

# Thai banks wait on the post-adder solar tariff

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South-East Asia's conventional power developers have been busy, as they benefit from booming host economies and aggressive international commercial and export credit agency lenders. The renewable sector has traditionally been trickier for these lenders, because power purchase agreements (PPAs), lacking exposure to dollarised fossil fuel costs, are usually local currency-denominated. Offshore lenders can only participate in the market unless they are willing to enter into complex, and costly, cross-currency swaps.

Fickle policy, cost-overruns and low sovereign ratings have also been deterrents to international lenders. Developers have had to rely on their balance sheets or look for local funding to a mix of local lenders and multilaterals like the International Finance Corporation (IFC) or the Asian Development Bank (ADB) both of which can be selective.

But Thailand has established an enviable record in encouraging renewables development, particularly in solar. Its strong regulatory framework, combined with the strength of its offtakers, which are investment grade well-managed state-owned monopolies, and favourable tariff regime have led developers to scramble to snag PPAs for new solar projects. Thailand has emerged as a major regional solar player without much of a wind sector to rival it.

Thai banks' willingness to take on new risks and asset types has if anything outstripped the demand for their financing, pushing tenors past 10 years and pricing of less than 200bp over the THB Fixed interbank rate. Demand for banks' services may be set to slide. The government introduced a temporary suspension on applications for new PPAs in 2010 and earlier this year proposed replacing the popular adder tariff with a less favourable feed-in-tariff. But given the number of PPAs that developers have already won, there is a still large pipeline of deals to keep Thai banks busy.

## Emerging market

As of 2012, Thailand had roughly 8,000MW of renewable energy projects in the pipeline and about 1,000MW already connected to the grid. Thailand was one of the first Asian countries to introduce the comprehensive tariff regime known as the adder programme, which it implemented in 2007 as part of its Renewable Energy Development Plan. The plan called for renewable energy to account for 20% of energy consumption by 2022.

The adder programme provides for additional payments to renewable energy generators on top of standard prices that power producers would receive when selling electricity to utilities. The PPAs are structured as five-year contracts, usually with the Electricity Generating Authority of Thailand, although for smaller projects the offtakers are either the Metropolitan Electricity Authority or the Provincial Electricity Authority.

Although they are only five-year agreements, they are renewed automatically unless there is a breach of contract, meaning that Thai lenders make sure that any loan is almost entirely amortised ten years after a project's commercial operating date. The solar adder rate was introduced in 2007 at Bt8 (\$0.27) per kWh, although it reduced this in 2010 to Bt6.5, after a flood of developers started trying to resell their PPAs.

In 2010 Natural Energy Development, a venture made up of equal equity providers China Light and Power Renewables

Mitsubishi subsidiary Diamond Generating and the Electricity Generation Public Company (Egco), signed a Bt8.5 billion financing for the Lompuri solar photovoltaic project, the first large-scale solar financing in Thailand. Bangkok Bank, Kasikornbank and Siam Commercial Bank provided Bt1.16 billion each in 12-year debt, in addition to Bt2.2 billion from the ADB.

The governments attempts to curb the number of applications, including the introduction of a bid bond in 2009, have done little to quell developers appetites. The country had a target of 500MW of solar capacity additions in the near term, but developers have won between 4GW and 5GW.

### **Baht bombing**

The changes to the existing adder programme have not yet reduced the number of project financings, since their pace has accelerated as developers race to meet the commercial operations deadlines in their PPAs. In June 2012, Kasikornbank and Bangkok Bank led the Bt3.3 billion debt financing for Ratchaburi and Yanhees Bt4.4 billion 34.25MW Solarta portfolio. There have been two closings in this year alone.

In April Thai developer Solarco, whose ultimate shareholder is Egco, closed on a \$192 million equivalent debt financing to fund the construction of a three-strong 57MW solar photovoltaic (PV) portfolio. The debt financing was split between Bt1.65 billion as a direct loan from the ADB, \$33 million from the Clean Technology Fund and a further Bt2.3 billion from Thai commercial lenders Bangkok Bank and Kasikornbank.

Following Solarco was a Bt1.8 billion financing for two PV portfolios that Bangchak Petroleum developed. The debt financing is split between a direct loan from the ADB, a loan from the Clean Technology Fund, and direct funding from Siam Commercial Bank. The bankruptcy of the manufacturing subsidiary of Suntech, the portfolios engineering, procurement and construction contractor, delayed close, but the deal shows local lenders are still willing to stretch the terms they offer to solar developers.

Most Thai bank loans are structured so that they largely amortise during the adder period, and their debt service coverage ratios stay constant, and local lenders are increasingly comfortable going out to longer tenors. Maturities of around 13 or 14 years (including construction) are now the norm.

