crediting period is	OK	OK

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crediting period in years and months Provided?	41	12	selected for the project activity. Therefore, this checklist question is N/A.		
ff. In CDM-PDD section D.2 are the conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the Host Party, if environmental impacts are considered significant by the project participants or the Host, provided?	EB 41	Ann 12	The project has "EIA Positive Certificate" given by the Ministry of Environment and Forest dated 06/06/2007 in line with the Turkish laws. "EIA Positive Certificate" is provided under Annex 2 of the VCS PD. In addition, the project complies with the International Finance Corporation (IFC) Performance Standards (PS') on Social and Environmental Sustainability that form the basis of these Principles.	OK	OK
gg. In CDM-PDD section E.1 are the following provided? i. The process by which comments by local stakeholders have been invited and compiled. An invitation for comments by local stakeholders shall be made in an open and transparent manner, in a way that facilities comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted.	EB 41	Ann 12	Please see below.		
	EB 41	Ann 12	The project activity is developed under VCS rules and VCS does not require a stakeholder consultation meeting.	OK	OK
			The outcomes of stakeholder consultations and on-going communication are provided under section 6 of the VCS PD version 01. The project owner has established a free call-center for reporting requests and complaints and this line will not be removed after the	OK	OK

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			construction phase. However, the stakeholders prefer to call the construction officer. About 50 complaints and requests have received until May 2011. The complaints are usually about the muddy roads, dust pollution, damaged houses due to explosions, relocation. All complaints have been taken into consideration by the project owner and closed up. This statement was also validated during the site visit via interviews with the stakeholders. Also, the forms filled up by the project owner were reviewed.		
ii. The project activity is described in a manner, which allows the local stakeholders to understand the project activity, taking into account confidentiality provisions of the CDM modalities and procedures.	EB 41	Ann 12	A stakeholder meeting was held as per the EIA laws on 12/12/2006 at the Aladag Villages. The main topics were expropriation and resettlement. The expropriation has resulted in a satisfactory way.	OK	OK
iii. The local stakeholder process has been completed before submitting the proposed project activity to the DOE for validation.	EB 41	Ann 12	N/A	OK	OK
hh. In CDM-PDD section E.2 are following provided?	EB 41	Ann 12	Please see below.		
i. Identification of local stakeholders that have made comments	EB 41	Ann 12	N/A	OK	OK

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ii. A summary of this comments	EB 41	Ann 12	N/A	OK	OK
ii. In CDM-PDD section E.3 is the explanation of how due account have been taken of comments received from local stakeholders provided?	EB 41	Ann 12	N/A	OK	OK
jj. In CDM-PDD Annex 1 are the following provided?	EB 41	Ann 12	Please see below.		
i. Contact information of project participants	EB 41	Ann 12	The project proponents are identified as "Yedigöze Elektrik Uretim Sanayi ve Ticaret A.S." under section 1.3 of the VCS PD version 01. The contact information is given in tabular format.	OK	OK
ii. For each organization listed in section A.3 the following mandatory fields: Organization, Name of contact person, Street, City, Postfix/ZIP, Country, Telephone and Fax or e-mail	EB 41	Ann 12	The contact information and roles of the project proponents is provided under section 1.3 of the VCS PD version 01. The project proponents are identified as "Yedigöze Elektrik Uretim Sanayi ve Ticaret A.S.". Yedigöze Elektrik Uretim Sanayi ve Ticaret A.S. is a subsidiary of Sanko Enerji A.S.	OK	OK
kk. In CDM-PDD Annex 2 is information from Parties included in Annex I on sources of public funding for the project activity which shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of those Parties provided?	EB 41	Ann 12	The project activity is developed under VCS, therefore the checklist question is N/A.	OK	OK
ll. In CDM-PDD Annex 3 is the background information used in the application of the baseline methodology provided?	EB 41	Ann 12	The background information (tables with time series data) used in the application of the baseline methodology is given Annex 7 of the	OK	OK

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mm. In CDM-PDD Annex 4 is the background information used in the application of the monitoring methodology provided?	EB 41	Ann 12	VCS PD version 01. The details of the monitoring plan is given in section 4.3 of the VCS PD version 01.	OK	OK
4. Project description					
a. Does the PDD contain a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation?	VVM	58	The PDD contains a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation. The project is a 317 MWm hydro power plant. Generated electricity is being fed to the national grid. The annual average of emission reduction is estimated as 524,535 tCO ₂ e. The expected annually electricity generation is 966,530 MWm.	OK	OK
b. Is the description of the proposed CDM project activity as contained in the PDD:	VVM	59	Please see below.		
i. sufficiently covering all relevant elements?	VVM	59	The description of the proposed project activity as contained in the VCS PD sufficiently covers all relevant elements. The proposed project activity consists of two Francis type vertical turbines each with the capacity of 158.5 MWm; the total capacities of the turbines are 317 MWm. The implementation of the project consists of rack fill dam, spillway, 2	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
ii. accurate?	VVM	59	penstocks (above ground) and a power house. During the site visit, it was validated that the project activity consists of two Francis type vertical turbines with a total capacity of 317 MWm and 310.66 MWe.	OK	OK
			The installed capacity and the annual generation are based on the generation license. However, the mechanical installed capacity (317 MWm) is applied in the VCS PD. Please use the electrical installed capacity (MWe) and revise all PD accordingly.	CAR13	OK
iii. providing the reader with a clear understanding of the nature of the proposed CDM project activity?	VVM	59	The description of the proposed project activity as contained in the VCS PD provides the reader with a clear understanding of the nature of the proposed CDM project activity.	OK	OK
iv. Are there any changes/modifications compared to the webhosted PDD?	VVM	59	The proposed project activity is developed under the VCS Version 03. Therefore, the VCS PD is not webhosted.	OK	OK
c. Is the proposed CDM project activity in existing facilities or utilizing existing equipment?	VVM	60	The proposed project activity is neither in existing facilities nor in utilizing existing equipment. The project activity is a greenfield project. During the site visit, it was confirmed that project activity is a greenfield project.	OK	OK
d. Is the CDM project activity one of the following types:	VVM	60	Please see below.		

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. Large-scale?	VVM	60	Since the installed capacity of the hydro power plant is 317 MW larger than 15 MW, it is a large-scale renewable energy project activity.	OK	OK
ii. Non-bundled small-scale projects with emission reductions exceeding 15,000 tonnes per year?	VVM	60	The project activity is a large-scale project with emission reduction 524,729 tCO ₂ e per year.	OK	OK
iii. Bundled small-scale projects, each with emission reductions not exceeding 15,000 tonnes?	VVM	60	The project activity is a large-scale project with emission reduction 524,729 tCO ₂ e per year.	OK	OK
e. If yes to (c) and (d) above, was a physical site inspection conducted to confirm that the description in the PDD reflects the proposed CDM project activity, unless other means are specified in the methodology?	VVM	60	A physical site visit was conducted on 05-06/07/2011. During the site visit, it was validated that the project activity is a large-scale project.	OK	OK
f. If yes to (d.iii) above, was the number of physical site visits base on sampling?	VVM	60	The project activity is a large-scale project. Therefore, the checklist question is N/A.	OK	OK
g. If yes is the sampling size appropriately justified through statistical analysis?	VVM	60	The project activity is a large-scale project. Therefore, the checklist question is N/A.	OK	OK
h. For other individual proposed small-scale CDM project activities with emission reductions not exceeding 15,000 tonnes per year, was a physical site inspection conducted?	VVM	61	The project activity is a large-scale project. Therefore, the checklist question is N/A.	OK	OK
i. For all other proposed CDM project activities not referred to in paragraphs 59 - 61, was a physical site inspection conducted?	VVM	62	The project activity is a large-scale project. Therefore, the checklist question is N/A.	OK	OK
j. If no, was it appropriately justified?	VVM	62	The project activity is a large-scale project. Therefore, the checklist question is N/A.	OK	OK
k. Does the proposed CDM project activity involve the	VVM	63	The proposed project activity does	OK	OK

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alteration of an existing installation or process?			not involve the alteration of an existing installation or process. The project activity is a new built project as validated through the site visit.		
1. If yes, does the project description clearly state the differences resulting from the project activity compared to the pre-project situation?	VVM	63	The proposed project activity does not involve the alteration of an existing installation or process. Therefore, the checklist question is N/A.	OK	OK
5. Baseline and monitoring methodology					
a. General requirement					
a. Do the baseline and monitoring methodologies selected by the project participants comply with the methodologies previously approved by the CDM Executive Board?	VVM	65	The baseline and monitoring methodologies selected by the project participants comply with the methodologies previously approved by the CDM Executive Board. The selected methodology and tools as follows: • ACM0002 "Consolidated methodology for grid-connected electricity generation from renewable sources", Version 12.1 • "Tool to calculate the emission factor for an electricity system", Version 02 • "Tool for the demonstration and assessment of additionality", Version 05.2	OK	OK
b. Is the selected methodology applicable to the project activity?	VVM	66	The justification of the choice of methodology is given under section 2.2 of the VCS PD version 01. – The project activity is the	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			installation of a new hydro power plant and does not involve any retrofits, replacements or capacity additions. - The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available. - The project does not involve switching from fossil fuels to renewable energy sources at the site of the project activity. - The power density of the project activity is higher than 10 W/m².		
			The power density calculation is provided under section 3.2 of the VCS PD. Please use the electrical installed capacity. (Please see CAR13) The reservoir area (14,940,000 m²) is based on the diagram provided in the FSR. The reservoir are should be based on the maximum water elevation (240 m). Please clarify.	CAR14	
c. Had the PP correctly applied the selected methodology?	V/M	66	The PP had correctly applied the selected methodology.	OK	OK
d. Had the selected methodology been correctly applied with respect to project boundary?	V/M	67	Project boundary is given correctly under section 2.3 of the VCS PD version 01 for baseline and project activity. Baseline: CO₂ emissions are	OK	OK

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			included in baseline calculation since fossil fuels fired for electricity generation. CH ₄ and N ₂ O emissions are neglected regarding to the methodology. <u>Project Activity:</u> Project emissions are neglected regarding to the methodology since the power density of the project activity is higher than 10 W/m ² .		
e. Had the selected methodology been correctly applied with respect to baseline identification?	VVM	67	Project activity is the installation of a new grid-connected renewable power plant. Only one applicable baseline scenario has been identified for the new grid-connected renewable power plant in the ACM0002. The baseline scenario is given as per the ACM0002 as follows: "Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid connected power plants and the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system."	OK	OK
f. Had the selected methodology been correctly applied with respect to Algorithms and/or formulae used to determine emission reductions?	VVM	67	The selected methodology had been correctly applied with respect to formulae used to determine emission reductions.	OK	OK
g. Had the selected methodology been correctly	VVM	67	The selected methodology had been	OK	OK

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applied with respect to additionality?			correctly applied with respect to additionality.		
i. Has the additionality of the project activity been demonstrated and assessed using the latest version of the "Tool for the demonstration and assessment of additionality" agreed by the Board, which is available on the UNFCCC website?	ACM	0002 v12.1	The additionality of the project activity has been demonstrated and assessed using "Tool for the demonstration and assessment of additionality" version 05.2 that is the latest version of the tool.	OK	OK
h. Had the selected methodology been correctly applied with respect to monitoring methodology?	VVM	67	The selected methodology had been correctly applied with respect to monitoring methodology.	OK	OK
b. Applicability of the selected methodology to the project activity					
a. Is the selected baseline and monitoring methodology, previously approved by the CDM Executive Board, applicable to the project activity? Is the used version valid?	VVM	68	"ACM0002, Consolidated methodology for grid-connected electricity generation from renewable sources, Version 12.1" is applied in the VCS PD version 01 that is the latest version of the methodology.	OK	OK
i. This methodology is applicable to grid-connected renewable power generation project activities that (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plants); (b) involve a capacity addition; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).	ACM	0002 v12.1	The project is an installation a new hydro power plant where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant). Hence, selected methodology and tools is convenient.	OK	OK
b. Has the DOE applied specific guidance provided by the CDM Executive Board in respect to the applicable approved methodology?	VVM	69	The applicability conditions of the methodology was validated through the ACM0002 "Consolidated	OK	OK

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c. Is the methodology correctly quoted?	VVM	70	methodology for grid-connected electricity generation from renewable sources", Version 12.1. The applicability conditions of the methodology are given in line with the ACM0002 under section 2.2 of the VCS PD version 01.	OK	OK
d. Are the applicability conditions of the methodology met?	VVM	71	Please see below.		
i. The project activity is the installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit	ACM	0002 v12.1	The project is an installation a new hydro power plant where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant).	OK	OK
ii. In the case of capacity additions, retrofits or replacements (except for wind, solar, wave or tidal power capacity addition projects which use Option 2: on page 10 to calculate the parameter EGPJ,y): the existing plant started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion or retrofit of the plant has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.	ACM	0002 v12.1	The project activity does not involve any retrofits, replacements or capacity additions, hence the checklist question is N/A.	OK	OK
iii. In case of hydro power plants, one of the	ACM	0002	The project is an installation a new hydro power plant hence the	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
following conditions must apply: - The project activity is implemented in an existing reservoir, with no change in the volume of reservoir; or - The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the Project Emissions section, is greater than 4 W/m²; or - The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the Project Emissions section, is greater than 4 W/m².		v12.1	checklist question is N/A.		
iv. The methodology is not applicable to the following conditions. Please confirm - Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity - Biomass fired power plants; - Hydro power plants that result in new reservoirs or in the increase in existing reservoirs where the power density of the power plant is less than 4 W/m².	ACM	0002 v12.1	It was confirmed that; - The project activity does not use fossil fuel to generate the electricity. - Project does not consume biomass in any stage. - The project activity results in a new reservoir where the power density of the power plant is higher than 4 W/m².	OK	OK
v. In the case of retrofits, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is "the continuation of the current situation, i.e. to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as	ACM	0002 v12.1	The project is an installation a new hydro power plant hence the checklist question is N/A.	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
e. Is the project activity expected to result in emissions other than those allowed by the methodology? usual maintenance".	VVM	71	The annual average of emission reduction is estimated as 524,729 tCO ₂ e that is allowed by the methodology.	OK	OK
f. Is the choice of the methodology justified?	VVM	71	The applicability conditions of the methodology are given in line with the ACM0002 under section 2.2 of the VCS PD version 01.	OK	OK
g. Have the project participants shown that the project activity meets each of the applicability conditions or the approved methodology?	VVM	71	The justification of the choice of methodology is given under section 2.2 of the VCS PD version 01. - The project activity is the installation of a new hydro power plant and does not involve any retrofits, replacements or capacity additions. - The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available. - The project does not involve switching from fossil fuels to renewable energy sources at the site of the project activity. - The power density of the project activity is higher than 10 W/m².	OK	OK
h. Have the project participants shown that the project activity meets each of the applicability conditions of any tool or other methodology component referred to the methodology?	VVM	71	The applicability conditions of the methodology are given in line with the ACM0002 under section 2.2 of the VCS PD version 01.	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. Are each of the applicability conditions of the "Tool to calculate the emission factor for an electricity system" met?	EB 50	Ann 40	The "Tool to calculate the emission factor for an electricity system" may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity. The generated electricity is fed to the grid. Therefore, the applicability condition of the tool is met.	OK	OK
ii. Are each of the applicability conditions of the "Tool for the demonstration and assessment of additionality" met?	EB 39	Ann 10	The "Tool for the demonstration and assessment of additionality" provides a general framework for demonstrating and assessing additionality and is applicable to a wide range of project types. The ACM0002 refers to this tool. Therefore, the applicability condition of the tool is met.	OK	OK
iii. Are each of the applicability conditions of the "Combined tool to identify the baseline scenario and demonstrate additionality" met?	EB 28	Ann 14	The "Combined tool to identify the baseline scenario and demonstrate additionality" is not applied. Hence, this checklist question is N/A.	OK	OK
iv. Are each of the applicability conditions of the "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion" met?	EB 41	Ann 11	The "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion" is not applied. Hence, this checklist question is N/A.	OK	OK
i. Is the DOE, based on local and sectoral knowledge, aware that comparable information is available from sources other than that used in the PDD?	VVM	71	The comparable information is not available from sources other than that used in the VCS PD.	OK	OK
j. If yes, was the PDD cross checked against the other sources to confirm that the project activity	VVM	71	The comparable information is not available from sources other than	OK	OK



