

BRIEFING

CAMBODIAN SOLAR INDUSTRY – A NEW  
DAWN?

MARCH 2018

- IS THE CAMBODIAN SOLAR MARKET ON THE VERGE OF A NEW DAWN?
- WHILST THERE ARE TAILWINDS AND POTENTIAL FOR DEVELOPMENT, SIGNIFICANT CHALLENGES STILL REMAIN
- ANY PROGRAMME SEEKING TO DEVELOP THE SOLAR MARKET IN CAMBODIA WILL NEED TO ADDRESS SOME (IF NOT ALL) OF THESE CHALLENGES



While the Cambodian power sector may be small in comparison with other nations both in the Association of South East Asian Nations (“ASEAN”) and internationally, it has, however, grown rapidly over the last decade.

Between 2003 and 2014, the annual growth of electricity sales averaged over 20% with total sales increasing more than sevenfold<sup>1</sup>. The Cambodian Ministry of Industry, Mines and Energy’s (“MIME”) own national policy forecasts Cambodia’s electricity consumption to grow annually by 9.4% until 2020.<sup>2</sup> More recently, the International Renewable Energy Agency (“IRENA”), an intergovernmental agency supported by 156 member states, predicts that energy demand in Cambodia will grow by up to 200% between 2014 and 2025.<sup>3</sup>

Cambodia’s energy generation still remains largely dependent on electricity imports from its neighbours (Vietnam, Thailand and Lao PDR), hydroelectric power plants and (as a result of new coal power plants coming on line in 2015) coal.

However, developments in Cambodian solar power are expected to lead to an improved overall capacity in this sector.

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“IRENA...PREDICTS THAT ENERGY DEMAND IN CAMBODIA WILL GROW UP TO 200% BETWEEN 2014 AND 2025.”

<sup>1</sup> “Cambodia- In depth Study on Electricity Cost and Supplies – March 2015” The Cambodian Government- Private Sector Forum report prepared by Economic Consulting Associates.

<sup>2</sup> “National policy, strategy and action plan on energy efficiency in Cambodia.” The Cambodian Ministry of Industry, Mines and Energy. 2013.

<sup>3</sup> “Renewable Energy Market Analysis: South East Asia”. IRENA (2018), IRENA Abu Dhabi.

The 10 MW solar facility in Bavet City - Cambodia's first utility sized solar power plant – achieved financial close in May 2017. The Bavet City Project was developed by Sunseap, a Singapore-based regional solar developer and the project was commissioned in October last year.

The project was funded by the Asian Development Bank (“ADB”) and co-financed by a commercial bank and a concessional loan from the Canadian Climate Fund.

In addition, in July 2017, ADB's public sector department entered into a transaction advisory agreement to conduct a feasibility study, to advise Electricité Du Cambodge (Cambodia's only state-run utility) on the development of a bankable PPP structure and to organise a competitive tender process to select a suitable private sector sponsor(s) in respect of a solar power park programme of up to 100 MW. This solar park programme is expected to be subject to a competitive tender process and it has been reported that ADB will look to tender out the first stage of the above project (for up to 50 MW) by June or July 2018.

While the above points suggest the Cambodian solar market is on the verge of a new dawn, it is worth considering whether or not this trend is likely to continue. Based on our experience advising the sponsors on the Bavet City Cambodia solar project as well as discussions with stakeholders in the Cambodian solar market, – we will now look at some of the potential challenges that future developers, investors and financiers may face with Cambodian solar projects.

### Drivers

The macro-economic conditions in Cambodia appear to support the development of solar power generation. In particular:

1. **Energy Demand** – Energy demand in Cambodia is projected to rise for the foreseeable future. Based on IRENA's projections, the only ASEAN nation which is expected to have a greater rise in energy demand is Laos. Another unique feature of the Cambodian power sector structure is the strong presence of mini-utilities which have been operating since the 1970s under a franchisee system with EDC and mini-grids. The presence of these mini-utilities and mini-grids could create further opportunities for solar development for the operators of these utilities.
2. **Excellent Solar Conditions** – The solar irradiation levels in Cambodia are well-suited for solar power generation. Average solar irradiation is in excess of 5.5 hours a day with average (GHI) solar irradiation levels of 208 W/m<sup>2</sup>. This is higher than the world average of 170 W/m<sup>2</sup>.
3. **High existing electricity tariffs** – Based on the OECD International Agency: Southeast Asia Energy Outlook (2017) report, the existing electricity tariffs in Cambodia range between US\$0.14 to 0.19 kw/h in Phnom Penh and up to US\$0.25 kw/h in more rural areas. The current high cost of electricity should create opportunities for solar developers who are able to provide electricity at a lower tariff.

