



SenterNovem

**Hidroelectrica Hydropower
Development Portfolio Track 1
JI Project
Determination Report**

28 November 2008
This report contains 26 pages
Determination Report

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1 **Determination statement**

Introduction, responsibilities and scope

The management of SenterNovem asked KPMG Sustainability to determine the Project Design Document (PDD) of the Hidroelectrica Hydropower Development Portfolio Track 1 JI Project.

The management of SenterNovem and Hidroelectrica S.A. are responsible for the preparation of the PDD in accordance with Article 6 of the Kyoto Protocol and the Guidelines for the implementation of Article 6 of the Kyoto Protocol agreed at the Montreal CoP in 2005 and with the National JI Track 1 Procedure of Romania, for the calculation of the baseline emissions and for the estimation of the project emissions and the forecasted emission reductions.

Our responsibility is to issue a determination statement on whether the PDD has been prepared in accordance with Article 6 of the Kyoto Protocol and the Guidelines for the implementation of Article 6 of the Kyoto Protocol agreed at the Montreal CoP in 2005 and on the assumptions and methods applied for the calculation of the baseline emissions and for the estimation of the project emissions and the forecasted emission reductions.

KPMG Sustainability can not be held liable by any party for decisions made or not made based on this determination report.

Activities Undertaken

Our activities included:

- An assessment of the PDD in relation to compliance with Article 6 of the Kyoto Protocol and the Guidelines for the Implementation of Article 6 of the Kyoto Protocol agreed at the Montreal CoP in 2005 and with the National JI Track 1 Procedure of Romania.
- On site visits and interviews with the staff of Hidroelectrica S.A., and interviews with the staff of SenterNovem and the consultant from the Foundation JIN involved in the preparation of the PDD and the collection of the reported data.
- An assessment of the internal documents used for preparing the PDD.
- Review of the applied assumptions and methods for the calculation of the baseline emissions and for the estimation of the project emissions and the forecasted emission reductions. This review was limited to inquiries of company personnel, analytical procedures applied to the emission data and to the proper application of assumptions.

Emphasis of Matter

We draw your attention to our conclusion that financial additionality of the project on the basis of JI Track 2 guidance could not be demonstrated. We drew our conclusion based on the interpretation of additionality for the proposed project communicated in the minutes of the meeting of the National Climate Change Committee (NCCC) of 27 October 2008 stating that evidence of historic delays in investments experienced at Hidroelectricia allows the demonstration of financial additionality for the proposed project.

Determination Opinion

In our opinion the PDD has been properly prepared on the basis of Article 6 of the Kyoto Protocol and the Guidelines for the implementation of Article 6 of the Kyoto Protocol agreed at the Montreal CoP in 2005¹ and on the basis of the National JI Track 1 Procedure of Romania, subject to the interpretation of financial additionality for the proposed projects as agreed at the NCCC meeting dated 27 October 2008, except for the following requirements:

- The Romanian Designated National Authority has not yet approved the project by issuing a Host Country Approval Letter.
- The Dutch Government has not yet approved the project and therefore still no Declaration of Approval has been submitted by the Netherlands.

Based on our activities undertaken, assuming the project will be realised, nothing came to our attention that causes us to believe that the applied assumptions and methods do not provide a reasonable basis for the forecasted emission reductions compared to the baseline situation.

Actual emission reductions may differ from the forecast since anticipated events do not always occur as expected.

Amstelveen, 28 November 2008



Wim Bartels
Partner of KPMG Sustainability

¹ Document reference FCCC/KP/CMP/2005/8/Add.2; 30 March 2006

2 Introduction

SenterNovem has commissioned us to determine the Project Design Document of the Joint Implementation Project related to the Hidroelectrica Hydropower Development Portfolio Track 1 JI Project in Romania.

The project aims at finalising nine new hydropower plants, which will be located in different hydrographical basins in Romania.

This chapter describes the objective, scope, and determination methodology and determination team for this determination. Key data are included in Annex A.

2.1 Objective

The aim of this determination is to evaluate the planned project activity against the requirements of the JI Guidelines as set out in decision FCCC/KP/CMP/2005/8/Add.2 of 30 March 2006 on the basis of the PDD developed by the project proponents SenterNovem and Hidroelectrica S.A. The Romanian National Procedure on the use of JI Track 1, according to Article 6 of Kyoto Protocol, described in the MO 297/2008, was taken into account.

In the NCCC meeting dated 27 October 2008 the NCCC decided that the evidence of the historic delays in investments experienced at Hidroelectrica allows the demonstration of financial additionality for the proposed project. For assessing the financial additionality of the project we have taken into account this interpretation.

2.2 Scope

The scope of this determination consists of assessing the PDD elements against the requirements set out by UNFCCC and host country JI Track 1 regulations respectively.

The following elements of the PDD are evaluated. The results thereof are described in chapter 3.

