XE-PIAN PLANTS A MILESTONE

LATHAM & WATKINS, INTERNATIONAL LEGAL COUNSEL TO THE LENDERS PARTICIPATING IN THE FINANCING OF THE XE-PIAN XE-NAMNOY HYDROELECTRIC POWER PROJECT (PNPC), AND KTB ADVISORY, CO-FINANCIAL ADVISERS TO THE PROJECT COMPANY, PROVIDE AN OVERVIEW OF THE DEAL AND INSIGHT INTO SOME OF ITS NOTABLE FEATURES. BY **WIRACH MORAKOTKARN**, ACTING CEO, **AOIJAI POENSAMUT**, VICE-PRESIDENT, AND **SUTHIPHAN SNITWONGSE**, MANAGER, **KTB ADVISORY** AND **STEPHEN P MCWILLIAMS**, PARTNER, AND **TIM FOURTEAU,** SENIOR ASSOCIATE, **LATHAM & WATKINS**.

PNPC reached financial close on February 5 2014, marking an important milestone for the project finance market in Laos, Thailand and South-East Asia generally. With more than US$700m of loan commitments, it is the largest limited-recourse financing in Laos since 2011. The source of the debt financing – a syndicate of Thai financial institutions (Bank of Ayudhya, The Export-Import Bank of Thailand, Krung Thai Bank and Thanachart Bank) – demonstrates the increasing ability of the leading Thai banks to structure, document and close the most complex cross-border project financing transactions.

PNPC marks a major milestone in South Korea–Laos relations, being the first major power investment in Laos by South Korean sponsors – SK Engineering & Construction Co (SKE&C) and Korea Western Power Co (Kowepo). It also provides further evidence of the continued successful collaboration between Ratchaburi Electricity Generating Holding Co (Ratch) and Lao Holding State Enterprise (LHSE), which was demonstrated most prominently in their sponsorship of the Hongsa mine-mouth power project in 2011.

Project overview

Located in southern Laos on the Bolaven plateau approximately 550km to the southeast of the capital Vientiane, the PNPC plant is expected to have a nominal capacity of 410MW and an estimated annual energy generation of 1,860GWh.

The PNPC plant's main structural components will consist of a large storage reservoir impounded by a dam on the Xe Namnoy River, long underground tunnels and shaft waterways and an open-air powerhouse containing four generator units (three Francis turbines and one Pelton turbine).

Besides water originating from the Xe Namnoy reservoir, the project will have access to water diverted from two neighbouring catchments, the Houay Makchan and the Xe Pian, to the Xe Namnoy reservoir. From the Xe Namnoy reservoir, the plant's high-head scheme will harness the approximately 650 metre drop to the valley below to generate power, which will be evacuated to the Electricity Generating Authority of Thailand (EGAT) via a 230kV transmission line or Electricité du Laos (EdL) via a 115kV transmission line. The construction period for the project is five years.

Under its concession agreement with the Government of Lao PDR (the GOL), PNPC has been granted the exclusive right to operate the project for 27 years after the commencement of commercial operation. PNPC has agreed to pay the GOL a fixed percentage of its gross operating revenues as royalties and to transfer the plant to the GOL at the end of the concession period. PNPC will be a significant source of revenue to the GOL, both through royalties and through the GOL's shareholding in PNPC. As a stable source of foreign currency revenue, PNPC will be an important contributor to the economic development in Laos over the coming decades.

PNPC has entered into long-term power purchase agreements with EGAT and EdL to sell all of its energy output for the duration of the concession period. Under the EGAT PPA, the project company must make available 370MW

on an exclusive basis. Under the EdL PPA, EdL must purchase energy generated from the plant's Pelton generating unit (40MW). This energy will be an important contributor to the continued electrification of Southern Laos.

PNPC's sponsors are SKE&C (26%), Kowepo (25%), Ratch (25%) and the GOL via LHSE (24%). Each private sponsor has a vital role in the development and operation of the project – SKE&C is tasked with construction, Ratch is responsible for supervising construction and Kowepo will be the operator.

Project structure

The estimated cost of developing the project is US$1.02bn. With a debt to equity ratio of 70:30, the lenders are providing dual-currency term loans of US$714m equivalent, half in Thai baht and half in US dollars. The door-to-door tenor of the loans is almost 20 years. In addition, Bank of Ayudhya, The Export-Import Bank of Thailand and Krung Thai Bank are providing a US$17.5m bank guarantee facility, and Krung Thai Bank has underwritten a US$5m working capital facility.

Notable features

- *Shared transmission facilities* – PNPC is the first power project to close in Laos with a contractual requirement to provide access to its transmission facilities to neighbouring power plants seeking to export energy to Thailand. Under PNPC's concession agreement, PNPC must upgrade and provide access to its substation to accommodate any new power projects constructed in its vicinity and that intend to sell energy to Thailand.

