

An aerial photograph of a white wind turbine standing in a vast, green agricultural field. The perspective is from above, looking down at the turbine's nacelle and one of its long blades. A large, white, stylized arrow is superimposed on the left side of the image, pointing towards the right. The text 'Renewables in Vietnam' is centered in the middle of the image in a large, white, sans-serif font. Below it, the subtitle 'OPPORTUNITIES FOR INVESTMENT' is written in a smaller, white, all-caps sans-serif font.

# Renewables in Vietnam

OPPORTUNITIES FOR INVESTMENT

## Overview

The demand for electricity in Vietnam is rising rapidly to power the growing economy. Forecasts predict an annual growth rate for electricity of ‘near-double’ digits in the years to come. To keep pace with demand, the Government has envisioned substantial expansion to the national power generation capacity and introduced policies to cultivate the development of new energy.

Against that backdrop, 2019 has been an eventful year for renewables. During the first half of the year, the market saw an unprecedented 4.5GW of solar capacity being added to the grid. On the regulatory front, the Government is busy dealing with a range of issues including planning, transmission and pricing of renewable power. At the same time, investors are accelerating developments to meet the 2021 deadline for the current wind tariff.

In this paper, we provide an overview of the Vietnamese renewable energy market and discuss recent developments, as well as the opportunities and challenges they bring about for investors.

## Renewable Energy

While the energy mix in Vietnam in the foreseeable future will still be dominated by traditional sources (including coal, gas and large hydro projects), renewable energy has gradually, but steadily, entered the limelight. In March 2016, the Government issued the revised National Power Development Plan for the years 2011 to 2020, with a vision to 2030 (**Master Plan 7**). Under Master Plan 7, the Government’s expectation is that renewable energy projects (including small-sized hydro, wind, solar and biomass projects) will account for 9.9 per cent of the overall electricity capacity by 2020 and 21 per cent by 2030, generating 7 per cent of the nation’s electricity in 2020 and 10 per cent in 2030.

In order to meet these targets, the Government has rolled out a series of regulations aimed at clarifying the legal framework and incentives for the development of renewable energy projects. These policy developments, combined with a decline in global manufacturing costs for the technology necessary to leverage renewable energy sources, have generated a wave of investment in recent years.

Effects can be felt most keenly in the solar power field. From having virtually no solar capacity in early 2018, by 30 June 2019, Vietnam had connected more than 80 solar power plants with a combined installed capacity of approximately 4.5 GW to the grid<sup>1</sup>, representing a 400-fold increase that far exceeds the target in Master Plan 7. In terms of approved capacity, the Ministry of Industry and Trade (**MOIT**) reported that by June 2019 a total of 8.5 GW of solar capacity and 2 GW of wind capacity had been approved for inclusion in the various power master plans (including at the national and provincial levels).

## Foreign ownership and investment form

There is no generally applicable limitation on foreign ownership in the renewable energy sector. At present, foreign investors can own up to 100 per cent of equity in power projects in Vietnam.

Although some high-profile, foreign-invested, thermal power projects have been implemented in cooperation with the Government under the Build-Operate-Transfer (**BOT**) umbrella (a form of public private partnership), it does not appear that

the Government will offer this kind of treatment for renewable energy projects as a general proposition (except, perhaps, for very prominent ones).

Therefore, it is expected that most renewable energy projects will be carried out as independent power projects – the main implication being that there will be little room for investors to negotiate special terms or incentives or to obtain Government guarantees.

