The financing of the Camisea project

A research paper prepared for Focus on Finance

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Introduction

The Camisea project will extract, transport and export gas from the one of the world's most ecologically prized rainforests in the remote Urubamba Valley in the south-east Peruvian Amazon, 500 kilometers east of Lima. The project is highly criticised by various Peruvian and international NGOs, as it is located in an area were three major eco-regions converge: the Andes mountains, the Amazon Basin and the Plains (on the border with Bolivia). The project also is located within a legally recognized indigenous reserve.

NGOs fear the natural gas upstream as well as the transport pipeline will have devastating effects for the environment and the local inhabitants. “Inexperienced companies with poor environmental records are currently plowing ahead with construction, showing neither the will nor the ability to avoid the serious environmental and social impacts now affecting the entire local population. Government oversight is weak and project financiers seem unable and unwilling to implement international standards to stop the devastation.”  

This report aims to offer an insight in the financing structure of the project of the project, including the roles played by the various financial institutions involved.
Chapter 1  Description of the Camisea project

1.1 Overview of the Camisea project

The Camisea gas reserves are located along the Camisea river in the southern Amazon region of Peru, 500 kilometres east of Lima. They hold proven and probable reserves of 310 billion m$^3$ of gas and an estimated 600 million barrels of natural gas liquids (NGL). The Camisea Project comprises the exploitation of these reserves, the construction and operation of two pipelines - one for natural gas and one for natural gas liquids - and the distribution network for natural gas in the Peruvian cities Lima and Callao. The natural gas will be transported to the main consumption centre in Lima, where it will be used for residential and industrial purposes and to generate electricity, that will then be distributed nationwide. The NGL will supply the domestic LPG market and will also be exported. Total costs for the Camisea project are estimated at US$ 1,540 million.²

The Camisea reserves were discovered between 1983 and 1987 by Royal Dutch/Shell (Netherlands/United Kingdom), but no agreement could be reached on an exploitation contract at the time. In 1996 finally an exploitation contract was signed with a joint-venture of Shell and ExxonMobil (United States), but in 1998 this consortium abandoned the project because of differences with the Peruvian government.³ The government of Peru then organized an international public bidding in 1999, dividing the project in three different parts for which separate licenses and concessions are awarded:

- Upstream project phase 1  US$ 550 million
- Transport project phase 1  US$ 820 million
- Distribution project  US$ 170 million

Total project costs for this first phase of the Camisea project can therefore be estimated at US$ 1,540 million. The exploitation license as well as the concessions for transportation and distribution were awarded in 2000.⁴

A fourth project may be added to these three, as the feasibility of exporting part of the natural gas, in the form of LNG, is still being studied. When this export project is realised, at least another US$ 1,800 million will be added:

- Upstream project phase 2  US$ 400 million
- Transport project phase 2  US$ 400 million
- Export project  US$ 1,000 million

It is not entirely clear if the US$ 720 million needed for four LNG tankers will also be invested by the export consortium.⁵

1.2 Upstream project

1.2.1 Project description

The first phase of the upstream project is valued at US$ 550 million and comprises:⁶

- the production of natural gas from the San Martin and Cashiriari fields - together known as the Camisea fields - which hold proven and probable reserves of 310 billion m$^3$ of gas and an estimated 600 million barrels of associated natural gas liquids;
the building of a gas processing plant in Las Malvinas in Cuzco province, where natural gas liquids (NGLs) are to be separated from the natural gas stream to be able to transport them in separate pipelines;

- the building of a liquids fractionation plant near Pisco at the Pacific coast where the natural gas liquids will be separated into commercial quality products: LPG, naphtha and diesel. These products will be either exported by tankers or transported to domestic markets by tank trucks.

A 40-year production license was awarded in February 2000. The drilling of the first well took place in July 2002 and at the end of 2002 the consortium announced it had already invested US$ 250 million.  

