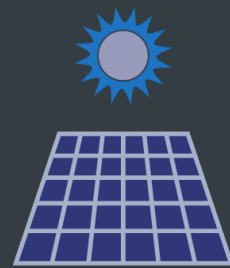
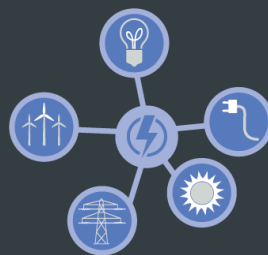


# Bird & Bird *Plus*

## Onsite PPA: Perspectives from key ASEAN economies



July 2021

# Onsite PPAs in ASEAN



*With climate change set to adversely impact assets and economies in ASEAN, renewable energy is rising to the fore as a key solution to providing affordable electricity for powering economic growth.*

While renewable energy infrastructure projects require upfront capital investments to build, they can for most parts be operated at very low cost and are thus becoming increasingly attractive to a broad number of end-users.

There are many moving pieces affecting the adoption of clean energy projects in ASEAN;

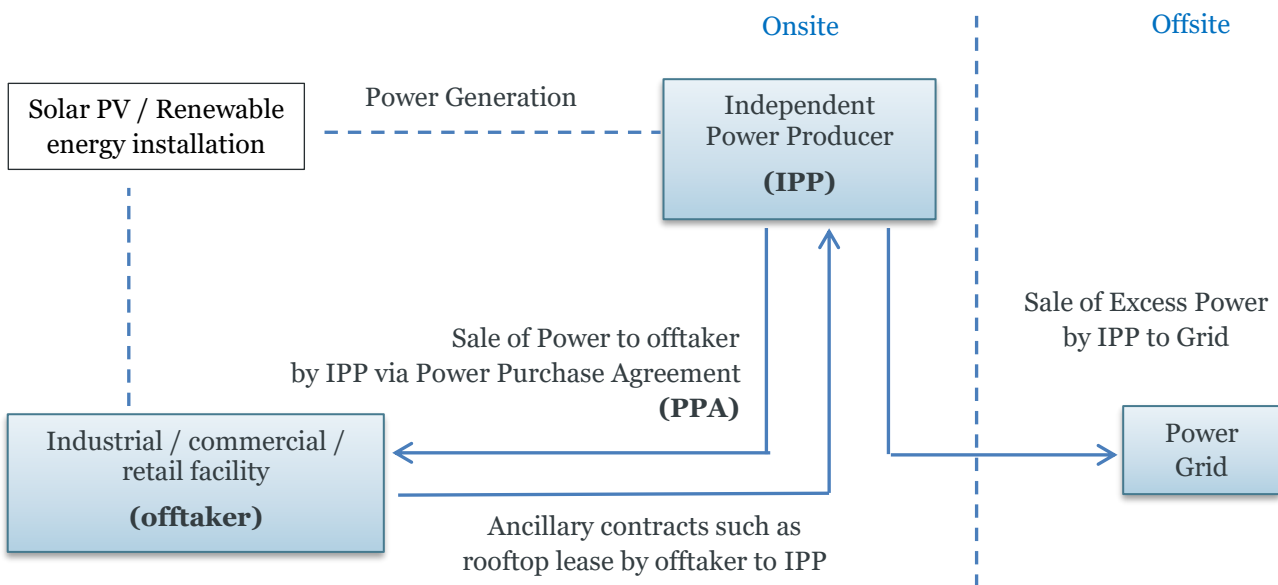
## What are onsite PPAs?

Onsite PPAs are contracts between an offtaker (industrial, commercial or retail facility) and a project developer or independent power producer (“**IPP**”), in which the IPP typically owns, operates, and maintains a renewable energy system for a term of 15-25 years. The offtaker typically locks in a fixed price for the life of the agreement, ensuring long-term electrical price stability.