- (i) Baseline study and additionality assessment. The baseline study is intended to assess the level of greenhouse gas emissions attributable to human activities that would have otherwise occurred. The baseline study also assesses the level of greenhouse gas emissions that will occur after implementation of the project. Additionality is assessed in terms of the conditions of environment, technology, legislation, planning and finance.
- (ii) Monitoring plan, describing which data will be collected for monitoring purposes. The monitoring plan includes a description of the quality assurance and control provisions for monitoring, collecting and reporting.
- (iii) Environmental Impacts, providing documentation on the analysis of environmental impacts of the project. If the impacts are considered important, conclusions and

supporting documentation of an environmental impact assessment have to be provided. The environmental impact assessment has to be performed in accordance with the procedures of the country where the project is implemented.

(iv) Stakeholder comments. The international stakeholder comments have been collected on the basis of a 30 days publication of the project design document on the CarbonCredits.nl website. The national stakeholder comments based on the 30 days publication of the Project Design Document on the website of the Romanian Ministry of Environment and Sustainable Development have also been taken into account. On the basis of the provided PDD and of the evaluation thereof (see above), we have formed an opinion on the basis of the following criteria (described in chapter 4):

- The relevance of the defined project boundaries, assuring that the covered greenhouse gas emissions appropriately reflect the greenhouse gas emissions of the project and that all relevant greenhouse gases have been taken into account;
- The completeness of assumptions, data, references and calculations applied in the definition of:
 - Project boundaries;
 - The emission level that would occur in the absence of the project;
 - The emissions level that is likely to occur upon completion of the project;
 - Inclusion of all greenhouse gas emission sources and activities within the defined project boundaries, with any exclusions stated and specified;
 - Leakage – whether the project might lead in a net change of greenhouse gas emissions outside the project boundaries;
 - Assessment of additionality of the project.
- The consistency of the applied methodology and input data with:
 - The JI Guidelines of 30 March 2006 FCCC/KP/CMP/2005/Add.2 Decision 9/CMP.1 (Article 6);
 - The Romanian National Procedure on the use of JI Track 1, according to Art. 6 of KP, as approved by the MO 297/2008.
- The transparency of the baseline study, based on:
 - Coherent and factual description and justification of all assumptions on the basis of which the baseline was defined;
 - The description and justification of all assumptions on the basis of which the emission levels after project completion were calculated;
 - Disclosure of underlying data and references that were used in compiling the baseline study.

- The accuracy of the greenhouse gas emission calculations, ensuring that these have the precision needed for their intended use, including the possibility of performing a sensitivity analysis.

2.3 Limitations

KPMG Sustainability is an Applicant Independent Entity in the process of accreditation at the Joint Implementation Supervisory Committee. This process has not been finished yet. One of the requirements for accreditation is that a Track 2 determination project will be witnessed by the JI Accreditation Team. The possible implications of this situation have been discussed and agreed with the management of SenterNovem prior to the start of the determination.

2.4 Determination methodology

The determination consisted of a desk review of the PDD with its Annexes. The team in SenterNovem and Hidroelectrica responsible for preparing the PDD has been interviewed.

All nine project site locations have been visited and local Hidroelectrica’ representatives have been interviewed by the determination team. At each project site the history of the project and the current status of implementation have been discussed. Also documents related to Environmental Impact Assessments, environmental permits and safety permits for the dams and public consultation have been reviewed.

2.5 Determination team

The following team has carried out the determination:

Name	Organization and role in the project
Eric Koudijs	KPMG Sustainability The Netherlands, Senior Manager, Project Leader
Geta Diaconu	KPMG Romania S.R.L, Senior Manager, Validator in the project.
Andreea Popescu	KPMG Romania S.R.L, Senior Advisor, Validator in the project
Liviu Ianus	KPMG Romania S.R.L, Senior Advisor, Validator in the project

Table 1: Determination team

3 Determination

The activities carried out during determination and the period during which these have taken place are described in the following sections. The findings for each component of the PDD are compared with the requirements.

The source for the requirements is FCCC/KP/CMP/2005/8/Add.2, Decision 9/CMP.1, Appendix B, 30 March 2006, unless stated otherwise.

3.1 Activities

KPMG Sustainability received the draft PDD on 17 July 2008. The draft documents were reviewed and discussed during the visit on 23 July 2008 of the determination team to the office of Hidroelectrica in Bucharest. After this review the project proponents made a number of changes in the documentation and on 19 August 2008 an updated version of the PDD was put on the CarbonCredits.nl website. Eight project locations site visits have been performed in the period 28 July – 1 August 2008. An additional project location (Raul Alb) site visit was performed on 28-29 August.