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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
meets the applicability conditions of the methodology? (provide the reference to these choices)			that used in the VCS PD. Hence, this checklist question is N/A.		
k. Can a determination regarding the applicability of the selected methodology to the proposed CDM project activity be made?	VVM	72	A determination regarding the applicability of the selected methodology to the proposed project activity can be made.	OK	OK
l. If no, clarification of the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	72	A determination regarding the applicability of the selected methodology to the proposed project activity can be made. Hence, this checklist question is N/A.	OK	OK
m. If answer to (5.b.d) above is "no", revision or deviation from the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	73	The applicability conditions of the methodology are met. Hence, this checklist question is N/A.	OK	OK
n. If yes to (5.b.l) and (5.b.m) above, a request for registration was submitted before the CDM Executive Board has approved the proposed deviation or revision?	VVM	74	A determination regarding the applicability of the selected methodology to the proposed project activity can be made and the applicability conditions of the methodology are met. Hence, this checklist question is N/A.	OK	OK
C. Project boundary					
a. Does the PDD correctly describe the project boundary, including the physical delineation of the proposed CDM project activity included within the project boundary for the purpose of calculating project and baseline emissions for the proposed CDM project activity?	VVM	78	The detailed information on the project location, including geographic and physical information allowing the unique identification and delineation of the specific extent of the project are provided under section 1.9 of the VCS PD. Project boundary is given correctly under section 2.3 of the VCS PD version	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. Does the extent of the project boundary, as described in the PDD, include the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to?	ACM	0002 v12.1	01. The spatial extent of the proposed project boundary includes the project power plant and all power plants connected physically to the electricity system that the proposed project is connected to as per ACM0002.	OK	OK
ii. Are the greenhouse gases and emission sources that are included in or excluded from the project boundary shown in a table format as per applicable methodology?	ACM	0002 v12.1	Project boundary is given correctly under section 2.3 of the VCS PD version 01 for baseline and project activity. Baseline: CO ₂ emissions are included in baseline calculation since fossil fuels fired for electricity generation. CH ₄ and N ₂ O emissions are neglected regarding to the methodology. Project Activity: Project emissions are neglected regarding to the methodology since the power density of the project activity is higher than 10 W/m ² .	OK	OK
b. Is the delineation in the PDD of the project boundary correct and include identification of all locations, processes and equipment including secondary equipment and associated processes such as logistics etc.?	VVM	79	The delineation in the VCS PD of the project boundary is correct and includes identification of all locations.	OK	OK
c. Does the delineation in the PDD of the project boundary meet the requirements of the selected baseline?	VVM	79	The delineation given in the PDD of the project boundary meets the requirements of the selected baseline.	OK	OK
d. Have changes been made to the project boundary	VVM	79	The proposed project activity is	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
In comparison to the webhosted PDD. If yes please comment on the reason for the changes.			developed under the VCS Version 03. Therefore, the VCS PD is not webhosted.		
e. Have all sources and GHGs required by the methodology been included within the project boundary?	VVM	79	All sources and GHGs required by the methodology have been included within the project boundary.	OK	OK
f. Does the methodology allow project participant to choose whether a source or gas is to be included within the project boundary	VVM	79	The methodology does not allow project participant to choose whether a source or gas is to be included within the project boundary for the baseline emissions. The only emission source in the plant is the diesel generator, which is used as auxiliary power source when there is no electricity generation in the plant or supply by the grid. Project emissions are neglected since the diesel generator is used for only emergency cases.	OK	OK
g. If yes, have the project participants justified that choice?	VVM	79	N/A	OK	OK
h. If yes, is the justification provided reasonable? (provide reference to the supporting documented evidence provided by the project participants)	VVM	79	N/A	OK	OK
d. Baseline Identification					
a. Does the PDD identify the baseline for the proposed CDM project activity, defined as the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CDM project activity?	VVM	81	The baseline scenario is identified in the section 2.4 of the VCS PD version 01. Baseline scenario identified as electricity delivered to the grid by the project would have otherwise been generated by the	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
b. Has any procedure contained in the methodology to identify the most reasonable baseline scenario, been correctly applied?	VVM	82	operation of grid connected power plants. Since grid mainly fed by fossil fuels the GHG source of baseline is combustion of fossil fuel. The project activity is the installation of a new grid-connected renewable power plant. Only one applicable baseline scenario has been identified for the new grid-connected renewable power plant in the ACM0002. Hence the question is N/A.	OK	OK
i. If the project activity is the install a new grid-connected renewable power plant/unit (greenfield plant), is the baseline scenario identified appropriately in accordance with the ACM0002 ver.12.1?	ACM	0002 v12.1	The project activity is the installation of a new grid-connected renewable power plant and the baseline scenario is identified in accordance with the ACM0002.	OK	OK
ii. If the project activity is a capacity addition to existing grid-connected renewable power plant/unit, is the baseline scenario identified appropriately in accordance with the ACM0002 ver. 12.1? And is the point of time at which the generation facility would likely be replaced or retrofitted (DATE Baseline Retrofit) reasonably defined?	ACM	0002 v12.1	The project activity is the installation of a new grid-connected renewable power plant. Hence the question is N/A.	OK	OK
iii. If the project activity is the retrofit or replacement of existing grid-connected renewable power plant/unit, is the baseline scenario identified following the step-wise procedure in accordance with the ACM0002 ver.12.1?	ACM	0002 v12.1	The project activity is the installation of a new grid-connected renewable power plant. Hence the question is N/A.	OK	OK
iv. Are the realistic and credible alternative baseline scenarios for power generation appropriately identified following the Step 1	ACM	0002 v12.1	"Combined tool to identify the baseline scenario and demonstrate additionality" is not used. The pp	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
of the "Combined tool to identify the baseline scenario and demonstrate additionality"? (Step 1)			uses the "Tool for the demonstration and assessment of additionality". Hence, the checklist question is N/A.		
v. Are the realistic and credible alternative baseline scenarios i.e. P1, P2 and P3 appropriately applied Barrier analysis following the Step 2 of the "Combined tool to identify the baseline scenario and demonstrate additionality"? (Step 2)	ACM	0002 v12.1	"Combined tool to identify the baseline scenario and demonstrate additionality" is not used. The PP uses the "Tool for the demonstration and assessment of additionality". Hence, the checklist question is N/A.	OK	OK
vi. If more than one alternative is remaining after Step 2, is Investment analysis appropriately applied (apply an Investment Comparison as per step 3 of the "Combined tool to identify the baseline scenario and demonstrate additionality" or a Benchmark Analysis as per step 2b of the "Tool for the demonstration and assessment of additionality")? (Step 3)	ACM	0002 v12.1	"Combined tool to identify the baseline scenario and demonstrate additionality" is not used. The PP uses the "Tool for the demonstration and assessment of additionality". Hence, the checklist question is N/A.	OK	OK
c. Does the selected methodology require use of tools (such as the "Tool for the demonstration and assessment of additionality" and the "Combined tool to identify the baseline scenario and demonstrate additionality") to establish the baseline scenario?	VVM	82	The selected methodology, ACM0002, refers to the latest approved versions of the "Tool for the demonstration and assessment of additionality" and the "Combined tool to identify the baseline scenario and demonstrate additionality" to establish the baseline scenario.	OK	OK
d. If yes, was the methodology consulted on the application of these tools? (In such cases, the guidance in the methodology shall supersede the tool.)	VVM	82	The PP uses the "Tool for the demonstration and assessment of additionality" as per the methodology.	OK	OK
e. Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VVM	83	The project activity is the installation of a new grid-connected renewable power plant. There is only one applicable baseline	OK	OK

RP

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
f. If yes, are all scenarios that are considered by the project participants and are supplementary to those required by the methodology reasonable in the context of the proposed CDM project activity?	VVM	83	scenario is identified for the new grid-connected renewable power plant in the ACM0002. The project activity is the installation of a new grid-connected renewable power plant. There is only one applicable baseline scenario is identified for the new grid-connected renewable power plant in the ACM0002. Hence, the checklist question is N/A.	OK	OK
g. Has any reasonable alternative scenario been excluded?	VVM	83	The project activity is the installation of a new grid-connected renewable power plant. There is only one applicable baseline scenario is identified for the new grid-connected renewable power plant in the ACM0002 that is also identified under section 2.4 of the VCS PD version 01. Hence, the checklist question is N/A.	OK	OK
h. Is the baseline scenario identified reasonably supported by:	VVM	84	The project activity is the installation of a new grid-connected renewable power plant. There is only one applicable baseline scenario is identified for the new grid-connected renewable power plant in the ACM0002 that is also identified under section 2.4 of the VCS PD version 01. Hence, the checklist question is N/A.	OK	OK
i. Assumptions?	VVM	84	N/A	OK	OK
ii. Calculations?	VVM	84	N/A	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
iii. Rationales?	VVM	84	N/A	OK	OK
i. Are the documents and sources referred to in the PDD correctly quoted and interpreted?	VVM	84	The project activity is the installation of a new grid-connected renewable power plant. There is only one applicable baseline scenario is identified for the new grid-connected renewable power plant in the ACM0002 that is also identified under section 2.4 of the VCS PD version 01. Hence, the checklist question is N/A.	OK	OK
j. Was the information provided in the PDD cross checked with other verifiable and credible sources, such as local expert opinion, if available? (identify the sources)	VVM	84	The project activity is the installation of a new grid-connected renewable power plant. There is only one applicable baseline scenario is identified for the new grid-connected renewable power plant in the ACM0002 that is also identified under section 2.4 of the VCS PD version 01. Hence, the checklist question is N/A.	OK	OK
k. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity?	VVM	85	The project activity is the installation of a new grid-connected renewable power plant. There is only one applicable baseline scenario is identified for the new grid-connected renewable power plant in the ACM0002 that is also identified under section 2.4 of the VCS PD version 01.	OK	OK
l. Have all relevant policies and circumstances been identified and correctly considered in the PDD, in accordance with the guidance by the CDM Executive Board?	VVM	85	The project activity is the installation of a new grid-connected renewable power plant. There is only one applicable baseline	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
m. Does the PDD provide a verifiable description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity?	VVM	86	scenario is identified for the new grid-connected renewable power plant in the ACM0002 that is also identified under section 2.4 of the VCS PD version 01. The PDD provides a transparent and detailed description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed project activity.	OK	OK
e. Algorithms and/or formulae used to determine emission reductions					
a. Do the steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected baseline and monitoring?	VVM	89	The steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions is in accordance with "Tool to calculate the emission factor for an electricity system".	OK	OK
b. Have the equations and parameters in the PDD been correctly applied with respect those in the select approved methodology?	VVM	90	The equations and parameters in the PDD have been correctly applied with respect those in the select approved methodology.	OK	OK
i. Are the Project emissions appropriately calculated?	ACM	0002 v12.1	The only emission source in the plant is the diesel generator, which is used as auxiliary power source when there is no electricity generation in the plant or supply by the grid. Project emissions are neglected	OK	OK

CHECKLIST QUESTION	Ref.	5	COMMENTS	Draft Concl	Final Concl
ii. Are the Baseline emissions appropriately calculated specifically for (a) greenfield plants or (b) retrofit and replacements or (c) capacity additions?	ACM	0002 v12.1	since the diesel generator is used for only emergency cases. QM Calculation The 2009 electricity production values do not match with the latest official data exhibiting significant variation. For example, thermal total is given as 156923.4 GWh in TEIAS statistics whereas it appears to be used as 164139.3 GWh in the computations. Naturally, most of the other values for 2009 do not match with latest statistics as well. All values and computations must be revised so as to match the latest official statistics.	CAR15	
			BM Calculation In the PDD (text under Table 10 and Table 11) there is reference to an efficiency factor calculated for naphtha. However, in the set of BM-plants there is no one using naphtha as a single fuel and hence the referenced efficiency factor is not used. Please clarify.	CAR16	
iii. Are the Leakage appropriately calculated?	ACM	0002 v12.1	The leakage is considered as zero as per the selected methodology, ACM0002.	OK	OK
iv. Are the Emission reductions appropriately calculated?	ACM	0002 v12.1	1. The equation of the emission reduction is not provided under 3.4 of the VCS PD. Please describe the procedure for quantification of net GHG emission reductions and include	CAR17	



CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			all relevant equations. 2. The project activity is implemented in two phases. On 02/12/2010, the power plant started operation with 1 turbine and the remaining 1 turbine was commissioned on 26/01/2011. Each commissioning date was validated through the "Provisional Acceptance Certificate". Please amend the estimated emission reduction accordingly.		
c. Have project participants prepared as part of the CDM-PDD an estimate of likely emission reductions for the proposed crediting period? This estimate should, in principle, employ the same methodology as selected for the calculation of emission reductions. Where the grid emission factor ($EF_{CM,grid,y}$) is determined ex post during monitoring, project participants may use models or other tools to estimate the emission reductions prior to validation.	ACM	0002 v12.1	The estimated emission reduction is calculated in accordance with "Tool to calculate the emission factor for an electricity system". The ex-ante calculations of emission factor, applying all relevant equations provided in the approved methodology are given under section 2.4 of the VCS PD version 01.	OK	OK
d. Does the methodology provide for selection between different options for equations or parameters?	VVM	90	The methodology and the referred tool "Tool to calculate the emission factor for an electricity system" provides a selection between different options for equations or parameters.	OK	OK
e. If yes, has adequate justification been provided (based on the choice of the baseline scenario, context of the proposed CDM project activity and other evidence provided)?	VVM	90	The steps of the "Tool to calculate the emission factor for an electricity system" version 02 are applied under section 3.1 of the VCS PD version 01. The tool provides	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			different options in Steps 1, 2, 3, 4 and 5. Please see below discussions for details and some discrepancies.		
			Step 1 "Identify the relevant electricity power system": The application criteria are clearly presented in line with the tool.	OK	OK
			Step 2 "Choose whether to include off-grid power plants in the project electricity system": This step is optional and there are two options in the step 2. Option 1 is chosen, only grid power plants are included in the calculation of operating margin and build margin emission factor.	OK	OK
			Step 3 "Select a method to determine the operating margin (OM)": There are four methods for calculation of the operating margin emission factor. Since the average share of electricity generation by low-cost/must-run plants for five most recent years is found to be less than 50%, option (a) is chosen. The average share of electricity generation by low-cost/must-run plants is calculated from the period 2005-2009. 1. The simple OM emission factor can be calculated using either of the two data vintages: Ex-ante option and ex-post option. The	CAR18	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			ex-ante option is selected to carry out the baseline methodology from the period 2007-2009. However, it is not stated under Step 3 in line with the tool. Please clarify. 2. The information regarding Option C of Simple OM is stated under Step 3. However, it should be given under Step 4 in line with the tool. Under Step 3, ex-ante and ex-post options should be chosen. Furthermore, the latest version of the tool does not include Option C under Step 4. Please clarify.		
			Step 4 "Calculate the operating margin emission factor according to the selected method": The information regarding Option C of Simple OM is stated under Step 3. However, it should be given under Step 4 in line with the tool. Under Step 3, ex-ante and ex-post options should be chosen. Furthermore, the latest version of the tool does not include Option C under Step 4. Please clarify.	CAR19	OK
			Step 5 "Identifying the group of the power units to be included in the build margin": In this step, a generation-weighted average emission factor is calculated based on a sample of power plants,	CL18	OK

CHECKLIST QUESTION	Ref.	\$	COMMENTS	Draft Concl	Final Concl
f. If yes, have correct equations and parameters been used, in accordance with the methodology selected?	VVM	90	which have been taken into operation recently. The sample group of power plants/units m used to calculate the build margin consists of two options (Option a and Option b). For conducting the calculations, Option b is selected, because this option results in a larger electricity generation. In terms of vintage data, there are two options available: Option 1 (ex-ante) and Option 2 (ex-post). Please state the option chosen under Step 5.	OK	OK
g. Will data and parameters be monitored throughout the crediting period of the proposed CDM project activity?	VVM	91	The data and parameters will not be monitored throughout the crediting period of the proposed project activity.	OK	OK
h. If no, and these data and parameters will remain fixed throughout the crediting period, are all data sources and assumptions:	VVM	91	A compilation of information on the data and parameters that are not monitored throughout the crediting period but that are determined only once and thus remains fixed throughout the crediting period and that are available when validation is undertaken is given under section 4.1 of the VCS PD version 01.	OK	OK
i. Appropriate and correct?	VVM	91	1. The reference for Table 6 (Emission factors from IPCC) is not provided. Please clarify. 2. The background information	CAR20	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			(tables with time series data) used in the application of the baseline methodology is given Annex 7 of the VCS PD version 01. However, the references does not given provide under Annex 7. Also, please ensure that the tables include the unit for the value (fuel consumption, net calorific value etc.). 3. There is no reference for the gross electricity production from thermal sources given neither at the Table 8 of the VCS PD nor baseline excel sheet. The baseline excel sheet is not reproducible for the "Net Electricity Production from Thermal Sources" since it does not include the formula, the values are written directly in the excel sheet. 4. Please provide reference for the statement given under Step 5. Please also present the sample group (years) clearly under Step 5.		
ii. Applicable to the proposed CDM project activity?	VVM	91	The project is an installation a new hydro power plant where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant). Algorithms and/or formulae used to determine emission reductions are in accordance with the ACM0002	OK	OK

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CHECKLIST QUESTION	Ref.	5	COMMENTS	Draft Concl	Final Concl
iii. Resulting in a conservative estimate of the emission reductions?	VVM	91	that is applicable methodology to the greenfield plant. The emission reduction calculation results in a conservative estimate. All data are provided from official sources and the references are provided.	OK	OK
i. Will data and parameters be monitored on implementation and hence become available only after validation of the project activity?	VVM	91	The data and parameters will not be monitored on implementation.	OK	OK
j. If yes, are the estimates provided in the PDD for these data and parameters reasonable?	VVM	91	The data and parameters will not be monitored on implementation. Hence, this checklist question is N/A.	OK	OK
6. Additionality of a project activity					
a. Does the PDD describe how a proposed CDM project activity is additional?	VVM	94	The PDD describes how the proposed project activity is additional under section 2.5 of the VCS PD.	OK	OK
b. Does the CDM-PDD state the latest version of the additionality tool being used?	ACM	0002 v12.1	Under section 2.5 of the VCS PD version 01 it is stated that version 05.2 of the "Tool for the demonstration and assessment of additionality" is used, which is the latest version.	OK	OK
c. Were the following steps of the tool to assess additionality used:	EB 39	Ann 10	Please see below.		
i. Identification of alternatives to the project activity?	EB 39	Ann 10	Identification of alternatives to the project activity is given under Step 1 of the VCS PD version 01.	OK	OK
ii. Investment analysis to determine that the proposed project activity is either: 1) not	EB 39	Ann 10	The investment analysis is used to demonstrate the additionality of the	OK	OK

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the most economically or financially attractive, or 2) not economically or financially feasible?			Project under VCS PD version 01.		
iii. Barriers analysis?	EB 39	Ann 10	The barrier analysis is used to demonstrate the additionality of the Project under VCS PD version 01.	OK	OK
iv. Common practice analysis?	EB 39	Ann 10	Common practice analysis is applied under VCS PD version 01.	OK	OK
d. In step 1 (i) have all the sub-steps as below been followed?	EB 39	Ann 10	Please see below.		
i. Sub-step 1a: Define alternatives to the project activity	EB 39	Ann 10	The alternatives scenario to the project activity is defined under Sub-step 1a.	OK	OK
ii. Sub-step 1b: Consistency with mandatory laws and regulations	EB 39	Ann 10	The consistency with mandatory laws and regulations is given under Sub-step 1b.	OK	OK
e. Have the following alternatives been included while defining alternatives as per sub-step 1a?	EB 39	Ann 10	Please see below.		
i. (a) The proposed project activity undertaken without being registered as a CDM project activity;	EB 39	Ann 10	Alternative 1 is defined as follows: "The proposed project activity undertaken without being registered as a VCS project activity"	OK	OK
ii. (b) Other realistic and credible alternative scenario(s) to the proposed CDM project activity scenario that deliver outputs services or services with comparable quality, properties and application areas, taking into account, where relevant, examples of scenarios identified in the underlying methodology;	EB 39	Ann 10	Alternative 2 is defined as follows: "Construction of a thermal power plant with equivalent installed capacity or annual electricity generation." Alternative 3 is defined as follows: "Construction of a new power plant generating the same annual power generation from other renewable sources such as wind power, solar	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
iii. (c) If applicable, continuation of the current situation (no project activity or other alternatives undertaken).	EB 39	Ann 10	power and thermal energy." Alternative 4 is defined as follows: "The continuation of the current situation. The equivalent electricity will be provided by the existing power units connected to the national grid."	OK	OK
f. Has the project participant included the technologies or practices that provide outputs or services with comparable quality, properties and application areas as the proposed CDM project activity and that have been implemented previously or are currently being introduced in the relevant country/region?	EB 39	Ann 10	The defined alternatives are currently being implemented in the region.	OK	OK
g. Has the outcome of Step 1a: Identified realistic and credible alternative scenario(s) to the project activity done correctly? Please briefly mention the outcome.	EB 39	Ann 10	Alternatives 1, 2 and 4 are found realistic as the outcome of Step 1a. Alternative 3 is eliminated since the project location is not convenient for the other renewable sources such as wind power, solar power. However, the outcome of the Sub-step 1a is given as follows: "Out of all the identified alternatives, only Alternative 4 and Alternative 1 are plausible and realistic." Please clarify.	CL19	OK
h. Is the alternative(s) in compliance with all mandatory applicable legal and regulatory requirements, even if these laws and regulations have objectives other than GHG reductions, e.g. to mitigate local air pollution.?	EB 39	Ann 10	Under sub-step 1b, the relevant laws are identified. The all alternatives are in compliance of the identified laws, as these alternatives are the widely operational in the country.	OK	OK
i. If an alternative does not comply with all	EB	Ann	The alternatives are in compliance	OK	OK