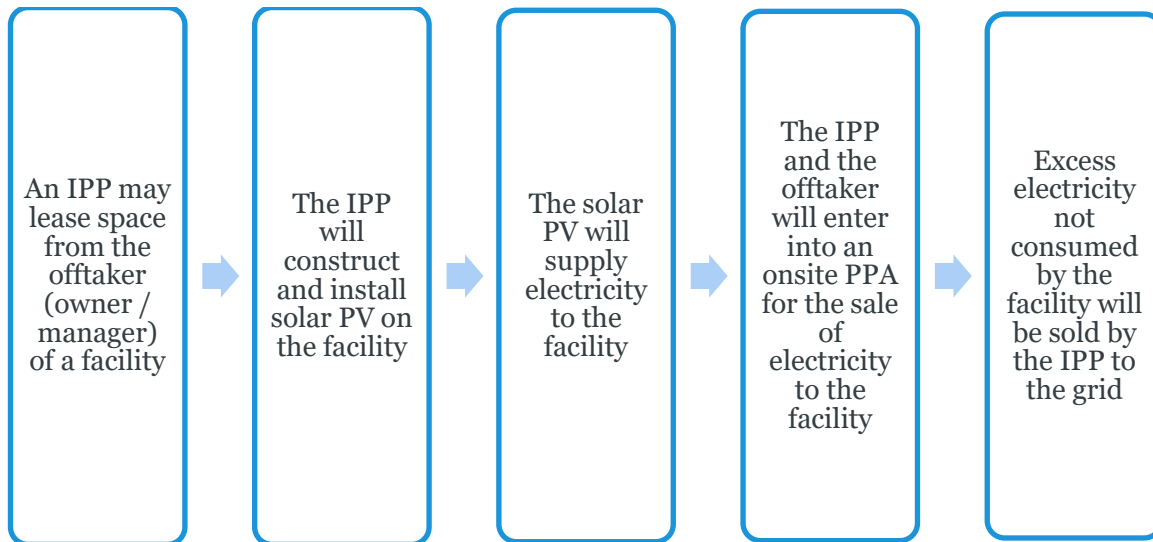
however, however all independent power projects feature onsite or offsite power purchase agreements (“**PPAs**”). This article aims to examine the traditional onsite power purchase agreement models prevalent in various ASEAN jurisdictions, in particular for use with regards to solar photovoltaic (“**PV**”) systems.

While onsite solar PPAs are the most common form of clean onsite energy production, there also may be opportunities for offtakers to enter into onsite PPAs for fuel cells and battery storage. This paper focuses on the concepts related to onsite solar projects, but many of the aspects outlined are transferable to other clean energy onsite projects.

## Illustration of an onsite PPA:



## Outline of a typical solar PV onsite PPA scenario:



## Jurisdictions covered in this paper:



*Indonesia*



*Philippines*



*Thailand*



*Malaysia*

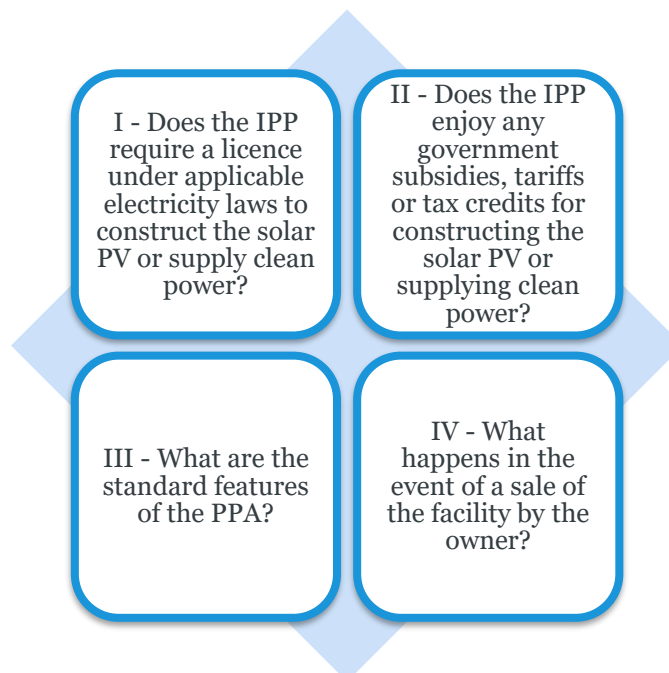


*Singapore*



*Vietnam*

## Each Jurisdiction will examine the following questions:



# Onsite PPAs in ASEAN



## Does the independent power producer (IPP) require a licence under applicable electricity laws to construct and operate the solar PV or supply clean power?

Yes, the IPP is required to have a license. In Indonesia, this business will be considered as Solar Power Plants / *Pembangkit Listrik Tenaga Surya* (“**PLTS**”).

Thus, the IPP will need to obtain the following:

- **Business Identity Number** (*Nomor Induk Berusaha*);
- **Standard Certificate**; and
- **Electricity Power Plant License** (“**EPPL**”).

For the Business Identity Number and Standard Certificate, the IPP could obtain these licenses through registration and submission to the Online Single Submission (“**OSS**”) system in Indonesia.

For EPPL, the requirements to obtain such a license are;

1 Feasibility study document in Bahasa Indonesia which consists of;

- Financial feasibility;
- Operational feasibility;
- Interconnecting network study;
- Installation location;
- One-line diagram;
- Business type and capacity;
- Construction schedule; and
- Operational schedule prepared by certified business entity.

2 Electricity sale-purchase agreement between PT PLN (Persero) (“**PLN**”) in accordance with electricity sale price terms or has obtained approval on electricity sale price from the Ministry of Energy and Mineral Resources or relevant Governor in accordance with its authority.

The validity of such EPPL license will rely on the terms and conditions agreed under Electricity Power Purchase Agreement. The maximum validity of EPPL license will be thirty (30) years with available extension option.

