

VALIDATION REPORT**CAPEX, S.A****VALIDATION OF THE PROJECT
ACTIVITY “AGUA DEL CAJON”
THERMAL POWER PLANT-OPEN TO
COMBINED CYCLE CONVERSION
(ARGENTINA)****REFERENCE NUMBER: 2005/0003/CDM/01****REPORT NUMBER: 02**

Validation Report Type	
<input type="checkbox"/> Draft	<input checked="" type="checkbox"/> Unqualified.
<input checked="" type="checkbox"/> Final	<input type="checkbox"/> Qualified.
Address: C/ Génova, 6 28004 Madrid Spain	Date: 2006-05-15

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Date of first issue: 2005-12-05	Reference No.: 2005/0003/CDM/01
Client: CAPEX, S.A. Carlos F. Melo 630. B1638CHB Vicente López. Buenos Aires. Argentina	

Summary:

The Spanish Association for Standardisation and Certification (AENOR) has carried out the validation of the thermal power plant-open to combined cycle conversion project “Agua del Cajón” located in Agua del Cajón area, near the municipality of Plottier in the province of Neuquén, Argentina, on the basis of UNFCCC criteria for the CDM, as well as relevant decisions of the EB. The objectives of the validation are to confirm that the project follows the above criteria and the approved methodology and that the PDD presented by CAPEX, S.A will lead to a realistic determination of the emissions reductions of the project activity. The scope of the validation covers the baseline methodology, the additionality assessment and a study of the monitoring methodology and plan proposed for the collection and archived of the data necessary for determining the baseline.

The validation, carried out by AENOR, involved a desk study of the PDD and the approved methodology, followed by a visit to Buenos Aires city and Agua del Cajón area in Argentina, where not only key personnel involved in the project from ENRE, CAMMESA, SADS-MSA and CAPEX, but also stakeholders and municipality authorities, were interviewed. Conformance with National and local, legal and environmental regulations was also confirmed.

Clarifications and corrective actions on a number of issues were requested by AENOR according to desk review and on-site visit conclusions; these were amended satisfactorily by CAPEX and resulted in a new version of the original PDD.

In the opinion of AENOR the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria, therefore the project shall be recommended for registration with the UNFCCC.

Report No.: 2005/0003/CDM/01		
Report title: “AGUA DEL CAJON” THERMAL POWER PLANT-OPEN TO COMBINED CYCLE CONVERSION.		
Members of the validation equipment Javier Vallejo Drehs Miguel Carrasco García		
Date of this 2006-05-15	Rev. No.: 02 – DNA Approval letter and CARs implementation	Number of pages: 20

Indexing terms

Combined cycle gas turbine, steam turbine, exhaust gases, heat, open to combine cycle conversion.

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Abbreviations

ACM0007	Approved consolidated baseline and monitoring methodology for conversion from single cycle to combined cycle power generation.
ACTPP	“Agua del Cajón” Thermal Power Plant
CAMMESA	Compañía Administradora del Mercado Mayorista Eléctrico, S.A (Electrical Whole Market Administrator)
CAR	Corrective Action Requested
CCGT	Combined Cycle Gas turbine
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification
DECISION 17/CP.7	Modalities and Procedures for a Clean Development Mechanism as Defined in Article 12 of the Kyoto Protocol
EB	Executive Board of the CDM of the Kyoto Protocol
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMS	Environmental Management System
ENRE	Ente Nacional Regulador de la Electricidad (National Regulatory Entity for Electricity)
FVSA	Fundación Vida Silvestre Argentina (Wild Live Foundation)
GHG	Greenhouse Gasses
GWh	Giga Watt hour
HRSG	Heat Recovery Steam Generator
IPCC	Inter governmental Panel for Climate Change
IRR	Internal Return Rate
IUEP	International Utility Efficiency Partnership
MP	Monitoring Plan
MWh	Mega Watt hour
NGOs	Non Organisational Organizations
NPV	Net Present Value
NSAI	Netherland, Sewell & Associates International
PDD	Project Design Document
SADS-MSA	Secretaría de Ambiente y Desarrollo Sustentable. Ministerio de Salud y Ambiente (Environment and Sustainable Development Secretary. Environment and Health Ministry)
SE	Secretary of Energy
tC	Carbon tonnes
tCO ₂	Carbon dioxide equivalent tonnes
TJ	Tera Joules
UNFCCC	United Nations Framework Convention on Climate Change
USIJI	United States Initiative on Joint Implementation
WEM	Wholesale Electricity Market
WEMPS	Wholesale Electricity Market of the Patagonia System

Conversion Factors and Definitions

$$\text{tCO}_2 = \text{MWh} \times 10^3 \times \text{Emission factor fuel (tCO}_2/\text{m}^3 \text{ or Kg)} \times \text{Heat rate (Kcal/KWh)} / \text{NCV fuel (Kcal/m}^3 \text{ or Kg)} \times \text{Oxidation factor fuel}$$

Supplementary fuel: natural gas consumed to produce supplementary fire in the recovery boilers to provide additional power to the system. This fuel is not necessary to operate the steam turbine but, if use, increased its power generation.

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1 INTRODUCTION

This validation concerns a project implemented by CAPEX in Argentina to reduce emissions of CO₂ by generating additional zero-emission energy coming from the utilization of the residual heat of the exhaust gases of the previous existing gas turbines running in open cycle. The objectives of the validation exercise are to confirm that the project meets the necessary CDM criteria, that the project follows the approved methodology (ACM0007) and that the proposal presented by CAPEX in the PDD will lead to a realistic determination of the emissions reductions.

The scope of the validation covers the baseline methodology involving a review of the applicability, the baseline scenario, the additionality and the emission reductions, and a study of the monitoring methodology and plan proposed for the collection and record of all data necessary for determining the baseline.

The project involves the conversion of the open cycle power plant “Agua del Cajón” to combined cycle. This thermal power plant is situated near the municipality of Plottier, province of Neuquén, in central west Argentina. This project will generate electric energy that would otherwise continue to be generated with fossil fuels.