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mandatory applicable legislation and regulations, has it been shown that, based on an examination of current practice in the country or region in which the law or regulation applies, those applicable legal or regulatory requirements are systematically not enforced and that noncompliance with those requirements is widespread in the country?	39	10	of the identified laws. Hence, the checklist question is N/A.		
j. Has the outcome of Step 1b: Identified realistic and credible alternative scenario(s) to the project activity that are in compliance with mandatory legislation and regulations taking into account the enforcement in the region or country and EB decisions on national and/or sectoral policies and regulations done correctly? Please state the outcome.	EB 39	Ann 10	Under sub-step 1b, the relevant laws are identified. The all alternatives are in compliance of the identified laws, as these alternatives are the widely operational in the country.	OK	OK
k. Has PP selected Step 2 (Investment analysis) or Step 3 (Barrier analysis) or both Steps 2 and 3?	EB 39	Ann 10	The PP has selected both Step 2 (Investment analysis) and Step 3 (Barrier analysis) under VCS PD version 01.	OK	OK
l. In step 2, have all the sub-steps as below been followed?	EB 39	Ann 10	Please see below.		
i. Sub-step 2a: Determine appropriate analysis method;	EB 39	Ann 10	Sub-step 2a, Determine appropriate analysis method, is applied.	OK	OK
ii. Sub-step 2b: Option I. Apply simple cost analysis;	EB 39	Ann 10	Sub-step 2b, Option I, Apply simple cost analysis is not applied.	OK	OK
iii. Sub-step 2b: Option II. Apply investment comparison analysis;	EB 39	Ann 10	Sub-step 2b, Option II, Apply investment comparison analysis is not applied.	OK	OK
iv. Sub-step 2b: Option III. Apply benchmark analysis;	EB 39	Ann 10	Sub-step 2b, Option III, Apply benchmark analysis is applied.	OK	OK
v. Sub-step 2c: Calculation and comparison of financial indicators (only applicable to	EB	Ann	Sub-step 2c, Calculation and comparison of financial indicators	OK	OK

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Options II and III);	39	10	are applied.		
vi. Sub-step 2d: Sensitivity analysis (only applicable to Options II and III).	EB 39	Ann 10	Sub-step 2d, Sensitivity analysis is applied.	OK	OK
m. In sub-step 2a has the determination of appropriate method of analysis done as per the guidance as below?	EB 39	Ann 10	Please see below.		
i. Simple cost analysis if the CDM project activity and the alternatives identified in Step 1 generate no financial or economic benefits other than CDM related income (Option I).	EB 39	Ann 10	In sub-step 2a, Option I is not applied.	OK	OK
ii. Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III). Specify option used with justification.	EB 39	Ann 10	Benchmark analysis (Option III) is applied since IRR (Internal Rate of Return) shall be obtained and compared to available (benchmark) IRRs in the market. Benchmark analysis is the most appropriate analysis method for the project participants, as they do not have enough data to compare other type of investments with the proposed project activity.	OK	OK
n. Has the below guideline followed for sub-step 2b Option I. Apply simple cost analysis? Document the costs associated with the CDM project activity and the alternatives identified in Step1 and demonstrate that there is at least one alternative, which is less costly than the project activity.	EB 39	Ann 10	Benchmark analysis (Option III) is applied. Hence, the checklist question is N/A.	OK	OK
o. Has the below guideline followed for sub-step 2b Option II. Apply investment comparison analysis? Identify the financial indicator, such as IRR, NPV, cost benefit ratio, or unit cost of service most suitable for the project type and decision-making	EB 39	Ann 10	Benchmark analysis (Option III) is applied. Hence, the checklist question is N/A.	OK	OK

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context. Please specify					
p. Has the below guideline followed for Sub-step 2b: Option III. Apply benchmark analysis?	EB 39	Ann 10	Please see below.		
i. Identify the financial/economic Indicator, such as IRR, most suitable for the project type and decision context.	EB 39	Ann 10	The financial Indicator is identified as IRR as the financial indicator as stated under sub-step 2b. IRR is found a suitable indicator for the project by the validation team in comparison with the similar projects.	OK	OK
ii. When applying Option II or Option III, the financial/economic analysis shall be based on parameters that are standard in the market, considering the specific characteristics of the project type, but not linked to the subjective profitability expectation or risk profile of a particular project developer. Only in the particular case where the project activity can be implemented by the project participant, the specific financial/economic situation of the company undertaking the project activity can be considered.	EB 39	Ann 10	CAPM (Capital Asset Pricing Model) is used to obtain the benchmark. The Eurobond is selected for the risk free rate and Aswath Damodaran's market risk premium and Beta of electricity companies at ISE are used in benchmark calculation.	OK	OK
iii. Discount rates and benchmarks shall be derived from: (a) Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert or documented by official publicly available financial data; (b) Estimates of the cost of financing and required return on capital (e.g. commercial lending rates and guarantees required for the country and the type of project activity	EB 39	Ann 10	The benchmark rate is derived from the government bond rates, increased by a suitable risk premium. CAPM (Capital Asset Pricing Model) is used to obtain the benchmark. The Eurobond is selected for the risk free rate and Aswath Damodaran's market risk premium and Beta of electricity companies at ISE are used in benchmark calculation. The	OK	OK

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concerned), based on bankers views and private equity investors/funds' required return on comparable projects; (c) A company internal benchmark (weighted average capital cost of the company), only in the particular case referred to above in 2. The project developers shall demonstrate that this benchmark has been consistently used in the past, i.e. that project activities under similar conditions developed by the same company used the same benchmark; (d) Government/official approved benchmark where such benchmarks are used for investment decisions; (e) Any other indicators, if the project participants can demonstrate that the above Options are not applicable and their indicator is appropriately justified. Please specify benchmark and justify.			reference documents and the links are stated in the VCS PD version 01 as footnotes.		
q. Has the below guideline followed for Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III)?	EB 39	Ann 10	Please see below.		
i. Calculate the suitable financial indicator for the proposed CDM project activity and, in the case of Option II above, for the other alternatives. Include all relevant costs (including, for example, the investment cost, the operations and maintenance costs), and revenues (excluding CER revenues, but possibly including inter alia subsidies/fiscal incentives, ODA, etc, where applicable), and, as appropriate, non-market cost and benefits in the case of public investors if this is standard practice for the selection of public investments in the	EB 39	Ann 10	Benchmark analysis (Option III) is applied. Hence, the checklist question is N/A.	OK	OK

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host country.					
ii. Present the investment analysis in a transparent manner and provide all the relevant assumptions, preferably in the CDM-PDD, or in separate annexes to the CDM-PDD.	EB 39	Ann 10	A separate excel calculation sheet is also submitted to the validation team to be able to assess the accuracy of the calculations. The parameters required for calculation of key financial indicators are presented under sub-step 2c of the VCS PD. The all critical techno-economic parameters and assumptions are provided under sub-step 2c of the VCS PD version 01.	OK	OK
iii. Justify and/or cite assumptions.	EB 39	Ann 10	The values given as input in the IRR calculation sheet is based on the FSR dated November 2007.	OK	OK
iv. In calculating the financial/economic indicator, the project's risks can be included through the cash flow pattern, subject to project-specific expectations and assumptions.	EB 39	Ann 10	The project risks are included in the benchmark calculations.	OK	OK
v. Assumptions and input data for the investment analysis shall not differ across the project activity and its alternatives, unless differences can be well substantiated.	EB 39	Ann 10	The project uses benchmark analysis, hence the checklist question is N/A.	OK	OK
vi. Present in the CDM-PDD a clear comparison of the financial indicator for the proposed CDM activity. Please specify details for above.	EB 39	Ann 10	The Project IRR is calculated as 13.09% in the VCS PD version 01 that is lower than the benchmark, 16.43%. However, this checklist question will be evaluated after all the CARs and CLs regarding investment analysis are closed.		

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r. Has the below guideline followed for Sub-step 2d: Sensitivity analysis (only applicable to Options II and III)? Include a sensitivity analysis that shows whether the conclusion regarding the financial/economic attractiveness is robust to reasonable variations in the critical assumptions.	EB 39	Ann 10	Three factors are identified for sensitivity analysis of the project, including total investment cost, electricity selling price and annual operational costs with a variation range from -10% ~ +10%. There are significant changes in the equity IRR results among the scenarios. However, the operating cost is not considered in the IRR analysis. Please clarify why operating cost is not considered in sensitivity analysis.	CAR21	
s. Has the outcome of Step 2 clearly mentioned with justification?	EB 39	Ann 10	In VCS PD version 01, the outcome of Step 2 is mentioned clearly that the project activity is not the most economically or financially attractive alternative.	OK	OK
t. In step 3: Barrier analysis have all the sub-steps as below been followed?	EB 39	Ann 10	The PP has selected both Step 2 (Investment analysis) and Step 3 (Barrier analysis) under VCS PD version 01.	OK	OK
i. Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project activity;	EB 39	Ann 10	The barriers are defined under Step 3; however, sub-step 3a is not indicated. Please clarify.	CL20	OK
ii. Sub-step 3b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity).	EB 39	Ann 10	Sub-step 3a is not applied. Please clarify.	CL21	OK
u. Has the below guideline followed for Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project?	EB 39	Ann 10	Please see below.		
i. (a) Investment barriers: For alternatives	EB	Ann	Financial barrier is defined under the	OK	OK

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undertaken and operated by private entities: Similar activities have only been implemented with grants or other non-commercial finance terms. No private capital is available from domestic or international capital markets due to real or perceived risks associated with investment in the country where the proposed CDM project activity is to be implemented, as demonstrated by the credit rating of the country or other country investments reports of reputed origin.	39	10	PDD version 01. It is indicated that the project activity was able to receive a loan since the country risk is considered high. It was verified through the bank (Yapi Bank) letter that the loan was given taking VER benefits into consideration.		
ii. (b) Technological barriers: Skilled and/or properly trained labour to operate and maintain the technology is not available in the relevant country/region, which leads to an unacceptably high risk of equipment disrepair and malfunctioning or other underperformance; Lack of infrastructure for implementation and logistics for maintenance of the technology, Risk of technological failure: the process/technology failure risk in the local circumstances is significantly greater than for other technologies that provide services or outputs comparable to those of the proposed CDM project activity, as demonstrated by relevant scientific literature or technology manufacturer information, The particular technology used in the proposed project activity is not available in the relevant region.	EB 39	Ann 10	The technological barrier is not defined.	OK	OK
iii. (c) Barriers due to prevailing practice: The project activity is the "first of its kind".	EB 39	Ann 10	Barrier due to prevailing practice is defined for the project activity under the PDD version 01.	OK	OK
iv. (d) Other barriers, preferably specified in the	EB	Ann	The other barrier is not defined.	OK	OK

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underlying methodology as examples.	39	10			
v. Has the outcome from Step 3a clearly mentioned in PDD?	EB 39	Ann 10	The outcome from Step 3a is not clearly mentioned. Please clarify.	CL22	OK
w. Has the below guideline followed for Sub-step 3b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity)?	EB 39	Ann 10	Please see below.	OK	OK
i. If the identified barriers also affect other alternatives, explain how they are affected less strongly than they affect the proposed CDM project activity. In other words, demonstrate that the identified barriers do not prevent the implementation of at least one of the alternatives. Any alternative that would be prevented by the barriers identified in Sub-step 3a is not a viable alternative, and shall be eliminated from consideration.	EB 39	Ann 10	Please apply sub-step 3a. Please justify that that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity).	CAR22	
ii. Provide transparent and documented evidence, and offer conservative interpretations of this documented evidence, as to how it demonstrates the existence and significance of the identified barriers and whether alternatives are prevented by these barriers.	EB 39	Ann 10	Please apply sub-step 3a. Please justify that that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity).	CAR22	
iii. The type of evidence to be provided should include at least one of the following: (a) Relevant legislation, regulatory information or industry norms; (b) Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc) undertaken by universities, research institutions, industry associations, companies, bilateral/multilateral institutions, etc; (c) Relevant statistical data	EB 39	Ann 10	Please provide objective evidence to justify the barrier due to the prevailing practice such as following: (a) Relevant legislation, regulatory information or industry norms; (b) Relevant (sectoral) studies or surveys (e.g. market surveys,	CAR23	

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from national or international statistics; (d) Documentation of relevant market data (e.g. market prices, tariffs, rules); (e) Written documentation of independent expert judgments from industry, educational institutions (e.g. universities, technical schools, training centers), industry associations and others. Please specify.			technology studies, etc.) undertaken by universities, research institutions, industry associations, companies, bilateral/multilateral institutions, etc; (c) Relevant statistical data from national or international statistics; (d) Documentation of relevant market data (e.g. market prices, tariffs, rules); (e) Written documentation of independent expert judgments from industry, educational institutions (e.g. universities, technical schools, and training centers), industry associations and others.		
x. Has the outcome from Step 3 clearly mentioned in PDD?	EB 39	Ann 10	The outcome from Step 3 is not clearly mentioned. Please clarify.	CL23	OK
y. In step 4: Common practice analysis has all the sub-steps as below followed? i. Sub-step 4a: Analyze other activities similar to the proposed project activity;	EB 39	Ann 10	Please see below.	OK	OK
ii. Sub-step 4b: Discuss any similar Options that are occurring.	EB 39	Ann 10	The other activities similar to the proposed project activity are analyzed under Sub-step 4a.	OK	OK
z. Has the below guideline followed for Sub-step 4a: Analyze other activities similar to the proposed project activity? Provide an analysis of any other activities that are operational and that are similar to the proposed project activity. Other CDM project activities are not to be included in this analysis. Provide documented evidence and, where relevant, quantitative information. On the	EB 39	Ann 10	Similar Options that are occurring is discussed under Sub-step 4b.	OK	OK
	EB 39	Ann 10	Under Sub-step 4a, first the activities similar to the proposed project activities are analysed. The difficulties of the energy sector and the completion ratio of the projects are analysed. The hydroelectric power plants put into operation between 2002 and 2008 is given in	CAR24	OK

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basis of that analysis, describe whether and to which extent similar activities have already diffused in the relevant region.			a table in the PDD. The new capacity from privately owned hydro facilities represents a friction of new facilities added to Turkey's capacity every year. Please extend the common practice analysis including the 2009 data.		
aa. Has the below guideline followed for Sub-step 4b: Discuss any similar Options that are occurring? If similar activities are identified, then it is necessary to demonstrate why the existence of these activities does not contradict the claim that the proposed project activity is financially/economically unattractive or subject to barriers. This can be done by comparing the proposed project activity to the other similar activities, and pointing out and explaining essential distinctions between them that explain why the similar activities enjoyed certain benefits that rendered it financially/economically attractive (e.g., subsidies or other financial flows) and which the proposed project activity cannot use or did not face the barriers to which the proposed project activity is subject. In case similar projects are not accessible, the PDD should include justification about non-accessibility of data/information.	EB 39	Ann 10	It was demonstrated under sub-step 4a that the project activity is not common practice. An analysis is made for the project in the Seyhan Basin (Adana and Kahramanmaraş provinces) and on the basis of the installed capacity (having installed capacity more than 150 MW). It is seen with the analysis that similar project activities in the region show that it is not a common practice to develop hydroelectric power plant projects without VER revenues.	OK	OK
bb. Has the outcome from Step 4 clearly mentioned in PDD?	EB 39	Ann 10	The outcome is clearly stated that the project activity is not common practice.	OK	OK
cc. Has it been proved that the project is additional?	EB 39	Ann 10	This checklist question will be evaluated at the next stage of the validation.		
a. Prior consideration of the clean					

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<i>development mechanism</i>					
a. Is the project activity start date prior to the date of publication of the VCS PD for stakeholder comments?	VVM	98	The proposed project activity is developed under VCS. The VCS PD is not made public available according to the VCS rules. Therefore, this checklist question is N/A.	OK	OK
b. If yes, were the CDM benefits considered necessary in the decision to undertake the project as a proposed CDM project activity?	VVM	98	The proposed project activity is developed under VCS. The VCS PD is not made public available according to the VCS rules. Therefore, this checklist question is N/A.	OK	OK
c. Is the start date of the project activity, reported in the PDD, in accordance with the "Glossary of CDM terms", which states that "The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins."?	VVM	99	The starting date of the project activity is given as 2 nd December 2010 which the project will begin reducing GHG emissions as per the VCS rules.	OK	OK
d. Does the project activity require construction, retrofit or other modifications?	VVM	99	The project activity requires construction of a hydro power plant.	OK	OK
e. If yes, is it ensured that the date of commissioning cannot be considered as the project activity start date?	VVM	99	According to the VCS rules the starting date is the date that the project will begin reducing GHG emissions as per the VCS rules. The starting date of the project activity is given as 2 nd December 2010 as per the VCS rules.	OK	OK
f. Is it a new project activity (a project activity with a start date on or after 02 August 2008) or an existing project activity (a project activity with a start date before 02 August 2008)?	VVM	100	The proposed project activity is developed under VCS. The VCS PD is not made public available according to the VCS rules. Therefore, this checklist question is	OK	OK

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9. For a new project, for which PDD has not been published for global stakeholder consultation or a new methodology proposed to the CDM Executive Board before the project activity start date, had PPs informed the host Party DNA and the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status? (Provide reference to such confirmation from host Party DNA and UNFCCC secretariat).	VVM	101	N/A. The proposed project activity is developed under VCS. The VCS PD is not made public available according to the VCS rules. Therefore, this checklist question is N/A.	OK	OK
h. For an existing project activity, for which the start date is prior to the date of publication of the VCS PD for global stakeholder consultation, are the following evidences provided:	VVM	102	The proposed project activity is developed under VCS. The VCS PD is not made public available according to the VCS rules. Therefore, this checklist question is N/A.	OK	OK
i. evidence that must indicate that awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project, including, inter alia:	VVM	102	Please refer to above.	OK	OK
a. minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant, to undertake the project as a proposed CDM project activity?	VVM	102	Please refer to above.	OK	OK
ii. reliable evidence from project participants that must indicate that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation, including, inter alia:	VVM	102	Please refer to above.	OK	OK

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a. contract with consultants for CDM/PDD/methodology services?	VVM	102	Please refer to above.	OK	OK
b. Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds)?	VVM	102	Please refer to above.	OK	OK
c. evidence of agreements or negotiations with a DOE for validation services?	VVM	102	Please refer to above.	OK	OK
d. submission of a new methodology to the CDM Executive Board?	VVM	102	Please refer to above.	OK	OK
e. publication in newspaper?	VVM	102	Please refer to above.	OK	OK
f. interviews with DNA?	VVM	102	Please refer to above.	OK	OK
g. earlier correspondence on the project with the DNA or the UNFCCC secretariat?	VVM	102	Please refer to above.	OK	OK
h. Has the chronology of events including time lines been appropriately captured and explained/detailed in the PDD?	VVM	102	Please refer to above.	OK	OK
b. Identification of alternatives					
a. Does the approved methodology that is selected by the proposed CDM project activity prescribe the baseline scenario and hence no further analysis is required?	VVM	105	The approved methodology, ACM0002 that is selected by the proposed project activity identifies the baseline scenario for greenfield renewable power plants. Hence, no further analysis is required.	OK	OK
b. If no, does the PDD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VVM	105	The approved methodology, ACM0002 that is selected by the proposed project activity identifies the baseline scenario. Hence, the	OK	OK