## Financing

Power projects typically require significant capital investment and, as a result, are often financed with a significant portion of debt capital. It is unlikely that domestic Vietnamese banks alone will be able to provide sufficient funds to finance projects to meet the Government targets. However, international financiers are facing some challenges in participating in the financing of renewable energy projects. Firstly, except in rare cases of so-called ‘mega’ projects, foreign lenders cannot take security over land and other real property (even though land and other real property may be the most valuable project asset). Moreover, a number of issues persist that undermine a project’s viability and bankability, including:

- > the tariff levels (see further **Feed-in Tariff** below);
- > concerns surrounding the financial capacity of Electricity Vietnam (**EVN**), the national utility and the lack of a Government guarantee of EVN’s obligations (see further **EVN and Government guarantees and incentives** below);
- > the form of the statutorily mandated power purchase agreements, which contain some core, non-negotiable terms that allocate significant risk to investors (see further **Power purchase agreement** below); and
- > the 2021 deadline to secure the tariff for wind projects, and uncertainties surrounding new policies for solar projects after 30 June 2019 (see further **Feed-in Tariff and Hot topics** below).

These issues will be particularly acute for investors looking to put in place project finance arrangements, which rely on the project’s assets for security and look to the project’s revenue stream for debt servicing.

<sup>1</sup> Statistics of Electricity Vietnam



## Sale of electricity

Currently, EVN and its subsidiaries have the monopoly over the transmission and distribution of electricity in Vietnam, and acts as the only wholesale purchasers of electricity from generators. The Government has set out its vision for a competitive power market, which is slated to undergo full implementation at the wholesale level by 2021 and at the retail level by 2023.

Despite this intended transition, there is not yet any clear legal basis for a direct power purchase agreement between renewable energy generators and customers, such as factories and industrial parks. In fact, the regulations provide that EVN will be the sole buyer responsible for purchasing all power generated from renewable sources (see further *Hot topics* below).

## EVN

Market observers have expressed concerns about EVN's creditworthiness, as EVN is the entity responsible for implementing massive levels of investment in electricity infrastructure, but currently struggles to make a profit from the low and highly regulated electricity retail tariffs. While this does not pose immediate problems, it could lead to long term systemic risk.

To provide greater comfort for investors, the World Bank has assisted EVN to improve its financial standing and obtain its own credit rating. As a result, EVN and its power transmission arm, National Power Transmission Corporation, were both given a 'BB' rating with a stable outlook by Fitch in 2018 and 2019 respectively.

## Feed-in Tariff

EVN is currently required to purchase all power generated by renewable energy projects at the feed-in tariff set by law (*FiT*):

- From solar power projects achieving commercial operation date (*COD*)<sup>2</sup>:
  - On or before 31 December 2020 in Ninh Thuan province (within a 2 GW capacity pool only); or
  - Before 30 June 2019 in other provinces;
- From wind power projects already in operation before 10 September 2018 or new wind projects achieving COD before 1 November 2021; and
- From all biomass and solid domestic waste projects.

The FiT is denominated in Vietnamese dong (and electricity purchased by EVN will be paid for in Vietnamese dong) and is linked to the Vietnamese dong-US dollar exchange rate announced by the State Bank of Vietnam (which goes some way towards protecting investors from currency depreciation).

Once obtained, the FiT is applied for 20 years. Neither the law nor the template power purchase agreements contain any adjustment mechanism for inflation or rising production costs, meaning there is no legal guarantee for a FiT increase during the investment term (other than as adjusted for FX). In practice however, when the wind FiT was increased in November 2018, existing projects were also allowed to enjoy the higher tariff.

Table 1 sets out the current FiT rate for each different type of renewable energy project.

**Table 1 – FiT rate for different types of renewable energy**

<b>Wind (COD before 1 November 2021)</b>	Offshore: 9.8 US cents/kWh Onshore: 8.5 US cents/kWh
<b>Biomass</b>	Combined heat and power: 7.03 US cents/kWh Others: 8.47 US cents/kWh
<b>Solid Domestic Waste</b>	Waste incineration: 10.05 US cents/kWh Combustion of landfill gas: 7.28 US cents/kWh
<b>Solar (COD before 30 June 2019)<sup>(a)</sup></b>	9.35 US cents/kWh
<b>Solar (Proposed for COD after 30 June 2019)<sup>(b)</sup></b>	Ground mounted: 7.09 US cents/kWh <sup>(c)</sup> Floating: 7.69 US cents/kWh <sup>(c)</sup> Rooftop: 8.38 US cents/kWh <sup>(d)</sup>