1.2.2 Project sponsors  

The production license was awarded in February 2000 to a consortium led by Pluspetrol (Argentina). This consortium offered to pay the government of Peru 37.24% of the project's annual income. This consortium consists of:

- Pluspetrol, Argentina, 36%
- Hunt Oil, United States, 36%
- SK Corporation, South-Korea, 18%
- Techint, Italy/Argentina, 10%

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*Natural gas mainly consists of methane (CH₄). Natural Gas Liquids (NGLs) are hydrocarbon gases with a higher density and a higher carbon content than methane, of which ethane (C₂H₆), propane (C₃H₈) and butane (C₄H₁₀) are the most important. NGLs can be separated into different products, which can be sold as car fuel (LPG = Liquid Propane Gas), as heating fuel or as feed stock for refineries (naphtha). NGLs should not be confused with LNG (Liquefied Natural Gas), which is natural gas cooled below minus 162 degrees Celsius. At this temperature natural gas becomes liquid, thereby reducing its volume with 99.8%. This volume reduction makes it economically feasible to export natural gas overseas in special LNG-tankers.
1.3 Transportation project

1.3.1 Project description

The first phase of the transportation project is valued at US$ 820 million (including financing costs and funding of reserve accounts) and comprises two separate 33-year *Build, Own Operate and Transfer (BOOT)* concession contracts, which means that the infrastructure will be transferred for free to the Peruvian government after the concession period.9

- A pipeline for the transportation of natural gas liquids (NGL) with an initial transportation capacity of 50,000 barrels per day. The pipeline will run 540 kilometers from Camisea to the NGL fractionation plant near Pisco at the Pacific coast, south of Lima. The pipeline will cross the Andes at a maximum height of 4,800 meters above sea level.

- A natural gas pipeline with a transportation capacity of 7 million m$^3$ of natural gas per day (2.6 billion m$^3$ per year). This pipeline will run parallel with the NGL pipeline from the Camisea fields to the fractionation plant near Pisco. From there the natural gas pipeline is to turn north and run along the coastline to Lima. Total length will be 714 kilometers.

According to the two concession agreements - signed in December 2000 - commercial operations shall start no later than August 2004. The pipeline construction is scheduled to take place between April 2002 and May 2004 and is being carried out by Techint (Italy/Argentina).10

1.3.2 Project sponsors

The two concession contracts were awarded to the *Transportadora de Gas del Perú (TGP)* consortium in October 2000. This consortium at present includes:11
1.4 Distribution project

1.4.1 Project description

The distribution project encompasses the construction of a 60 kilometer main distribution pipeline that is to supply gas to some of the largest industries and power generators in the cities of Lima and Callao. Over the following years, additional networks are to be developed to connect an increasing number of industrial, commercial and residential customers. The value of this contract is US$ 170 million. A 33-year BOOT-concession was awarded in October 2000 and gas distribution is planned to begin in August 2004. Initial gas supply will be 2.6 billion m$^3$ per year, but the domestic Peruvian gas market is estimated to be only 1.6 billion m$^3$ per year. Potential users include the Peruvian fish industry and an iron-carbide plant in Pisco, as well as the cement industry and the private electric generating company in Lima.[13]

1.4.2 Project sponsors

The concession for the distribution project was awarded in October 2000 to Transportadora de Gas del Peru (TGP) - see paragraph 1.3.2 - which transferred its concession right to Gas Natural de Lima y Callao in May 2002. This is a joint-venture of:

- Tractebel (Belgium), which is part of Suez, France
- Puntahuacaluna, Peru

1.5 Export project

Separately from the three projects already awarded, a fourth project is being developed for the export of natural gas to Mexico and the United States. Hunt Oil (United States) and SK Corporation (South-Korea) have formed a consortium, which is still looking for a third partner. They are planning to build a natural gas liquefaction plant at Pampa Melchorita, located at the Peruvian coast 170 kilometers south of Lima. This plant would convert part of the Camisea gas into Liquefied Natural Gas (LNG).