The validation team consists of the following members:

Mr. Javier Vallejo Drehs	AENOR Madrid	Team leader. Chief validator
Mr. Miguel Carrasco García	AENOR Madrid	Expert. Chief validator in practice

1.1 Objective

CAPEX has commissioned AENOR to validate “Agua del Cajón” thermal power plant-open to combined cycle conversion project. The validation serves as design verification and is a requirement of all Client projects. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is a requirement for all CDM projects and it is considered as necessary to provide assurance of the quality of the project and its intended generation of certified emission reductions (CERs) to stakeholders.

UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities as agreed in the Bonn Agreement and the Marrakech Accords and confirmed by the COP/MOP 1 in Montreal.

1.2 Scope

The scope of the validation is to assess all aspects of GHG reduction involved in the project, including the project design, the baseline, the determination of the emission factor of the grid and the procedures proposed for monitoring the emission reductions in the future.

The following documents were reviewed as part of the scope of the activity:

- PDD, including baseline study and monitoring plan.
- Approved Methodology (ACM0007)
- Approved Methodology (ACM0002)
- Decision 17/CP.7 and relevant decisions from the EB, confirmed by the COP/MOP 1 in Montreal
- The Environmental Impact Assessments of the project and the environmental audits carry out to check its compliance.

The validation scope is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. AENOR, based on the Specific Code for the Processing and Conducting of Validation, Registration, Verification and Certification of Kyoto Protocol CDM Project Activities (IE/DCS/66.01),

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has used a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

The validation is not meant to provide any consultancy services to the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the PDD.

CAPEX has undertaken an EIA according to official requirements of the Law 24,065/92 (Electric energy regulatory framework), resolution 475/87 of the Energy Secretary, resolution 149/90 of the Ex-Sub-secretary of Energy which standardises procedures for the environmental management of thermal power plants, and resolution ENRE 32/94 that establishes the Guide of Basic Contents for an Environmental Management Plan.

In agreement with this regulation it is not necessary to carry out a public consulting process, nevertheless CAPEX has developed a public survey to know the opinion and comments of national and local stakeholders about the project. This survey and other initiatives are described in section G of the PDD and include initiatives to promote climate change concern among pupils of the schools in the area. The validating team during the on-site visit to Plottier, was invited to assist to this initiative during the award ceremony of a drawing competition among pupils of 5° grade of elementary schools in Plottier.

1.3 GHG Project Description

The purpose of this project is the conversion of Agua del Cajón conventional open-cycle thermal power plant into a combined cycle power plant, by adding one steam turbo generator to make use of the exhaust gases coming from the six (6) existing gas turbo generators. This results in the generation of extra energy and power without increasing the fossil fuel consumption. Therefore the plant is supplying clean energy without emitting additional CO₂.

Capex S.A.'s main business is the generation and sale of electricity within Argentina. The company owns and operates a power plant located in the province of Neuquén, on the Agua del Cajón concession. The facilities extend over the fields named El Salitral, which supply the Agua del Cajón power plant with the natural gas it uses as fuel to generate electricity.

The project comprises the open to combined cycle conversion of six gas turbines (370 MW ISO). A combined cycle takes advantage of the exhaust gases from the gas turbines to produce steam in the recovery boilers placed in each of the turbines; the steam so generated drives a steam turbine with a 185 MW generating capacity; in turn, so as to streamline the project, the steam production is increased by adding extra heat in each recovery boiler. This is achieved through burners that provide supplementary fire by using the excess oxygen available at the turbine exhausts achieving an increment of capacity of around 100 MW effective.

In order to recover part of the wasted heat from the stacks, a Rankine steam cycle is added to the existing Brayton cycle. This requires a heat recovery steam generator (HRSG) that captures the exhaust gases from the gas turbine and transmits their heat energy to the water generating steam in the HRSG heat exchanger. The steam then feeds a turbo generator able to generate 185 MW of additional electricity, without consuming extra fuel. The steam that exits the turbine passes through a condenser (cooling steam into water) and then through the pump feed water cycle, the heaters and the water treatment plant and back to the HRSG where, thanks to the supplementary fire, the output can be increased by 100 MW.

Prior to the implementation of the project activity there were five Westinghouse turbo generators, 46.1 MW gross power each, and one 130 MW gross power Westinghouse turbo generator. They came on line between December 1993 and May 1995, making up an open cycle, gas-fired, thermal power plant.

The project contribution to sustainable development is achieved as follows:

- The project provides clean energy and reduces the CO₂ emissions in Argentina.
- The implementation of this project has generated clean energy without consuming fossil fuel, therefore saving gas on the Argentine reserves, and reducing the CO₂ emissions.
- The combined cycle conversion project as a whole doubles Capex's income yielded by energy and power sales, with the ensuing municipal, provincial and national tax contributions. It also contributes to the safety of the overall electricity grid, by adding more power in a reliable way.

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- From the social point of view, the project has created, during its development stage, 200 direct and indirect jobs. Since the thermal power plant became commercially operational, 17 more permanent jobs were created. Besides, the development and construction stage had a strong impact on the area, at both local and municipal level.
- During conversion of the power plant, the area within the plant boundaries was afforested, thus reducing the dust raised by local winds and the temperature in the area and increasing CO2 absorption by trees.
- The project has met environmental criteria established by the Municipality of Plottier in the Environmental Statement of Plottier (1983; updated in 2002).
- Environmental awareness and climate change information to the public.

2 METHODOLOGY

The validation of the project was started in October 2005 and concluded in May 2006. The validation was performed in the manner of an audit, where a desk review of the PDD was first undertaken against the Approved Methodology and CDM and other relevant criteria. The desk review was followed by a site visit to CAPEX and other key stakeholders in Argentina. Some information was also obtained from selected experts in the field.

In order to ensure transparency, a validation protocol was customised for the project, according to Specific Code IE/DCS/66.01. 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 organises, provides details and clarifies the requirements a CDM 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.

The validation protocol consists of three tables. The different columns in these tables are described in Figure 1.

The completed validation protocol is enclosed in Appendix A to this report.

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Validation Protocol Table 1: Mandatory Requirements			
Requirement	Reference	Conclusion	Cross reference
The requirements the project must meet.	Gives reference to the legislation or agreement where the requirement is found.	This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) of risk or non-compliance with stated requirements. The corrective action requests are numbered and presented to the client in the Validation report.	Used to refer to the relevant checklist questions in Table 2 to show how the specific requirement is validated. This is to ensure a transparent Validation process.