The availability of certain tax incentives also appeals to qualifying foreign developers investing in Cambodia. The Council for the development of Cambodia (“CDC”) is the primary body which implements these incentives by way of the qualified investment projects (“QIPs”) scheme. Projects which obtain QIP status may be eligible for, amongst others, a profit tax exemption for up to nine years or a special 40%

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“MACRO-ECONOMIC CONDITIONS AND THE RECENT INTEREST SHOWN BY MULTILATERAL DEVELOPMENT AGENCIES...MAKE THE SOLAR INDUSTRY IN CAMBODIA A FRONTIER MARKET WITHIN ASEAN WITH SIGNIFICANT POTENTIAL FOR DEVELOPMENT.”

depreciation allowance on properties used in energy production. It is also possible to obtain import duty exemptions for certain equipment. The extent of the incentives offered to QIPs is relative to the amount invested in Cambodia and subject to discussions with the CDC.

The above macro-economic conditions and the recent interest shown by multilateral development agencies, in particular ADB, make the solar industry in Cambodia a frontier market within ASEAN with significant potential for development.

### Challenges

As a frontier market, the Cambodian solar sector is not without risks. What are the key challenges faced by potential developers in this market?

#### 1. Lack of Solar Regulatory framework

The IRENA (2018) Renewables Energy Market Analysis: South East Asia report identified an enabling policy and regulatory framework as one of the key factors required to drive the development of renewables in any South East Asian nation.

At present, while the management of the electricity sector and supply in Cambodia is subject to the requirements of the Cambodian Law of Electricity 2001 (as revised in 2015) and its related subsidiary regulations, there have been no specific laws promulgated addressing the generation of renewable energy in Cambodia.

In addition, while the Cambodian Power Development Plan 2008-2021 (2007) contains a 2.241 MW target for hydropower generation by 2020, there have been no explicit targets set by the Cambodian government for other forms of renewable energy generation.

The lack of a single regulatory framework for renewables projects means that potential developers need to look to a variety of regulations in order to determine the licences and permits required to develop a solar power project. In addition, there is currently no single “one-stop shop” government department or authority acting as the point of contact for a developer looking to obtain the relevant licences required for a renewable energy generation business. Consequently, multiple agencies need to be approached to get the requisite licences and permits.

The Cambodian Law of Electricity gives the Electricity Authority of Cambodia (“EAC”) the authority to issue the relevant power generation licences which will be required by solar developers. However, there are other laws, such as those which relate to environmental approvals, which may need to be navigated by potential developers.

#### 2. Power Purchase Agreement

The EDC has yet to introduce a standard form Power Purchase Agreement (“PPA”) for renewable energy generation, despite having already entered into a 20-year PPA with Sunseap in respect of the Bavet City Solar project, and having entered into PPAs with other power producers (conventional and renewable) in the past.

The current lack of a standard PPA is not necessarily a bad thing. Although potential developers may be put off by not knowing just how bankable the PPA offered to them is likely to be, the lack of a standard PPA will also mean that, unlike in

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“DEVELOPERS OF GROUND-MOUNTED UTILITY-SIZED SOLAR PROJECTS IN CAMBODIA WILL ALSO NEED TO NAVIGATE SEVERAL LAND RIGHT RELATED ISSUES.”

jurisdictions such as Vietnam, the EDC is not prevented by law from making substantive changes to the form of a PPA. It is perhaps encouraging for potential developers that the PPA for the Bavet City solar project was deemed bankable by ADB and its co-financiers (including a commercial bank).

### 3. Land issues

Developers of ground-mounted utility-sized solar projects in Cambodia will also need to navigate several land right related issues.

The ownership of land by foreign investors in Cambodia is generally limited to 49%. This restriction makes it necessary for foreign developers to have local partners if their intention is to own (rather than lease) the site of the intended solar power plant.

In addition, legal due diligence on the ownership of the site and registration of any land rights may involve both the local and national cadastral offices and can be time consuming. Certain land offices, for example, will require documents relating to land rights to be translated into Khmer and signed before a Cambodian notary before they will accept registration.

Finally, any potential developer will need to check for zoning/land use restrictions on the intended site. If the intended site does not have the requisite land use permits for the development of a solar project, construction will not be able to proceed resulting in delays.

### Final Thoughts

The above are some of the more substantial issues that stakeholders entering the Cambodian solar market will need to consider and any government programme seeking to develop the solar market in Cambodia will need to address these three key issues. The Cambodian solar market certainly has potential and the presence of the tailwinds that we have highlighted could speed up its development.

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## FOR MORE INFORMATION

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Should you like to discuss any of the matters raised in this Briefing, please speak with a member of our team below or your regular contact at Watson Farley & Williams.



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