Natural gas becomes liquid at a temperature of minus 162 degrees Celsius, thereby reducing its volume with 99.8%. This volume reduction makes it economically feasible to export natural gas overseas in special LNG-tankers. Negotiations are going on with offtakers in Mexico, which would de-liquefy the LNG to sell it on the lucrative Californian market.[15]

The LNG plant would get an annual capacity of four million tonnes LNG, which equals 5.5 billion m$^3$ of natural gas. The initial production and transport capacity of the Camisea project (as described in paragraph 1.2 and 1.3) is 2.9 billion m$^3$ per year, of which an estimated 1.6 billion m$^3$ is targeted at the domestic market. Bringing the LNG plant on stream would therefore require a strong expansion of the production capacity as well as the pipeline capacity of the Camisea project.[16]

Adding to the US$ 1,000 million investment needed for the LNG plant (including an export port), the upstream consortium therefore has to invest another US$ 400 million in expanding gas production and the transport consortium has to invest US$ 400 million in expanding pipeline capacity. Furthermore, investments of US$ 720 million in four LNG tankers and US$ 500 million in a Mexican de-liquefaction plant are needed.[17]
The American engineering firm Kellogg Brown & Root, which is part of Halliburton (United States), concluded the front-end engineering design study in November 2002. A Canadian company will carry out the environmental feasibility study, while Hunt Oil will perform its own market study. Both are to be completed by April 2003. Hunt Oil hopes to have a LNG offtake agreement signed by then as well, as this LNG project is competing with a similar LNG export project in Bolivia also targeting the Californian market. If an offtake agreement is concluded in time, Hunt Oil plans to call for bids on the construction of the liquefaction plant in April 2003. Construction is expected to take 42 months, with operations starting by the end of 2006.
Chapter 2  Financing of the Camisea projects

2.1  Financing overview

Total costs for the first three Camisea projects are estimated at US$ 1,540 million. When the export project is realised, at least another US$ 1,800 million will be added. It is not entirely clear if the US$ 720 million needed for four LNG tankers will also be invested by the export consortium. Total investment in Camisea will therefore range between US$ 3,340 million and US$ 4,060 million. These kind of amounts are not simply to arrange, especially in a country like Peru. Financing for the first three Camisea projects is arranged only partially yet, important financing decisions still have to be taken. Financing of the export project is not yet arranged at all. Information found on the financing of the various phases will be presented below.

2.2  Financing of the upstream project

2.2.1  Financing structure phase 1

Initial investments needed for the upstream project are estimated at US$ 550 million. No information is found regarding the financing structure of this phase. But based upon the information presented below, the following financing structure seems plausible:

<table>
<thead>
<tr>
<th>Equity</th>
<th>US$ 165 million</th>
<th>30.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citibank syndicate</td>
<td>US$ 120 million</td>
<td>21.8%</td>
</tr>
<tr>
<td>J.P. Morgan Chase &amp; Co.</td>
<td>US$ 25 million</td>
<td>4.5%</td>
</tr>
<tr>
<td>Export-Import Bank of the United States</td>
<td>US$ 210 million</td>
<td>38.2%</td>
</tr>
<tr>
<td>Others</td>
<td>US$ 30 million</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

Debt  

<table>
<thead>
<tr>
<th>US$ 385 million</th>
<th>70.0%</th>
</tr>
</thead>
</table>

Total investment  

<table>
<thead>
<tr>
<th>US$ 550 million</th>
<th>100%</th>
</tr>
</thead>
</table>

2.2.2  Debt financing phase 1

The following information is found regarding the financing of the debt for phase 1 of the upstream project:

- In August 2000 a banking syndicate arranged by Citibank (United States) provided a US$ 120 million, three-year syndicated loan to the upstream consortium to develop the Camisea natural gas project. Banks participating in this syndicate were:
  - Banco de Crédito del Perú  Peru
  - Banco Nuevo Mundo, which is now dissolved  Peru
  - Banco Wiese Sudameris (Peru), which is part of IntesaBci  Italy
  - Citibank  United States

- In October 2001 Chase Manhattan Bank, which is now part of J.P. Morgan Chase & Co. (United States) provided a US$ 25 million loan to Pluspetrol for initial exploration in Camisea. The loan was guaranteed by Export-Import Bank of the United States (United States).
• The **Export-Import Bank of the United States** (United States) is reviewing a loan of US$ 210 million to the upstream consortium.  

2.2.3 Financing structure phase 2

If the export project (see paragraph 1.5) will be realised, the upstream consortium has to invest another US$ 400 million in expanding gas production. Nothing is yet known about the financing of this second phase of the upstream project.