Validation Protocol Table 2: Requirement checklist				
Checklist Question	Reference	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organised in seven different sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification is used when the validation team has identified a need for further clarification.

Validation Protocol Table 3: Resolution of Corrective Action and Clarification Requests			
Draft report clarifications and corrective action requests	Ref. to checklist question in table 2	Summary of project owner response	Validation conclusion
If the conclusions from the draft Validation are either a Corrective Action Request or a Clarification Request , these should be listed in this section.	Reference to the checklist question number in Table 2 where the Corrective Action Request or Clarification Request is explained.	The responses given by the Client or other project participants during the communications with the validation team should be summarised in this section.	This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table 2, under "Final Conclusion".

Figure 1 Validation protocol tables

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2.1 Review of Documents

The Project Design Document submitted by the Client was reviewed against the approved methodology and against CDM and other relevant criteria. The first draft version of the indicated methodology was prepared by the Meth Panel of the CDM during its 18 meeting on 19 October 2005. This methodology was finally approved by the EB without any changes. Therefore, the validation conclusions during the desk review and on site assessment were valid for the final validation decision.

Additional background documents related to the project design and baseline were also made available during the on-site visit in Argentina. These documents were also reviewed.

The PDD underwent two revisions. To address the corrective actions and clarification requests that arose from AENOR desk review and on-site visit, CAPEX revised the project design document submitted in October 2005 and developed a new version in May 2006. This final version of the PDD addressed all corrective actions and AENOR's requests.

The final validation findings presented in this report related to the project as described in the project design documents of May 2006.

2.2 Follow-up Interviews

In the period of 2005-10-05 to 2005-12-30, AENOR conducted interviews via teleconference with project developers in Argentina to confirm selected information and to resolve issues identified in the document review. Representatives of ENRE, CAMMESA, SADS-MSA and CAPEX personnel involved in the project and stakeholders and municipality authorities, were interviewed during the on-site visit on 2005-11-21 to 2005-11-25. The main topics of the interviews are summarised in Table 1.

Table 1 Interview topics

Interviewed organisation Person/Position	Interview topics
ENRE - Ing. Gustavo Devoto: Electricity Production and Supply Department. - Ing. Ernesto M. Kerszberg: Board Assessor - Lic. Cecilia Beuret: Environmental Department	➤ Regulatory framework for electrical generators ➤ Environmental requirements for thermal Power Plants ➤ Licenses and authorizations granted to CAPEX ➤ Periodical controls and audits ➤ Periodical reports to check regulatory compliance ➤ Sanctions or penalties applied, if any ➤ Sustainable development
CAMMESA - Ing. Sabino Mastrángelo: Wholesale Market Actors Attention Manager	➤ Electrical sector data in Argentina ➤ Generation data of Plants that supply electricity to the grid ➤ Foreseen growth of electrical generation in Argentina ➤ MEMNET: online information for electrical generators about hourly dispatch ➤ Calculations about efficiency of power plants ➤ Load factor for Agua del Cajón ➤ General procedures for thermal power plants and specific procedures for meters calibration and controlling. ➤ Power transmission constraints
SADS-MSA - Dr. Atilio A. Savino: Environment and Sustainability Development Secretary	➤ Argentinean DNA and project's sustainable development contribution ➤ Approval and authorization letter

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Interviewed organisation Person/Position	Interview topics
MUNICIPALITY OF PLOTTIER <ul style="list-style-type: none"> - Tec. Eduardo Omar González : General Secretary of the Municipality of Plottier 	<ul style="list-style-type: none"> ➤ Local regulatory framework compliance ➤ Authorizations and permits granted to CAPEX ➤ Interest of local authorities in the development of new projects in the area and new investments ➤ Concerns for the future of the landfill serving to the area. ➤ Improvement of the area due to afforestation activities ➤ Improvement of the quality of the electrical supply and infrastructures
STAKEHOLDERS <ul style="list-style-type: none"> - Pablo Yapura: Wild Live Foundation in Argentina: FSC Coordinator - Patricio Sutton: Patagonian Environmentalist Organization - Ivan Moricz Karl: renowned artist of Neuquén 	<ul style="list-style-type: none"> ➤ Confirmation of the answers to the survey ➤ Confirmation that CAPEX is considered a clean company concerned for the environment and the mitigation of the climate change ➤ Participation in the award ceremony and his opinion about its benefits to the local population
CAPEX, S.A. <ul style="list-style-type: none"> • BUENOS AIRES HEAD OFFICE: <ul style="list-style-type: none"> - Hugo A. Cabral: Legal Affairs and Marketing Manager - Diego M. López Cuneo: Commercial Manager for Energy, Gas and Oil - Ing. Jorge M. Buciak: Engineering Manager - Federico Kitzberger: Electrical Energy Manager - Claudio Martín Armada: Administration and Financial Management • THERMAL POWER PLANT “AGUA DEL CAJÓN”: <ul style="list-style-type: none"> - Ing. Alberto M. Vildósola: Maintenance and Operations Manager. - Italo Quesada: Environmental Coordinator - Nelson Aranda: Environmental Coordinator 	<ul style="list-style-type: none"> ➤ Starting date of the project ➤ Implications of supplementary fire ➤ Baseline calculations ➤ Additionality justification ➤ Management Plan ➤ Environmental management system ISO 14001 ➤ Natural gas reserves and daily consumptions ➤ Financial analysis and assumptions made ➤ Power plant operation and control systems ➤ Award ceremony participation ➤ Dispatch data analysis and computational method ➤ Unfired / fired performance tests

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this validation phase was to resolve the requests for corrective actions and clarifications and any other outstanding issues that needed to be clarified for AENOR's positive conclusion on the project design. The three Corrective Action Requests and four Clarification Requests raised by AENOR were resolved during communications between CAPEX and project stakeholders with AENOR. CAPEX developed a Corrective Action Plan dated on 2nd December, 2005, to proposed resolutions to CAR2 and CAR3, which remain unresolved after the on-site visit. AENOR was requested by the Argentinean DNA to issue a first version of the validation report, where we showed our conclusions about project's accomplishment with UNFCCC criteria, taking into account on-site visit interviews and the Corrective Action Plan. This first version of the validation report was send to the Argentinean DNA on 5th December, 2005 prior to the end of the public information period. To guarantee the transparency of the validation process, the concerns raised and responses given are summarised in chapter 3 below and documented in more detail in the validation protocol in Appendix A.

