

# Chaglla hydro plant, Peru

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On 5 July Odebrecht Energia, the power arm of the Brazilian conglomerate, closed financing for its US\$1.2 billion 406MW hydro plant in Peru.



The Chaglla project is considered groundbreaking for a number of reasons, not least because of the magnitude and geographic location of the plant.

Located on the Huallaga river between the districts of Chaglla (Pachitea region) and Chinchao (Huánuco region), 420km from Lima, the run-of-the river plant will be the second-tallest concrete-faced dam in the world the third largest hydro in Peru.

"The design of the project is a benchmark for the region, setting new standards" says Gunnar Pinassi, head of International Investment and Structured Finance at Odebrecht Energia.

[As previously reported by IJ News](#), the project includes:

- a 199m-high dam
- a 466-hectare reservoir
- a 1,053m-long diversion tunnel

The project also involves the construction of hydroelectric generation facilities including a small powerhouse at the bottom of the dam, a main powerhouse, a substation and a transmission line.

According to Pinassi, close to half of the tunnel excavation works running through the Andes are complete, while construction of the remainder of the facility is expected to be complete by 2016.

**Groundbreaking project**

Sources close to the transactions have identified a number of variables which make the deal particularly innovative. These include a lack of completion guarantees, the tenor of debt secured, the window through which the Brazilian Development Bank (BNDES) provided finance and the terms of the PPA underpinning the project.

Odebrecht was awarded the Chaglla concession, through its SPV Empresa de Generación Huallaga, by the Peruvian government in a competitive tender in 2011, however, it was another 18 months before financing for the project was secured due to deteriorating market conditions in the latter half of 2011.

"In the first half of 2011, the project finance market was good, banks could participate in the deal and we received approximately 15 letters of interest, but then the market disappeared in the second half" explains Pinassi.

Despite these conditions, Odebrecht shopped around "we wanted a very long tenor for this financing. For a very large hydro you cannot amortise entirely a large piece of financing in a short period of time".

Additionally, a source close to the transaction told IJ that financing was delayed further following BNDES' decision to enter the process after a term sheet had already been negotiated.

As such, the Brazilian firm secured a bridge loan from commercial banks to initiate construction.

A "remarkable" feature to the Chaglla project, says a banker close to the transaction, "was the lack of completion guarantees from the sponsor, which BNDES has a history of requiring in full prior to lending".

Pinassi attributes this to Odebrecht's established experience in the country, which spans over 33 years, and reputable engineering team in the hydro sector, ranked second in the world, behind a Chinese company.

Two further aspects of the deal are interesting, highlights a source close to the deal. The first, that third-party financing came before the securing of the concession to build the transmission lines from the project to the country's power grid and the second, that the PPA supporting the financing has set delivery obligations regardless of production at the plant. As such, various analyses were conducted in order to mitigate hydrological risks.

### **Innovative financing**

Given the complexities and project risks such a huge project implies, an innovative financing model was crafted, in order to persuade lenders to provide debt.

The project raised US\$774 million in senior secured debt and involved three anchor agency banks and six commercial banks. Odebrecht provided around US\$450 million in equity, bringing the debt:equity ratio to 64:36.

The financing took on an A/B loan structure whereby the Inter-American Development Bank (IDB) approved a US\$150 million senior debt A-loan with a tenor of 19-20 years in December 2011, [as reported by IJ News](#). The debt is priced at market levels with a small incremental margin per additional year of maturity to the commercial debt.

A syndicate of five commercial banks provided the B-loan of US\$183.5 million:

- Société Générale
- DnB Nor
- BBVA
- Crédit Agricole
- SMBC

All of the lenders acted as MLAs to the deal, while Société Générale and BBVA arranged the loan structure.

The A tranche of debt provided by the IDB matures on 15 August 2031. The B tranche provided by the syndicate of five commercial banks matures on 15 August 2030. The tranche provided by Deutsche Bank matures on 15 August 2031. The tranche provided by BNDES matures on 15 August 2031. A banker close to the transaction highlighted the tenor of debt

as a key triumph of the project.

BBVA, Société Générale and BNP Paribas arranging the B-loan, also arranged a bridge loan (of an undisclosed sum) for Odebrecht in 2011 to allow the developer to begin the US\$907 million construction phase in April 2011. The sponsor was understood to have extended the B-loan in 2012. Odebrecht had commissioned a fixed-price, in-house EPC contract.

The project also received a US\$100 million loan from the Peruvian national development bank, COFIDE, for which Deutsche Bank acted as go between. The Brazilian Development Bank (BNDES) also agreed to provide senior credit of US\$340 million for the run-of-river hydro plant in early June 2013.

The financing model was unique as it was the first time the IDB, the export/import window of BNDES and the Peruvian government worked together as co-lenders in a project. Importantly, it was the first time BNDES' export/import division, which only finances the export of services or goods from Brazil, lent outside of Brazil.

A source told IJ "it was the first time that the BNDES' second lending arm was involved in a major limited recourse project outside Brazil". Both from an inter-creditor dynamic perspective and a risk analysis perspective, this presented a few things to work through".

BNP Paribas acted as financial adviser to the sponsor. White & Case provided legal services to the sponsor.

### **Hydro power in Peru**

Chaglla has closed at a crucial moment for power production in Peru. Peru's private investment agency, Proinversión, is harbouring an ambitious multi-billion dollar project pipeline to boost power supply internally as it faces a potential energy deficit in the medium term.

"The Peruvian government is pursuing a strategy of increasing the participation of hydro plants in the Peruvian energy matrix" explains Pinassi. "There are currently more thermal power plants than hydros, but the government is looking to balance this out."

A source close to the transaction told IJ that "prior to Chaglla, large hydros were relatively unusual in the country due to the large amounts of civil and geographical works that such a project would require".

Once in operation, Chaglla will provide approximately 13 per cent of the country's installed hydropower, according to a Carlos Viana, lead advisor to the sponsor in a release from White & Case.

### **Looking ahead**

Upon reflection a source close to the transaction said "Chaglla evidences a trend that in projects of this type which present significant completion risk, the role of governmental lenders will be crucial in a constrained commercial bank market". Highlighting that the alternative of project bonds would not work in such a scenario, "because until you do everything, you cannot turn it on".

Pinassi concludes "What we have succeeded here is to align the understanding of the metric for debt sizing and sharing the risk with banks. We have a number of banks involved and with own experience, don't have many precedences to compare this experience with" he reiterates "this is a strong benchmark for the next project finance for hydro plants".

Odebrecht is currently understood to be looking at other similar opportunities in the Peruvian energy market.

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