Chinese financing options for Southeast Asian hydropower projects

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There is still vast untapped potential for the development of both large and small hydropower projects in southeast Asia. However, financing of such projects remains a challenge. To date, Laos has seen the most activity in the regional hydropower sector, with a number of projects already successfully financed. Chinese source financing is increasing in importance for the industry. The trends in Lao PDR outlined in this paper are particularly relevant to the financing of hydropower projects throughout Southeast Asia.

The power sector in Lao PDR is highly dependent on hydropower and the sector provides key national services. These include the promotion of economic and social development, by providing a reliable and affordable domestic power supply, and a source of foreign exchange revenues from electricity exports.

With respect to these objectives, the Government of Lao PDR (GoL) has set three broad objectives for the development of the power sector:

• to expand both the on- and off-grid electricity system and increase electrification to more than 90 per cent by 2020;
• to increase government revenue from investments in independent power projects (IPPs) and honour power export commitments with neighbouring countries by promoting developments carried out by the private sector; and,
• to promote an integrated 500 kV grid in the Greater Mekong Sub-region.

Existing and under-construction hydropower projects will account for the majority of the total annual electricity production in Lao PDR; coal-fired power, biomass gasification and solar home units will account for most of the remainder.

Power exports are one of the country's key revenue sources with electricity historically being sold to Thailand, China and Vietnam. Electricity exports from Laos increased from 2871.4 GWh in 2001 to 11 936.4 GWh in 2014 [MEM 2015[1]]. This represents an increase of approximately 315 per cent during the period.

Of the 22 hydroelectric projects currently in operation in the country, 12 supply 100 per cent of their output to the state-owned distributor, Électricité du Laos (EDL), six plants operate for the main purpose of supplying power to the Electricity Generating Authority of Thailand (EGAT), and four hydro plants supply both EDL and offshore consumers [UNDP 2015[2]].

Domestic power distribution is reserved for EDL and is closed to private investment under the Electricity Law.

Chinese banks, in particular the Export-Import Bank of China (CEXIM) and the China Development Bank Corporation (CDB), have provided funding for the development and construction of a number of hydropower projects in Lao PDR. The Table below lists some of the Chinese financial institution loans for Lao hydropower projects.

A list of some Chinese financial institution loans for Lao hydropower projects

No.	Year	Project	Lender	Value (US$ million)
1	2002-2004	Credit loan for the Nam Mang No. 3 hydropower station	-	200
2	2006	Loan for construction of the Nam Khan 2 and 3 hydropower plants	CEXIM	308.5
3	2009	Loan for construction of the Xeset 2 hydropower project	CEXIM	245
5	2010	Loan for the construction of the Nam Ngum 5 hydropower project	CEXIM	139-140
6	2011	Loan for and investment in construction of the Nam Ngiep 2 hydropower plant	CDB	345
7	2013	Loan for construction of the Nam Ou hydropower project phase 1 (Nam Ou 2, 5, 6)	CDB	698 – 770
8	2014	Loan for construction of the Xeset 3 hydropower project	CEXIM	45.6
9	2015	Loan for the Nam Tha 1 hydropower project	CEXIM	770
10	2015	Loan for construction of the Nam Phay hydropower project	CEXIM	152.7
11	2016	Loan for construction of the Nam Ou hydropower project phase 2 (Nam Ou 1, 3, 4, 7)	CDB	1000 - 1300

Hybrid project financing

To date, Chinese financial institutions have been unwilling to provide true non-recourse or limited-recourse project financing for Lao hydropower projects.

In cases when EDL is the project owner, the financing provided by CEXIM has generally taken the form of a sovereign loan to the GoL which is then on-lent by the GoL Ministry of Finance to EDL. Escrow account arrangements locking in certain EDL revenues secure the loan.