Date	Interviewee	Position
23 July 2008	Discussions with management and staff in Hidroelectrica in Bucharest	
	Eugeniu Tanase	Head of Crediting, Contracting and International Contracts Development Department
	Dana Horhoianu	Environmental Coordinator
	Razvan Cojoc	Investment Manager
24 July 2008	Wytze van der Graaf	Consultant at Foundation JIN and author of the PDD
27 July 2008	Rastolita HPP	
	Nap Carmen	Public relation and communication responsible, Sibiu Hidroelectrica subsidiary
	Rogoz Camelia	Environmental protection responsible, Sibiu Hidroelectrica subsidiary
	Hidisan Mihai	Investment Service, Sibiu Hidroelectrica subsidiary
	Maxim Aurelian	Sites acquisition responsible, Sibiu Hidroelectrica subsidiary
	Iacob Ioan	Building site manager – Hidroconstructia representative
	Dorin Chiorean	Manager, Sibiu Hidroelectrica subsidiary
	Nicolae Sanraian	Assistant Manager Development, Sibiu Hidroelectrica subsidiary

Date	Interviewee	Position
28 July 2008	Farcas Augustin	Environmental Protection Responsibility, HPP Rastolita
	Mangu Ioan	Engineer HPP Rastolita
29 July 2008	Firiza I & II HPP's	
	Viorel Maier	Head of Building site, Firiza HPP's, Sibiu Hidroelectrica subsidiary
	Hidisan Mihai	Investment Service, Sibiu Hidroelectrica subsidiary
30 July 2008	Siriu HPP	
	Claudin Chifan	Manager, SC Hidroconstructia SA, Siriu subsidiary, constructor representative
	Alexandru Tudor	Director, Hidroelectrica Buzau subsidiary
	Mihail Stancu	Head of Investment Department, Hidroelectrica Buzau subsidiary
	Teodor Dumitras	Director, Hidroconstructia, Siriu subsidiary. Constructor representative
30 July 2008	Plopi HPP	
	Victor Babau	Branch office manager Plopi HPP, Hidroconstructia representative
	Purece Remus	Head Investments Service, Hateg Hidroelectrica subsidiary
	Elena Divoiu	Environmental Protection Responsibility, Hateg Hidroelectrica subsidiary
	Draghici Ion	Technical assistant manager, Plopi HPP
	Pop Alexe	Senior engineer, Plopi HPP
	Antal Florin	Building site manager Plopi HPP, Hidroconstructia representative
Vlaiconi Augustin	Head laboratory UCC, Hateg Hidroelectrica subsidiary	

Date	Interviewee	Position
31 July 2008	Dumitra & Bumbesti HPP's	
	Craciunescu Ion	Program Manager, Tg. Jiu Hidroelectrica subsidiary
	Bivolaru Eugen	Branch office manager, Hidroconstructia representative
	Popescu Traian	Head of Building site, Hidroconstructia representative
	Craiete Ileana	Environmental Responsibility, Tg. Jiu Hidroelectrica subsidiary
	Cristea Constantin	Building site manager HPP's, Hidroconstructia representative
29 August 2008	Raul Alb PHH	
	Sorin Bumbacila	Investment department coordinator, Hidroelectrica Caransebes Subsidiary
	Crisnic Petru	Hidroelectrica Caransebes Subsidiary
	Bocsan Ilie	Hidroelectrica Caransebes Subsidiary

Table 2: Overview of site visits and interviews

Hidroelectrica submitted the PDD to SenterNovem and the documentation was published between 19 August and 19 September 2008 on the website carboncredits.nl. On this website a KPMG e-mail address was published where stakeholders could send their comments or questions to.

At the Project's Focal Point (PFP) request, the PDD was also posted on the website of the Ministry of Environment and Sustainable Development, on 19 August 2008, for national public consultation.

No comments or questions have been received from the public during the above mentioned period publication of the project documents.

3.2 Baseline study

The *baseline* for an Article 6 project (Joint Implementation) is the scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases that would occur in the absence of the project activities within the project boundary.

The project specific baseline has to be established by the project participants in accordance with UNFCCC requirements. The baseline has to describe in a transparent and conservative manner the choices of (i) approaches, (ii) assumptions, (iii) methodologies; (iv) parameters, (v) data sources, (vi) key factors and (vii) additionality, and (viii) take into account uncertainty.

The baseline requirements are set out against our findings in the table 3. The source for the requirements is FCCC/KP/CMP/2005/8/Add.2, Decision 9/CMP.1, Appendix B, 30 March 2006.

Requirement	Findings
The baseline shall be established on a project specific basis and/or using a multi project emission factor.	The baseline has been based on the electricity production by the thermal power plants in Romania, based on the assumption that the electricity produced by the Project will “replace” the electricity produced by thermal power plants. <i>Ex post</i> monitoring of the verified emissions of the thermal power plants under the EU ETS will be the basis for the emission reductions of the project. The CO ₂ baseline emission factor will be part of the monitoring and will be based on verified and publicly available data.
The baseline shall be established in a transparent manner with regards to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors.	The PDD format as indicated in MO 297/2008 (which is the same as for Track 2 JI, as set in Annex 2 of MO 1122/2006) has been used. Approaches, methodologies, parameters, data sources and key factors have been described in a transparent manner. External data sources have been mentioned in footnotes. A baseline emission factor, calculated based on 2007 EU-ETS installations verified CO ₂ emissions was used for the forecasted emission reduction calculation.
The baseline shall be established taking into account relevant national and/or sectoral policies and circumstances such as sector reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector.	The key factors influencing the baseline and the project have been described in chapter A.2., item “Country context”. Public information made available by the Romanian National Regulation Agency in the Energy field (ANRE) for the years 2004 – 2007, has been used. Reference has been made to EU energy and climate policy applicable for Romania.
The baseline shall be established in such a way that ERU’s cannot be earned for decreases in activity levels outside the project activity or due to force majeure.	The baseline consists of emissions generated by the installations under EU-ETS, excluding low-cost must run plants as well as the thermal power plants with a preferential dispatch status. As the Baseline Carbon Emission Factor (CEF) is annually calculated based on verified data, decreases of activity outside the project activity cannot affect the baseline.