(a) Or on or before 31 December 2020 in Ninh Thuan province

(b) Proposal by MOIT as at February 2020

(c) The MOIT has proposed two options for application of these FiTs for ground and floating projects:

Option 1: They will apply for grid-connected projects that have signed PPA and commenced construction before 23 November 2019, and reach COD between 1 July 2019 and 31 December 2020

Option 2: They will apply for grid-connected projects that have received in-principle approval for investment before 23 November 2019, and reach COD between 1 July 2019 and 31 December 2020.

In either option, projects will be put through an auction process if they do not meet the FiT criteria

(d) Proposed for projects that start generation between 1 July 2019 and 31 December 2020

## Competitive Bidding

The Government is considering the adoption of a competitive bidding model for new solar power projects reaching COD after 30 June 2019, with two floating solar pilot projects proposed to be tendered in 2020, but no specific guidance has been provided to date (see further *Hot topics* below).

<sup>2</sup> The commercial operation date is the day on which a part or the entire grid-connected solar power plant is ready to sell power to the power purchaser and satisfies the following conditions: (i) initial testing has been completed for a part or the entire grid-connected solar power plant and interconnection facilities, (ii) the plant has a power operation licence in the power generation sector, and (iii) the seller and the purchaser have settled the meter reading to commence payment.

## Power purchase agreement

Renewable energy generators and EVN must negotiate and conclude their Power Purchase Agreements (**PPAs**) on the basis of the standard agreement forms provided by law. The MOIT has issued standard agreement forms for small hydro, wind, biomass, solid waste and solar power projects. While the parties can agree on additional provisions to the standard form PPA, they cannot vary its 'basic contents'. Market information also suggests that EVN does not entertain negotiation outside this scope. The standard forms contain terms that allocate significant costs and risks to investors, and hence reduce bankability.

Some key points of concern are:

- > the seller (generator) must bear the cost and risk of connecting the plant to the transmission grid – this is seen as problematic, especially where the project is located in a more remote area or the connection line will need to run through land owned by a variety of owners;
- > the agreements do not contain a 'deemed commissioning' clause to protect the seller when the plant is able to generate power but the purchaser (EVN) fails to accept the power (see further on curtailment risk in **Hot topics** below);
- > if the seller terminates the PPA following a breach by the purchaser (EVN), compensation for the seller is limited to the value of generated electricity for the previous year (although this provision has been removed in the latest form of the wind PPA);
- > the agreements do not contain a 'stabilisation' clause to expressly protect the seller against changes of law; and
- > the governing law is automatically Vietnamese law, and the default position for dispute resolution is via the forum of the MOIT.

## Government guarantees and incentives

### Government guarantees

Apart from the general assurances provided under the Investment Law (such as no nationalisation, assurance of profit repatriation, protection of existing incentives in case of change of law, etc.), the Government does not provide specific guarantees for renewable energy projects.

For example, the Government does not guarantee the contractual performance of EVN as the power purchaser under the power purchase agreement or guarantee foreign currency availability to convert Vietnamese dong revenues into, for example, US dollars.

That being said, in theory, it may still be possible to obtain guarantees for large-scale and important projects (such as a PPP project).

### Investment incentives

Renewable energy is classified as an especially encouraged sector and, therefore, some incentives are available for investors as listed in Table 2.