Apart from the EPPL license requirements, the IPP also will need to comply with required conditions and obtain required operational related licenses as follows;

1 Before the operation of the installation:

- Meet Basic Infrastructure Commitment and obtain Licences in accordance with the business needs (i.e, environmental license, building permit, worthiness certificate, etc.);
- The installation operation shall possess Operational Worthiness Certificate (*Sertifikat Laik Operasi /”SLO”*);
- The operation is conducted by Technical Manpower who possess Competency Certificate;
- The entire utilised tools have met Indonesian National Standard; and

2 Every 6 months, to report the business activity to the Director General of Electricity.

Any power purchase by the offtaker to IPP will be subject to withholding tax of 2% under Indonesian Taxation Law.

## Does the IPP enjoy any government subsidies, tariffs or tax credits for constructing and operating the solar PV or supplying clean power?

Regarding PLTS in Indonesia, the IPP for public usage (to be sold to public/industrial areas/PLN) will enjoy an incentive in the form of tax allowance if the IPP meets the following criteria;

- Micro Power Plants; and
- Mini Power Plants with investment value below IDR 100,000,000,000.- (one hundred billion Rupiah)

Meanwhile, on On-roof Solar Power Plants for Personal Usage, as of today the current incentive are electricity export-import conversion rates, conversion period for the unused excessed electricity production, and the capacity charge assignment rates. The government of Indonesia is currently preparing other regulations to introduce more incentives for On-roof Solar Power Plants for Personal Usage which is projected to be released in 2022. These incentives are expected to include higher electricity conversion rates from electricity



produced by On-roof Solar Power Plants, extending the conversion period for the unused excessed electricity production and reduction of capacity charge assignment rates.

## What are the standard features of the PPA?

Indonesia under Ministry of Energy and Mineral Resources regulates the standard features which should be incorporated in PPA. Any PPA should contain the following provisions;

- PPA period;
- Rights and obligations of the parties;
- Risk allocation;
- Performance security;
- Commissioning and commercial operation date;
- Fuel supply;
- Transaction;
- Dispatch control;
- Penalty for power plant performance;
- Termination of PPA;
- Transfer of rights;
- Price adjustment requirements
- Dispute resolution; and
- Force majeure

These are the minimum standard of the terms that have to be set out under PPA. Furthermore, parties are allowed to regulate other terms in the PPA subject to the mutual agreement between parties.

## What happens in the event of a sale of the facility by the owner?

There are no specific regulations as to what is required and will happen if the facility is sold by the owner. Therefore, this solely depends on the PPA agreement between the IPP and PLN as the buyer. In Indonesia, generally any transfer of the PPA requires approval from the buyer of power - in this case PLN

Furthermore, the PPA and the power plants and the site will be locked to certain period of concession as

a result of the financing agreement with the financing party.. In that case, the site documentation would be in the possession of the financier and thus making it difficult, if not impossible, to assign the land during the period of concession under PPA.



## Does the independent power producer (IPP) require a licence under applicable electricity laws to construct the solar PV or supply clean power?

Yes, the IPP will generally require the followings:

### 1 Generation Licence from Energy Commission

Section 9 of the Electricity Supply Act 1990 reads with Exemption under Section 54 (PU(B) 342/2008), any person who use, work or operate or permit to be used, worked or operated a solar PV installation above 72kWp for three (3) phase system and above 24kWp for single phase system shall apply for a generation licence. The IPP as owner of the PV system asset above 72kWp for three (3) phase system and above 24kWp for single phase system under NEM Programme (please see below for further details of this program) shall apply for a generation licence under Section 9 of the Electricity Supply Act.

### 2 Registration as Solar PV Investor with SEDA

An IPP who is a Solar PV Investor, i.e. any investors who provides a Solar Power Purchase Agreement (PPA) or Solar Leasing services to Net Energy Metering (“NEM”) customers (an eligible consumer who installs a solar PV

system) under the NEM Programme, is required to register with the Sustainable Energy Development Authority (“SEDA”). Broadly, net energy metering is a mechanism where a NEM customer / offtaker installs a solar PV system primarily for his own use and the excess of energy (kWh) to be exported to the grid and to be offset against kWh from the energy provided by the Distribution Licensee (i.e. TNB) on a one-to-one basis to the electricity consumer during the applicable billing period. The NEM scheme is only applicable to Peninsular Malaysia.

This application for registration as a Solar PV Investor under the NEM program is only open to local or foreign owned companies that are registered with Companies Commission of Malaysia under the Companies Act 2016 which have a registered address and business address in Malaysia. Foreign owned companies and local owned companies may apply to SEDA to be a Solar PV Investor. However, the requirements for both foreign owned companies and local owned companies are different -

Foreign Owned Company	Local Owned Company
Companies must be incorporated in Malaysia	Companies must be incorporated in Malaysia
Eligible for solar PV projects above 250kW only	Eligible for solar PV projects of all capacities
Minimum paid-up capital of at least RM10million	Minimum paid-up capital of at least RM1million
Minimum 80% of local employment	No requirement on employment
Has 100% local engineering, procurement and construction (EPC) by appointing a Registered PV Solar Service Provider with SEDA	Project EPC can be carried out by the company or awarded to the Registered PV Service Provider with SEDA
Foreign company cannot be a Registered PV Service Provider with SEDA	Local company can be a Registered PV Service Provider with SEDA
Annual fee of RM10,000	Annual fee of RM3,000

## Does the IPP enjoy any government subsidies, tariffs or tax credits for constructing the solar PV or supplying clean power?