Since modifications to the Project design were necessary to implement the proposed Corrective Actions, the Client decided to revise the documentation and finally resubmitted the project design documentation

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on 2006-05-10. After reviewing the revised and resubmitted project documentation and considering comments received during the public information period, AENOR issued this final validation report and opinion.

3 VALIDATION FINDINGS

The main findings of the validation are stated in the following sections. The validation findings for each validation subject are presented as follows:

- 1) The findings from the desk review of the original project design documents and the findings from interviews during the on-site visit are summarised. A more detailed record of these findings can be found in the Validation Protocol in Appendix A.
- 2) Where AENOR had identified issues that needed clarification or that represented a risk to the fulfilment of the project objectives, a Clarification or Corrective Action Request, respectively, have been issued. The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in three Corrective Action Requests and four Clarification Requests.
- 3) Where Clarification or Corrective Action Requests have been issued, the exchanges between project participants and AENOR to resolve these Clarification or Corrective Action Requests are summarised.
- 4) The conclusions for validation subject are presented.

The final validation findings related to the project design as documented and described in the revised and resubmitted project design documentation.

3.1 Project Design and Additionality

The technology used in the “Agua del Cajón” Thermal Power Plant project is innovative for the state of the art in Argentina and is not the common practice there. CCGT power plants are commonly composed by two gas turbines and one steam turbine that are built at the same time. Therefore, ACTPP is not similar to other CCGT power plants in Argentina due to its different technical characteristics to collect and transport the exhaust gases from six gas turbines to one steam turbine. Electricity generation is based on:

- Five W251B11 gas turbo generators
 - Installed capacity: 48 MW
 - Net power: 46.1 MW
 - Heat Rate: 2,676 kcal/kWh
 - Rated voltage: 11.5 kV
 - Rated frequency: 50 Hz
- One MHI701D gas turbo generator
 - Installed capacity: 136 MW
 - Net power: 130 MW
 - Heat Rate: 2,562 kcal/kWh
 - Rated voltage: 15 kV
 - Rated frequency: 50 Hz

Technical data of equipment added for implementing the proposed project activity:

- One Mitsubishi steam turbo generator
 - Total gross power: 301 MW
 - Total net power: 285 MW
 - Rated voltage: 16.5 kV
 - Rated frequency: 50 Hz

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Net power without supplementary fire: 182 MW
Total heat rate of the combined cycle: 1,808 kcal/kWh
Total installed power for the combined cycle: 677 MW
Total net power of the combined cycle: 645.5 MW

The project's contribution to sustainable development is not only related to electric generation in the ACTPP and the subsequent reduction of emissions, but also to the socioeconomic benefits that introduce in the area of Plottier municipality. On the one hand, nowadays Capex is performing afforestation activities around the ACTPP that improve biodiversity, the soil, and landscape and preserve vegetation. On the other hand, the project has generated eventual jobs during the construction and fix jobs during the operation. Moreover, during the interview with the local authorities it was stated that the capital gains tax for the capital attraction of this project is welcome and they are willing to use it and implicate CAPEX, in the improvement of the landscape and the local infrastructures for waste treatment of the area. Nowadays they have great difficulties to deal with this problem, but it is expected that considering these improvements as a new CDM project, it could be resolved.

Project proponents have used the tool for demonstration and assessment of Additionality to analyse the Additionality of the projects. They have fulfilled all the steps required in the mentioned tool in the correct way. The starting date of the project is considered 2000-01-17 as it is stated in the document Note N° B – 5239-3 /10/ from CAMMESA that reflect access to the MEM (Mercado Electrico Mayorista, Wholesale Electricity Market), of the steam unit ACAJTV07 of the thermal power plant Agua del Cajón. According to the Glossary of Terms contained in the guidelines for completing a PDD v.04, the starting date for a project activity is the date at which the implementation or construction or real action of a project activity begins. ACTPP was constructed in 1999 and the implementation to develop operational tests was in November-December 1999, but the real action of the steam turbine begins on 2000-01-17 when they were able to begin to produce electric energy in a commercial way and to meter this energy, thus fulfilling CDM requirements. Before this date they were not allow to produce electric energy to the grid and therefore they could not meter it to calculate any GHG emission reductions.

From the investment and the barriers analysis it arises that the most likely scenarios were either to continue with the previous situation of CAPEX or to install a new gas turbine in open cycle to fully exploit all the gas resources of the field. Finally and due to conservative criteria, the baseline scenario of continuing with the previous situation of six open cycle gas turbines was chosen. During interviews with CAPEX personnel in charge of geological studies, the validation team was able to acquire knowledge about gas reserves in the field in 1999. There is a report from a consultancy company with expertise in gas and oil fields that stated clearly that the potential volume at disposal for ACTPP is 650,000 m³/day of natural gas more than previous consumptions. Taking into account that the deadline for the field concession is in 2016, the most favourable scenario according to technical requirements was to install a new gas turbine in open cycle.

On the other hand, the financial analysis shows that economically one of the most feasible scenarios was also to maintain the previous situation with six gas turbines in open cycle. All the information related with the financial analysis was at disposal of the validation team. All relevant assumptions are presented in the PDD and the team was able to validate it in detail during the interview with the financial department of CAPEX. A clear comparison between the alternatives and the proposed project is presented in the PDD arising that there were most financially attractive scenarios then the proposed project.

After revising all the steps followed by the participants to demonstrate the Additionality according to the tool for the demonstration and assessment of Additionality (version 2), the validation team concluded that the proposed project is additional to the baseline scenario: continuing with the current practices of CAPEX maintaining the six gas turbines in open cycle and continuing the exploitation of the gas resources of the field.

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3.2 Baseline

The PDD describes the baseline methodology, which is in conformance with the approved consolidated baseline methodology ACM0007 “Baseline methodology for conversion from single cycle to combined cycle power generation” and the ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” that is applied when calculating the combined margin. The key conclusions about the correct application and determination of the baseline are summarised below.