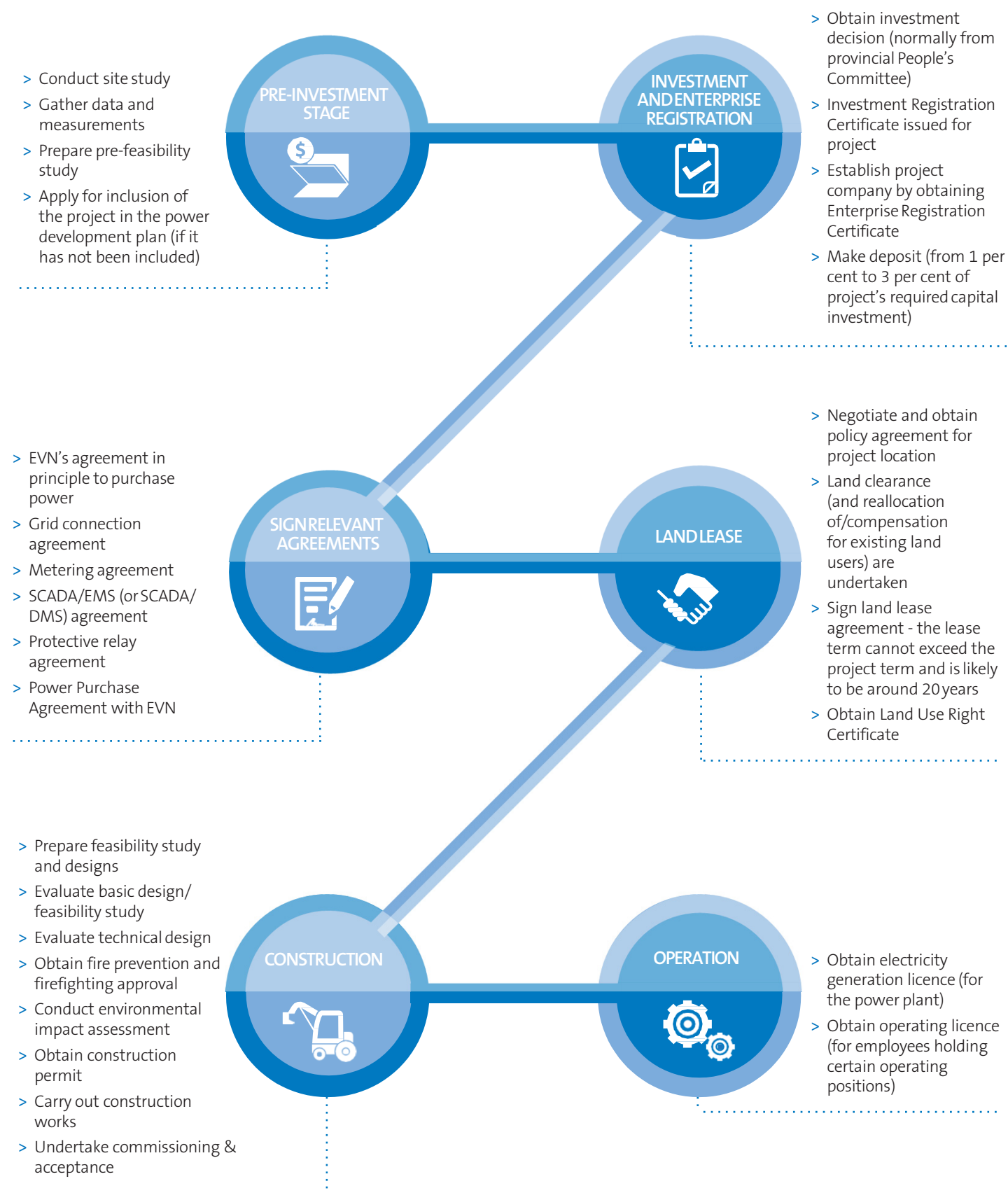
**Table 2 - Incentives for renewables**

Category	Incentives
<b>Import duty</b>	<ul style="list-style-type: none"> <li>&gt; Exemption for:               <ul style="list-style-type: none"> <li>• goods imported to form fixed assets; and</li> <li>• project materials, components, and semi-finished products that cannot be domestically manufactured.</li> </ul> </li> </ul>
<b>Corporate income tax</b>	<ul style="list-style-type: none"> <li>&gt; Exemption for the first four years; <sup>(a)</sup></li> <li>&gt; 50 per cent reduction for the following nine years, and</li> <li>&gt; Preferred tax rate of 10 per cent for the first 15 years. <sup>(b)</sup></li> </ul>
<b>Land lease fees</b>	<ul style="list-style-type: none"> <li>&gt; Exemption ranging from 14 years to the entire project life depending on the project location.</li> </ul>

(a) Counting from the first year of generating taxable income or from the fourth project year, whichever comes first; new projects only.