Malaysia currently provides incentives and subsidies to individuals and companies that purchase green technology assets and/or conduct green technology projects as follows -

### 1 Green Investment Tax Allowance ("ITA")

**Assets** - applicable for companies that acquire qualifying green technology assets and listed under the MyHijau Directory for their own use or consumption. MyHijau Directory (see [www.myhijau.com.my](http://www.myhijau.com.my)) is a listing of green products and service providers which have been verified and approved by the Malaysian Green Technology and Climate Change Centre ("MGTC") and awarded with the MyHijau Mark, a recognition of certified products, equipment and systems and approved service providers to meet local and international environmental standards

- ITA of 100% of qualifying capital expenditure incurred on approved green technology asset.
- The allowance can be offset against 70% of statutory income in the year of assessment.
- Unutilised allowances can be carried forward until they are fully absorbed.

### 2 Green Investment Tax Allowance ("ITA")

**Project** - applicable for companies that undertake qualifying green technology projects for business or own consumption.

- ITA of 100% of qualifying capital expenditure incurred on green technology project from the date of first qualifying capital expenditure

incurred after application received by the Malaysian Investment Development Authority ("MIDA").

- The allowance can be offset against 70% of statutory income in the year of assessment.
- Unutilised allowances can be carried forward until they are fully absorbed.

### 3 Green Investment Tax Exemption ("ITE")

**Services** - applicable for qualifying green technology service provider companies that are listed under the MyHijau Directory.

- Income Tax Exemption of 70% on statutory income for qualifying green services from the year of assessment where the first invoice issued after the application to MIDA.

### 4 Green Income Tax Exemption ("GITE")

**Leasing** - applicable for qualifying green technology service provider companies that are listed under the Registered Solar PV Investor ("RPVI") directory.

- Income tax exemption of 70% on statutory income for solar leasing activity for a period up to 10 years of assessment.

### 5 Green Technology Financing Scheme 2.0 ("GTFS")

- GTFS is a financing scheme offered by the government to investors with a 2% p.a. interest/ profit rate subsidy for the first seven (7) years and 60% government guarantee of green component cost to financial institutions.

## What are the standard features of the PPA?

Although there are standardized Renewable Energy Power Purchase Agreements ("REPPA") under the Feed-in Tariff program administered by Sustainable Energy Development Authority, there is no standardized Power Purchase Agreement for onsite PPA in Malaysia.

### PPA

Generally, on-site PPA in Malaysia is a long-term agreement executed between the IPP and the offtaker for the sale and purchase of electricity generated from the solar PV system where the IPP will at its own costs supply, install, operate and maintain the solar PV system in the premise of the offtaker. In return, the offtaker will purchase the

electricity generated from the solar PV system for its own consumption at an agreed tariff. After the expiry of the PPA, the offtaker will own the solar PV system but will engage the servicing, maintenance and repair services of the IPP. An onsite PPA generally contains the following features:

- Obligations to install, maintain and repair the solar PV and its metering systems in the offtaker's premise are ordinarily undertaken by the IPP;
- The agreed guaranteed energy output and tariff for energy supplied by the solar PV system to the offtaker;
- The excess energy produced to be sold under the NEM scheme;

- Termination of the PPA in event of force majeure or default by either parties;
- Obligations to remove the solar PV system in event of force majeure or default;
- Obligations of offtaker to purchase the solar PV system upon expiry or default by offtaker in the PPA;
- Technical specifications of the solar PV system supplied by the Investor; and
- The agreed net present value of the solar PV system over the PPA duration.

### **Supply Agreement with Renewable Energy (“SARE”)**

SARE is a tripartite agreement between offtaker as NEM Consumer, IPP as an Investor/Asset Owner

and TNBX Sdn Bhd as a billing agent. A SARE generally contains similar clauses to the PPA on the aspect of power purchases, such as the contract years, the agreed tariffs, the covenants and obligations of each party. Additional clauses will include the obligations of the billing agent to ensure a systematic meter reading and billing of the offtaker as well as payment made to the Investor and the power of the billing agent generally to disconnect the supply in the event of the offtaker’s default. Essentially under the SARE, the customer has an alternative electricity supplier at a lower rate (similarly to PPA), apart from enjoying further tax subsidies and incentives from the government of Malaysia.