For IPP projects, a hybrid project financing structure has been utilized by both CEXIM and CDB. The Agricultural Bank of China and the Industrial and Commercial Bank of China (ICBCC) have also expressed interest in providing hybrid project financing for Lao hydropower projects. This financing arrangement combines the elements of limited-recourse project financing with a sponsor guarantee of the debt callable under specified conditions. In addition to the facility/loan agreement and the sponsor guarantee, there will be a standard project finance security package consisting of:

- a pledge of all movable assets of the project (including bank accounts, movable equipment, contractual rights and insurance proceeds);
- a security interest over all immovable assets of the project (namely the concessionary land rights and any land lease); and,
- pledges from each shareholder of the shares in the project company.

These security documents must conform to the requirements of the Secured Transactions Law and Secured Transactions Decree. Achievement of the granted security interests requires registration, and in the case of the immovable assets, security agreement and notarization. Registration fees are payable, which in the case of the immovable assets security agreement, are 0.2 per cent of the principal amount of the loan.

Political risk insurance is often available from Sinosure, the major Chinese provider of political risk cover. This is generally mandatory in these hybrid project-financing arrangements, as the lenders are unwilling to assume Lao political risks themselves.

In addition, for hydropower projects in which EDL will be the primary power off-taker, as Chinese lenders do not deem the financial standing of EDL to be satisfactory, a GoL guarantee of EDL's payment obligations under the power purchase agreement (PPA) has been required by Chinese lenders. Conversely, GoL guarantees have not been required for Lao hydropower projects exporting the bulk of their output to EGAT. Based on prior Vietnamese project financing, it is likely that the Chinese lenders will require a Government of Vietnam guarantee for the PPA obligations where Vietnam Electricity (EVN) is the primary off-taker of a Lao PDR hydropower project. Collecting under a GoL guarantee of an EDL PPA will, as is consistent with the State Budget Law, require an appropriate allocation in the annual State Budget approved by the National Assembly for the year in which payment is sought.

As a condition of obtaining hybrid project financing from CEXIM or CDB, the project must have a significant level of Chinese participation, either in the form of majority Chinese equity participation, a Chinese EPC contractor or significant Chinese supply of materials and equipment for the project.

This hybrid project finance structure will allow the project sponsor to book the loan and all related fees at the project company level. Payment of the principal and interest and the financing fees will take precedence over all payments to the various project shareholders (dividends, shareholder loan payments, development fees, and so on). From the perspective of the Chinese lenders, this structure allows them to look first to the project company for debt service payments, with options to call on the sponsor guarantee, take full ownership of the project company by exercising the share pledge rights or, as a last resort, foreclosing on the pledged movable and immovable assets.

For project sponsors unwilling to provide the required sponsor guarantee or put their corporate assets at risk, the other Chinese financing options discussed next may be preferable.

Supplier credit

As an alternative to the hybrid project finance structure offered by CEXIM and CDB, which requires a sponsor guarantee of the loan, a project could consider the supplier credit scheme offered by a number of Chinese Engineering Procurement and Construction (EPC) contractors and major Chinese equipment manufacturers. Under this form of financing, the project company will pay the EPC contractor an up-front sum equal to 10 to 15 per cent of the total EPC contract price. Thereafter, the EPC contractor will design the project, procure all required equipment and materials and construct the hydropower project using its own financial resources (including possible loans to the EPC contractor from CEXIM or CDB). Upon completion of the project's construction and successful achievement of commercial operations date (COD), the project company will be obliged to pay the balance (85 to 90 per cent) of the EPC contract price. In certain cases, the EPC contractors have been willing to offer extended repayment terms so that the balance of the EPC contract price is payable over a term of one to five years, with interest charged at a negotiated market rate.

The supplier credit structure offers a number of advantages. First, it is true non-recourse financing with no requirement of a sponsor guarantee. Also, the payment/take-out of the credit occurs only after successful completion of construction, and the elimination of construction risk should facilitate the sourcing of take-out financing. In addition, the EPC contractor will have an incentive to complete construction on-schedule and within specifications so as to obtain the take-out payment.

Disadvantages of the supplier credit structure include the requirement of the project company to use a Chinese EPC contractor and, most likely, Chinese equipment and materials. The credit/financing will cover only the EPC costs and not other project development costs such as consultant fees, insurance, legal fees or development expenses. The repayment period will be limited, either by immediate repayment at COD or a limited repayment period ranging from one to five years from COD.