(b) Counting from the first year of generating income; new projects only. Normal, non-preferred, tax rate is 20 per cent.

## Renewable energy project investment process



\* Steps are not strictly in chronological order. Some steps may be conducted in parallel.

## HOT TOPICS

*New PPA template for wind powers*

In January 2019, the MOIT issued a new template wind PPA to formalise the new FiT of 8.5 US cents/kWh (onshore) and 9.8 US cents/kWh (offshore) for wind projects. The new PPA applies for both existing projects (which have to adopt the new template to enjoy the new rate) and new projects. Other than the higher price for sellers, the new template generally adopts a more buyer (ie. EVN)-friendly position than the previous one.

*Solar power developments*

- *Solar FiT expired* – The FiT scheme of 9.35 US cents/kWh for solar power projects officially expired on 30 June 2019 (except for Ninh Thuan province, where the COD deadline to obtain the FiT has been extended to 31 December 2020 for a capacity pool of no more than 2 GW). Although months have passed since the expiration, the Government is still considering the replacement model and has not issued new regulations. According to the latest proposal from the MOIT, two options are being considered, whereby only projects that have either signed PPA and commenced construction before 23 November 2019 (Option 1) or received in-principle approval for investment before 23 November 2019 (Option 2) and reach COD before 31 December 2020 may be eligible for the new FiT scheme (at a lower rate of 7.09 US cents/kWh for ground mounted and 7.69 US cents/kWh for floating solar), while other projects will be subject to a competitive bidding process.
- *Rooftop solar power projects* – In March 2019, the MOIT issued a new PPA template for rooftop solar power and EVN also issued specific regulations for connecting rooftop solar projects to the grid. These were aimed at ironing out procedural difficulties and facilitating investment in this area. In July 2019, the MOIT also announced a target for Vietnam to have 100,000 rooftop solar systems installed and operating by the end of 2025. The MOIT is proposing a legislative clarification that will formally allow rooftop solar systems to sell to buyers other than EVN if they are not connected to the grid.

*Curtailment risk*

By June 2019 the Government had approved more than 10 GW of solar and wind capacity, around 4 GW of which had been connected to the grid. The surge of added capacity, which was not foreseen, and the concentration of new projects in a few provinces, has created enormous pressure on the power system and threatened grid disruption. As a result, a number of solar and wind projects were reportedly requested to curtail output without compensation from EVN. The Government is accelerating new power transmission investments and considering engaging private investors to assist with building the necessary infrastructure. Pending resolution of this issue, curtailment risk has become a factor that needs to be considered carefully by investors.

*Backlog of planning approvals for new projects*

In the first half of 2019, it was reported that planning approvals for hundreds of new renewables projects were put on hold due to the lack of guidance for the new Law on Planning, which took effect from 1 January 2019. Delay in planning approval could have significant impact for the deployment of renewables projects, especially in light of the limited time window to reach commercial operation in order to achieve the favourable FiT. The Standing Committee of the National Assembly and the Government have recently approved some measures aimed at clearing the approval process, which hopefully will allow things to move forward again.

*Direct PPA*

In June 2019, the MOIT confirmed that drafting for a pilot direct PPA model between private renewable power generators and corporate customers was underway in coordination with USAID. In January 2020, the MOIT submitted a draft pilot direct PPA program to the Prime Minister, which was proposed for implementation from 2020 to 30 June 2022. Under this program, renewable power generators and consumer offtakers would be able to participate directly in Vietnam's wholesale electricity market and enter into contracts for difference at agreed long-term prices.

If you would like to discuss opportunities for investment in renewable energy projects in Vietnam and how Allens can assist, please get in touch with:



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