## **What happens in the event of a sale of the facility by the owner?**

### **PPA**

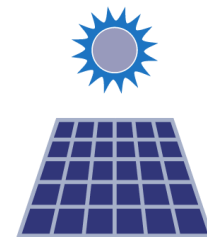
For PPAs, if the offtaker disposes its property on which the solar PV system is built on, the offtaker is expected to purchase the solar PV system from the IPP at a pre-determined purchase price stated in the PPA. If the PPA contains provisions which allow the offtaker to assign or novate the PPA, the offtaker can novate the PPA to the new owner of the premise where the solar PV system sits in.

### **SARE**

Similarly to the PPA, the SARE contains a provision which requires the same purchasing obligations by

the offtaker should the facility be sold by the offtaker. However, as SARE is a tripartite agreement which includes the billing agent, offtaker can novate the SARE to the new owner subject to consents of the IPP and the billing agent.

For both PPA and SARE, in the case of an offtaker who is a NEM consumer, the NEM approval (i.e. approval to participate in NEM programme) shall be transferred to the new owner and a new NEM contract is required to be signed between TNB and the new owner.







## Philippines

### Does the independent power producer (IPP) require a licence under applicable electricity laws to construct the solar PV or supply clean power?

IPPs selling electricity to qualified retail off-takers will generally require 4 main licenses:

**1 Retail Electricity Supplier License** - Except for distribution utilities with respect to their existing franchise areas, all suppliers of electricity to the contestable market (i.e., electricity end-users who have the choice of a supplier of electricity, as may be determined by the Energy Regulatory Commission (“**ERC**”) in accordance with the *Electric Power Industry Reform Act of 2001*) must secure a Retail Electricity Supplier (“**RES**”) license from the ERC. For the IPP to sell its power to the contestable market, it may either: (a) do so indirectly, by selling its power to a licensed RES who shall in turn sell to the contestable market, and/or (b) do so directly, by securing a RES license.



**2 Certificate of Compliance** - Any person seeking to engage in the generation of electricity is required to secure a Certificate of Compliance (“**COC**”) from the ERC before it can operate facilities for the generation of electricity. The COC stipulates the obligations of a generation company, consistent with the standards and operating guidelines established by the ERC and shall be issued only after a showing of compliance with such standards and requirements. A COC

must be secured prior to commercial operations of a generation facility.

**3 Solar Energy Operating Contract** - While strictly not a ‘license’, this contract is executed with the Department of Energy (“**DOE**”) for the development and operation of renewable energy projects utilizing solar energy and is required to qualify for incentives under the *Renewable Energy Act of 2008*. Note that under Philippine law, the exploration, development and utilization of natural resources (including the development and utilization of solar energy projects) is subject to nationality restrictions, i.e., foreign ownership is permitted up to 40%.

**4 Wholesale Electricity Spot Market (“WESM”) registration** - The WESM adopts the gross pool dispatch model where all energy is traded through the WESM. No person or entity shall be allowed to inject or withdraw electricity from the grid unless they are a registered member with the WESM.<sup>1</sup>

The DOE has also established the *Green Energy Option Program (“GEOP”)*, pursuant to the *Renewable Energy Act of 2008*, which intends to promote the use of indigenous & environmentally friendly energy sources by empowering qualified end-users to choose renewable energy resources. Entities using renewable energy facilities to supply power under the GEOP shall secure an operating permit from the DOE. At this stage, it is unclear if the GEOP operating license is in lieu of or in addition to the RES license requirement.

Note that the foregoing contemplates an IPP arrangement, and not alternative arrangements (e.g., operating lease arrangement) where the off-taker essentially owns the power facility for own use generation. In the latter case, a different set of licenses may apply since this may be considered a self-generation facility instead of an IPP facility.

<sup>1</sup> WESM Rules, Section 2.3.1.1; EPIRA, Section 30.

## Does the IPP enjoy any government subsidies, tariffs or tax credits for constructing the solar PV or supplying clean power?

The feed-in tariff capacity allocation for solar energy has been fully subscribed, so at the current state of regulations the feed-in tariff is not available for new solar power projects.

Note, however, that a number of significant incentives are available to registered renewable energy developers pursuant to the *Renewable Energy Act of 2008*. An IPP with a Solar Energy Operating Contract with the DOE may be entitled to, among others:

- Income tax holiday for the first seven (7) years of its commercial operations (for income taxes levied by the national government);
- After the seven (7) years of income tax holiday, corporate tax of 10% on its taxable income

provided that the renewable energy developer shall pass on the savings to the end-users in the form of lower power rates;

- Duty-free importation of renewable energy machinery, equipment and materials within the first ten (10) years, subject to meeting certain conditions;
- Special realty tax rates on equipment and machinery; and
- Zero Percent value-added tax rate on the sale of power generated from renewable sources and on purchases of local supply of goods, properties and services needed for the development, construction and installation of its facilities.

## What are the standard features of the PPA?

PPAs tend to be either:

- 1 a power supply arrangement between a contestable market customer and a licensed RES, where the latter does not operate its own power facilities so it in turn sources the power from an offsite IPP, or
- 2 an on-site operating lease arrangement between the site owner and the solar facility provider, wherein the former ultimately owns the power assets as a self-generation facility and the latter provides for construction, installation, and certain O&M.