2.3 Financing of the transportation project

2.3.1 Financing structure phase 1

The first phase of the transportation project is valued at US$ 820 million (including financing costs and funding of reserve accounts). **Citigroup** (United States) is the financial advisor of *Transportadora de Gas del Perú* (TGP) for this project. No information is found regarding the financing structure of this phase. But based upon the information presented below, the following financing structure seems plausible:

<table>
<thead>
<tr>
<th>Equity</th>
<th>US$ 246 million</th>
<th>30.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inter-American Development Bank</td>
<td>US$ 75 million</td>
<td>9.1%</td>
</tr>
<tr>
<td>• Commercial bank loan arranged by IDB</td>
<td>US$ 240 million</td>
<td>29.3%</td>
</tr>
<tr>
<td>• Corporación Andina de Fomento</td>
<td>US$ 50 million</td>
<td>6.1%</td>
</tr>
<tr>
<td>• BNDES</td>
<td>US$ 109 million</td>
<td>13.3%</td>
</tr>
<tr>
<td>• ECA-guaranteed commercial bank loan</td>
<td>US$ 100 million</td>
<td>12.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Debt</th>
<th>US$ 574 million</th>
<th>70.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total investment</td>
<td>US$ 820 million</td>
<td>100%</td>
</tr>
</tbody>
</table>

2.3.2 Debt financing phase 1

The following information is found regarding the financing of the debt for phase 1 of the transportation project:

• The **Inter-American Development Bank** (IDB - International) is considering to arrange a loan package of US$ 315 million for TGP. The IDB loan package would consist of a US$ 75 million bank loan financed from its own resources, and a US$ 240 million loan from a private banking syndicate. A decision will be taken in May 2003.

• The Brazilian export credit agency BNDES-Exim, part of the Brazilian development bank **BNDES**, in September 2002 provided a loan of US$ 109.7 million to TGP to buy steel tubes from the Brazilian company Cofab, a subsidiary of Techint (Italy/Argentina).

• In October 2002 it was reported that the **Corporación Andina de Fomento** (CAF - International), a regional development bank, is conducting a due diligence study to decide on a US$ 50 million syndicated loan for the project. No decision has been published yet.

• Export credit agencies which reportedly are considering issuing credit guarantees are **SACE** (Italy) and **BICE** (Argentina). If these guarantees are issued, they will be used to attract commercial bank loans for the project.
2.3.3 Financing structure phase 2

If the export project (see paragraph 1.5) will be realised, TGP has to invest another US$ 400 million in expanding gas production.\(^\text{31}\) It looks likely that TGP hopes to finance this expansion by issuing corporate bonds. TGP hopes to raise US$ 500 million from corporate bonds to be issued by Techint (Italy/Argentina), the operator of the Camisea transport consortium. **Citibank** (United States) is preparing the preliminary information for the issue of these bonds.\(^\text{32}\)

2.4 Financing of the distribution project

The distribution project is valued at US$ 170 million. No details are known on who is providing the financing of this project. The total investment is insured by the Belgian ECA Ducroire-Delcredere.\(^\text{33}\)

2.5 Financing of the export project

The export project itself will need a total investment of US$ 1,000 million for the LNG plant and the export port. It is not entirely clear if the US$ 720 million needed for four LNG tankers will also be invested by the export consortium. The export consortium is planning to start with arranging the financing of this project in April 2003.\(^\text{34}\)

2.6 Financing of external costs

The Camisea project will incur a large amount of external costs, which are not paid for by the sponsors of the different projects. Part of these external costs will be carried by the government of Peru. In January 2003, the **Inter-American Development Bank** (IDB - International) provided a 25-year US$ 5.0 million loan to the government of Peru to help strengthen the government’s capacity to supervise and analyze the social and environmental aspects of the Camisea gas project.\(^\text{35}\)
Chapter 3  Risk mitigation in the Camisea project

3.1  Introduction

There are a large number of economic, financial, political and technical risks associated to the Camisea project. To attract financing from private commercial banks, several guarantees and risk mitigating arrangements have to be included in the financing structure. These arrangements assure that the banks will get their money back, even as the pipeline is never finished or damaged, the pipeline operator goes bankrupt or is nationalized, or the need for gas transport is much lower than foreseen.