Promissory note factoring

A variation of the supplier credit scheme has been used for a few hydropower projects in Laos. This involves the factoring of promissory notes issued by the project company, or EDL in the case of EDL projects, to the EPC contractor. Under this financing arrangement, the project company (or EDL in the case of EDL projects) will pay the EPC contractor a down-payment of 10 to 15 per cent of the EPC contract price and then issue promissory notes with a negotiated interest rate for the balance, with stated maturity dates commencing after successful COD. The promissory notes will be recourse only to the project company (or EDL in the case of EDL projects). The EPC contractor will then sell the promissory notes to CEXIM or CDB under a note factoring arrangement, usually at a discount.

This variant of the supplier credit scheme offers some of the same advantages and allows the EPC contractor to lay-off the repayment risk to CEXIM or CDB. However, if the factoring of the promissory notes is done on a non-recourse basis to the EPC contractor, it is likely that CEXIM or CDB will require additional protections, including Sinosure political risk insurance and a sponsor guarantee. These additional requirements render the promissory note factoring scheme less attractive to the project company than the pure supplier credit approach.

Sale-leaseback structure and viability

There has recently been interest on the part of some Chinese financial institutions such as ICBC Leasing in providing lease financing to Lao projects. Such a structure would involve a 'sale' of the immovable and movable assets of the hydropower project to the lessor, which would then 'lease-back' these immovable and movable assets to the project company under a long-term lease arrangement. The lease rentals would include an interest component, various lessor fees and, most likely, a political risk premium component. At the end of the lease term, the project company would enjoy a purchase option, for either a nominal amount or, depending on the lease rentals negotiated, at an appraised fair market value.

Sale-leaseback structures have been used in a number of jurisdictions to finance power projects, notably in the USA and Thailand. However, such a structure for a Laotian hydropower project faces a number of serious legal difficulties. Under the Land Law, foreign invested entities, including foreign financial institutions and foreign invested Laotian hydropower project companies, are prohibited from owning land or holding land through land use rights (akin to a freehold interest in land) or through usufructs. Land holding by foreign invested entities is limited to land leases and concessionary land rights. As most Laotian hydropower projects are located on state land (and not private land), the project is likely to control the project site based on a concession agreement sometimes coupled with a state land lease. The concession agreement and the land lease will prohibit the sale, transfer or assignment of the concessionary land rights or the leasehold interest without GoL approval. Furthermore, Lao law does not recognize the concept of 'ownership' of immovable assets and fixtures without reference to the underlying land rights. At the end of the concession period or lease term, all immovable assets and fixtures on the land revert to the holder of the underlying land rights without compensation, unless otherwise provided in the concession agreement or land lease. Further, the Electricity Law strictly limits the term of electric power concessions and provides that upon the expiration of the concession, term all project assets are to be transferred to the GoL without compensation.

Given these constraints, a sale-leaseback financing of a Laotian hydropower project would require the full cooperation and consent of the GoL. The GoL may well object to the upfront transfer of the land rights to the finance party. If such consent cannot be obtained, the sale-leaseback structure would need to be restricted to the movable assets, which in a hydropower project will be of far lesser value than the dam, reservoir, immovable structures and embedded immovable equipment. Moreover, on termination of the concession period (including early termination as a result of project company default or natural force majeure events), the lessor will be required to turn over all project assets to the GoL without compensation. These issues may limit the feasibility of a sale-leaseback structure in practice.

New options from the AIIB

The Asian Infrastructure Investment Bank (AIIB) began operations in January 2016 and has approved a total of 10 energy-related projects in Asia to date. While the AIIB has not yet provided financing to any Laotian projects, its growing interest in Lao and other Southeast Asian projects should be noted. (This observation is based on our meeting with the AIIB team of its Investment Operations Department in November 2017 at DFDL's Lao PDR office.)

The AIIB is a multilateral development bank rather than a strictly Chinese source of funding, but given that the majority of votes are vested in China (China accounts for 31.3 per cent of the total subscription and has 26.9 per cent voting rights, the largest share among the members of the AIIB), and the AIIB President is a Chinese national, the AIIB can be viewed as a new Chinese-source financing option.