There are also many instances of purely site arrangements (where the site owner is not necessarily the power offtaker) and to a lesser degree the pure onsite IPP arrangement. Note that the GEOP Operating Permits Guidelines were issued by the DOE only in 2020 so we expect to see this impact the PPA landscape as well.

The power and/or power facility provider (e.g., IPP, operating lessor) does not usually require upfront development costs. Instead, a mix of fixed and variable fees are recovered through the term of the contract.

## What happens in the event of a sale of the facility by the owner?

The commercial agreement on this matter tends to vary, depending on the PPA / PPA-alternative arrangement used.

As a general premise, if the power facility is onsite and the power and/or power facility provider owns the power facility, there would be an underlying lease that could be annotated on the title and required to be respected by the new site owner; there would also be a commercially-agreed assignment of the offtake arrangement (assuming that the asset serving as offtaker is included in the

sale and not just a site sale) or an accelerated payment arrangement that would essentially effect the offtaker's buy-out of the power asset.

On the other hand, if the power and/or power facility provider does not own the power facility (i.e., self-generation facility owned by site owner), then the commercially-agreed assignment would be of the existing contract (e.g., O&M) or an accelerated payment arrangement to terminate the existing contract, since there would be no underlying lease or need for an asset buy-out.



## Does the independent power producer (IPP) require a licence under applicable electricity laws to construct the solar PV or supply clean power?

**Yes, the IPP will generally require 2 licences:**

**1 Wholesale (Generation) Licence** - for generation of electricity tradable on the wholesale market, with such licence obtained from the Energy Market Company (“EMC”).

A Wholesaler (Generation) Licence is required to trade electricity in a wholesale electricity market if the generating unit:

- has a nameplate capacity of 1MW or more but less than 10MW; and
- is going to be connected to the electricity transmission system.

Such a licence is typically granted for a term of 30 years and conditions that are usually imposed on the licensees include the following:

- limit on the trading of the electricity generated;
- prohibition of acquisition of shares or directorships in generating companies (to prevent monopoly behaviour), power grid operators or gas transporters;
- requirement to comply with the market rules;
- compliance with the Codes of Practice; and
- requirement to enter into regulatory contracts for market support services, transmission services and power system operation.

There is another type of licence, termed the Electricity Generation Licence. Such a licence is required for one or more generating units of 10 MW or above. Each is very onerous and requires full market participation to bid dispatchable power into the grid. However, we do not consider such licence in this article as such high output

**Further registration requirements with EMC (in addition to the energy retail licence) may be required.**

Depending on whether the energy will be sold to the wider market or not. There are two types of electricity retailers: Market Participant Retailers (“MPRs”) and Non-Market Participant Retailers (“Nemcs”):

would apply to vary large solar farms that are not common in the Singapore market which is dominated by smaller rooftop solar farms.

**2 Retail of Electricity Licence** - for retail of electricity to customers, with such licence obtained from the Energy Market Authority (“EMA”).

The information required to submit an application for energy retail licensing includes the expected commencement date of the proposed business of retailing electricity, the forecast, for the next five years, of the number of premises, aggregate maximum demand of MW and aggregate energy (GWh) to be retailed, how the applicant intends to meet the prudential requirements of its proposed billings and supply arrangements, and the applicant's experience in retailing electricity.

Conditions that are usually imposed on holders of an Electricity Retail Licence include the following:

- prohibition of acquisition of shares or directorships in other retailer companies (to prevent monopoly behaviour), power grid operators or gas transporters;
- requirement to comply with the market rules;
- compliance with the Codes of Practice; and
- requirement to enter into regulatory contracts for market support services, transmission services and power system operation.

**1 Grid-connected solar facilities:** MPRs are required to be licensed by EMA and to be registered with EMC as a market participant in order to purchase electricity directly from the wholesale market. The wholesale market is a compulsory (or mandatory) market in the sense

that any person who wishes to convey electricity over the transmission system must be registered as a market participant with EMC;

**2 Non-grid-connected solar facilities:** NMPPs are required to obtain a licence from EMA but will purchase electricity indirectly from the wholesale market through a separate utility company. NMPPs need not register with EMC.

## Does the IPP enjoy any government subsidies, tariffs or tax credits for constructing the solar PV or supplying clean power?

At present, Singapore does not provide subsidies, regulate solar tariffs or tax credits as it views such government intervention as contrary to the functioning of a free market for energy and distorts competition in the market.

This position might now be revisited as recent announcements by parliament have expressed an interest to reconsider the above policy in light of achieving sustainability goals and fostering development of the green economy.

Instead of subsidies, tax benefits and regulating tariffs for clean energy, Singapore has taken proactive steps to introduce regulatory

enhancements to facilitate the entry of renewable energy when such technologies become commercially viable. The Government's support for renewables also comes in the form of funding for research & development to promote technological advances in the industry.