Requirement	Findings
The baseline shall be established taking into account uncertainties and using conservative assumptions.	The project developers have consulted ANRE experts to discuss the baseline approach. The low-cost must run coal units have been excluded from the baseline. Also the Combined Heat and Power units having a preferential dispatch status have not been included in the baseline calculation. The ex-ante forecast has been based on the most recent available data. The baseline emissions will be monitored ex-post.
Explanation how the baseline was established in a transparent and conservative manner.	All the assumptions demonstrating the conservative approach have been clearly described in the PDD. The spreadsheet calculating the baseline emissions has been attached to the baseline report.
Statement of how anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the proposed project activity.	In the absence of the project, the related electricity (which will be needed at the national level) will be produced by thermal power plants (based on mineral fuels) and consequently no GHG emissions would be reduced in that situation. See chapter 3.3. for further explanation of compliance with the applicable additionality requirements.

Table 3: Baseline emissions

3.3 Compliance with applicable additionality requirements

We assessed the additionality of the project against the requirements of the Ministerial Orders MO 1122/2006 and MO 297/2008.

The National JI Track 1 Procedure of Romania states that the criteria to be applied for the additionality assessment during the PDD determination for the national JI Track 1 procedure should be those as applied for the JI Track 2 procedure. Therefore we initially assessed additionality against the JI Track 2 procedures.

The JI Track 2 procedures agreed during the fourth meeting of the JISC state that for projects that do not apply an approved CDM methodology the following options are available:

- (i) Application of the most recent version of the “Tool for the demonstration and assessment of additionality” approved by the CDM Executive Board;
- (ii) Application of any other method for proving additionality approved by the CDM Executive Board;
- (iii) Provision of traceable and transparent information showing that the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to reductions of anthropogenic emissions by sources or enhancements of net anthropogenic removals by sinks of GHGs;

(iv) Provision of traceable and transparent information that an accredited independent entity has already positively determined that a comparable project (to be) implemented under comparable circumstances (same GHG mitigation measure, same country, similar technology, similar scale) would result in a reduction of anthropogenic emissions by sources or an enhancement of net anthropogenic removals by sinks that is additional to any that would otherwise occur and a justification why this determination is relevant for the project at hand.

The PDD did not follow CDM additionality tool or any other method for proving additionality approved by the CDM Executive Board so option (i) and (ii) are not applicable. The project did also not rely on a comparable project, therefore option (iv) is not applicable either. Therefore the option (iii) is applicable for the project under review.

Under option (iii), the phrase ‘... the project scenario is not part of the identified baseline scenario ...’ means that the project would not have occurred in the same period and in similar conditions without the JI mechanism. Not only the emission reductions should be additional compared to the situation where the project would not be implemented, also the project itself should be additional.

We have requested the project proponents to provide us with evidence demonstrating that the project is meeting these requirements.

Ministerial Order 1122/2006 for approval of guidelines related to JI Track II states that projects are additional if five conditions are simultaneously met. We outline these conditions below, including our findings for each of these.

Related to environment - *GHG emissions reduction does not exist if the project is not implemented.* This condition is met by the projects, as the emission reductions would not have been achieved if the projects would not be implemented.

Technology - *the need to use advanced technology (the best available technique as defined in the EU legislation).* This condition is met by the projects: all projects are hydropower projects with advanced technology.

Related to legislation - *the projects that have as goal, the compliance with applicable legislation in Romania, are not taken into account.* This condition is met because there is no legal obligation to implement the projects in the portfolio.

Planning - *the projects included in a programme or a developing scheme are not taken into account.* The projects are not included in a programme or a development scheme, so this condition is also met.

Financial - *the project implementation depends on the funds obtained as transfer of emission reduction units generated by the project.* No evidence was provided about the role Joint Implementation played in the decision taking process for investing in the projects in the portfolio. The PDD states that „JI Track-I has created a strong opportunity to move implementation of the units forward in time before the year 2012 for financial reasons and

reasons of being able to bundle the units into one programme and thus avoid further delays”. However we have not been provided with evidence that the additional funding through Joint Implementation makes a significant difference in the implementation schedule of the projects in the portfolio or that the projects would not be completed without the option of the Joint Implementation mechanism. We have noted that all projects except the Nehoiasu II HPP were initiated well before it was decided that the projects would become subject to Joint Implementation.

By applying the requirements of Ministerial Order 1122/2006 four of the five conditions for additionality are met, as outlined above.

From the above it can be concluded that the financial additionality of the proposed project on the basis of JI Track 2 guidance could not be demonstrated.