The methodology is applicable to the project activity since CAPEX is using previously-unused waste heat from 6 gas turbines of a power plant, with a single-cycle capacity, and utilizing the heat to produce steam for a new steam turbine, thus making the system combined-cycle. In addition, waste heat generated on site was not utilizable for any other purpose on-site and the project activity did not increase the lifetime of the existing gas turbines during the crediting period. Finally CAPEX has access to appropriate data to estimate the combined margin emission factor as described in ACM0002 as there is sufficient publicly available information to document in a transparent and conservative manner the data used to calculate the baseline emissions. The sources of information are CAMMESA that is providing the official data.

The baseline scenario is that in the absence of the proposed project activity the electricity, to meet the demand in the grid system, will be generated by the existing grid-connected Argentinean power plants and new generation sources to the grid of Argentina and on the other hand by the operation of the exiting power plant in open cycle mode.

The PDD presents a clear analysis of the different investment alternatives and described how the scenario with the least barriers was to continue with the current practice of CAPEX that consisted of maintain the six gas turbines in open cycle and exploit the natural gas reserves of its own gas field by means of gas turbines in open cycle. CAPEX was expanding its capacity at the rate new reserves of natural gas were found.

The alternatives presented in the PDD (zero option or continuing with the existing open cycle, open cycle expansion (new 185 MW gas turbine) with unlimited or limited availability of own gas, open cycle expansion with a 105 MW gas turbine and combined cycle with and without CERs) are plausible alternatives to the project activity, studied by CAPEX in the decision making process, that deliver similar outputs in the area and that comply with the applicable regulation at both national and regional level.

An analysis of the alternatives is presented considering both an investment and barrier analysis. The investment analysis based on project IRR is clear, transparent and well-documented allowing the comparison among the alternatives. During the visit in Argentina, CAPEX provided clarifications and documents for the CLs and CARs arose in the validation protocol such as data included in the analysis, natural gas reserves estimation performed by NSAI and business alternatives development. Moreover the financial models developed in Excel allowed the validation team to assess the data and formulae used, and the variation in the IRR when CERs were included in the cash flow. The PDD describes clearly all assumptions and with the calculated parameters (plant factor, total investment, cost of gas, natural gas consumption, IRR, NPV and payback period) show that all the alternatives are unattractive or unfeasible compared with either continuing with the existing open cycle or the 105 MW gas turbine expansion in open cycle. Due to conservative reasons the continuation with the existing open cycle was chosen thus avoiding the inclusion of the estimated emissions from the 105 MW gas turbine in the baseline emissions.

To reinforce the conclusion, a barrier analysis is performed presenting barriers due to prevailing practice in Argentina where the majority of CCGT plants consist of a package of two GT and one steam turbine, being connected to the gas pipeline. In addition to the singularity of this project of converting six GT into a combined cycle system, CAPEX was facing an important technological barrier since this project represented an untested use of a new technology for the company with the associated risks.

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3.3 Monitoring Plan

The project applies the approved consolidated monitoring methodology for conversion from single cycle to combined cycle power generation (ACM0007). According to applicability requirements of this monitoring methodology, the project meets these requirements, specifically:

ACTPP utilize unused waste heat from gas turbines in a single cycle to produce steam for another turbine, making the system combined cycle. This waste heat is not utilizable for any other purpose. The existing six gas turbines in open cycle have neither been modified nor its power increased, so their lifetimes remain equal after the project implementation. On the other hand, there are enough data coming from CAMMESA to estimate the combined margin emission factor, as described in ACM0002.

In accordance with ACM0007 requirements the MP provided information about frequency, responsibility and authority for controlling, correct deviations and reporting during the crediting period of the following:

- Electricity generation from the gas turbines and the steam turbine,
- Consumptions of fuel of project for gas turbines and steam turbine,
- Data needed to recalculate project emissions,
- Data needed to recalculate the emission factor of the plant operating in open cycle mode in the baseline,
- Data needed to recalculate the operating margin emission factor of the grid,
- Data needed to recalculate the build margin emission factor of the grid,
- Annual determination of the combined margin,

Sustainability development indicators are defined and the MP provides for the monitoring of these indicators:

- Monitoring of pollutant emissions,
- Internal environmental audits,
- Water analysis,
- Improvement of external infrastructures,
- Afforestation activities,
- Monitoring of labour and healthy conditions,
- Job generation,
- Total tax paid to national and local government,

All variables used to calculate project and baseline emissions are directly measured or use publicly – available official data coming from CAMMESA and the Argentinean most updated National Communication to the UNFCCC. To ensure the quality of the data, in particular for those that are measured, the data are double-checked against commercial data.

The management system necessary for consistent project operations, monitoring and reporting is included in the Environmental Management System of ACTPP and is described in the PDD chapter D.4 organizational chart. CAPEX, S.A has certified EMS against ISO 14001 standards, granted by an accredited certification body and periodically audited by ENRE. Within the EMS (PCA15), all internal audits and conflict resolutions are considered. Maintenance Program and activities are also foreseen and described in the Environmental Control Procedures: PCA8 and PCA11 of the EMS.

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3.4 Calculation of GHG Emissions

The methodologies for calculating emission reductions are transparently documented and comply with existing good practice. The calculation methods applied to the determination of emission reduction are explained in detail in the PDD and they follow the procedures laid down in the approved methodology. The project consists of the conversion of ACTPP from a conventional open cycle into a combined cycle. The project comprises the open to combined cycle conversion of six gas turbines (370 MW ISO). A combined cycle takes advantage of the exhaust gases from the gas turbines to produce steam in the recovery boilers placed in each of the turbines; the steam so generated drives a steam turbine with a 185 MW generating capacity; in turn, so as to streamline the project, the steam production is increased in 105 MW by adding extra heat in each recovery boiler. This is achieved through burners that provide supplementary fire by using the excess oxygen available at the turbine exhausts. This project is foreseen to generate an average of 4,414,055 MWh of electricity per year. In the absence of the project, the same level of demand for electricity would be met by the previous six gas turbines in open cycle and by fossil fuel thermal power generation with grid associated GHG emission of an estimated average of 0.3459 tCO₂/MWh during the crediting period. The average annual emission reductions to be achieved by the project are 378,446 tCO₂/year.

The system boundaries are the national grid of Argentina excluding the Wholesale Electricity Market of the Patagonia System (WEMPS) due to the weak interconnection to the grid of the WEM. Electricity imports are taken into account, which is considered appropriate since information on the characteristics of the grid is available to calculate emission reductions using the dispatch method described in ACM0002.