A Green Finance Action Plan has also been developed by the Monetary Authority of Singapore, while the Singapore government announced in the 2021 budget that it will issue S\$19 billion worth of green bonds to finance infrastructure projects. This renders Singapore an extremely attractive location to access capital for solar financing.

## What are the standard features of the PPA?

PPAs in Singapore tend to be on-site solar leasing PPAs, and, solar leases where the site owner is not necessarily the offtaker but leases out its rooftop space to power generators.

Offtakers usually do not pay any upfront development costs in local PPAs, and the offtaker will usually contract to take delivery of the power generated on a "take or pay" basis. The tariff is usually fixed in the PPA.

Singapore PPAs are generally in line with international on-site take or pay contracts, with some variations to suit local circumstances. For instance, financiers of local solar generators, i.e. the financial investors or backers of the solar company, usually take very extensive step-in rights and

offtakers will agree to provide several consents to financiers including assignment of contracts to the financier in event of offtaker insolvency or default. PPAs are also modified to align with local real estate practice and lease periods in land-scarce Singapore where a large portion of industrial premises are on leaseholds administered by JTC, a statutory board.

Synthetic or offsite PPAs are not as widespread in the Singapore market, although there is growing prevalence of such PPAs both for regular consumers purchasing from dedicated solar producers in the open market, or on specially negotiated synthetic PPAs with large offtakers.

## What happens in the event of a sale of the facility by the owner?

For onsite PPAs, if the offtaker sells its property on which the solar panels sit, it will usually have to pay pre-determined liquidated damages based on an agreed schedule incorporated into the PPA from the outset. In some cases, the power producer secures

an undertaking for the new facility owner to accept a legal assignment of the PPA without dismantling or affecting continued generation of the solar panels. Legal and other transfer costs are also typically borne by the offtaker.



## Does the independent power producer (IPP) require a licence under applicable electricity laws to construct the solar PV or supply clean power?

Yes. An IPP with a total capacity of more than 90 MW is required to obtain the following licenses prior to constructing a solar PV or supplying a clean power:-

- 1 An **Electricity Generating License** (“EGL”) (Section 47 of the Energy Industry B.E. 2550 (A.D. 2007) and Section 3(1) of the Royal Decree on Determination of Categories, Capacities and Characteristics of Energy Industry Exempt from License Requirements B.E. 2552 (A.D. 2009));
- 2 A **Regulated Energy Production License** (Section 25 of the Development and Promotion of Energy B.E. 2535 (A.D. 1992) and Section 3 of the Royal Decree Prescribing Regulated Energy B.E. 2536 (A.D. 1993));
- 3 A **Building Construction/Modification License** (Sections 21 and 22 of the Building Control Act B.E. 2522 (A.D. 1979));
- 4 A **Factory Operation License** (“FOL”), subject to specific requirements in relation to the capacity of machinery and the number of



employees (Section 12 of the Factory Act B.E. 2535 (A.D. 1992))

The IPP is also required to submit (a) a code of practice report to support its application for obtaining the EGL, and (b) an environmental and safety assessment report to support its application for obtaining the FOL.

## Does the IPP enjoy any government subsidies, tariffs or tax credits for constructing the solar PV or supplying clean power?

Yes. The feed-in-tariff model (“FIT”) has been created by the Thai Government since 2013 to subsidize power plants, including IPPs, in Thailand by providing a guarantee of the power purchase price at fixed rates.

The IPP can apply for tax and non-tax incentives from the Board of Investment of Thailand (“BOI”).

The tax incentives include exemption of the corporate income tax up to 8 years, exemption of the import duties for machineries, permission to own land, permission to bring in skilled workers and experts to work for promoted project, permission to transfer or remit funds from Thailand in foreign currencies.

## What are the standard features of the PPA?

The standard provisions of the PPA are:

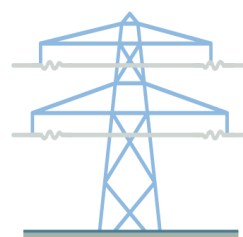
- **Definitions:** Giving specific terms used in the PPA
- **Condition Precedents to Power Sale and Purchase:** e.g. conducting due diligence and physical inspection of the facility, providing or revising the solar power system design, modifying the facility, obtaining necessary government approvals/notifications, installing the solar power system, etc.
- **Power Sale and Purchase:** the purchased power and the energy charge to be calculated and paid