In the following paragraphs some guarantees and risk mitigating arrangements are described which are being developed to attract sufficient financing for the Camisea project.

3.2  Take-or-pay contracts

An important risk for the Camisea project is the fact that Peru at the moment lacks a natural gas market. As a large part of the initial gas production is targeted at the domestic market, it is assumed that there will be sufficient gas consumers at the moment when the gas starts to flow from Camisea to Lima and Callao. These can be new companies or existing companies switching from other fuels to natural gas.

To reduce the uncertainty regarding the gas demand which can be expected, at the start of the Camisea project some take-or-pay contracts have been concluded with industrial and electricity producing customers. Take-or-pay contracts oblige customers to pay for the gas they have contracted, even if they are not able or willing to use it in the contractual delivery period.

Several take-or-pay contracts have been concluded with future users of the Camisea gas. The following information is found regarding these contracts:

- State-owned electricity company Electroperu signed a take-or-pay contract with the Camisea consortium guaranteeing a minimum off-take of 730 million m$^3$ of natural gas per year (25% of initial Camisea gas production). It is the intention of the Peruvian government to use this gas to supply a new electricity generating plant with 375 MW installed capacity. Investment costs for this plant are estimated at US$ 200 million. Peru's investment promotion agency ProInversion in December 2002 opened the bidding round for this take-or-pay contract. The winner, who is expected to build the power plant before August 2004, will be announced in April 2003.98

3.3  Credit guarantees issued by ECA’s

Most industrialized countries in the world have one or two Export Credit Agencies (ECA). An ECA can be a government owned institution or a private institution working on a contract basis for the government. The aim of ECA’s is to promote exports by companies operating in their home country. This can be done either by issuing soft loans to the exporter or his client, or by issuing credit guarantees for commercial bank loans to the exporter or his client. By issuing a credit guarantee the ECA takes over part of the risks associated to the loan, especially the country and political risks. As these risks are taken over by the ECA, commercial banks will have to carry less risks themselves and will be more inclined to provide a loan.

The following credit guarantees are (possibly) being issued - or have been issued already - for the Camisea project by ECAs:

- The export credit agency **Export-Import Bank of the United States** (United States) guaranteed a loan of US$ 25 million by Chase Manhattan Bank, which is now part of **J.P. Morgan Chase & Co.** (United States), for the upstream project.
• The export credit agencies **SACE** (Italy) and **BICE** (Argentina) are reportedly considering issuing credit guarantees for the transportation project. These guarantees could be used to attract commercial bank loans of up to US$ 100 million for the project.

• The export credit agency **Ducroire-Delcredere** (Belgium) guaranteed an investment of US$ 170 million in the distribution project.

### 3.4 Multilateral development institution B-loans

Multilateral development institutions regularly complement loans from their own funds (**A-loans**) by arranging loans from a syndicate of commercial banks (**B-loans**). Although B-loans are provided by commercial banks, the risks involved are less. Multilateral development institutions enjoy a de facto *preferred creditor status*. This means that member governments grant loans from multilateral development institutions (and from the banks which operate under their wings) preferential access to foreign exchange in the event of a country foreign exchange crisis. Consistent with this preference, these loans are exempt from country risk provisioning, when applicable, and are never included in general country debt reschedulings.  

The following **B-loans** are (possibly) planned for the Camisea project:

• The **Inter-American Development Bank** (IDB - International) is considering to arrange a loan package of US$ 325 million for the Camisea transportation project. The IDB loan package would consist of a US$ 75 million **A-loan** and a US$ 240 million **B-loan** from a private banking syndicate.
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8  Website Amazon Watch (www.amazonwatch.org), Viewed in February 2003.


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ProInversion to open take-or-pay bidding Dec.23 - Peru, Business News Americas, 20 December 2002; Electroperu bidding to start Jan.6 - Peru, Business News Americas, 24 December 2002; Regional govt. could disrupt Electroperu contract sale - Peru, Business News Americas, 8 January 2003.