The Articles of Agreement of the AIIB permits it to "provide financing in a variety of ways, including, inter alia, making loans, investing in the equity capital of an enterprise, and guaranteeing, whether as primary or secondary obligor, in whole or in part, loans for economic development" [AIIB Articles, 2016[3]]. It may provide both sovereign-backed financing and non-sovereign-backed financing. The non-sovereign-backed financing includes "any financing to or for the benefit of a private enterprise or a sub-sovereign entity (such as a political or administrative subdivision of a Member or a public sector entity) that is not backed by a guarantee or counter-guarantee and indemnity provided by the Member," [AIIB Operational Policy 2017[4]] and may take the forms of "loans, guarantees, direct equity investments, indirect equity investment, and underwriting of securities" [AIIB Operational Policy 2017[5]].

Unlike CEXIM and CDB financing, AIIB financing is not dependent on Chinese elements in the project. The AIIB Articles of Agreement require that "only economic considerations" be relevant to the Bank's decisions [AIIB Articles, 2016[6]].

For a new project, AIIB can finance out of its own funds no more than 35 per cent of the project's value (including interest during construction). On an exceptional basis, if co-financing is unavailable, the AIIB board may decide to approve a higher level of financing for the project [AIIB Operational Policy 2017[7]].

AIIB may "extend a non-sovereign-backed loan on a limited recourse basis, backed only by the existing and future cash flow and assets" of the borrower. However, if the completion risk of a project requires mitigation, the bank may "require a specific undertaking from the sponsor to provide any needed additional funds." Where the project's cash flow is found to be uncertain or insufficient, the Bank may "require the credit support of a third party, that is, recourse to designated assets or the balance sheet of the sponsor or a bank guarantee." In addition, the Bank may require "undertakings from the sponsor and third parties as necessary to ensure the continued ownership of the project during the term of the financing and continued sources of management, technology, supply and equipment, as required for the project" [AIIB Operational Policy 2017[8]]. Usually the AIIB loans are senior loans, backed by appropriate guarantee or security that must be perfected before the first drawdown of the loans [AIIB Operational Policy 2017[9]].

As AIIB is newly established, its financial terms such as the rate of interest and other charges and the schedule for repayment of principal have not yet been standardized. As stated in the Articles of Agreement, the financial terms are to be appropriate for the financing concerned and the risk to the bank [AIIB Articles, 2016[10]].

Market-based principles are to be applied, and various factors such as intrinsic commercial and macroeconomic risk of each project, the costs of funds, and the need to earn an appropriate return on the bank's capital are to be considered in setting the terms and conditions of each financing, in particular its pricing. The AIIB President is responsible for establishing criteria designed to price the financing of comparable risks in a similar and consistent manner [AIIB Operational Policy 2017[11]].

The bank charges front-end fees, commitment fees and fees for appraisal, prepayment, syndication or activities and services related to a loan, all generally at prevailing market rates [AIIB Operational Policy 2017[12]].

AIIB will document non-sovereign-backed financing "in accordance with the practice of other relevant multi-lateral development institutions providing similar non-sovereign-backed financing, through the use of standard templates for term sheets, loan agreements, subscription agreements, participation agreements, security sharing agreements, project funds (or project completion) agreements, and so on, to ensure consistency and fairness" [AIIB Operational Policy, 2017[13]].

Outlook

To date, CEXIM and CDB have been the primary sources of Chinese financing for Southeast Asian hydropower projects. With the arrival of AIIB on the scene, the new development bank can be expected to become an increasingly important source of such financing. Given the importance attached by the present Chinese Government to its One Belt, One Road Initiative for the development of infrastructure in neighbouring Asian countries, there is a large role to be played by AIIB as well as CEXIM and CDB. However, as CEXIM and CDB continue to require project sponsor guarantees of the debt and AIIB expressly reserves the right to require a project sponsor guarantee of the debt, projects seeking true limited recourse financing from Chinese sources should consider the less conventional but viable options of Supplier Credit and Promissory Note Factoring. ◊

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