Formulas and factors used to calculate the Baseline emissions and the Project emissions are properly described in the PDD and are considered correct and transparent. Estimated annual average fuel consumptions of the gas turbines in open cycle, net annual average generation from the operation of power plant in open cycle mode, and the GHG co-efficient for natural gas, are obtained from historical data of ACTPP, allowing the calculation of the emission factor for electricity generated in open cycle in the baseline.

Net calorific value, oxidation factor and emission factor for natural gas are obtained from the Argentina second National communication to the UNFCCC and from IPCC inventory workbook 1996, which are considered a reliable international recognized data source.

Assumptions made for estimating the grid emission factor, are considered correct and in accordance with ACM0002 requirements and guidelines. According to requirements of this methodology the Dispatch data analysis OM was chosen. Heat rate and electricity generation of each plant falling within the top 10% of the system dispatch each hour, needed to calculate the hourly generation-weighted average emissions per electricity unit, are obtained from CAMMESA dispatch reports in the MEMNET tool. CAMMESA is the entity which regulates the electricity market in Argentina. In this market they dispatch units according to their declared marginal cost, so the cheaper unit goes first. CAMMESA provides an hourly-based report for each unit every day. According to requirements of the ACM0002 methodology, plants included in the calculation of the Build Margin are those most recently build considering the most recent capacity additions in the electricity system that comprise 20% of the system generation because this is the sample group that comprises the larger annual generation. The most recent data coming from CAMMESA have been used for the period 2000-2005, taking into account that since 2002 no new power plants have been added to the system. Impact of imports and exports in the grid emission factor is calculated in a conservative manner. Imports shall be considered in the calculation of the Operating Margin and exports are not considered to be conservative.

Uncertainties and risks associated with the data and formulas used in the project to calculate annual baseline emissions and project emissions, arise from accuracy of CAMMESA data and accuracy of calculations. From the desk review and on-site visit, arose some discrepancies with the assumptions made in the first version of the PDD to calculate baseline emissions, specifically CAR2 that have been corrected in the new version of the PDD.

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3.5 Environmental Impacts

Decree N 634/91 of the Executive National Government and Law N 24,065/92 of the Electrical Energy Regulatory Framework; define the environmental requirements in the new deregulated scenario in Argentina.

Resolution SE N 475/87 in its first article obliged thermal power generators to carry out an EIA from the design phase.

Resolution SSE N 149/90 modified by resolutions SE N 154/93 and 182/95, which develop the environmental management guidelines for electrical generation thermal power plants. These guidelines define the methodological procedures to develop the EIA for a new project and the EMP for all the phases of the project (from design to implementation)

Resolutions N 51/95 and 52/95 from ENRE, establishes that EMP are mandatory for electrical energy generators.

Resolution N 32/94 from ENRE establishes Environmental Management Programs procedures.

Resolution N13/97 from ENRE establishes that the EIA shall be presented to ENRE.

Resolution N 555/2001 from ENRE abolished N 32/94 and established that the implementation of a Sustainable management system ISO 14001 is mandatory for electrical generators and other WEM operators.

The compliance of all the requirements stated above was shown to the validation team through interviews with CAPEX staff during the visit to the power plant and with ENRE personnel. The validation team was able to revise the EIA performed by Equilibrium S.A in 1998 which was developed according to resolutions SE 154/93 and 182/95. During interview with ENRE it was confirmed that the steam turbine to close the open cycle from CAPEX was awarded with the necessary authorization to entry Argentinean electrical grid in June 1998, thus allowing CAPEX to begin the tender phase of construction. This authorization proves that the EIA was developed according to legislation requirements. On the other hand, ENRE confirmed that the Environmental Management System of CAPEX was according to regulations requirements and that six-monthly audit reports are developed directly by ENRE to test regulatory compliance regarding the EMS and pollutant emission limits.

Regarding to the needed of a public consultation process of the EIA, the Argentinean regulatory framework for the electrical sector does not require CAPEX to publish the EIA or other environmental information. ENRE is the entity in charge of developing public consultation processes according to law 24,065. The procedure to develop this process is specified in ENRE resolution N 0039/1994, nowadays abolished by resolution 0030/2004 which referred to National Decree 1172/2003 general guidelines for public hearings. All the necessary information regarding CAPEX environmental compliance is published by ENRE through its web site.

ENRE confirmed to the validation team, that CAPEX has never been sanctioned for environmental incompliance.

All the measures to mitigate the environmental impact foreseen in the EIA have been implemented as it can be checked in ENRE authorizations. Moreover, CAPEX continues monitoring emissions, discharges, waste and noise in the plant, according to the requirements established in resolution SE 182/95 and resolution 207/98 of the Provincial Body for Water and sanitation. Local authorities interviewed during the on-site visit confirmed that CAPEX complies with all regulatory requirements regarding Local and Provincial environmental legislation.

3.6 Comments by Local Stakeholders

Taking into account that there are no legal requirements for CAPEX to develop a public comment process about the open cycle to combined cycle conversion, all the stakeholders consults have been developed by CAPEX in a voluntary manner.

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The validation team, during the on-site visit was able to assist personally to one of the initiatives carried out by CAPEX to disseminate climate change concerns and ACTPP contribution to mitigate it through the present project. It was a drawing competition among pupils of 5th grade of all the elementary schools of Plottier. The award ceremony was held on November 24th 2005 and the validation team assists to it. There it was realised the interest of this initiative for pupils, teachers and local authorities as it is also stated in the municipality of Plottier interest statement N 028/2005 of November 3rd 2005.

On the other hand, CAPEX carried out a survey during the second half of 2005 by sending a questionnaire to stakeholders representing the interest of local community, Sectoral associations, NGOs and local, Provincial and National governmental authorities. A total of 12 relevant stakeholders were chosen. The summary of the comments received and how due account was taken of these comments is described in sections G.2 and G.3 of the PDD.

During the on-site visit two ONGs were interviewed to check its answers to the mentioned survey. They confirmed their participation in the survey and the results stated in the PDD. Moreover, they emphasized the commitment of CAPEX with environmental and climate change issues. In the same way, a local authority of the municipality of Plottier was interviewed, confirming also the environmental concerns of CAPEX shown in the afforestation made in the Agua del Cajón field, in the initiatives to improve local infrastructures and in the events organised to promote climate change concerns in the population.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

According to Decision 17/CP.7, the validator shall make publicly available the PDD and receive, within 30 days, comments on the validation requirements from parties, stakeholders and UNFCCC accredited NGOs and make them publicly available.