Additional interpretation by the NCCC

During the meeting of the NCCC of 27 October 2008 it was agreed that evidence of historic delays in investments experienced at Hidroelectrica allows the demonstration of financial additionality for the projects.

After that meeting Hidroelectrica provided us with the annual investment plans of the company for 2005, 2006, 2007 and 2008. From these plans it can be concluded that the planned commissioning dates of the projects were postponed several times during these years.

On the basis of the additionality interpretation by the NCCC the projects have demonstrated to be additional.

3.4 Monitoring plan

The monitoring plan describes the data collection and archiving systems that are required to estimate or measure the anthropogenic emissions by sources of greenhouse gases within the project boundary during the crediting period.

The requirements for the monitoring plan are set out against our findings in table 4. The source for the requirements is FCCC/KP/CMP/2005/8/Add.2, Decision 9/CMP.1, Appendix B, 30 March 2006.

Requirement	Findings
The monitoring plan shall include a plan for the collection and archiving of all relevant data necessary for estimating or measuring anthropogenic emissions by sources and/or anthropogenic removals by sinks of greenhouse gases occurring within the project boundaries during the crediting period.	The monitoring plan has been described in Section D of the PDD. This plan consists of monitoring (measuring) of electricity supplied to the grid by the nine hydropower plants, which will be multiplied with a calculated CEF (gCO ₂ /kWh) based on verified data under EU-ETS of installations included in the baseline. These data will be made available from NEPA, ANRE and MESD. Special spreadsheets to be used by NEPA and ANRE have been developed and attached to the PDD. As the information included will be based on verified publicly available data the monitoring data will be transparent.
The monitoring plan shall include a plan for the collection and archiving of all relevant data necessary for determining the baseline of anthropogenic emissions by sources and/or anthropogenic removals by sinks of greenhouse gases within the project boundary during the crediting period.	The monitoring plan defines responsibilities (D.4) and refers to electricity measuring and registration systems that Hidroelectrica already uses in other HPPs. Each step for data collection and archiving is described in the monitoring plan (D.1.1.3).
The monitoring plan shall include a plan for the identification of all potential sources of, and the collection and archiving of data on increased anthropogenic emissions by sources and/or reduced anthropogenic removals by sinks of greenhouse gases outside the project boundary that are significant and reasonably attributable to the project during the crediting period. The project boundary shall encompass all anthropogenic emissions by sources and/or removals by sinks of greenhouse gases under the control of the project participants that are significant and reasonably attributable to the Article 6 project.	<p>The monitoring plan (D.1.3.) justifies no sources of leakages were identified.</p> <p>The company intends to use the emission factors calculated on the base of annual verified and reported data by the energy installations under EU-ETS in Romania.</p>
The monitoring plan shall include a plan for collection and archiving information about environmental impacts, in accordance with procedures as required by the host Party, where applicable.	According to Romanian legislation, an environmental monitoring and reporting program is developed and included in the “environmental authorization”; the authorization will be obtained for each HPP, when it will be put in operation (as stated by the law).

Requirement	Findings
The monitoring plan shall include a plan for quality assurance and control procedures for the monitoring process.	The quality control procedures of Hidroelectrica will also be applied for this project. Chapter D.2 mentions the specific quality assurance and quality control procedures that will be adopted for the key parameters in the monitoring plan. The monitoring plan defines also the responsibilities for monitoring.
The monitoring plan shall include a plan for procedures for the periodic calculation of the reductions of anthropogenic emissions by sources and/or enhancements of anthropogenic removals by sinks by the proposed Article 6 project, and for leakage effects, if any. Leakage is defined as the net change of anthropogenic emissions by sources and/or removals by sinks of greenhouse gases which occurs outside the project boundary, and that is measurable and attributable to the Article 6 project.	During the monitoring period the same parameters will be applied using the same spreadsheet as used in the baseline report. Removals and sinks outside the project boundaries as well as leakage have been mentioned in the monitoring plan but are considered to be insignificant.
The monitoring plan shall include a plan for documentation of all steps involved in the calculations referred to in subparagraphs above.	The monitoring plan describes the same formulas and the same formats used in the baseline report indicating that they will be used for annual monitoring of the resulting ERUs

Table 4: Monitoring plan

The annual CO₂ emission reductions have been estimated by comparing the expected baseline situation with the project situation. The project proponents motivate in the PDD why the project emissions and leakage will be negligible and why the baseline emissions will be equal to the emission reductions.

3.5 Environmental impacts

The Romanian legislation requires Environmental Impact Assessments (EIA's) for the projects that can have a potential negative influence on the environment. Article 33 (d) of the Guidelines for the implementation of Article 6 of the Kyoto Protocol states that the independent entity shall determine whether the project participants have undertaken an environmental impact assessment.