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c. Does the list of alternatives given in the PDD ensure that:	VVM	106	question is N/A.	OK	OK
i. the list of alternatives includes as one of the options that the project activity is undertaken without being registered as a proposed CDM project activity?	VVM	106	The approved methodology, ACM0002 that is selected by the proposed project activity identifies the baseline scenario. Hence, the question is N/A.	OK	OK
ii. the list contains all plausible alternatives that the DOE, on the basis of its local and sectoral knowledge, considers to be viable means of supplying the outputs or services that are to be supplied by the proposed CDM project activity?	VVM	106	The approved methodology, ACM0002 that is selected by the proposed project activity identifies the baseline scenario. Hence, the question is N/A.	OK	OK
iii. the alternatives comply with all applicable and enforced legislation?	VVM	106	The approved methodology, ACM0002 that is selected by the proposed project activity identifies the baseline scenario. Hence, the question is N/A.	OK	OK
C. Investment analysis					
a. Has investment analysis been used to demonstrate the additionality of the proposed CDM project activity?	VVM	108	The investment analysis is used to demonstrate the additionality of the proposed project activity.	OK	OK
b. If yes, does the PDD provide evidence that the proposed CDM project activity would not be:	VVM	108	Please see below.		
i. the most economically or financially attractive alternative?	VVM	108	It is explained under section 2.5 of the VCS PD version 01 that proposed project activity is not most economically or financially attractive	OK	OK

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ii. economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs)?	VVM	108	alternative. It is explained under section 2.5 of the VCS PD version 01 that proposed project activity is not economically or financially feasible, without the revenue from the sale of certified emission reductions.	OK	OK
c. Was this shown by one of the following approaches?	VVM	109	Please see below.		
i. The proposed CDM project activity would produce no financial or economic benefits other than CDM-related income. Document the costs associated with the proposed CDM project activity and the alternatives identified and demonstrate that there is at least one alternative which is less costly than the proposed CDM project activity.	VVM	109	Project activity will generate economic benefits from sales of electricity. Hence, the checklist question is N/A.	OK	OK
ii. The proposed CDM project activity is less economically or financially attractive than at least one other credible and realistic alternative.	VVM	109	It is explained under section 2.5 of the VCS PD version 01 that proposed project activity is not most economically or financially attractive alternative.	OK	OK
iii. The financial returns of the proposed CDM project activity would be insufficient to justify the required investment.	VVM	109	It is shown in the VCS PD version 01 that the financial returns of the proposed project activity would be insufficient to justify the required investment.	OK	OK
d. Is the period of assessment limited to the proposed crediting period of the CDM project activity?	EB 51	Ann 58	The period of assessment is not limited to the proposed crediting period. It is indicated in the VCS PD that the cash flow was prepared for a licensing period of 49 years.	CAR25	OK

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e. Does the project IRR and equity IRR calculations reflect the period of expected operation of the underlying project activity (technical lifetime), or – if a shorter period is chosen – include the fair value of the project activity assets at the end of the assessment period?	EB 51	Ann 58	IRR calculation reflects the technical lifetime of the project activity and since the analysis period is 35+4 years, fair value is calculated properly.	OK	OK
f. Does the IRR calculation include the cost of major maintenance and/or rehabilitation if these are expected to be incurred during the period of assessment?	EB 51	Ann 58	The IRR calculation include the general production expenses (3,591,961 \$/year). However, the operating and maintenance cost is given as 3,877,668 \$ in the FSR. Please clarify.	CL24	OK
g. Do the project participants justify the appropriateness of the period of assessment in the context of the underlying project activity, without reference to the proposed CDM crediting period?	EB 51	Ann 58	35+4 years of analysis period is acceptable.	OK	OK
h. Does the cash flow in the final year include a fair value of the project activity assets at the end of the assessment period?	EB 51	Ann 58	There is a fair value calculation done at the end of assessment period.	OK	OK
i. Has the fair value been calculated in accordance with local accounting regulations where available, or international best practice?	EB 51	Ann 58	Fair value calculation is in line with the local accounting principles.	OK	OK
j. Does the fair value calculations include both the book value of the asset and the reasonable expectation of the potential profit or loss on the realization of the assets?	EB 51	Ann 58	Potential profit or loss is not taken into consideration. Accounting based calculations are done.	OK	OK
k. Was depreciation, and other non-cash items related to the project activity, which have been	EB 51	Ann 58	Depreciation is added back to the net profits to obtain the cash flow.	OK	OK

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deducted in estimating gross profits on which tax is calculated, added back to net profits for the purpose of calculating the financial indicator (e.g. IRR, NPV)?					
l. Has taxation been included as an expense in the IRR/NPV calculation in cases where the benchmark or other comparator is intended for post-tax comparisons?	EB 51	Ann 58	Tax is a cash outflow item in the analysis.	OK	OK
m. Are the input values used in all investment analysis valid and applicable at the time of the investment decision taken by the project participant?	EB 51	Ann 58	No extraordinary figure is noticed in terms of being up-to-date at the time of investment.	OK	OK
n. Is the timing of the investment decision consistent and appropriate with the input values?	EB 51	Ann 58	The IRR analysis is based on the FSR dated November 2007. The investment decision date is 25.12.2006. The period of time between the FSR and the real action is sufficiently short, hence the FSR date is taken as the investment decision date for the proposed project activity.	OK	OK
o. Are all the listed input values been consistently applied in all calculations?	EB 51	Ann 58	The energy production figure given in the IRR analysis is not in line with the FSR. Please clarify.	CL25	OK
p. Does the investment analysis reflect the economic decision making context at point of the decision to recommence the project in the case of project activities for which implementation ceases after the commencement and where implementation is recommenced due to consideration of the CDM?	EB 51	Ann 58	This implementation of the project activity is not ceased during the construction.	OK	OK
q. Have project participants supplied the spreadsheet versions of all investment analysis?	EB 51	Ann 58	The PP has supplied the spreadsheet versions of all investment analysis.	OK	OK

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r. Are all formulas used in this analysis readable and all relevant cells are viewable and unprotected?	EB 51	Ann 58	The all formulas used in this analysis are readable and all relevant cells are viewable and unprotected.	OK	OK
s. In cases where the project participant does not wish to make such a spreadsheet available to the public, has the PP provided an exact read-only or PDF copy for general publication?	EB 51	Ann 58	The PP has supplied the spreadsheet versions of all investment analysis. Therefore, the checklist question is N/A.	OK	OK
t. In case the PP wishes to black-out certain elements of the publicly available version, is it justifiable?	EB 51	Ann 58	The PP does not wish to black-out certain elements of the publicly available version.	OK	OK
u. Was the cost of financing expenditures (i.e. loan repayments and interest) included in the calculation of project IRR?	EB 51	Ann 58	The loan repayment is included to the IRR calculation. Please provide objective evidence (such as loan proposal) to justify the loan figures.	CAR26	OK
v. In the calculation of equity IRR, has only the portion of investment costs, which is financed by equity, been considered as the net cash outflow?	EB 51	Ann 58	Only Equity financing is used as a cash inflow in the analysis to calculate the equity IRR	OK	OK
w. Has the portion of the investment costs, which is financed by debt, been considered a cash outflow in the calculation of equity IRR? (this is not allowed)	EB 51	Ann 58	The debt portion of the investment financing is not taken into equity IRR calculations.	OK	OK
x. Was a pre-tax benchmark be applied?	EB 51	Ann 58	The analysis is done based on the after tax values and the benchmark is applied accordingly.	OK	OK
y. In cases where a post-tax benchmark is applied, is actual interest payable taken into account in the calculation of income tax?	EB 51	Ann 58	Interest expenses are taken into consideration.	OK	OK
z. In such situations, was interest calculated according to the prevailing commercial interest rates in the region, preferably by assessing the cost of other debt recently acquired by the	EB 51	Ann 58	The interest is calculated by the commercial interest rates agreed with the bank.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
project developer and by applying a debt-equity ratio used by the project developer for investments taken in the previous three years?					
aa. In cases where a benchmark approach is used is the applied benchmark appropriate to the type of IRR calculated?	EB 51	Ann 58	The benchmark is appropriate to the calculated IRR.	OK	OK
bb. Has local commercial lending rates or weighted average costs of capital (WACC) selected as appropriate benchmarks for a project IRR?	EB 51	Ann 58	Equity IRR is calculated.	OK	OK
cc. Has required/expected returns on equity selected as appropriate benchmark for equity IRR?	EB 51	Ann 58	Appropriate benchmark is used to compare with the equity IRR.	OK	OK
dd. In case benchmarks supplied by relevant national authorities selected is it applicable to the project activity and the type of IRR calculation presented?	EB 51	Ann 58	N/A	OK	OK
ee. In the cases of projects, which could be developed by an entity other than the project participant, is the benchmark applied based on publicly available data sources that can be clearly validated?	EB 51	Ann 58	N/A	OK	OK
ff. Have internal company benchmarks/expected returns (including those used as the expected return on equity in the calculation of a weighted average cost of capital – WACC) been applied in cases where there is only one possible project developer?	EB 51	Ann 58	N/A	OK	OK
gg. In such cases, have these values been used for similar projects with similar risks, developed by the same company or, if the company is brand new, would have been used for similar projects in the same sector in the country/region?	EB 51	Ann 58	N/A	OK	OK
hh. Has a minimum clear evidence of the resolution by the company's Board and/or shareholders	EB	Ann	N/A	OK	OK

CHECKLIST QUESTION	Ref.	\$	COMMENTS	Draft Concl	Final Concl
been provided to the effect as above?	51	58			
ii. Has a thorough assessment of the financial statements of the project developer – including the proposed WACC – to assess the past financial behavior of the entity during at least the last 3 years in relation to similar projects been conducted?	EB 51	Ann 58	N/A	OK	OK
jj. Does the risk premiums applied in the determination of required returns on equity reflect the risk profile of the project activity being assessed, established according to national/international accounting principles? (It is not considered reasonable to apply the rate general stock market returns as a risk premium for project activities that face a different risk profile than an investment in such indices.)	EB 51	Ann 58	Country risk is taken into calculations to obtain benchmark. Beta is found as 0.939, which can be acceptable.	OK	OK
kk. Has an investment comparison analysis and not a benchmark analysis used when the proposed baseline scenario leaves the project participant no other choice than to make an investment to supply the same (or substitute) products or services?	EB 51	Ann 58	The baseline does not leave project participant no other choice than to make an investment to supply the same (or substitute) products or services; hence the checklist question is not applicable.	OK	OK
ll. Have variables, including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues been subjected to reasonable variation (positive and negative) and the results of this variation been presented in the PDD and be reproducible in the associated spreadsheets?	EB 51	Ann 58	All variables, including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues been subjected to reasonable variation (positive and negative) and the results of this variation been presented in the PDD and be reproducible in the associated spreadsheets.	OK	OK
mm. Have a corrective action been raised for a variable to be included in the sensitivity analysis	EB	Ann	There is no more parameter needed to be included in the sensitivity	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
which constitute less than 20% and have a material impact on the analysis?	51	58	analysis which constitute less than 20% and have a material impact on the analysis.		
nn. Is the range of variations selected is reasonable in the project context?	EB 51	Ann 58	Three factors are identified for sensitivity analysis of the project, including total investment cost, electricity selling price and annual operational costs with a variation range from -10% ~ +10%. There are significant changes in the equity IRR results among the scenarios. However, the operating cost is not considered in the IRR analysis. Please clarify why operating cost is not considered in sensitivity analysis	CAR21	
oo. Do the variations in the sensitivity analysis at least cover a range of +10% and -10%, unless this is not deemed appropriate in the context of the specific project circumstances?	EB 51	Ann 58	Three factors are identified for sensitivity analysis of the project, including total investment cost, electricity selling price and annual operational costs with a variation range from -10% ~ +10%. There are significant changes in the equity IRR results among the scenarios. However, the operating cost is not considered in the IRR analysis. Please clarify why operating cost is not considered in sensitivity analysis	CAR21	
pp. In cases where a scenario will result in the project activity passing the benchmark or becoming the most financially attractive alternative, is an assessment done of the probability of the occurrence of this scenario in comparison to the likelihood of the assumptions in the presented investment analysis, taking into	EB 51	Ann 58	All scenarios in the sensitivity analysis can happen by one by or together. There is no major exception expected due to the correlation impact or the probability occurrence	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
consideration correlations between the variables as well as the specific socio-economic and policy context of the project activity?					
qq. Was the plant load factor defined ex-ante in the CDM-PDD according to one of the following options:	EB 48	Ann 11	Please define the plant load factor in the VCS PD according to one of the following options: a. The plant load factor provided to banks and/or equity financiers while applying the project activity for project financing, or to the government while applying the project activity for implementation approval b. The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company)	CAR34	
i. The plant load factor provided to banks and/or equity financiers while applying the project activity for project financing, or to the government while applying the project activity for implementation approval?	EB 48	Ann 11	Please refer to CAR34.	CAR34	
ii. The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company)?	EB 48	Ann 11	Please refer to CAR34.	CAR34	
rr. Was a thorough assessment of all parameters and assumptions used in calculating the relevant financial indicator, and determine the accuracy and suitability of these parameters using the available evidence and expertise in relevant accounting practices conducted?	VVM	111	All parameters and assumptions used in calculating the relevant financial indicator are verified. The accuracy and suitability of these parameters are checked. All relevant accounting practices	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
ss. Were the parameters cross-checked against third-party or publicly available sources, such as invoices or price indices?	VVM	111	conducted are determined. All financial figures are cross checked (Exchange rate, tax rate, risk premium etc).	OK	OK
tt. Were feasibility reports, public announcements and annual financial reports related to the proposed CDM project activity and the project participants reviewed?	VVM	111	The feasibility study report and public announcements were reviewed.	OK	OK
uu. Was the correctness of computations carried out and documented by the project participants assessed?	VVM	111	The correctness of computations is checked.	OK	OK
vv. Was the sensitivity analysis by the project participants to determine under what conditions variations in the result would occur and the likelihood of these conditions assessed?	VVM	111	A sensitivity analysis is applied to determine under which conditions variations in the results would occur and the likelihood of the occurrence of these conditions are assessed. Please clarify why operating cost is not considered in sensitivity analysis.	CAR27	OK
ww. Is the type of benchmark applied is suitable for the type of financial indicator presented?	VVM	112	The benchmark calculation is suitable for the IRR calculation.	OK	OK
xx. Do any risk premiums applied determining the benchmark reflect the risks associated with the project type or activity?	VVM	112	Country risk is taken into calculations to obtain benchmark.	OK	OK
yy. To determine this, was it assessed whether it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark by:	VVM	112	The benchmark rate is derived from the government bond rates, increased by a suitable risk premium. The benchmark value is calculated by adding the estimated country risk rate of Turkey to Government Bond rate. The	OK	OK
i. assessing previous investment decisions by the project participants involved?	VVM	112			
ii. determining whether the same benchmark	VVM	112			

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
has been applied?					
iii. determining if there are verifiable circumstances that have led to a change in the benchmark?	VVM	112	benchmark is appropriate to the selected IRR, Equity IRR.		
zz. Did the project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed CDM project activities?	VVM	113	The IRR analysis is based on the FSR dated November 2007. Please justify that the FSR is approved by the national authority.	CAR28	OK
aaa. If yes:	VVM	113	Please see below.		
i. has the FSR been the basis of the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short for the DOE to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed?	VVM	113	The FSR that is the basis of IRR analysis is dated November 2007. The investment decision date is 25.12.2006. Therefore, the period of time between the finalization of the FSR and the investment decision is sufficiently short.	OK	OK
ii. Are the values used in the PDD and associated annexes fully consistent with the FSR?	VVM	113	The values used in the PDD and associated annexes are fully consistent with the FSR.	OK	OK
iii. If not, was the appropriateness of the values validated?	VVM	113	The values used in the PDD and associated annexes are fully consistent with the FSR.	OK	OK
iv. On the basis of its specific local and sectoral expertise, is confirmation provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision?	VVM	113	The period of time between the finalization of the FSR and the investment decision is sufficiently short. Also, the inputs were reviewed by the financial expert and it was confirmed that the inputs are valid and applicable at the time of the investment decision.	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
d. Barrier analysis					
a. Has barrier analysis been used to demonstrate the additionality of the proposed CDM project activity?	WVM	115	The barrier analysis is used to demonstrate the additionality of the proposed project activity.	OK	OK
b. If yes, does the PDD demonstrate that the proposed CDM project activity faces barriers that:	WVM	115	Please see below.		
i. prevent the implementation of this type of proposed CMD project activity?	WVM	115	Please apply sub-step 3a. Please justify that that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity).	CAR22	
ii. do not prevent the implementation of at least one of the alternatives?	WVM	115	Please provide objective evidence to justify the barrier due to the prevailing practice such as following: (a) Relevant legislation, regulatory information or industry norms; (b) Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc.) undertaken by universities, research institutions, industry associations, companies, bilateral/multilateral institutions, etc; (c) Relevant statistical data from national or international statistics; (d) Documentation of relevant market data (e.g. market prices, tariffs, rules); (e) Written documentation of independent expert judgments from industry, educational institutions	CAR23	