Any such interconnecting projects will be required to pay PNPC an access and utilisation fee to compensate PNPC for a pro rata portion of the original cost of developing the substation and the upgrade costs. This transmission facilities-sharing regime will benefit PNPC and other domestic projects exporting power to Thailand by removing the need for the construction of individual transmission facilities and by spreading the transmission facility construction costs across multiple developments.

This shared transmission facilities requirement presented a unique set of issues for PNPC, the sponsors and the lenders when structuring the development and financing. As there could be a delay in the costs of upgrading the relevant substation being passed through to the incoming developer, PNPC may have a need for additional funds in the post-construction phase to fund the upgrade of its transmission facilities.

Accordingly, the project company was provided with the flexibility to finance any required upgrades with additional senior and subordinated term loans and a springing cash reserve mechanism was designed to further ensure sufficient funds to comply with its upgrade obligation.

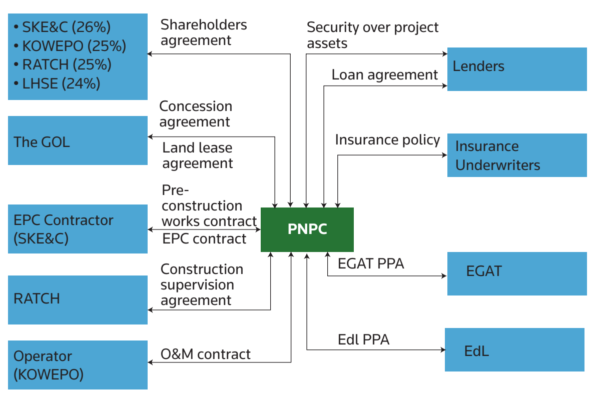
The transmission facilities-sharing scheme also required a complex risk allocation analysis with the lenders' Lao counsel, technical adviser and insurance consultant on matters such as operational responsibility, liability for interruptions in the transmission facilities and environmental and other potential liabilities in relation to the scheme.

The PNPC financing contained other unique features, including a margin repricing option and a take-out mechanism.

- *Margin repricing option* – Under the margin repricing mechanism, the lenders have the right to adjust the margin of the US dollar term loans on the sixth anniversary of the initial drawdown date and every five years thereafter to reflect any increase in their cost of funding US dollar loans. This right supplements the lenders' customary right to revisit the adequacy of Libor as a proxy for their US dollar funding cost and is distinguishable from the increased cost protections in that it is not contingent on a change in law. This type of option is increasingly seen in Thai bank funded long-term US dollar loan facilities.

- *Take-out mechanism* – In addition, the financing arrangements contain a bespoke accession

PROJECT STRUCTURE



MAJOR DEAL PARTICIPANTS

Borrower	Xe-Pian Xe-Namnoy Power Company Limited
Sponsors	Korea Western Power Co., Ltd.
	Lao Holding State Enterprise
	SK Engineering & Construction Co., Ltd.
	Ratchaburi Electricity Generating Holding Public Co Ltd
Lenders	Bank of Ayudhya
	The Export-Import Bank of Thailand
	Krung Thai Bank
	Thanachart Bank
Financial advisors	KTB Advisory (a wholly-owned subsidiary of Krung Thai Bank)
	Australia and New Zealand Banking Group Limited
	The Export-Import Bank of Korea
International Legal Counsel	Allen & Overy as international legal counsel to the Borrower and the Sponsors
	Latham & Watkins as international legal counsel to the Lenders
Thai Legal Counsel	Allen & Overy as Thai legal counsel to the Borrower and the Sponsors
	Chandler & Thong–ek Law Offices Limited as Thai legal counsel to the Lenders
Lao Legal Counsel	DFDL as Lao legal counsel to the Borrower and the Sponsors
	DFDL as Lao legal counsel to the Lenders
Lenders' technical advisor	Parsons Brinckerhoff Australia
Lenders' insurance advisor	Marsh PB
PNPC's insurance advisor	Aon (Thailand) Limited

mechanism that permits the project company, subject to the consent of the lenders, to reduce some of their US dollar loans dollar-for-dollar with new loans from the Asian Development Bank (ADB) and/or the Export-Import Bank of Korea (Kexim) at any time during a three-year period from the signing date of the project.

ADB and Kexim had a significant early involvement in the financing, but at signing had not committed to providing financing to the project.

Conclusion

As the largest debt-financed development in Laos over the past few years and the first project to implement the GOL directive that transmission facilities be shared, we believe that PNPC will prove to be a market-setting deal and a roadmap for the series of Lao developments that are slated to reach financial close in the near future (eg, the Nam Ngum 3 and Nam Ngiep 1 hydropower plants).

It also provides further evidence that Thai financial institutions are willing to fully underwrite properly structured limited-recourse financings outside of their domestic market. ■