Requirements	Findings
<p>Project participants shall submit to the accredited independent entity documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, in accordance with procedures as determined by the host Party, and, if those impacts are considered significant by the project participants or the host Party, have undertaken an environmental impact assessment in accordance with procedures as required by the host Party.</p>	<p>EIAs for 6 out of 9 HPPs were developed in order to obtain the environmental permits. The respective EIAs include statements and recommendations for measures to be implemented for environmental impact mitigation during the construction stage. When all HPPs will be put in operation, EIAs (called environmental balance) based on environmental measurements will be developed, as this is the legal request for obtaining the environmental authorization.</p> <p>The main purpose of these EIAs is to assess the environmental impact generated by new construction works. The EIA is a basic component of the file necessary to be submitted in order to obtain the Environmental Permit. For the respective Hidroelectrica HPPs, only 6 EIAs were performed (Racovita in 2001, Robesti in 2001, Raul Alb 1990-1991, Bumbesi 2001, Dumitra 2001, Nehoiasu II 2004 and amended in 2006 and Plopi in 1997) from the total of 9 HPPs. Due to the fact that some of these HPPs are part of the same project (i.e for: Racovita and Robesti – project of Olt River, Raul Alb part of the Bistra-Poiana Marului-Ruieni-Poiana Rusca project, Bumbesti-Dumitra project on Jiu River, Nehoiasu II – part of Siriu-Surdac project) they have the same EIA. Part of these EIAs was performed before starting the construction works (i.e 1991, 2001, 2002). The EIAs were developed by accredited companies.</p> <p>For the 3 remaining HPPs (Râul Alb, Rastolita and Firiza I+II) no EIAs were performed. Rastolita and Firiza I + II obtained an environmental permit without an EIA. Râul Alb could not show us an environmental permit, although it was mentioned that an environmental permit was issued. Environmental permits are applicable for the construction period and the construction works at Râul Alb are finished. The company informed us that they will prepare an environmental balance/assessment for the operational phase and apply for an environmental authorisation at commissioning.</p> <p>When all HPPs, are put in operation, EIAs (called environmental balance/assessment) based on environmental measurements will be developed, as this is a legal requirement for obtaining the environmental authorization</p>

Table 5: Environmental impacts

3.6 Stakeholder consultation

The opinion of stakeholders should be sought from both Romanian stakeholders and from international stakeholders.

In Chapter G.1 of the PDD it is pointed out that the Romanian stakeholder consultation was organised through the application procedures for environmental permits of the 6 HPPs which have environmental permits and through direct contacts with stakeholders (public debates). As stated no public negative reactions/comments were noted.

The PDD was published on the MESD website for 30 days of national stakeholder consultation on 19 August 2008. The PDD was also published on the SenterNovem website carboncredits.nl between 19 August 2008 and 19 September 2008 for obtaining international stakeholder comments.

No national and international stakeholder comments have been received.

3.7 Host Country Approval

No Host Country Approval Letter has been issued yet.

3.8 Declaration of Approval

The Dutch Ministry of Economic Affairs as National Authority has not approved the project yet.

3.9 Corrective action requests

The corrective actions requested by KPMG Sustainability are included in Annex B.

A Key data

Project name	” Hidroelectrica Hydropower Development Portfolio Track 1 Project ”
Project description	The project aims at developing nine new hydropower plants, which will be located in different hydrographical basins in Romania.
Project proponents	Hidroelectrica Mr. Eugeniu Tanase 3, Constantin Nacu St. 020995, Bucharest Romania Tel. + 40 213032580 Fax: + 40 213032572 E-mail: eugeniu.tanase@hidroelectrica.ro
Independent Entity	KPMG Sustainability Amstelveen The Netherlands Tel. + 31 6 5155 3429 Fax. + 31 20 656 4510 E-mail: Koudijs.Eric@kpmg.nl
CO ₂ reduction forecasted by the project proponents	ERUs: 1,317,821 tonnes CO ₂ in the period 2008 – 2012 (5 years)

Table 6: Key data project

B Corrective action requests

On the basis of the examination of the draft PDD version of 17 July 2008, the following corrective action requests were sent to the project proponents:

Ref. to the PDD	Draft report clarifications and corrective action requests by validation team	Summary of project owner response	Validation team conclusion
A.4.2	<p>Corrective Action Request 1:</p> <p>The history of each power plant in the portfolio, the starting date of the project to finish the construction and the current status should be included in the PDD. There is very limited and only general information included.</p> <p>The technical specification of the projects should also include a description of the volume and area of the lake, the height and the length of the dam.</p>	<p>The history of each HPP has been included in Section A.2 under the heading 'Description of the project units'. In particular, the pattern has been highlighted that the initial plans were approved by the Government of Romania in the 1980s, that actual investments were very slow and sometimes paused.</p> <p>Information was included.</p>	Closed
B.2	<p>Corrective Action Request 2:</p> <p>The ex-ante baseline factor based on the Timisoara Centru 20 MW Cogen project includes CH₄ and N₂O emissions while ACM0002 does not include this. Also the monitoring plan does not include this.</p> <p>The factor of 858 g CO₂/kWh seems high.</p> <p>The published IEA factor for 2005 Romania is 394 g CO₂/kWh. Dividing this by 0.53 (table on page 18 of the PDD) results in a grid factor for the thermal units of 744 g CO₂/kWh.</p> <p>Please reconsider the ex-ante emission factor and take a conservative approach.</p>	<p>The approach was changed: Timisoara Centru Cogen project is not used anymore in final version of the PDD. The ex-ante baseline factor was calculated based on EU-ETS installations verified CO₂ emissions for the year 2007, leaving out CO₂ emissions generated by all CHP plants. Only verified emissions from thermal electricity production (which are likely to be replaced by the project) were taken into account in the calculation. This represents emissions of electricity production that is likely to be replaced by the projects.</p> <p>In the final version of the PDD the average emission factor of the baseline with CHP units (667 gCO₂/kWh) and the baseline without the CHP units (1053 gCO₂/kWh) has been used as ex-ante emission factor resulting in 860 gCO₂/kWh.</p>	Closed