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
c. Are there any issues that have a clear direct impact on the financial returns of the project activity, other than: risk related barriers, for example risk of technical failure, that could have negative effects on the financial performance; or barriers related to the unavailability of sources of finance for the project activity? {If yes, these issues cannot be considered barriers and shall be assessed by investment analysis. [Refer to (6.c) above]}	VVM	116	(e.g. universities, technical schools, and training centers), industry associations and others. The defined investment barrier does not have a direct impact on the financial returns of the project activity.	OK	OK
d. Were the barriers determined as real by:	VVM	117	Please see below.		
i. assessing the available evidence and/or undertaking interviews with relevant individuals (including members of industry associations, government officials or local experts if necessary) to determine whether the barriers listed in the PDD exist?	VVM	117	This checklist question will be evaluated after CAR22 and CAR23 is closed.	OK	OK
ii. ensuring that existence of barriers is substantiated by independent sources of data such as relevant national legislation, surveys of local conditions and national or international statistics?	VVM	117	This checklist question will be evaluated after CAR22 and CAR23 is closed.	OK	OK
iii. Is existence of a barrier substantiated only by the opinions of the project participants? (If yes, this barrier cannot be considered as adequately substantiated)	VVM	117	This checklist question will be evaluated after CAR22 and CAR23 is closed.	OK	OK
e. Were the barriers determined as preventing the implementation of the project activity but not the implementation of at least one of the possible alternatives by applying local and sectoral	VVM	117	Please refer to CAR23.	CAR23	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
expertise to judge whether a barrier or set of barriers would prevent the implementation of the proposed CDM project activity and would not equally prevent implementation of at least one of the possible alternatives, in particular the identified baseline scenario?					
e. Common practice analysis					
a. Is this a proposed large-scale, or first-of-its kind small-scale project activity?	VVM	119	The proposed project activity is a large-scale project activity.	OK	OK
b. If yes, was common practice analysis carried out as a credibility check of the other available evidence used by the project participants to demonstrate additionality?	VVM	119	Common practice analysis was carried out as a credibility check of the other available evidence used by the project participants to demonstrate additionality.	OK	OK
c. Was it assessed whether the geographical scope (e.g. defined region) of the common practice analysis is appropriate for the assessment of common practice related to the project activity's technology or industry type? (For certain technologies the relevant region for assessment will be local and for others it may be transnational/global.	VVM	120	The geographical scope of the common practice analysis is assessed to be appropriate by the validation team.	OK	OK
d. Was a region other than the entire host country chosen?	VVM	120	The project participant first made wider analysis is performed for the whole host country than made a local analysis showing only the status of projects in the Adana and Kahramanmaraş province.	OK	OK
e. If yes, was the explanation why this region is more appropriate assessed?	VVM	120	No region other than the host country was chosen. Hence, this checklist question is N/A.	OK	OK
f. Using official sources and local and industry expertise, was it determined to what extent	VVM	120	To what extent similar and operational projects have been	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
similar and operational projects (e.g., using similar technology or practice), other than CDM project activities, have been undertaken in the defined region?			undertaken in the region is determined using the official data from the websites of TEIAS and EPDK which are the only reliable sources in the host country. These data was also cross checked from these websites.		
g. Are similar and operational projects, other than CDM project activities, already "widely observed and commonly carried out" in the defined region?	VVM	120	No, similar and operational project activities are not widely observed and commonly carried out in the region.	OK	OK
h. If yes, was it assessed whether there are essential distinctions between the proposed CDM project activity and the other similar activities?	VVM	120	N/A	OK	OK
7. Monitoring plan					
a. Does the PDD include a monitoring plan?	VVM	122	The PDD includes a monitoring plan under section 4.3 of the VCS PD version 01.	OK	OK
b. Is this monitoring plan based on the approved monitoring methodology applied to the proposed CDM project activity?	VVM	122	The monitoring plan is based on the "Approved consolidated baseline and monitoring methodology ACM0002".	OK	OK
c. Were the list of parameters required by the selected methodology identified?	VVM	123	In the monitoring plan four parameters are defined as follows: $EG_{PJ,y}$, Cap_{PJ} , A_{PJ} and $EF_{CO2,i,y}$ 1. $EG_{PJ,y}$ is defined as "Quantity of net electricity generation supplied by the project activity to the grid in year y". The notation of the parameter is not in line with the ACM0002. Please clarify. (CAR11) 2. $EF_{CO2,i,y}$ is not a parameter that is monitored directly, the combined	CAR29	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			margin is calculated and depends on the other parameters. Therefore, if the combined margin is going to be added to monitoring plan, it should be done with the parameters that used to calculate the combined margin such as $NCV_{i,y}$, $FC_{i,y}$ etc.		
d. Does the monitoring plan contain all necessary parameters?	W/M	123	The monitoring plan contains all necessary parameters.	OK	OK
e. Are the parameters clearly described?	W/M	123	The parameters are clearly described.	OK	OK
f. Does the means of monitoring described in the plan comply with the requirements of the methodology?	W/M	123	The means of monitoring is described in the plan comply with the requirements of the methodology.	OK	OK
g. Are all data and parameters monitored as per monitoring methodology?	ACM	0002 v12.1	All data and parameters are monitored as per monitoring methodology.	OK	OK
h. Are all data collected as part of monitoring archived electronically and kept at least for 2 years after the end of the last crediting period?	ACM	0002 v12.1	Data will be recorded for each crediting period and maintained at least 2 years after its end.	OK	OK
i. Are 100% of the data monitored, if not indicated otherwise?	ACM	0002 v12.1	100% of the data are monitored.	OK	OK
j. Are measurements conducted with calibrated measurement equipment according to relevant industry standards?	ACM	0002 v12.1	The measurements are conducted with calibrated measurement devices. TEIAS is the main responsible for calibration and maintenance of the devices. However, it is sated under section 4.3 of the VCS PD version 01 the that electrical engineers will make	CL26	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
k. Are the monitoring provisions in the tools referred to in the methodology correctly applied?	ACM	0002 v12.1	calibration according to procedures. Please clarify.	OK	OK
l. Are the monitoring arrangements described in the monitoring plan feasible within the project design?	VVM	123	It is indicated in Figure 9 of the VCS PD version 01 that if net electricity delivered to the grid according to PMUM is equals to net electricity delivered to the grid according to the on-site readings it will be validated. However, these data can not be same always because of the transmission line losses. Please clarify.	CAR12	OK
m. Are the following means of implementation of the monitoring plan sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified:	VVM	123	The means of implementation of the monitoring plan is sufficient to ensure that the emission reductions achieved by the proposed VER project activity can be reported and verified.	OK	OK
i. data management procedures?	VVM	123	Please refer to CAR10.	CAR10	
ii. quality assurance procedures?	VVM	123	Please refer to CL10.	CL10	OK
iii. quality control procedures?	VVM	123	Please refer to CL10.	CL10	OK
8. Sustainable development					
a. Does the CDM project activity assists Parties not included in Annex I to the Convention in achieving sustainable development?	VVM	125	The project activity is a voluntary emission reduction project which is developed under VCS, hence the checklist question is N/A.	OK	OK
b. Does the letter of approval by the DNA of the host Party confirm the contribution of the proposed CDM project activity to the sustainable	VVM	126	The project activity is a voluntary emission reduction project which is developed under VCS, hence the	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
development of the host Party?			checklist question is N/A.		
9. Local stakeholder consultation					
a. Were local stakeholders (public, including individuals, groups or communities affected, of likely to be affected, by the proposed CDM project activity or actions leading to the implementation of such an activity) invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website?	VVM	128	The outcomes of stakeholder consultations and on-going communication is provided under section 6 of the VCS PD version 01. The project owner has established a free call-center for reporting requests and complaints and this line will not be removed after the construction phase. However, the stakeholders prefer to call the construction officer. About 50 complaints and requests have received until May 2011. The complaints are usually about the muddy roads, dust pollution, damaged houses due to explosions, relocation. All complaints have been taken into consideration by the project owner and closed up. This statement was also validated during the site visit via interviews with the stakeholders and the complaint form was reviewed. A stakeholder meeting was hold as per the EIA laws on 12/12/2006 at the Aladag Villages. The main topics were expropriation and resettlement. The expropriation has resulted in a satisfactory way. This statement was also validated through the EIA report.	OK	OK
b. Have comments by local stakeholders that	VVM	129	The outcomes of stakeholder	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
can reasonably be considered relevant for the proposed CDM project activity been invited?			consultations and on-going communication is provided under section 6 of the VCS PD version 01.		
c. Is the summary of the comments received as provided in the PDD complete?	VVM	129	The summary of the comments received is provided in the VCS PD.	OK	OK
d. Have the project participants taken due account of any comments received and described this process in the PDD?	VVM	129	The project participants has taken due account of comments received and described this process in the VCS PD. The complaints are usually about the muddy roads, dust pollution, damaged houses due to explosions, relocation. All complaints have been taken into consideration by the project owner and closed up. This statement was also validated during the site visit via interviews with the stakeholders and the complaint forms were reviewed.	OK	OK
10. Environmental impacts					
a. Have the project participants submitted documentation on the analysis of the environmental impacts of the project activity?	VVM	131	The project has "EIA Positive Certificate" given by the Ministry of Environment and Forest dated 06/06/2007 in line with the Turkish laws. "EIA Positive Certificate" is provided under Annex 2 of the VCS PD. In addition, the project complies with the International Finance Corporation (IFC) Performance Standards (PS) on Social and Environmental Sustainability that form the basis of these Principles. A summary of environmental impact	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			assessment and the precautions to be taken by the project owner is given under section 5 of the VCS PD version 01. The statement was validated during the site visit.		
b. Have the project participants undertaken an analysis of environmental impacts?	VVM	132	The EIA Report was prepared by the project owner and "EIA Positive Certificate" is given based on this report by the Ministry of Environment and Forestry.	OK	OK
c. Does the host Party require an environmental impact assessment?	VVM	132	The domestic laws and regulations in Turkey require an Environmental Impact Analysis for hydro power plants with an installed capacity less than 25 MW. The project has an EIA report dated May 2007. After this EIA report is submitted to the Ministry of Environment and Forestry, the Ministry gives the "EIA Positive Certificate".	OK	OK
d. If yes, have the project participants undertaken an environmental impact assessment?	VVM	132	The project activity is environmentally licensed by the local government. For the subject project activity, Ministry of Environment and Forestry have issued an EIA Positive Certificate which is also presented in Annex 2 of the VCS PD version 01.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. Legal requirements					
1.1. Is the project activity environmentally licensed by the competent authority?	2	DR	The project has "EIA Positive Certificate" given by the Ministry of Environment and Forest dated 06/06/2007 in line with the Turkish laws. The EIA Report dated May 2007 was seen during the site visit.	OK	OK
1.2. Are the conditions of the environmental license being met?	2	DR	"EIA Positive Certificate" has been submitted to the validation team as a proof of compliance with Environment Law. Furthermore, it was seen that waste management is performed on the site visit.	OK	OK
1.3 Are the conditions of the Designated National Authority being met?	2	DR	There is no DNA in Turkey. Hence, the checklist question is N/A.	OK	OK

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
CAR01 The scale of the project is indicated under section 1.7 of the VCS PD version 01. The annual average of emission reduction is estimated as 524,535 tCO₂e. The annual average of emission reduction is less than 1,000,000 tCO₂e. Please indicate the project scale as per the "VCS Standard: VCS Version 3 (item 3.10)" and use the table given in the VCS PD Version 03 template.	Table 1-2.c.j	Necessary changes have been realised in the PDD. Respond to Review 1: 1. The blank table has been excluded from the PDD. 2. Necessary inclusions have been realized in the Revised VCS PD. Due to the commissioning date of the second phase (26/01/2011), the annual emission reduction of 2011 is calculated as 506,053 tCO₂e. 3. The expected annual emission reduction of the project activity is 524,742 tCO₂e. Accept apology for mistyping. 4. The annual emission reduction was calculated as 524,514 tCO₂e in the 1st version of the baseline excel sheet. However, in the second version, it was corrected as 524,742 tCO₂e. Please see the excel sheet version 2 and the revised VCS PD. Respond to Review 2: The expected annual generation was mistyped in the baseline excel sheet; therefore the emission reduction calculation was miscalculated. As stated in the VCS PD and in the generation license, the annual electricity generation is 966,530 GWh.	Review 1: The project type is defined as per the VCS version 03 rules. 1. There is a blank table under section 1.7 of the VCS PD version 03. Please clarify. 2. The project activity has commissioned in two phases. Please mention this statement in the VCS PD. 3. Please clarify the expected annual emission reductions of the project activity. It is given as 520,932 tCO₂e at some pages; however, it is given as 524,742 tCO₂e at the Table 1. Table 21 and Table 22. 4. The expected annual emission reduction given in the baseline excel sheet (524,541 tCO₂e) does not match with the VCS PD. The corrective action request is still open. Review 2: 1. The blank table was removed. 2. It is clearly indicated in the VCS PD version 03 that the project has commissioned in two phases. 3-4. The expected annual emission



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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
		Therefore, the baseline excel sheet has been corrected first. The annual emission reduction came out to be 524,729 tCO₂e/MWh. Accordingly, the PDD has been revised. The emission reduction calculation has been revised in the baseline excel sheet. The emission factor as 0.5429 is a rounded figure. It is written in cell E 5. When the annual electricity generation figure is multiplied by the rounded figure in E 5, the emission reduction comes out as 524,729 tCO₂e/MWh.	reduction is given as 524,742 tCO₂e in the VCS PD version 03. However, when 0.5429 is multiplied with 966,530, it does not equal to 524,742 tCO₂e. Please clarify. <u>The corrective action request is still open.</u> Review 3: 3-4. The expected annual emission reduction was corrected to 524,749.1 tCO₂e in the VCS PD version 04. <u>The corrective action request is closed.</u>
CAR02 The lifetime of the project activity is given 49 years under section 1.8 of the VCS PD. Please define the operational lifetime in line with the technical lifetime and provide objective evidence.	Table 1-2.c.n Table 2-3.x	Please accept apology for mistyping. Lifetime of the project is defined as 35 years which is the technical lifetime of the equipments as suggested by DSI. Indication of the lifetime of the project as 35 years has been included under section 1.8.	Review 1: The lifetime of the project activity is defined as 35 years in the VCS PD as per the feasibility study report of the project activity. <u>The corrective action request is closed.</u>
CAR03 Please describe the conditions existing prior to project initiation under section 1.10 of the VCS PD.	Table 1-2.c.p	Conditions existing prior to the project initiation have been described under Section 1.10 of the revised VCS PD. Respond to Review 1: The lands that were used prior to the project initiation were generally comprised of treasury land,	Review 1: It is indicated under section 1.10 of the VCS PD version 02 that the project aims to generate emission from renewable sources and will result in emission reduction in parallel with its electricity generation

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
		expropriated land, land belonging to the village legal entity and forest. Please see the pdf file named "reservoir-expropriation". Some part of these lands became the reservoir area due to the project. The figure stated in the mentioned pdf file regarding the reservoir area is understood to be the reference used in the presentation submitted to the Board. An explanation w.r.t. the prior condition before the implementation of the project has been added to the revised VCS PD.	figures. However, the conditions existing prior to project initiation are not defined. Please clarify. <u>The corrective action request is still open.</u> Review 2: The condition prior to the project implementation is given under section 1.10 of the VCS PD. <u>The corrective action request is closed.</u>
CAR04 Please demonstrate that the project has not been implemented to generate GHG emissions for the purpose of their subsequent reduction under section 1.10 of the VCS PD.	Table 1-2.c.q	Necessary inclusions have been adopted into the PDD.	Review 1: It is explained under section 1.10 of the VCS PD version 02 that the emissions that occur during construction and during the operation are negligible since the project activity is a greenfield project. The power density of the project is higher than 10 W/m2; therefore, the project emissions are zero. <u>The corrective action request is closed.</u>
CAR05 It is indicated under section 1.13 of the VCS PD that the project owner does not find ethical to announce social and financial aids, therefore sensitive	Table 1-2.c.bb.iii	Although the project developer does not wish to announce all social and financial aids, some of them have been presented in the PDD under the title "Further Information" under section	Review 1: There is no difference between VCS PD version 01 and VCS PD version 02. Some of social and financial supports were given also VCS PD



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information that needs to be excluded from the public version of the VCS PDD will be displayed on the VCS Project Database. Please provide a briefly description of the items to which such information pertains.		1.13. Respond to Review 1: The project developer decided to display the social and financial supports provided to the region; therefore further information provided in section 1.13 is no longer considered as commercially sensitive information. Necessary change has been applied in the Revised VCS PD.	version 01. It is not clear which documents will be displayed on the VCS Project Database. <u>The corrective action request is still open.</u> Review 2: The social and financial supports were already given in the previous versions of PD. It is indicated that there is no commercially sensitive information that needs to be excluded from the public version of the VCS PDD which will be displayed on the VCS Project Database. <u>The corrective action request is closed.</u>
CAR06 Please provide a description of the procedure for quantification of the net GHG emission reductions and removals including all relevant equations under section 3.4 of the VCS PD.	Table 1-2.c.mm	Quantification of the net GHG emission reductions and removals including all relevant equations have been included under section 3.4 of the VCS PD. Respond to Review 1: Necessary applications have been realized in the Revised VCS PD. Respond to Review 2: Under section 3.4 the unit has been corrected as MWh. The expected annual	Review 1: The baseline emissions are provided under section 3.4 of the VCS PD version 03. Please also provide a description and equation of the net GHG emission reductions. <u>The corrective action request is still open.</u> Review 2: The calculation is given as following under section 3.4 of the VCS PD version 03:

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		generation was mistyped in the baseline excel sheet; therefore the emission reduction calculation was miscalculated. As stated in the VCS PD and in the generation license, the annual electricity generation is 966,530 GWh. Therefore, the annual generation figure in the baseline excel sheet has been corrected first. The annual emission reduction came out to be 524,729 tCO₂e/MWh. Accordingly, the PDD has been revised. The emission reduction calculation has been revised in the baseline excel sheet. The emission factor as 0.5429 is a rounded figure. It is written in cell E 5. When the annual electricity generation figure is multiplied by the rounded figure in E 5, the emission reduction comes out as 524,729 tCO₂e/MWh.	BEy = 0.5429 x (966,530,000 – 0) = 524,742 tCO₂e The multiplication and used electricity generation are not correct. The used electricity generation is kWh unit. However, it should be in MWh unit (966,530) in line with the emission factor unit (tCO₂/MWh). <u>The corrective action request is still open.</u> Review 3: The expected annual emission reduction was corrected to 524,749.1 tCO₂e in the VCS PD version 04. <u>The corrective action request is closed.</u>
CAR07 Source of data are given in the tabular format under section 4.1. The OM calculation is based on the	Table 1-2.c.pp.iii	The 2009 weighted averages of the figures regarding the OM Calculation have been included.	Review 1: The reference links were revised including 2009 statistics. The reference link given for value

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weighted average of the figures between 2006 and 2009. However, the references (TEIAS) do not include the 2009 figures. Please clarify. The reference link given for value applied for the EF _{CO2,i,y} does not run. Please clarify.		The parameter EF _{CO2,i,y} has been removed from Section 4.1 of the VCS PD.	applied for the EF _{CO2,i,y} was revised. <u>The corrective action request is closed.</u>
CAR08 Value applied of the parameters is given in the tabular format under section 4.1. The value applied refers to section 2.3 for the following parameters: FC _{i,y} , NCV, EF _{CO2,i,y} However, the section 2.3 is "project boundary". Also, the value applied is not defined for the EG _{gross,y} . Please clarify.	Table 1-2.c.pp.iv	The referred Section numbers have been revised. Also, value applied for parameter EG _{gross,y} has been added.	Review 1: The references are clearly provided under section 4.1 of the VCS PD version 02. <u>The corrective action request is closed.</u>
CAR09 The timeline of the proposed project is provided at the Table 17 of the VCS PD version 01. It is stated at the Table 19 that the project owner contacted with a PDD consultant February 2011. Please provide objective evidence proofs that carbon reduction revenue was seriously considered in the decision to proceed with the project activity. Please also justify the dates given in the table 17 of the VCS PD version 01 by providing objective evidence.	Table 2-3.o.iv	The presentation submitted to the Board on the 5 th of December 2006 has been presented in order to demonstrate that carbon reduction revenue was seriously considered in the decision to proceed with the project activity. Respond to Review 1: The board decision has been provided. PDD elaboration starts in April 2011. Necessary change has been adapted to the PDD. The date of the EIA certificate is 06/06/2007. Necessary change in the table 17 has been applied.	Review 1: Investment decision date is defined as the date of board decision, 25/12/2006. Please provide the board decision. The start of PDD elaboration is given as August 2010 at the Table 17. Please clarify the date. The date of EIA approval is given as 06/07/2007. However, the date of EIA certificate is 06/06/2007. Please clarify. <u>The corrective action request is still open.</u>

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			Review 2: Investment decision date defined as 25/12/2006 was validated through the board decision. The start of PDD elaboration is corrected as April 2011. The date of EIA approval is corrected as 06/06/2007. The corrective action request is closed.
CAR10 The data and parameters that are not monitored throughout the crediting period is given under section 4.1 of the VCS PD version 01. However, section 4.1 does not include all necessary parameters as per the tool and methodology. Please see above for details: EG_y should be monitored throughout the crediting period since the Simple OM-Option B is selected. Please clarify. Cap_{BL} and A_{BL} should be monitored throughout the crediting period since the project has a reservoir area.	Table 2-3.q.i Table 7-m.i	EG_{facility,y} is included to the parameters to be monitored. Cap_{PJ} and A_{PJ} are also to be monitored. However, parameters Cap_{BL} and A_{BL} are not relevant to the project activity, since the power plant is Greenfield investment. Response to Review 1: EG_y has been included in the parameters available at validation. Cap_{BL} and A_{BL} has been included in section 4.1 of the Revised VCS PD.	Review 1: The parameter that is requested to be added to section 4.1 is not EG_{facility,y}. EG_y shall be monitored throughout the crediting period since the Simple OM-Option B is selected. (EG_y: Net electricity generated by power plant/unit <i>m</i>, <i>k</i> or <i>n</i> (or in the project electricity system in case of EG_y) in year <i>y</i> or hour <i>h</i>) Data and Parameters Available at Validation EG_{facility,y}: Quantity of net electricity generation supplied by the project plant/unit to the grid in year <i>y</i> Data and Parameters Monitored) Cap_{BL} and A_{BL} shall be monitored
		Respond to Review 2: As per the generation license, the installed capacity of the project activity is 310.66 MWe or 317 MWm.	