I think there has definitely been an upward curve in terms of tenor and I think thats a trend that is likely to continue says one Bangkok-based adviser. That will vary from lender to lender and will also depend on the warranty of the supplier, but given the increased convergence of terms offered by Chinese EPC contractors with international standards, I think its likely. Its not rare to see 20 year plus debt for conventional power financing so I think that you will see renewable projects follow a similar trajectory in the next 5 to 10 years

### **Big projects**

Most bankers believe that Thai lender liquidity and longer maturities would reduce the need for funding from multilaterals. The ADB played an important role in the early years of Thailand's solar market, and still offers attractive pricing, but Thai banks offer flexibility over drawdown, knowledge of the local market, and are prepared to support developers that would struggle to interest the ADB.

In early 2013 Solar Power Company closed on Bt2.4 billion in 10-year debt with K-Bank for five solar projects Korat 5, Korat 8, Khon Kaen 3, Khon Kaen 4 and Khon Kaen 8, which had a total capacity of over 37MW. The bulk of the financing for the projects came from the IFC, in the form of both debt and equity, but SPC is rumoured to be looking to meet its target of 34 plants and 204MW capacity mostly with debt from local banks.

For projects larger than 40MW, the standard financing template is still a combination of local bank debt and funding from the ADB. There are some signs that local lenders are showing increased confidence in the Thai renewable sectors, says one banker, but for the larger portfolio financings, for the time being at least, you still need the ADB. Thai lenders arent even close to the ADB in terms of maturities at the moment.

The ADB benefits from a triple-A rating, even at a time when a number of its largest contributors, such as the

governments of Japan and USA, have been downgraded or placed on credit watch. The ADB benefits from regular capital increases, a diversified shareholder base and preferred creditor treatment. This rating allows it to close cross-currency swaps of durations of 20 years and fund Baht loans to Thai solar projects at tenors of around 18 years.

ADB involvement also brings access to the Clean Technology Fund, whose managers are the ADB, the IFC and other multilaterals, including the European Bank for Reconstruction and Development, the African Development Bank and the Inter-American Development Bank. Though the total amount available is usually capped at between 15% and 20% of project costs, the fund provides very cheap access to funding to solar developers.

### **Alternative funding**

One exception to international lenders absence from Thai solar deals was the first PV portfolio financing from Bangkok Petroleum, which closed in October 2010. That financing, which supported the development of an 8MW and 30MW plant in Ayutthaya, comprised Bt4.2 billion in 15-year debt from the ADB and Mizuho. This was the first time that an overseas lender had financed a Thai project, and was only made possible because the ADB was able to execute the swap on behalf of Mizuho, although Mizuho retained the project risk. However the deals final security package resembled more of a corporate loan than a limited recourse financing, and there have not been any imitators since.

If foreign lenders have limited opportunities, foreign equity providers may be luckier. Asset management firm Armstrong is in the process of marketing its new South East Asia Clean Energy Fund, which is targeting small-scale renewable projects in Asia, particularly Thailand, but also Vietnam, the Philippines and Indonesia. Armstrong is looking for total of \$150 million and has so far brought in \$85 million. In addition to soft commitments of \$63 million. Armstrong wants to reach final close on the fund in August this year.

Armstrong recently acquired a 60% share in a 30MW Thai solar portfolio that Symbior Solar Sam, a subsidiary of Symbior Energy, is developing. Foreign financial equity investments are still likely to be more opportunistic, however, partly due to the strength of local sponsors. I dont see any widespread increase in activity from overseas private equity says one adviser.

### **Golden Age**

Thai banks emerged from the financial crisis with their balance sheets and reputations largely intact, unlike some of their European and North American counterparts. Flush with baht deposits and with access to cheap funding, most of the major lenders have been increasing the amount they lend to renewable projects and are keen to support the large IPPs such as Ratchaburi that have been adding to their renewables portfolio. Thailand has taken the lead in Asia in creating a framework for renewables developer to raise long-term debt, even compared to other regional solar powers such as China and India.

Thailand overshot its target for 500MW of solar capacity after developers won contracts far in excess of this amount. Although the Thai government is expected to adhere to existing contractual arrangements, developers can expect a less favourable regime for future projects, as a feed-in tariff takes over from the adder programme.

The feed-in tariff may allow developers to raise longer-dated debt, since the new FIT is expected to depart from the tradition of rolling five-year contracts under the adder regime. But the tariff will put considerable pressure on developer returns, as the Thai government makes sure that pricing falls in line with what panel manufacturers are offering. The government has also reportedly considered allowing tariffs to fall over time, reflecting decreasing equipment costs.

The outlook still remains broadly positive, and any new tariff regime will benefit from the work that developers and lenders have put into making the financing process more efficient. The adder programme has involved the creation of standardised documentation, including PPAs, and made getting access to the grid much easier. Other rival technologies including wind and biomass will struggle to obtain priority, however, the former because of the costs involved and the paucity of wind resources, and the latter because of the difficulty in obtaining reliable and cost-effective fuel.

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