AENOR published the project documents on CDM website (<http://unfccc.cdm.int>) on 2005-11-30 and invited comments within 2005-12-29 by Parties, stakeholders and non-governmental organisations. One comment was received. This is below referred to and further discussed.

Comment by: Axel Michaelowa

Inserted on: 2005-12-20

Subject: Starting date of the project

Comment:

Dear Javier,

The project has already started operation well before Jan. 1, 2000 and is thus not eligible under the CDM. This is corroborated by the following public sources:

1. Company website of CAPEX, the company operating the Agua del Cajon plant:
http://www.capex.com.ar/contenido_capex_central.html

Quote from this text: "CICLO COMBINADO (Fase IV): Capex implementó la conversión de la Central de Ciclo Abierto en una de Ciclo Combinado con Fuego Suplementario, incrementando la potencia de la Central en 301 MW; a través de una turbina de vapor Mitsubishi y 6 calderas de recuperación con postcombustión en el escape de cada turbina de gas. La planta entró en operación en noviembre de 1999 en forma conjunta con la puesta en servicio de la ampliación del sistema de transmisión de energía Comahue-Buenos Aires, a través de la Cuarta Línea de Transmisión. "

2. "El Paso Energy takes interest in Argentina", in: Alexander's Oil and Gas Connections, Company News Latin America, Volume 2, issue #9 - 04-04-1997, available at <http://www.gasandoil.com/goc/company/cnl71408.htm>

Quote from this text: "An additional 240-MW combined cycle expansion is currently under development at the Agua del Cajon plant."

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3. <http://www.seen.org/db/Dispatch?action=ProjectWidget:126-detail=1>

Quote from this text "U.S. Export-Import Bank (Ex-Im)* Guarantor Approved 1995-01-01 Guarantee : \$19 Million

In 1995, Exim supported a \$19 million contract in which CBS Corporation provided gas turbine related equipment to Capex for the Cajon III project.

[...] Notes: The ExIm project converts an existing plant, also known as Agua del Cajon, from a simple-cycle to combined-cycle technology, raising its 354WM capacity to 539MW, using waste heat not additional fuel. Capex' captive gas reserves fuel this plant."

These sources all clearly show that the project was implemented between 1997 and 1999 and started operation in November 1999.

Best regards, Axel Michaelowa

AENOR Response:

The comment starts pointing out that the project activity started operation before January 1, 2000.

The starting date of the project is considered 2000-01-17 as it is stated in the document Note N° B – 5239 – 3 from CAMMESA (Ref: 10 & 11 in validation report) that reflect access to the MEM (Mercado Electrico Mayorista, Wholesale Electricity Market), of the steam unit ACAJTV07 of the thermal power plant Agua del Cajón. This document authorizes the commercial operation of the steam turbine that completes the combined cycle in the Agua del Cajón power plant in the above-mentioned date.

The comment also presents some supposed evidences of the previous statement.

The first one is related to the website of Capex S.A. Effectively in the website it is mentioned that the project started operation in November 1999. According to information provided by CAMMESA and ENRE to the validation team during the interviews, this only means that some operational proofs were undertaken in that date in order to meet the requirements established by CAMMESA to authorize the commercial operation of the new steam turbine. This is a usual procedure to get capacity and authorization for dispatching electricity to the grid in market conditions.

The second reference is related to some declaration of interest from El Paso Energy, a former shareholder of Agua del Cajón thermal power plant. Specifically, it is pointed out that "an additional 240 MW combined cycle is currently under development at the Agua del Cajón plant." This declaration was made considering the possibility to expand the power plant as a project idea only, but not real action took place. Actually, the implemented project is quite different from this project idea. Thus, it does not contradict the starting date set in the PDD: January 17, 2000.

The third reference is quoted from the US Export-Import Bank (Ex-Im). In the website indicated it is clearly stated that the referenced \$19 million was related to the "Cajón III project." This "III" refers to the so-called phase III, already mentioned in the PDD, in which a new gas turbine was acquired by the company to increase electricity generation in the Agua del Cajón power plant operating as open cycle. The other note of the same website referenced in the comment is again a reference to the previous stages to the conversion of the open cycle to combined cycle, but this does not contradict the starting date set in the PDD, as the date of entering into operation of the combined cycle into the national electricity grid: January 17, 2000.

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5 VALIDATION OPINION

AENOR has performed a validation of the “Agua del Cajón” Thermal Power Plant-Open cycle to combined cycle conversion project in Argentina. The validation was performed on the basis of UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The review of the project design documentation, the on-site visit and the subsequent follow-up interviews have provided AENOR with sufficient evidence to determine the fulfilment of stated criteria, including the approval letter of the Argentinean DNA. In our opinion, the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. AENOR has already received the written approval of voluntary participation from the DNA of Argentina and the confirmation that the project activity assists in achieving sustainable development. The project will hence be recommended by AENOR for registration within the UNFCCC.

By displacing fossil fuel-based electricity with electricity generated in the steam turbine of the combined cycle plant, the project results in reductions of CO₂ emissions that are real, measurable and give long-term benefits to the mitigation of climate change. An analysis of the investment, technological barriers and common practice in Argentina 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 as designed, the project is likely to achieve the estimated amount of emission reductions.

The validation is based on the information made available to us and the engagement conditions detailed in this report.

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6 REFERENCES

Category 1 documents: Documents provided by the project proponents that relate directly to the GHG components of the project. These have been used as direct sources of evidence for the determination conclusions.

Category 2 documents: Background documents related to the design and/or methodologies employed in the design or other reference documents. Where applicable, Category 2 documents have been used to check project assumptions and confirm the validity of information given in the category 1 documents.