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B.1	<p>Corrective Action Request 3:</p> <p>It is unclear how the emissions of the CHP and cogen units are divided between electricity and heat production for the monitoring of emissions for electricity production in the monitoring plan.</p>	<p>Explanations on how CO₂ emissions from CHP units will be taken into account have been included in section B1, heading “Combined heat and power connected to the electricity grid”. The must run CHP units are left out, and emission factors of CHP units will be calculated for the total energy production (electricity and heat). CHPs having a preferential status for electricity delivery in the dispatch order will be removed from the baseline.</p> <p>The result of this approach is that electricity that can be seen to be “replaced” by electricity of the new hydropower units will be included in the baseline.</p>	Closed.
D.1	<p>Corrective Action Request 4:</p> <p>In the monitoring plan it is not clear what the definition is of produced electricity. Is it gross or net electricity production?</p> <p>Also the heat production should be included in the monitoring because this is necessary for dividing the combustion emissions of CHP and cogen units between heat and electricity.</p> <p>Please provide details about these subjects and modify the PDD accordingly.</p>	<p>Specification on net electricity production was done.</p> <p>In the table D.1.1.3 “Relevant data necessary for determining the baseline of anthropogenic emissions of greenhouse gases by sources within the project boundary, and how such data will be collected and archived” the heat was introduced as data to be provided by ANRE for EU-ETS CHP units.</p>	Closed

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B.1	<p>Corrective Action Request 5:</p> <p>On page 15 is stated that must run and/or low operational costs units are not included in the baseline. ACM0002 states that if coal units are obviously used as must run they should be excluded from the baseline scope.</p> <p>It seems that in Romania several large condensing coal units (<i>e.g.</i> Turceni and Rovinari) should be considered low operational costs/must run</p>	<p>Clarifications have been obtained form ANRE (ANPM) and it has been concluded that it is reasonable to assume that some of the large condensing coal units are highly unlikely to appear in the margin. The related text in the PDD was correctly modified.</p>	Closed
B.1	<p>Corrective Action Request 6:</p> <p>The text in the 3rd paragraph on page 14 seems not correct. The weather circumstances do not impact the baseline significantly if only thermal units are included in the baseline. Please rephrase this part of the PDD.</p>	<p>The text on the impact of weather circumstances on the CEF in B.1. was deleted.</p>	Closed
A.4.3	<p>Corrective Action Request 7:</p> <p>The phrase “To analyse why the project activities would not have taken place in absence of the project (or at a later date)” is unclear.</p>	<p>The text was re-written.</p>	Closed
B.2	<p>Corrective Action Request 8:</p> <p>The PDD states on page 21 that there are no special incentives for the implementation of hydropower projects. Governmental Decision 750/2008 describes the incentives for hydropower project below 10 MW. Two of the nine units are in this category.</p>	<p>Only the individual units of Firiza I + II are below 10 MW. These projects were already in development when GD 750/2008 was issued and this decision only applies for new projects. Therefore no incentive will be available for this project.</p>	Closed

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D	<p>Corrective Action Request 9:</p> <p>The monitoring plan is not consistent. On the one hand it is stated that the monitoring will be based on ex-post monitoring using the outcome of the EU-ETS verification of the thermal units. On the other hand detailed monitoring of fuel consumption and the use of actual or IPCC emission factors is included. Using IPCC 1996 emission factors is not very accurate. If certain units have a potentially material impact on the overall emission factor or if the fuel is very specific (e.g. hard coal and lignite) actual emission factors should be used. The way it is described now IPCC 1996 can be used for all fuels.</p>	<p>This has been corrected both in the baseline (B.1) and Monitoring (D), by simplifying the formulation and deleting the emission factor, fuel consumption and caloric value requirements.</p>	Closed
D	<p>Corrective Action Request 10:</p> <p>The monitoring plan states that the emission factor of the entire grid will be used as baseline factor, while other text indicates that only the thermal units of the grid are included in the text.</p> <p>Also the text on project boundary (B.3.) should be rephrased on this point. Please modify this accordingly.</p>	<p>The text has been modified accordingly and project boundaries have been correctly defined</p>	Closed
B.1	<p>Corrective Action Request 11:</p> <p>On page 16 is stated that “it is important to conclude a data collection protocol between the organisations”.We agree with this statement. The monitoring plan however does not contain information about the collection of data in case this protocol will not be concluded. Please describe in the PDD what will be done in case the centrally collected data will be made available.</p> <p>Also allocation of CHP and Co-gen units should be included in the monitoring plan and treated differently.</p>	<p>Should the institutionalization of the protocol not be possible, then the CEF calculations based on annual ANRE data (as shown in the table in B.2) will be used. This would enable determining a CEF which would automatically exclude heat-only boilers, as the data refer to grid-connected electricity production only;</p> <p>A procedure for allocating CO₂ emissions to CHP heat and electricity output has been included in the baseline and monitoring methodology.</p>	Closed