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		Therefore, the data unit corresponds with the value for the Cap_{pj} parameter.	throughout the crediting period since the project has a reservoir area. To be monitored these parameters are not related to the project type (greenfield etc.). The amount of the Cap_{BL} and A_{BL} depends on the project type. <u>The corrective action request is still open.</u> Review 2: The explanation was found acceptable. <u>The corrective action request is closed.</u>
CAR11 Please clarify the notation of the "quantity of net electricity generation supplied by the project to the grid in year y" as per the methodology.	Table 2-3.t.i	Description of $EG_{p,y}$ has been revised as per the tool.	Review 1: The PPs' response is not correct since the corrective action request is not relevant to the $EG_{p,y}$. Although this, the necessary changes have been done. The notation of the "quantity of net electricity generation supplied by the project to the grid in year y" is given as $EG_{facility,y}$ as per the methodology. <u>The corrective action request is closed.</u>
CAR12 It is indicated in Figure 9 of the VCS PD	Table 2-3.u.ii Table 2-7.I	The spreadsheet given as figure 9 in the Version 1 of the VCS PD has been	Review 1: It is stated under section 4.3 of the

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version 01 that if net electricity delivered to the grid according to PMUM is equals to net electricity delivered to the grid according to the on-site readings it will be validated. However, these data can not be same always because of the transmission line losses. Please clarify.		excluded from the revised version. Respond to Review 1: Necessary corrections have been applied in the Revised VCS PD.	VCS PD version 02 as follows: " ... will report them in the spreadsheet (please refer to Figure 9) for ..." Please clarify. Please also review the number of figures. <u>The corrective action request is still open.</u> Review 2: The numbers of figures were revised accordingly. <u>The corrective action request is closed.</u>
CAR13 The installed capacity and the annual generation are based on the generation license. However, the mechanical installed capacity (317 MWm) is applied in the VCS PD. Please use the electrical installed capacity (MWe) and revise all PD accordingly.	Table 2-4.b.ii	The electrical installed capacity as 310.66 MWe has been applied throughout the PDD.	Review 1: The electrical installed capacity is applied in the VCS PD in line with the generation license. <u>The corrective action request is closed.</u>
CAR14 The power density calculation is provided under section 3.2 of the VCS PD. Please use the electrical installed capacity. (Please see CAR13) The reservoir area (14,300,000 m²) is based on the diagram provided in the FSR. The reservoir are should be based on	Table 2-5.a.b	The power density calculation has been revised taking the maximum water elevation (240 m.) into consideration and the VCS PD has been corrected accordingly. Respond to Review 1:	Review 1: The reservoir area is taken as 15.49 km² in the VCS PD version 02. However, the figure given in the FSR is 16.49 km². Please clarify. <u>The corrective action request is still open.</u>

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
the maximum water elevation (240 m). Please clarify.		The reservoir area in the FSR is presented as 16.49 km² and changes regarding the reservoir area have been actualized. Respond to Review 2: The reservoir area is defined as 16.49 km² in the VCS PD version 03 as per the FSR. The power density is calculated as 18.839 W/m² accordingly. Discrepancies under sections 2.2 and 3.2 have been corrected accordingly.	Review 2: The reservoir area is defined as 16.49 km² in the VCS PD version 03 as per the FSR. Under section 3.2 of the VCS PD version 03, it is still given as 15.49 km². Also, the power density is given as 21.7202 W/m² under section 3.2. However, it is given as 18.839 W/m² under section 2.2. Please clarify. The corrective action request is still open.
CAR15 QM Calculation The 2009 electricity production values do not match with the latest official data exhibiting significant variation. For example, thermal total is given as 156923.4 GWh in TEIAS statistics whereas it appears to be used as 164139.3 GWh in	Table 2-5.e.b.ii	It has not clearly been understood where the 164139.3 GWh exists in the computations. However, the baseline calculation excel sheet has been completely renewed. The formulas and reference links regarding the Gross/Net Electricity Generations have been clearly stated in the revised excel	Review 3: The reservoir area is corrected to 14,299,205.52 m² under section 3.2 of the VCS PD version 04. The power density given under section 3.2 is corrected. The corrective action request is closed.
Review 1: To understand where the 164139.3 GWh exists in the computations, please see cell L49 of the "Electricity Pro&Cap&Load Fac." sheet which is stated at the excel named "Yedigoze_Baseline.xls" This corrective action request will be			

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the computations. Naturally, most of the other values for 2009 do not match with latest statistics as well. All values and computations must be revised so as to match the latest official statistics.		sheet. Also, all baseline information and emission reduction calculations have been revised in the VCS PD Version 02.	evaluated at the next round. <u>The corrective action request is still open.</u> Review 2: OM calculation is corrected. <u>The corrective action request is closed.</u>
CAR16 BM Calculation In the PDD (text under Table 10 and Table 11) there is reference to an efficiency factor calculated for naphtha. However, in the set of BM-plants there is no one using naphtha as a single fuel and hence the referenced efficiency factor is not used. Please clarify.	Table 2-5.e.b.ii	Necessary correction has been applied to the revised PDD. Respond to Review 1: <u>The efficiency factor for naphtha has been taken as 60% to be on the conservative side.</u>	Review 1: This corrective action request will be evaluated at the next round. <u>The corrective action request is still open.</u> Review 2: BM calculation was revised accordingly. <u>The corrective action request is closed.</u>
CAR17 1. The equation of the emission reduction is not provided under 3.4 of the VCS PD. Please describe the procedure for quantification of net GHG emission reductions and include all relevant equations. 2. The project activity is implemented in two phases. On 02/12/2010, the	Table 2-5.e.b.vi	1. Relevant equation of the emission reduction has been provided under 3.4 of the VCS PD. 2. The ER calculation has been revised. Respond to Review 1. Corrected appropriately. Please see the revised VCS PD.	Review 1: 1. The baseline emissions are provided under section 3.4 of the VCS PD version 03. Please also provide a description and equation of the net GHG emission reductions. Please clarify. 2. The emission reduction

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power plant started operation with 1 turbine and the remaining 1 turbine was commissioned on 26/01/2011. Each commissioning date was validated through the "Provisional Acceptance Certificate". Please amend the estimated emission reduction accordingly.		Respond to Review 2: Under section 3.4 the unit has been revised. The expected annual generation was mistyped in the baseline excel sheet; therefore the emission reduction calculation was miscalculated. As stated in the VCS PD and in the generation license, the annual electricity generation is 966,530 MWh. Therefore, the baseline excel sheet has been corrected first. The annual emission reduction came out to be 524,729 tCO₂e/MWh. Accordingly, the PDD has been revised. The emission reduction calculation has been revised in the baseline excel sheet. The emission factor as 0.5429 is a rounded figure. It is written in cell E 5. When the annual electricity generation figure is multiplied by the rounded figure in E 5, the emission reduction comes out as 524,729 tCO₂e/MWh.	calculation was amended accordingly. <u>The corrective action request is still open.</u> Review 2: The calculation is given as following under section 3.4 of the VCS PD version 03: $BEy = 0.5429 \times (966,530,000 - 0) = 524,742 \text{ tCO}_2\text{e}$ The multiplication and used electricity generation are not correct. The used electricity generation is kWh unit. However, it should be in MWh unit (966,530) in line with the emission factor unit (tCO₂/MWh). <u>The corrective action request is still open.</u> Review 3: The expected annual emission reduction was corrected to 524,749.1 tCO₂e in the VCS PD version 04. <u>The corrective action request is closed.</u>
CAR18 Step 3 "Select a method to determine the	Table 2-5.e.e	1. The notification that ex-ante option was selected has been stated under Step 3 in line with the	Review 1: 1. It is indicated under Step 3 that

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<i>operating margin (OM)</i>": There are four methods for calculation of the operating margin emission factor. Since the average share of electricity generation by low-cost/must-run plants for five most recent years is found to be less than 50%, option (a) is chosen. The average share of electricity generation by low-cost/must-run plants is calculated from the period 2005-2009. 1. The simple OM emission factor can be calculated using either of the two data vintages: Ex-ante option and ex-post option. The ex-ante option is selected to carry out the baseline methodology from the period 2007-2009. However, it is not stated under Step 3 in line with the tool. Please clarify 2. The information regarding Option C of Simple OM is stated under Step 3. However, it should be given under Step 4 in line with the tool. Under Step 3, ex-ante and ex-post options should be chosen. Furthermore, the latest version of the tool does not include Option C under Step 4. Please clarify. CAR19 Step 4 "Calculate the operating margin emission factor according to the selected method": The information regarding Option C of Simple OM is stated under Step 3.		tool. 2. Information regarding Option C of Simple OM has been mistakenly stated under Step 3. It has been replaced under Step 4 in line with the tool. In addition, Option C has been mistyped. Instead, it should have been Option B of Simple OM. Therefore, necessary corrections have been made in the VCS PD in line with the tool.	ex-ante option is selected. 2. The Option C was excluded from the VCS PD. <u>The corrective action request is closed.</u>
	Table 2-5.e.e	Necessary corrections have been applied as mentioned in CAR 18.	Review 1: The Option C was excluded from the VCS PD and Step was revised as per the tool. <u>The corrective action request is</u>

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However, it should be given under Step 4 in line with the tool. Under Step 3, ex-ante and ex-post options should be chosen. Furthermore, the latest version of the tool does not include Option C under Step 4. Please clarify.			<u>closed.</u>
CAR20 1. The reference for Table 6 (Emission factors from IPCC) is not provided. Please clarify. 2. The background information (tables with time series data) used in the application of the baseline methodology is given Annex 7 of the VCS PD version 01. However, the references does not given provide under Annex 7. Also, please ensure that the tables include the unit for the value (fuel consumption, net calorific value etc.). 3. There is no reference for the gross electricity production from thermal sources given neither at the Table 8 of the VCS PD nor baseline excel sheet. The baseline excel sheet is not reproducible for the "Net Electricity Production from Thermal Sources" since it does not include the formula, the values are written directly in the excel sheet. 4. Please provide reference for the statement given under Step 5. Please	Table 2-5.e.h.i	1. The reference for Table 6 has been provided. 2. References regarding the background information used in the application of the baseline methodology have been provided under the tables in Annex 7. The units have been included. 3. Reference for the gross electricity production from thermal sources has been provided under Table 8. 4. Necessary references have been provided in Annex 7. The sample group have been clearly stated under Step 5. The commissioning years of the sample group have been provided under Step 5.	Review 1: 1. The footnote was amended. 2. The references are provided under Annex 7. 3. The "Net Electricity Production from Thermal Sources" is reproducible. 4. The references are provided. <u>The corrective action request is closed.</u>

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also present the sample group (years) clearly under Step 5. CAR21 Three factors are identified for sensitivity analysis of the project, including total investment cost, electricity selling price and annual operational costs with a variation range from -10% ~ +10%. There are significant changes in the equity IRR results among the scenarios. However, the operating cost is not considered in the IRR analysis. Please clarify why operating cost is not considered in sensitivity analysis.	Table 2-6.r	The operating cost has been included in the IRR analysis; thus the IRR analysis excel sheet and the PDD have been revised accordingly. For the project since no investment items exceeds the 20% of total investment nor the 20% of the total project revenue; therefore the parameter of total investment has been excluded from the sensitivity analysis. Respond to Review 1: 1. Sensitivity analysis has been applied to the investment costs that exceed 20% of the total investment in the conservative manner. 2. The electricity price is taken as 5.5 euro cent/kWh as per the regulations. And this figure is the highest limit. Besides, The investment decision was realised in December 2006 and the electricity sale price of 2006 is 9.13 Ykr/kWh which is a lower figure. Please see http://www.normenergy.com/menu_detay.asp?id=7057 Response to Review 2: 2. Average sales price in the market at the date of investment decision is lower than the guarantee price. Please see the official document for the electricity sales price of 2006. http://www.epdk.gov.tr/web/elektrik-	Review 1: 1. Please clarify how the investment items were classified. For example, equipment cost includes hydraulic, mechanic and electromechanical cost. Please explain construction cost includes which items. Please justify that no investment items exceeds the 20% of total investment or the 20% of the total project revenue by providing the figures and items clearly. 2. The electricity price is taken as 5.5 euro cent/kWh in the IRR analysis as per the regulations. Sensitivity analysis is applied with a variation range from -10% ~ +10%. However, electricity price can be higher than the guaranteed electricity price of 5.5 EUR cents/kWh, since the project has a reservoir. Please consider this situation when applying sensitivity analysis to the electricity price. The corrective action request is still

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		piyasasi-dairesi/144 (Please see: "Türkiye Ortalama Elektrik Toptan Satış Fiyatı (2006)") The electricity sales price is taken as 5.5EUR cents/kWh which is the upper limit of purchase guarantee of offered by the State as an incentive to renewable energy investments. (http://www.eie.gov.tr/duyurular/YEK/LawonRenewableEnergyResources.pdf) The project developer preferred to use the guarantee sales price (5.5EUR cents/kWh) as per the Renewable Energy Law, No: 5346 (enactment date 18/05/2005) during the process of the assessment of the project risk profile. Within this frame, the market risks are not taken into consideration and electricity is sold at the fix price at every hour. In case of the consideration of market-based pricing for this project, the pricing of peak hours, day hours and night hours will have to be taken into consideration and this means another benchmark calculation has to be realised. Information regarding the amount of electricity production sold at the three	<u>open.</u> Review 2: 1. Sensitivity analysis is applied to the investment cost and PD was amended accordingly. 2. The explanation was not found acceptable. The highest guarantee price is 5.5 EUR cents/kWh, however there is higher selling prices. Since the project activity has a dam, the highest prices shall be considered. The provided reference for the electricity sales price of 2006 is not an official document. <u>The corrective action request is still open.</u> Review 3: 2. An analysis of market prices in 2006 is provided. Please submit an analysis based on the current market prices and present the numerical results. The range of variations should be reasonable in the project context as per the EB62 Annex 5. <u>The corrective action request is still</u>



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		periods (peak hours, day hours, night hours) could not be found in the feasibility report. On the other hand, on page 5-14 of the report, there is a table demonstrating the total amount of sales revenue with respect to various installed capacity scenarios. For the 300 MW scenario, a 68,590,000 US of sales revenue is calculated. Even when this figure is considered in the IRR calculation, the IRR outcome stays below the benchmark. In addition, the sensitivity analysis on the sales price demonstrates that a +10% variation still cannot surpass the benchmark. Therefore we strongly believe that the guarantee sales price is the conservative approach. Respond to Review 3: 2.The most up-to-date market price has been determined as 12.39 Krs/kWh by http://www.epdk.gov.tr/web/elektrik-piyasasi-dairesi/144 When the sensitivity analysis regarding the electricity sales price has been widened to +15% as per EB 62 Annex 5, the price increased to 0.079 USD which corresponds to 0.132 TL, a figure above the market price which is 12.39	<u>open.</u> Review 4: The electricity sales price has been widened to +15% as per EB 62. The IRR increased to 16.11%. The corrective action request is closed.

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CAR22 Please apply sub-step 3a. Please justify that that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity).	Table 2-6.w.i Table 2-6.w.ii Table 2-6.d.b.i	Krs/kWh. The excel table displaying the average exchange rates has been provided. The analysis based on the current market prices has been included in the revised VCS PD. Sub-step 3a has been applied and the justification that the identified barriers would not prevent the implementation of at least one of the alternatives has been presented. Respond to Review 1: 1. A financial barrier has been included with regard to the review in the Revised VCS PD. 2. Mentioned article has been excluded from the Revised VCS PD. Respond to Review 2: Barrier analysis has been excluded from the VCS PD.	Review 1: <i>Lack of access to capital</i> It is mentioned under sub-step 3a of the VCS PD version 02 that the project activity was able to receive a loan since the country risk is considered high. The bank (Yapi Bank) letter that the loan was given taking VER benefits into consideration was provided to the validation team. 1. The investment decision date is 05/12/2006, which is the date of board decision. The loan agreement was signed on 03/09/2008. As a result, the loan agreement is later than the investment decision date. Please justify that lack of access to capital was a barrier at the time of investment decision. 2. The reference article, "Renewable Energy Market Conditions and Barriers in Turkey" is dated 2009. Please consider that the investment decision date is 05/12/2006.