Ref	Category	Document Name	Date	Author/Competent Authority
1	1	PDD Capex Agua del Cajón Thermal Power plant – Open to combined cycle conversion	2005-12	CAPEX
2	1	IPPC 1996 Revised Guidelines		IPCC
3	1	Kyoto Protocol - Status of Ratification		UNFCCC
4	1	ACM0007 Methodology for conversion from single cycle to combined cycle power generation		CDM - Executive Board
5	1	ACM0002 Consolidated baseline methodology for grid-connected electricity generation from renewable sources		CDM - Executive Board
6	1	Tool for the demonstration of Additionality		CDM - Executive Board
7	2	Argentine Wholesale Electricity Market Annual Report, 2000		CAMMESA
8	2	Argentine Wholesale Electricity Market Annual Report, 2001		CAMMESA
9	2	Argentine Wholesale Electricity Market Annual Report, 2002		CAMMESA
10	1	Note Nº B – 005239-1 Ref. Access to the MEM (Mercado Electrico Mayorista, Wholesale Electricity Market), of the steam unit ACAJTV07 of the thermal power plant Agua del Cajón To: Secretario de Energía. ENRE.	2000-01-17	CAMMESA
11	1	Note Nº B – 5239-3 Ref. Access to the MEM (Mercado Electrico Mayorista, Wholesale Electricity Market), of the steam unit ACAJTV07 of the thermal power plant Agua del Cajón To: CAPEX	2000-1-20	CAMMESA
12	1	Thermal generation dispatch, 2002-02-01	2002-02-01	CAMMESA
13	1	Hydraulic generation dispatch, 2002-02-01	2002-02-01	CAMMESA
14	1	Fuel dispatch of thermal market	2002-02-01	CAMMESA
15	1	Dispatch Data Analysis OM. 2002-02-01 Data Sheet		CAPEX
16	1	Daily Report. Thermal Power Plant Agua del Cajón	2000-08-31	CAPEX
17	1	Financial Statements. Note 21: GHG emission reductions	2005-07-07	PWC
18	1	Financial Statements. Note 19: GHG emission reductions	2004-07-07	PWC
19	1	Financial Statements. Note 19: GHG emission reductions	2003-07-08	PWC
20	1	Financial Statements. Note 22: GHG emission reductions	2002-08-28	PWC
21	1	Financial Statements. Note 22: GHG emission reductions	2001-06-11	PWC
22	1	Communication with the US Secretary of Energy concerning the submission of the project for USIJI (United States Initiative on Joint Implementation) with the assistance of the International Utility Efficiency Partnership (IUEP)	1997-11-19	CAPEX
23	1	Communication with CAPEX concerning USIJI approval and carbon ton price	1998-02-10	IUEP
24	1	Communication with CAPEX concerning USIJI approval and credits trading	1998-05-08	IUEP
25	1	Acceptance of "The CAPSA Project: Simple to Combined Cycle Conversion" into the USIJI program.	1999-03-09	USIJI
26	1	Ref. SRN-614/98. Future credits recognition to CAPEX and Argentina country from Secretaria de Recursos Naturales y Desarrollo Sustentable.		Secretaria de Recursos Naturales y Desarrollo Sustentable
27	1	Emissions reductions measurement report	2001-06-04	Environmental Resources Trust Inc.
28	1	Oil and gas reserves (Proved, probable and possible) and location Business development alternatives and reserves evolution: Combined Cycle Vs 105 MW Gas Turbine		CAPEX

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Ref	Category	Document Name	Date	Author/Competent Authority
29	1	Estimate of reserves and future revenues to the CAPEX S.A. interest in certain oil and gas properties located in the Agua del Cajón and Senillosa concessions of Neuquen, Argentina, as of April 30, 2000	2000-04-30	NSAI
30	1	Power thermal plant Agua del Cajón. Assessment of the future operating result. Analysis of the energy market, fuels, connection, power plants, etc.	1998-12-22	Mercados Energeticos
31	1	Project No. 58395 File 94.1000 Agua del Cajon power generating facility. Phase 4 – Conversion to combined cycle Project. Plant performance test report. Testing for the period of November 8, 1999 through November 16, 1999	1999-11-18	Black & Veatch International
32	1	Communication to ENRE pursuant to resolution 555 concerning verification compliance with ISO 140001		CAPEX
33	1	Environmental impact assessment. Annex IV (B) Report on the combined cycle conversion CAPEX S.A. Detailed design stage.		Equilibrium S.A.
34	1	Environmental impact assessment. Annex IV (C) Report on the combined cycle conversion CAPEX S.A. Materials yard and driveway.		Equilibrium S.A.
35	1	Resolution S.E. 154/93	1993-05-27	Secretaría de Energía
36	1	Resolution S.S.E 149/90 Environmental management guidelines	1990-10-2	Ex Sub-Secretaría de Energía
37	1	Environmental Regulations for the Electrical Sector. Regulatory framework and legal requirements applicable to thermal power plants.	Updated	Sustainable development web site (http://dsostenible.com.ar)
38	1	Note ENRE 62489. Fulfilment of the environmental law related to emissions and contribution to sustain the environment of the region and of Argentina.	2005-10-18	ENRE
39	1	Report N° 08/05. Verification auditing report of the resolution 555/01 implementation of ENRE in the thermal power plant Agua del Cajón, Neuquen	2005-08-30	CNAE
40	1	Environmental Management System	Updated	CAPEX
41	1	Conversion to combined cycle. Survey to stakeholders	2005	Fundación Vida Silvestre Argetina
42	1	Conversion to combined cycle. Survey to stakeholders	2005	Fundación Cruzada Patagónica
43	1	Conversion to combined cycle. Survey to stakeholders	2005	Instituto Argentino del Petroleo y del Gas
44	1	Conversion to combined cycle. Survey to stakeholders	2005	Fundación Biosfera
45	1	Conversion to combined cycle. Survey to stakeholders	2005	Acindar
46	1	Conversion to combined cycle. Survey to stakeholders	2005	Bloque Demócrata Progresista
47	1	Conversion to combined cycle. Survey to stakeholders	2005	CAMMESA
48	1	Conversion to combined cycle. Survey to stakeholders	2005	EPET N°9 – 6to 2da EPET N°9 – 6to 1era
49	1	Statement N° 028/05: “Concurso de Dibujo sobre Cambio Climático” municipality interest statement.	2005-11-03	Plottier council
50	1	News press related to the celebration of “Concurso de Dibujo sobre Cambio Climático”	2005-11-25	CAPEX
51	1	“Concurso de Dibujo sobre Cambio Climático” informative brochure	2005	CAPEX
52	2	Resolution ENRE 555/2001 Environmental Management System	2001-10-17	ENRE

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ANNEX A

VALIDATION PROTOCOL