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	<p>Corrective Action Request 12:</p> <p>Table Annex 2.4 and 2.5 do not contain the list of grid connected thermal power plants but the companies operating one or more thermal power plants. Please correct this.</p>	The Annex text and its tables have been adjusted.	Closed
B.2	<p>Corrective Action Request 13:</p> <p>During the interview in Hidroelectrica we learned that none of the reservoirs are existing reservoirs. Please modify the text on this subject and modify the project emissions if necessary.</p>	The information has been updated correctly by Hidroelectrica; For the two projects for which Power Density needed to be calculated, this was performed.	Closed
	<p>Corrective Action Request 14:</p> <p>There are several inaccuracies in the text related to the projects. E.g. on page 5 is stated that the Rastolita HPP has a basin of 38 million m3 while on page 19 is stated that this project is a run-of-river project without a reservoir.</p> <p>Hidroelectrica should review the text related to the project description and make the necessary corrections</p>	The original text has been updated correctly.	Closed
F	<p>Corrective Action Request 15:</p> <p>From the interview with Hidroelectrica, we concluded that the EIA's of Racovita and Robesti project have not been finished and no environmental permits were issued for these projects. Please complete the EIA and permit application procedures and provide us with the EIA's and the environmental permits of the respective projects.</p>	The high level management representatives of Hidroelectrica were not aware of EIA matters for this 2 HPP. Based on the EIA developed in 2002 and covering "Hydropower works on Olt River, Cornetu – Avrig sector", environmental permit was issued in 2005 (valid for both HPP's)	Closed

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F	<p>Corrective Action Request 16:</p> <p>The PDD should contain a summary of the EIA and the measures to be taken to mitigate the environmental impact of the projects. Section F is very limited. Detail is lacking.</p> <p>Please include a sufficiently detailed summary of the EIA's of the projects in the PDD.</p>	<p>A brief description of the existing EIAs have been included in section F.1 of the final PDD.</p>	Closed
F	<p>Corrective Action Request 17:</p> <p>An accurate description of the permits situation related to the environmental permits and the dam construction safety permits should be included in the PDD for all projects. We would like to obtain copies of all permits</p>	<p>Description in section F.1 has been included</p>	Closed
G	<p>Corrective Action Request 18:</p> <p>The stakeholder consultation chapter has not been filled in. The process has not been described and also the stakeholder comments and the response to these comments of the company is lacking. Please include this information in the PDD.</p>	<p>Section F of the PDD describes the project histories and includes the detailed description of environmental permitting, which could have not taken place without the hearings.</p> <p>Finally, the environmental licensing of all units will be done after a new Public Hearing round will be organized."</p>	Closed
	<p>Corrective Action Request 19:</p> <p>The table with the expected annual output on page 4 does not correspond with the table on page 19. Please check the correctness and explain differences in the PDD.</p>	<p>Both tables have correctly been up-dated</p>	Closed

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	<p>Corrective Action Request 20:</p> <p>It is not clear how HPP capacity was calculated: e.g. in table on page 4 for Dumitra is 24.5 MW. In Table A-1 it appears this number is allocated to only one of the 3 turbines. Please modify the text (tables) to have a correct presentation of characteristics of HPP's.</p>	<p>The tables have been adjusted, by including the information about the capacity per unit within the HPP and the total capacity of the HPP as a whole.</p>	<p>Closed</p>
	<p>Corrective Action Request 21:</p> <p>During the project we have requested Hidroelectrica to provide evidence that the hydropower projects in the portfolio of the Track 1 JI project would not have occurred in the same period and in similar conditions without the JI mechanism.</p>	<p>No evidence was provided demonstrating that this was the case.</p> <p>The NCCC decided during the meeting of 27 October 2008 that evidence of the historic delays in investments experienced at Hidroelectrica allows the demonstration of financial additionality for the proposed project.</p> <p>After that meeting Hidroelectrica provided us with the annual investment plans of the company for 2005, 2006, 2007 and 2008. From these plans it can be concluded that the planned commissioning dates of the projects were postponed several times during these years.</p> <p>On the basis of the additionality interpretation by the NCCC meeting dated 27 October 2008 the projects have demonstrated to be additional.</p>	<p>Closed</p>

C Letter of Approval of the Host Country

No Host Country Approval Letter has been issued yet.

D Declaration of Approval

The Dutch Ministry of Economic Affairs as National Authority has not approved the project yet.