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			Also, the link of the reference article is not provided in the VCS PD and the reference is not available. <u>The corrective action request is still open.</u> Review 2: <i>Lack of access to capital</i> 1. The PP has mentioned that a financial barrier has been included with regard to the review in the Revised VCS PD. However, it is not clear what is changed in the investment barrier analysis. The investment decision date is 05/12/2006, which is the date of board decision. The loan agreement was signed on 03/09/2008. As a result, the loan agreement is later than the investment decision date. Please justify that lack of access to capital was a barrier at the time of investment decision. 2. The reference article was excluded from the PD. <u>The corrective action request is still open.</u> Review 3:

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
			Barrier analysis was excluded from the VCS PD version 04. <u>The corrective action request is closed.</u>
CAR23 Please provide objective evidence to justify the barrier due to the prevailing practice such as following: (a) Relevant legislation, regulatory information or industry norms; (b) Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc.) undertaken by universities, research institutions, industry associations, companies, bilateral/multilateral institutions, etc (c) Relevant statistical data from national or international statistics; (d) Documentation of relevant market data (e.g. market prices, tariffs, rules); € Written documentation of independent expert judgments from industry, educational institutions (e.g. universities, technical schools, and training centers), industry associations and others.	Table 2-6.w.iii Table 2-6.d.b.ii Table 2-6.d.e	Respond to Review 1: It is understood that the mentioned statement must be counted in financial barriers; therefore there are no barriers due to prevailing practice. Necessary correction has been applied to the VCS PD. Respond to Review 2: <u>Barrier analysis has been excluded from the revised VCS PD.</u>	Review 1: It is stated in the VCS PD version 02 as follows: <i>"Yedigöze Elektrik A.S. spared no expense in order to achieve the highest quality; thus applied some cost-increasing procedures and two technological innovations at the construction."</i> According to Guidance given in EB50 Report Annex 13, "Barriers that can be mitigated by additional financial means can be quantified and represented as costs and should not be identified as a barrier for implementation of project while conducting the barrier analysis, but rather should be considered in the framework of investment analysis." In the case of this project, please demonstrate that the financing of the project was assured only due to VER benefits. <u>The corrective action request is still open.</u>

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
			Review 2: There is no change under barrier analysis. It is stated in the VCS PD version 03 as follows: <i>"Yedigöze Elektrik A.S. spared no expense in order to achieve the highest quality; thus applied some cost-increasing procedures and two technological innovations at the construction."</i> According to Guidance given in EB50 Report Annex 13, "Barriers that can be mitigated by additional financial means can be quantified and represented as costs and should not be identified as a barrier for implementation of project while conducting the barrier analysis, but rather should be considered in the framework of investment analysis." In the case of this project, please demonstrate that the financing of the project was assured only due to VER benefits. <u>The corrective action request is still open.</u> Review 3: Barrier analysis was excluded from the VCS PD version 04. <u>The corrective action request is</u>

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
CAR24 Under Sub-step 4a, first the activities similar to the proposed project activities are analysed. The difficulties of the energy sector and the completion ratio of the projects are analysed. The hydroelectric power plants put into operation between 2002 and 2008 is given in a table in the PDD. The new capacity from privately owned hydro facilities represents a friction of new facilities added to Turkey's capacity every year. Please extend the common practice analysis including the 2009 data.	Table 2-6.z	2009 data has also been included to the table. Please see revised Common Practice analysis Section of the VCS PD, Version 02.	closed. Review 1: The common practice analysis was amended accordingly. The corrective action request is closed.
CAR25 The period of assessment is not limited to the proposed crediting period. It is indicated in the VCS PD that the cash flow was prepared for a licensing period of 49 years. However, in the excel sheet, IRR is applied to 55 years (4 years construction+51 years operation). Please clarify.	Table 2-6.c.d	License duration has been used as the assessment period in the financial analysis and the equity IRR of the project has been calculated for a 49 years period. Please see the revised IRR calculation excel sheet.	Review 1: The IRR is applied to 35 years in line with the operation lifetime of the project activity. The VCS PD and excel sheet was revised accordingly. The corrective action request is closed.
CAR26 The loan repayment is included to the IRR calculation. Please provide objective evidence (such as loan proposal) to justify the loan figures.	Table 2-6.c.u	The copy of the loan proposal has been presented.	Review 1: The related pages of the loan agreement were provided to the validation team. The corrective action request is closed.



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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
CAR27 A sensitivity analysis is applied to determine under which conditions variations in the results would occur and the likelihood of the occurrence of these conditions are assessed. Please clarify why operating cost is not considered in sensitivity analysis.	Table 2-6.c.vv	Sensitivity Analysis has been revised and operating cost has been added to the sensitivity analysis. On the other hand, the investment cost has been excluded from the analysis since no investment items exceed neither the 20% of total investment nor the 20% of the total project revenue. (Please see paragraph 16 of EB39 Report, Annex 10.) PDD has been revised accordingly.	Review 1: This corrective action request is closed since the sensitivity analysis is evaluated at CAR21. Please refer to CAR21. The corrective action request is closed.
CAR28 The IRR analysis is based on the FSR dated November 2007. Please justify that the FSR is approved by the national authority.	Table 2-6.c.zz	Please see attached the letter of approval of the Feasibility Report obtained from DSI.	Review 1: This DIS approval letter dated 07/02/2008 was provided to the validation team. The letter proves that the FSR is approved by the national authority. The corrective action request is closed.
CAR29 In the monitoring plan four parameters are defined as follows: $EG_{PJ,y}$, Cap_{PJ}, A_{PJ} and $EF_{CO2,i,y}$ 1. $EG_{PJ,y}$ is defined as "Quantity of net electricity generation supplied by the project activity to the grid in year y". The notation of the parameter is not in line with the ACM0002. Please clarify. (CAR11) 2. $EF_{CO2,i,y}$ is not a parameter that is monitored directly, the combined	Table 2-7.c	1. The notation of the parameter has been corrected. ($EG_{facility,y}$) 2. $EF_{CO2,i,y}$ has been removed from Section 4.	Review 1: 1. The notation of the "quantity of net electricity generation supplied by the project to the grid in year y" is given as $EG_{facility,y}$ as per the methodology. 2. $EF_{CO2,i,y}$ was excluded from the VCS PD version 02. The corrective action request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
margin is calculated and depends on the other parameters. Therefore, if the combined margin is going to be added to monitoring plan, it should be done with the parameters that used to calculate the combined margin such as $NCV_{1,y}$, $FC_{1,y}$ etc.			
CAR30 - The depreciation periods are not in line with the regulation. Please clarify. After correcting the depreciation periods please calculate fair values (initial asset value – total depreciation amount) to be added as a cash inflow. - Please add the interest payments occurred during construction period to the total asset value to be depreciated. - Please explain the unknown item in the investment cost. Please clarify it is contingency amount and how it is calculated. - Please explain the rationale behind the General production expenses calculation. It is seen that 1% of total investment expenses is used to obtain General production expenses. - Please clarify if Energy Transmission line investment to be deducted from the yearly grid fee expenses. - Please give the loan repayment structure details. Are there any other costs related to the loan such as		- The depreciation periods have been corrected in line with the regulations of Turkish Revenue Administration (http://www.gib.gov.tr/fileadmin/user_upload/Yararli_Bilgiler/amortisman_oranlari2011.html) - The interest payments occurred during construction have been added to the investment items to be depreciated. Please see the revised IRR excel sheet. - According to the FSR page 6-4, the unknown item in the investment cost was defined as 15% of the construction cost. The figures used in the FSR had been submitted to the Board with the presentation. The unknown item is the contingency amount. Please see the IRR excel sheet. - The annual general production expenses was estimated as 1% of the total investment in the presentation submitted to the board. This estimation is also in line with the FSR. - All the calculations have been made	Review 1: - Depreciation periods are corrected. - Interest payments during the construction period are added to the investment costs. - It is understood that unknown item is the contingency amount. 1% of investment cost is a common approach and found acceptable. - The explanation is acceptable. - These costs would decrease the IRR. Since this is in line with being conservative. - The figures in IRR analysis and PDD are same. - The figures in cells g75 are same in both sheets, the cash flow figures are different based on their sensitivity parameters. - VAT is not included.

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
commissions (management, import and guarantee letter) and commitment fees and etc.? 7. Please check the IRR figures in PDD, table 15. They are not equal to the figures in the IRR analysis. Please also note that, it is written that the figures are the project IRR although the equity IRR is calculated in excel file. 8. The sensitivity analysis for the investment cost is not reproducible. Please make the analysis more clear. It is seen that the total investment cost is same (359.196.085) in both scenarios. See range "g75" in both sheets in which investment cost scenarios are calculated. 9. Please clarify if there are VATs on the asset items. 10. Please explain why there is a figure of 90m \$ as a cash outflow at the end of analysis per.		in line with the presentation submitted to the board and the calculations in the presentation does not include any explanation regarding the yearly grid fee expenses. Anyhow, such a calculation is not taken into account in DSI feasibility format. 6. The loan repayments are calculated in line with the assumptions assumed in the presentation. Since the assumptions in the presentation includes only "loan amount, interest rate and the repayment period", other possible costs, such as "commissions (management, import and guarantee letter) and commitment fees" were not taken into account. 7. IRR figures in the PDD have been revised accordingly. 8. According to http://cdm.unfccc.int/Reference/Guidcl arif/reg/reg_guid03.pdf, investment items below the ratio of the 20% of total investment or total project revenues are not subject to sensitivity analysis. But to be on the conservative side, sensitivity analysis has been applied to the dam and the mechanical equipments. Please see the revised IRR excel sheet. But still to be on the conservative side, sensitivity analysis regarding the weight of the dam item in the total	10. Excluded. The corrective action request is closed.

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		construction cost has been provided. 9. VAT is not included. 10. Excluded.	
CAR31 During the site visit, it was mentioned by the PP that the investment analysis is based on the FSR dated November 2007. However, during the validation process, it is mentioned by the PP (please see CL24 and CL25 of this validation protocol) that the investment analysis is based on the presentation dated 05/12/2006. Please justify the basis of the inputs stated in the presentation by providing objective evidence such as invoices, proposal, price indices etc. CAR32 There are some discrepancies under sub step 2b, apply benchmark analysis. Please see below: 1. The risk premium is given as 9.41% at Table 13. However, it is given as 9.29% at the paragraph, which is given above table 13. 2. Risk free rate is given as 7.25% at the paragraph below table 12. However, it is given as 7.39% at the Table 13. It is stated at as follows: "The interest rate at the decision		In the presentation, it is stated that the figures used were based on the feasibility calculations that were going to be included in the FSR. Therefore the FSR may be counted for the reference for all inputs stated in the presentation. The FSR is provided.	Review 1: This FSR and presentation are in line. The IRR analysis is based on the FSR dated November 2007, which is approved by the national authority. The corrective action request is closed.
CAR32 There are some discrepancies under sub step 2b, apply benchmark analysis. Please see below: 1. The risk premium is given as 9.41% at Table 13. However, it is given as 9.29% at the paragraph, which is given above table 13. 2. Risk free rate is given as 7.25% at the paragraph below table 12. However, it is given as 7.39% at the Table 13. It is stated at as follows: "The interest rate at the decision		1. The risk premium is 9.41% as in Table 13. The indication of the risk premium as 9.29% has been corrected in line with the table 13. 2. The risk free rate of the Eurobond with the longest duration is 7.25%. The 7.43% rate is the risk free rate of the theoretical Eurobond with the duration of 39 years (35 years for the operational phase and 4 years for the construction phase). Discrepancies in the benchmark analysis have been	Review 1: 1. Risk premium is corrected to 9.41% in the investment analysis. 2. The risk free rate is corrected to 7.43%. However, the reference could not be validated since the link (http://www.ziraat.com.tr/tr/bankamiz/faiz-ve-ucretler.aspx/eurobond.aspx) is not available. 3. The Rf is blank at the calculation. Please review the

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
making date for Eurobond with longest duration of 30 years which is..." However, at the Table 13, it is indicated as follows: "The yield of a synthetic bond with 35 years maturity at the time of decision was calculated using..."		revised. Respond to Review 1: 2.The reference link has been corrected to http://www.ziraatbank.com.tr/tr/p/n/c/ontent.aspx?id=448. 3.According to Table 12, the market equity risk premium figure is (Rm-Rf) and the chosen value is determined via http://www.stern.nyu.edu/~adamodar/pc/archives/crpyprem05.xls. Regarding the project activity, Rm-Rf is 9.41%. Therefore, Rf was not left blank. The figure 9.41 has been shifted to the middle of the space reserved for Rm-Rf.	calculation given under Table 12 of the VCS PD. The <u>corrective action request is still open.</u> Review 4: 2. OK 3.Rm – Rf value is defined as 9.41 in Table 12. Benchmark Calculation The <u>corrective action request is closed.</u>
CAR33 A guideline on common practice (EB63-Annex12) is issued on 26/09/2011 by the UNFCCC. Please update the common practice analysis as per the latest rules.		The common practice analysis has been updated as per the latest rules. Respond to Review 1: The new common practice which was previously applied as per the EB63-Annex12 has been removed.	Review 1: The request of updating common practice was reevaluated by the DOE and it was decided that the common practice should not be updated since the VCS was submitted to the DOE before the issuance of this guideline. The VCS PD version 04 includes both previous and new common practice analysis. Please remove the new common practice applied as per the EB63-Annex12. The <u>corrective action request is still</u>

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
			open. Review 4: Common practice analysis is in line with the "Tool for the demonstration and assessment of additionality"-Version 05.2. The new common practice has been removed the VCS PD Version 05. The corrective action request is closed.
CAR34 Please define the plant load factor in the VCS PD according to one of the following options: a. The plant load factor provided to banks and/or equity financiers while applying the project activity for project financing, or to the government while applying the project activity for implementation approval b. The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company		As stated in the feasibility report, pages 5-11 and 5-12, rated power of each turbine is 158.5 MW which add up to 317.0 MWm. Therefore, in order to calculate the load factor, the following formula is used: $(\text{Annual generation/ installed capacity})/8,760 = 966,530/317/8,760 = 0.3480$ Therefore, it can be stated that the plant load factor is approximately 35%. On page 5-12 of the feasibility report, it is stated that the mentioned rated power enables the turbines function with the load factor of around 40% with an 80% efficiency rate. As a result, the calculation of the load	Review 1: The figures used for the plant load factor calculation is based on the FSR. The annual generation figure is defined as 966,530 MWh and the installed capacity is defined as 317 MWm in the FSR. Based on these figures, the PLF is calculated as 35%. The corrective action request is closed.

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		factor corresponds to the figures in the feasibility report.	
CL01 VCS PD, IRR calculation sheet, combined margin emission factor calculation sheet are presented in English. Please also present the English translations of the documents given in Annex 1, Annex 2, Annex 4 and Annex 5.	Table 1-1.a	The English clarifications of the mentioned documents have been stated in the Revised PDD.	Review 1: A brief description of the documents is provided in English at the Annexes. <u>The clarification request is closed.</u>
CL02 The starting date of the first crediting period is given as 2 nd December 2010 under section 1.6 of the VCS PD version 01. Please also provide the ending date of the project crediting period in day, month and year format under section 1.6 of the VCS PD.	Table 1-2.c.h Table 2-3.aa	The end date of the first crediting period has been presented under Section 1.6	Review 1: The ending date of the first crediting period is defined. <u>The clarification request is closed.</u>
CL03 The crediting period is defined under section 1.6 of the VCS PD version 01 as 10 years in line with the VCS rules. Please indicate under section 1.6 of the VCS PD that how many times the crediting period will be renewed.	Table 1-2.c.i Table 2-z	How many times the crediting period will be renewed has been presented.	Review 1: It is indicated under section 1.6 of the VCS PD version 02 that VCS project crediting period will be renewed once, which will make the total crediting period as 20 years. <u>The clarification request is closed.</u>
CL04 The "Generation License" is provided under Annex 1 of the VCS PD version 01 as a proof of title. Please provide the	Table 1-2.c.s	The whole generation license has been provided.	Review 1: The whole generation license is provided to the validation team. <u>The clarification request is closed.</u>

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
whole "Generation License".			
CL05 It is stated in section 2.1 of the VCS PD version as follows: <i>"Additionality, for the purpose of calculating the emission factor of the Turkish electricity grid," Tool to calculate emission factor for an electricity system", Version02 is employed".</i> Please provide the title, reference and version number of the methodology or tools applied to the project under section 2.1.	Table 1-2.c.cc	Necessary inclusions have been realised.	Review 1: The tools are referred under section 2.1 of the VCS PD version 03. <u>The clarification request is closed.</u>
CL06 The GHG sources, sinks and reservoirs for the baseline and project shall be identified under section 2.3 of the VCS PD. However, Turkish Electricity Sector has been identified. Please clarify.	Table 1-2.c.ff	Section 2.3. has been revised accordingly.	Review 1: The tools are referred under section 2.1 of the VCS PD version 03. <u>The clarification request is closed.</u>
CL07 Description of the monitored parameters is given in the tabular format under section 4.2. Please clarify the description of AP _{PJ} in line with the methodology.	Table 1-2.c.qq.iii	Description for the parameter AP _{PJ} is corrected as "Area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full", in line with the methodology.	Review 1: The description of the AP _{PJ} is given as per the tool. <u>The clarification request is closed.</u>
CL08 Description of measurement methods and procedures to be applied are given in the tabular format under section 4.2. The Cap _{PJ} will be determined based on recognized standards. Please clarify the	Table 1-2.c.qq.v	Description of measurement methods and procedures to be applied have been revised.	Review 1: The supplier information of the equipment and EMRA web site will be checked for Cap _{PJ} . <u>The clarification request is closed.</u>

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
recognized standards.			
CL09 Monitoring equipment is not indicated at the "data and parameters monitored" tables. Please clarify.	Table 1-2.c.qq.viii	Monitoring equipments have been indicated at the "data and parameters monitored" tables.	Review 1: The monitoring equipment are indicated. The net electricity will be monitored through the electricity meters. The reservoir area will be monitored through the topographical surveys, maps, satellite pictures. The clarification request is closed.
CL10 Please define the QA/QC procedures for Cap _{PI} .	Table 1-2.c.qq.ix Table 2-3.t.ii.b Table 2-3.q.i Table 7-m.ii Table 2-3.q.i Table 7-m.iii	QA/QC procedures for Cap _{PI} have been defined and included in the table.	Review 1: The QA/QC procedures for Cap _{PI} and A _{PI} are clearly defined. The supplier information of the equipment and EMRA web site will be checked for Cap _{PI} . The clarification request is closed.
CL11 Calculation methods are not indicated at the tables. Please clarify.	Table 1-2.c.qq.x	Calculation methods are indicated within the tables.	Review 1: It is indicated that annual electricity generation of the plant will be calculated as the sum of the monthly generations obtained from the meter reading records. The clarification request is closed.
CL12 The electricity generation and consumption figures are measured by two meters. It is indicated under section 4.3 of the VCS PD that in the case of measuring	Table 1-2.c.uu	The measurements of the meters are recorded to the "monthly electricity reading protocols". These protocols are signed and kept by both parties (TEİAŞ and the company)	Review 1: 1. These explanations were not added to the VCS PD. 2. It is indicated in the VCS PD as follows: "Also, the Actaris meter

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
difference between these two meters, the meters will be calibrated without waiting for the periodic calibration date. Please clarify how the record of these meters is monitored and what is the acceptable level of differences.		The meters used in the plant are Class 0.5s equipments. This means the ratio (primary to secondary current) error of the meters is 0.5%. If the difference between these two meters exceed the accuracy level, the company (or TEIAS) has a right to object the measurement. In such a case, an accredited third party makes the calibration of the meters. Respond to Review 1: The meters used for the project activity are Actaris SL 7000 761 A 071. The serial numbers are 53042206 and 53042209. In addition, the standard and class of the product production is 0.2s-2. Necessary corrections have been made in the revised VCS PDD. Respond to Review 2: Necessary changes have been adopted to the revised VCS PD.	<i>fully conforms to or exceeds all relevant IEC standards for electronic metering equipments. (IEC61036 for class 1 equipment and IEC60687 for class 0.5S equipment)."</i> The 0.5S accuracy class is defined for the transformers that are smaller than the 100 MVA and bigger than 10 MVA. Please justify that 0.5 accuracy class is suitable for the project activity. <u>The clarification request is still open.</u> Review 2: The PPs' response and VCS PD are not in line. There is no change in the VCS PD version 03. It is stated in the VCS PD version 03 as follows: "Also, the Actaris meter fully conforms to or exceeds all relevant IEC standards for electronic metering equipments. (IEC61036 for class 1 equipment and IEC60687 for class 0.5S equipment)." <u>The clarification request is still open.</u> Review 3: The accuracy class is defined as 0.2S in the VCD PD as per the regulation.