- **Term:** the effective period of the PPA
- **Maintenance Schedule and Outage Notification:** the annual maintenance plan and remedy any unplanned outage
- **Other Obligations of the Parties:** e.g. the obligations of the purchaser in trimming trees and bushes, providing utilities necessary for the construction and operation of the PV system, maintaining the facility in a manner not to interfere with the PV system operation; or the obligations of the seller in providing maintenance services to the PV system, complying with the safety standard of the purchaser, etc.
- **Carbon Credit:** who will be entitled to the benefits of all carbon dioxide emission credits or allowances
- **Future Expansion:** a profit-sharing scheme between the seller and the purchaser if the purchaser wishes to expand and improve the capacity and efficiency of the PV system
- **Transfer of Facility:** the requirements if the purchaser wishes to transfer the facility to a third party
- **Indemnification:** how and when to indemnify the other party
- **Loss or Damage:** the requirements / what to do in the event of loss, damage theft or any destruction affecting the PV system
- **Events of Default:** events which would constitute a breach of the PPA
- **Remedies in Case of Default/Termination:** the remedies and the rights of the parties to terminate the PPA
- **Force Majeure Event:** the FME events and actions to be taken if the FME occurs
- **Confidentiality:** the confidential information and how to keep it confidential
- **Miscellaneous:** notice, validity, additional, amendments and revision, succession, severability, etc.
- **Governing Law and Jurisdiction:** the applicable law and the court of jurisdiction in case of a dispute.

## What happens in the event of a sale of the facility by the owner?

Mainly two options:

- 1 Parties terminate the PPA and the owner pays the termination fee calculated as the sum of the cost for decommissioning the PV system, the residual value of the current PV system at the time of termination and other associated costs.
- 2 The buyer of the facility assumes all the rights and obligations of the facility's owner under the PPA by entering into a novation agreement to novate the PPA with the seller and the facility owner.





## Does the independent power producer (IPP) require a licence under applicable electricity laws to construct the solar PV or supply clean power?

Onsite PPAs are typically used for rooftop solar power projects in Vietnam. In addition to the Law on Electricity, there are the two main regulations on rooftop solar power projects: Decision 13/2020/QĐ-TTg, dated 6 April 2020 of the Prime Minister (“**Decision 13**”) and Circular 18/2020/TT-BCT, dated 17 July 2020 issued by the Ministry of Industry and Trade of Vietnam (“**Circular 18**”).

As a general principle, if the installed capacity of a solar power project does not exceed 1MW, then the IPP will not be required to obtain a power generation licence from the competent Vietnam authority. Since Decision 13 contemplates the installed capacity of a rooftop solar power project to be capped at 1MW, the IPP of a rooftop solar power project will be exempted from obtaining that power generation licence.

In practice, if the total installed capacity of rooftop solar PV exceeds 1MW in one location, e.g. same

rooftop of an industrial factory, then the IPP will usually separate them into different projects as long as the installed capacity of each project will not exceed 1MW to enjoy the exemption of the power generation licence.

However, the IPP will be required to obtain other regulatory licences under other Vietnam laws and regulations such as an investment registration certificate under the Law on Investment, a construction permit under the Law on Construction, a land use right certificate for the leased project area under the Law on Land. The list of the above licences is not exhaustive and other regulatory licences may be required depending on each project.

## Does the IPP enjoy any government subsidies, tariffs or tax credits for constructing the solar PV or supplying clean power?

Depending on a particular solar power project, the IPP may enjoy the following incentives:

### **Investment incentives:**

- Exemption from import duties applicable to the imported materials, equipment and facilities forming the fixed assets of the renewable-energy project.
- Solar power projects, transmission lines and substations connected to the power grid are exempted from or subject to the same reduced land-use fees, land rent and water surface rent as those applicable to projects in other investment

priority sectors in accordance with prevailing tax laws and regulations.

- Capital mobilisation will be made in accordance with prevailing laws and regulations.

### **Corporate income tax incentives:**

- Incentivised tax rate of 10% within 15 years applied to the income of enterprise carrying out production of renewable energy, clean energy.
- Tax exemption for 4 years, reduction of 50% of tax payable for the next 9 years for the income of enterprise carrying out production of renewable energy, clean energy.

## What are the standard features of the PPA?

Eligible offtakers in a power purchase agreement (“PPA”) for rooftop solar power projects in Vietnam can be either Vietnam Electricity (“EVN”) or other non-EVN offtakers (such as industrial, commercial or retail facility owners who typically lease the commercial rooftop space of their facilities/ warehouses to the IPP for the installation and operation of solar PV systems).

It is not mandatory to apply the model form of the PPA for a rooftop solar power project set out in Schedule 2 of Circular 18 if the PPA involves a non-EVN offtaker. In other words, the IPP and a non-EVN offtaker can freely negotiate and agree upon the power tariff and the terms of the PPA.



## What happens in the event of a sale of the facility by the owner?

Typically, onsite PPAs for rooftop solar power projects in Vietnam will contractually require the owner of the facility (as offtaker) to obtain a prior written consent from a project developer or IPP if the owner attempts to sell to a third party its facility/property on which the IPP owned solar PV systems sit, and also contemplate the transfer the owner’s rights and obligations under the PPA to the prospective purchaser of the facility/property.

Also, if a rooftop lease agreement for the lease of the commercial rooftop space to the IPP exists, the owner as lessor is obliged under the Civil Code 2015 to obtain a prior written consent from the IPP as lessee prior to effecting the sale of its facility/property to a third party.





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