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CL13 The physical delineation of the project activity is given at the Figure 4 of the VCS PD version 01. However, the figure is not readable and clear. Please clarify.	Table 2-3.m.ii	Figure is made readable.	<u>The clarification request is closed.</u>
CL14 The source of data for the net electricity fed to grid is defined as project site. Please clarify which record will be used for monitoring.	Table 2-3.t.ii.a	The source of data is "Monthly Meter Reading Protocols" Please see the revised table. Respond to Review 1: Preparation of monthly meter reading protocol is ensured and this information has been included in the Revised VCS PD. Transmission line losses will be considered. Respond to Review 2: The project developer is not responsible for the transmission losses; therefore transmission losses will not be included. Please see the revised PDD.	Review 1: The figure is clearly provided. <u>The clarification request is closed.</u> Review 1: It is known that not all distribution company prepares monthly meter reading protocol. Please ensure that monthly meter reading protocol will be prepared for each month. Please also clarify if transmission line losses will be considered or not. <u>The clarification request is still open.</u> Review 2: Please state information regarding the transmission losses in the VCS PD. Please also ensure that the records (monthly meter reading protocols) which will be basis of emission reduction include the transmission losses. Please review the statement as per the methodology. <u>The clarification request is still open.</u> Review 3: The records will be based on emission

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
			reduction does not include the transmission losses as mentioned in the VCS PD. <u>The clarification request is closed.</u>
CL15 For the net electricity fed to grid it is indicated as follows: "Cross check measurements results with records for sold electricity" Please clarify which record will be basis of crosscheck.	Table 2-3.t.ii.b	The measurement of the first meter is the basis of the ER calculations. These figures will be cross-checked with the measurements of the second meter, the bills and also the PMUM records. Respond to Review 1: The figures of the first meter will be crosschecked with the PMUM records. Necessary correction has been applied in the revised VCS PD.	Review 1: These is no change VCS PD at the monitoring table. Also, to use the second meter for crosschecking the net electricity generation which is the basis of emission reduction is not acceptable. Please clearly define the record that will be provided to the DOE for the crosschecking. <u>The clarification request is still open.</u> Review 2: It is indicated under section 4.3 of the VCS PD that PMUM records will be used for the crosschecking. <u>The clarification request is closed.</u>
CL16 It is defined under section 4.3 of the VCS PD that electrical engineers will receive sufficient and continues trainings in terms of monitoring and verification aspects. Please define the frequency.	Table 2-3.u.iii	Respond to Review 1: The project developer states that a representative from the technical team will provide necessary training once a year in terms of monitoring and verification aspects. Please see the revised VCS PD section 4.3 for information inclusion	Review 1: This clarification request will be evaluated at the next round as a result of PP's request. <u>The clarification request is still open.</u> Review 2: It is mentioned in the VCS PD

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
			version 03 that one of the personnel from the team will give the training once a year. If a new personnel starts, he will be trained in the specific skills required to carry out the monitoring plan. <u>The clarification request is closed.</u>
CL17 It is not indicated under section 1.6 of the VCS PD version 01 that project activity will use a renewable crediting period or a fixed crediting period. Please clarify.	Table 2-y	The notation that the crediting period will be renewed once has been indicated under section 1.6 of the VCS PD.	Review 1: It is indicated under section 1.6 of the VCS PD version 02 that VCS project crediting period will be renewed once, which will make the total crediting period as 20 years. <u>The clarification request is closed.</u>
CL18 Step 5 "Identifying the group of the power units to be included in the build margin": In this step, a generation-weighted average emission factor is calculated based on a sample of power plants, which have been taken into operation recently. The sample group of power plants/units m used to calculate the build margin consists of two options (Option a and Option b). For conducting the calculations, Option b is selected, because this option results in a larger electricity generation. In terms of vintage data, there are two options available: Option 1 (ex-ante) and Option 2 (ex-post). Please state the option	Table 2-5.e.e	The option chosen regarding Step 5 has been stated.	Review 1: The Step 5 is applied as per the tool. <u>The clarification request is closed.</u>



Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
chosen under Step 5.			
CL19 Alternatives 1, 2 and 4 are found realistic as the outcome of Step 1a. Alternative 3 is eliminated since the project location is not convenient for the other renewable sources such as wind power, solar power. However, the outcome of the Sub-step 1a is given as follows: "Out of all the identified alternatives, only Alternative 4 and Alternative 1 are plausible and realistic." Please clarify.	Table 2-6.g	The outcome of the alternatives to the project activity has been realized to be mistyped. Necessary correction has been applied.	Review 1: The outcome of Step 1a is clearly defined. Alternatives 1, 2, and 4 are plausible and realistic. The clarification request is closed.
CL20 The barriers are defined under Step 3; however, sub-step 3a is not indicated. Please clarify.	Table 2-6.t.i	Sub-step 3a has been presented in the revised PDD.	Review 1: The title of Sub-step 3a is given. The clarification request is closed.
CL21 Sub-step 3a is not applied. Please clarify.	Table 2-6.t.ii	Sub-step 3a has been presented in the revised PDD.	Review 1: Sub-step 3a is applied in line with the tool. The clarification request is closed.
CL22 The outcome from Step 3a is not clearly mentioned. Please clarify.	Table 2-6.v	Sub-step 3a has been presented in the revised PDD.	Review 1: The outcome of Sub-step 3a is clearly presented. The clarification request is closed.
CL23 The outcome from Step 3 is not clearly mentioned. Please clarify.	Table 2-6.x	The outcome from Step 3 has been indicated.	Review 1: The outcome of Step 3 is clearly presented. The clarification request is closed.

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
CL24 The IRR calculation include the general production expenses (3,591,961 \$/year). However, the operating and maintenance cost is given as 3,877,668 \$ in the FSR. Please clarify.	Table 2-6.c.f	It is estimated in the presentation which is the basis for the investment that the annual operational expenses is 3,591,961 \$/year (1% of the total investment amount) The IRR calculation was realized according to the data obtained from the presentation submitted to the Board; not from the FSR..	Review 1: During the site visit, it was mentioned by the PP that the investment analysis is based on the FSR dated November 2007. If the investment analysis is based on the presentation, the inputs shall be validated through the other source. Therefore, CAR31 was created to validate the inputs of the IRR. Please refer to CAR31. The clarification request is closed.
CL25 The energy production figure given in the IRR analysis is not in line with the FSR. Please clarify.	Table 2-6.o	Energy production figures used in the IRR were also obtained from the presentation submitted to the Board.	Review 1: During the site visit, it was mentioned by the PP that the investment analysis is based on the FSR dated November 2007. If the investment analysis is based on the presentation, the inputs shall be validated through the other source. Therefore, CAR31 was created to validate the inputs of the IRR. Please refer to CAR31. The clarification request is closed.
CL26 The measurements are conducted with calibrated measurement devices. TEIAS is the main responsible for calibration and maintenance of the devices. However, it is stated under section 4.3 of	Table 2-7.j	TEIAS is the main responsible for calibration and maintenance of the devices and electrical engineers will not make calibration according to procedures. Correction has been applied to the PDD under section 4.3.	Review 1: The necessary changes were done and the statement was excluded from the CS PD version 02. The clarification request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
the VCS PD version 01 the that electrical engineers will make calibration according to procedures. Please clarify. CL27 Commas and points are used inconsistently for the separation of decimals and three digits in numbers. Commas should be used to separate three digits consistently throughout the whole document. Please clarify.		Necessary revisions have been applied throughout the PDD. Respond to Review 1: Necessary correction on page 9 has been realized. The numbering of the tables have been detected and necessary corrections have been made. Respond to Review 2: The statement on page 8 " ... will generate 966,530GWh ..." has been corrected as 966.53 GWh. Table 3 has been corrected. Page 20: "... capacity is still negligible with 0,9% ..." has been corrected as "...with 0.9%..." Table 5, Table 6, Table 8 and all the other tables have been revised. "...the OM emission factor is 0,6613 tCO2 / MWh" has been corrected as 0.6613 tCO2/MWh. All tables under Annex 6 have been corrected.	Review 1: Please clarify following: Page 5: ... is going to be 966,53 GWh/year ... Page 9: ... approximately 966,530GWh ... Page 9: . Table 3 Page 20: ... capacity is still negligible with 0,9% ... Table 5, Table 6, Table 8 etc. Please review whole VCS PD. <u>The clarification request is still open.</u> Review 2: Please clarify following and review whole VCS PD: Page 8: ... will generate 966,530GWh ... Page 8: . Table 3 Page 20: ... capacity is still negligible with 0,9% ... Table 5, Table 6, Table 8 etc. Page 29: "...the OM emission factor is 0,6613 tCO2 / MWh" All table given under Annex 6 <u>The clarification request is still open.</u>

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
		Respond to Review 3: Table 2 has been revised. Table 14 has been revised. Table 20 has been excluded due to the exclusion of the common practice analysis as per EB 63 Annex 12. - "Turkey's Gross/Net Electricity Generations and Imports" table given under Annex 6, - "Details of BM Calculation" table given under Annex 6, - "Built Margin Emission Factor" table given under Annex 6 have been revised.	Review 3: Commas and points are used inconsistently for the separation of decimals and three digits in numbers. Please clarify following: - Table 2 - Table 14 (IRR is written as 13,12%) - Table 20 - "Turkey's Gross/Net Electricity Generations and Imports" table given under Annex 6 - "Details of BM Calculation" table given under Annex 6 - "Built Margin Emission Factor" table given under Annex 6 - Step 4: "...in the entire electricity generation is 0,5 percent for the years between..." - Table 4 is duplicated. The clarification request is still open. Review 4: - Table 2 has been corrected - Table 14 has been corrected - Table 20 is removed to VCS PD Version05, The new Table 20 Emission reduction of the proposed project in page 42 of the VCS PD Version05.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
			- Turkey's Gross/Net Electricity Generations and Imports, Details of BM Calculation, Built Margin Emission Factor tables have been corrected in annex 6 of the VCS PD Version05. The clarification request is closed.
CL28 The estimated emission reduction is given as 520,932 tCO₂e under section 1.8 of the VCS PD version 03, which does not match with the calculated emission reduction(524,742 520,932 tCO₂e). Please also refer to CAR01.		The estimated emission reduction given as 520,932 tCO₂e under section 1.8 of the VCS PD version 03 has been corrected as 524,729 tCO₂e in accordance with the table 1 of the VCS PD version 3.	Review 1: The emission reduction is given as calculated. The clarification request is closed.
CL29 VCS crediting period is given as December 2010 under section 1.8 of the VCS PD version 03. Please state date in day, month and year format.		VCS crediting period has been stated in day, month and year format as requested.	Review 1: Crediting start date is given as 2/12/2010 The clarification request is closed.
CL30 The expected monthly electricity generation is given at the Table 3 of the VCS PD version 03. Please clarify the reference of the table. Please also add the unit to the Figure 1. It is not clear what the vertical and horizontal axis shows.		The expected monthly electricity figures has been excluded from the VCS PD. Therefore Figure 1 is excluded as well.	Review 1: The table is excluded from the VCS PD. The clarification request is closed.
CL31 Turkish Electricity system has been		The irrelevant sections have been excluded from section 2.4, Baseline	Review 1: The irrelevant section is excluded

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
defined under section 2.4, Baseline Scenario. Please remove the irrelevant sections.		Scenario.	from VCS PD. <u>The clarification request is closed.</u>
CL32 Under sub-step 2d, sensitivity analysis, it is stated as follows: <i>"...four basic parameters have been selected as sensitive factors to check out the financial attractiveness:</i> • Annual operational costs • Electricity selling price • Annual operational costs • Investment costs" Please clarify the duplicating.		The fourth parameter was chosen as the electricity production but it is apparently seen that "annual operational costs" was duplicated and written instead. Therefore, the duplication has been excluded and the fourth parameter "electricity production" has been indicated. Correction has been realized in the revised PDD.	Review 1: The parameters applied to the sensitivity analysis are corrected. <u>The clarification request is closed.</u>
CL33 Please review the units given in the tables and include unit to each table. For example, The unit given as MWh/tCO2 at the Table 9 is not correct. Table 5 and Table 8 does not include unit. Please review all PD and amend accordingly.		The unit in table 9 is corrected. Units are included in table 8. Units are already included in table 5. All PDD is reviewed accordingly.	Review 1: The units are included to the tables. <u>The clarification request is closed.</u>
CL34 It is stated in the VCS PD as follows: <i>"Please refer to Figure 8 where the site organizational chart is presented."</i> <i>"Table 8 shows the overall gross/net relation where the estimated net electricity production from thermal"</i>		The numberings of the tables and figures have been reviewed and the VCS PD has been revised as requested.	Review 4: <u>Organizational chart is provided in Figure 5 of the VCS PD Version 05.</u> <u>Net Electricity Production of Turkey from Thermal Sources is given in Table 7 of the VCS PD Version 05.</u> <u>The variation of IRR is given in Table</u>

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
"Table 16 shows the variation of IRR when the four parameters fluctuate from -10% to +10%." Please clarify the table and figure number.			15 of the VCS PD Version 05. The clarification request is closed.
CL35 The company name and project title was amended. The new company name (Sanibey Baraji Elektrik Üretim ve Tic. A.Ş.) was verified through the Turkish Trade Registry Gazette in 7881 numbered and 16/08/2011 dated. - The table given under 1.3 of the VCS PD the title is given as "SANI BEY ELEKTRİK ÜRETİM SANAYİ VE TİCARET A.Ş." which is in line with the official title. - Please also review the following statement given under section 6 of the VCS PD: "Sani Bey e Dam and HEPP Project"		The VCS PD has been corrected as requested. Respond to Review 4: The application letters both for the revised generation license and the revised Environmental Impact Assessment Positive Certificate have been provided and annexed to the revised VCS PD. The indication of the title change have been made under section 1.1 of the revised VCS PD.	Review 4: The production license for Sani Bey Dam and HEPP project is given in Annex 1, the project owner name is still stated Yedigöze Elektrik Üretim ve Ticaret Anonim Sirketi. Please provide the revised production license for Sani Bey Barajı Elektrik Üretim ve Ticaret A.Ş. Environmental Impact Assessment Positive Certificate is given in Annex 2. Please provide the revised EIA Positive Certificate for Sani Bey Barajı Elektrik Üretim ve Ticaret A.Ş. Project name is still stated as "Yedigöze" in Table 19 of the VCS PD Version 05. The clarification request is still open. Review 5: The application letter to EPDK for the revision of the project title is given under Annex 12 and The

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
NOTE: The version of the VCS PD is given as 03 at the cover page and the date is not given. The version of the VCS PD and the date of the version shall be correctly defined since the versions are referred at the validation report. Also, some changes have been done without tracking changes option. All changes done in the VCS PD shall be tracked by the DOE.			application letter to the Ministry of Environment and Urban Planning for the change of title of the project. The clarification request is closed.
CL36 In section 2.3 of the PD, table 3 is not inline with the selected methodology. CH4 is not suggested as minor emission source by the methodology. Pl. correct.		The note has been taken into consideration.	The version of the VCS PD is updated.
CL37 Investment decision date is 25.12.2006 and First VER consideration is defined as December 2006. Pl. clarify the date and explain how prior consideration is presented.		Table 3 of the PD has been revised in line with the methodology ACM0002 version 12.1. The earliest date regarding VER consideration has been accepted as 5th December 2006, date of the presentation submitted to the Board. Investment decision date has been misinterpreted as 25.12.2006 because the Board decision dated 25.12.2006 only comprised of benefiting from additional incomes being generated by	Review 1: Table 3 is corrected in line with the ACM0002 methodology version 12.1 The clarification request is closed. Review 1: The timeline is revised. Please provide the e-mail exchange for objective evidence to VER consideration The clarification request is still open.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
		VER credits. The investment decision date must actually be accepted as the date of point-of-no-return, which is the date of the contract signature for the construction dated 1st July 2007. The timeline has been corrected appropriately. Response to Review 1: It has been realised that the indication as "following e-mail exchange" has been redundantly used. The presentation submitted to the Board is the default document for the justification of prior VER consideration. Therefore the indication of "following e-mail exchange" has been deleted from the timeline of the project activity PDD.	Review 2: The timeline is revised "following e-mail exchange" mention is removed from PD. The clarification request is closed.
CL38 Timeline of the project activity presented under sensitivity analysis. Pl. correct the section. Stakeholder evidence reference source is not available in pdf format of the PD.		Timeline if the project activity has been replaced appropriately. The stakeholder participation list is available in Annex 8 of the PDD. PDD has been provided in the pdf format. Response to Review 1: It has been understood that due to formatting problems, some problems occurred. Pages 46 and 47 of the PDD has been revised.	Review 1: The stakeholder participation list is provided in Annex 7 of the VCS PD. The timeline of the project is removed under sensitivity analysis. Please revise the reference of stakeholder consultation. Review 2: Pages 46 and 47 have been revised of the VCS PD. The clarification request is

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1/2/3	Summary of project owner response	Validation team conclusion
CL39 The list of the input parameters for the investment analysis shall be given in details instead of total value. Unit has been defined as 000 USD. PI. correct. Reference of the parameters are not clear. The date of the presentation, and the content of the presentation must be defined. PI. also define the references for the cross checking. A presentation can not be accepted for the investment analysis regarding to the VVM.		Unit as 000USD has been corrected. The date of the presentation can be seen on the cover page of the presentation. It is 5th December 2006. The presentation was submitted to DOE during the second validation round. From the presentation, it is clearly understood that the presented investment analysis had been prepared before for the feasibility report which was approved by DSI. In other words, the investment analysis presented at the presentation must be considered as valid and hence further justification of the investment analysis has not been realised. The table of basic financial parameters of the project activity (Table 13) has been revised appropriately. Please see the revised PD.	closed. Review 1: The unit of input parameters are corrected. The reference of parameter is revised in table 13. The clarification request is closed.
CL40 The equations are seen as blank boxes in odf format of the PD. PI. correct.		The equations are visible now. Please see the revised PD.	Review 1: The equations are corrected now. The clarification request is closed.
CL41 The references are missing for the power density calculation.		The reference for the power density calculation has been obtained from the FSR, Section 1.3.2. According to FSR, the flood crest is 238.40 m. and the maximum operational level is 235.00m.	Review 1: The calculation of power density is revised. Please give the reference for the power density calculation in

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		Correspondently, the area of the regulation pond has been determined as 14.94 km². Therefore, the prior assessment of the area of the regulation pond as 16.49 km² has been deleted because it has been realised that an area of 16.49 km² may only be reached when elevation level reaches 240 m. , well above the flood crest. As a result, the elevation-volume-area curve in Annex 6 has been deleted. The power density calculation has been revised accordingly in the PDD. The reference for the power density calculation has been provided in the revised VCS PD. <u>Response to Review 1:</u> The reference of reservoir area has been included as footnotes 50 and 51.	VCS PD. <u>Review 2:</u> The reference have been given for power density. <u>Review 3:</u> The reservoir area is revised as 14,299,205.52 m². The clarification request is closed.
<u>CL42</u> In section 4.3 of the PD there is a blank box. Pl. correct.		The blank box found in section 4.3 of the PD has been deleted. <u>Review 1:</u> The blank box is removed in section 4.3 of the VCS PD. The clarification request is closed.	

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