

Facing gridlock in Vietnam – the feed-in tariffs regime for Vietnam’s wind and solar renewables

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Introduction

Less than a decade ago, renewable energy was merely proposed for mainstream adoption. However fast forward to the present day, renewable energy producers are a dime a dozen, comprising homeowners, business owners, farmers and private investors alike. The building in which your office is located could be adopting the use of design-incorporated solar panels to power its electricity needs, or unbeknownst to you, your neighbour’s rooftop has already been fitted with grid-connected solar panels. As the reliance on renewable energy sources becomes prevalent in Southeast Asia, notably Vietnam’s installed solar capacity which jumped from 4 to an astounding 82 solar power plants being connected to the national grid between mid-April to end June 2019, governments too are complementing rapid growth in their country’s energy infrastructure by enacting policies and laws of its own.

This article will explore further the use of feed-in tariffs in Vietnam to encourage the development of wind and solar renewables. The Vietnamese government is currently deliberating a proposed extension to the feed-in tariff regime for wind renewables until 2023, spurred by the industry and developers welcoming a buffer for problems caused by the COVID-19 situation such as commissioning delays. However, the tariffs are poised to be adjusted downwards, and no guidance has been given on the implementation or extension of the feed-in tariffs for solar renewables which expired on 31 December 2020. This may therefore mark a gradual end of feed-in tariffs. It remains to be seen how their transition into proposed renewables auction schemes will unfold.

The basics of feed-in tariff

A feed-in tariff (FiT) is essentially a policy mechanism that benefits producers of renewable energy, particularly small-scale producers. Under the FiT, the producers enter into a long-term contract which guarantees them an above-market price for energy that they generate and inject into the electricity grid, and therefore these contracts typically contain the key provisions of:

- Guaranteed access to the electricity grid for these producers;
- Contract term in the range of 15-25 years; and
- Guaranteed cost-based purchase prices where these producers are paid proportionately to the capital they expend in energy generation.

The payments may vary depending on technology type, project size or location, region of deployment (e.g. grid-connected solar power projects in Ninh Thuan Province as elaborated below) and other variables that may affect project economics. Regardless, producers are incentivised to generate electricity from renewable resources, given the

price certainty as well as reasonable return for investors in the long run.

The FiT typically requires grid operators to purchase the renewable electricity from eligible producers independent of total electricity demand and is financed by distributing the cost among the nation's electricity payers, in other words, a slight top-up on the electricity price for final consumers.

Presently, the trend appears to be a higher price per kilowatt-hour (kWh) being offered for wind and solar power compared to other energy sources such as tidal power, and this is where the focus of this article will lie: Vietnam's feed-in tariff in the development of wind and solar power.

Feed-in tariff for wind projects

On 10 September 2018, the Prime Minister issued Decision No.39/2018/QD-TTg amending an earlier decision on mechanisms to develop wind power projects in Vietnam (Decision 39) which provides, among others, the official FiT for certain wind power projects. Effective from 1 November 2018, the previous FiTs were increased to make them commercially viable for developers, and projects already commenced could apply the new rates for the remaining period of their power purchase agreements from 1 November 2018.

Producers in relation to grid-connected wind power projects are eligible for the new rates of FiT if:

- i. the projects conform with the power development plans approved by the competent authorities and applicable laws; and
- ii. the projects have achieved commercial operation date before 1 November 2021,

and if satisfied, the following rates will apply for 20 years from the commercial operation date depending on the type of projects:

Type of Project	Rate of FiT
Onshore wind power plants/projects (refers to any grid-connected wind turbine power project constructed and operated in mainland and coastal areas of which outer boundary is taken to be the mean low water mark baseline of several years (18.6 years))	USD\$0.085/kWh
Offshore wind power plants/projects (refers to any grid-connected wind turbine power project constructed and operated offshore and outside the mean low water mark baseline of several years (18.6 years))	USD\$0.098/kWh

While the Prime Minister has showed support for extending the period of FiT for wind power projects until the end of December 2023, such extension and any adjustments to the FiT rates have not been confirmed. At the time of publication of this article, the proposed new FiT rates, as set out in the Ministry of Industry and Trade's Official Letter No.8159/BCT-DL for the Prime Minister's approval on 28 October 2020, are USD\$0.0702/kWh for onshore wind projects and USD\$0.0847/kWh for offshore wind projects, applicable to wind power projects having achieved commercial operation date from 1 November 2021 to 31 December 2022. For wind power projects achieving commercial operation date in 2023, the proposed FiT rates are even lower at USD\$0.0681/kWh for onshore wind projects and USD\$0.0821/kWh for offshore wind projects.

Feed-in tariff for solar projects

On 6 April 2020, the Prime Minister issued Decision No. 13/2020/QD-TTg on mechanisms to promote the development of solar power projects in Vietnam (Decision 13) which provides, among others, the official FiT for certain solar power plants.

A. Ground mounted and floating solar projects connected to the grid

Producers in relation to ground mounted and floating solar projects are eligible for the new rates of FiT if:

- i. the projects have obtained in-principle investment approval from the competent authorities before 23 November 2019;
- ii. the projects have achieved commercial operation date from 1 July 2019 until 31 December 2020; and
- iii. the projects have solar cell capacity of more than 16% or module capacity of more than 15%,

and if the abovementioned conditions are satisfied, the following rates will apply depending on the type of projects:

Type of Project	Rate of FiT
Ground mounted solar power plants/projects (grid-connected solar power projects to the exclusion of floating solar power projects)	USD\$0.0709/kWh
Floating solar power plants/projects (solar power project with photovoltaic panels installed on floating structures)	USD\$0.0769/kWh

The FiT will apply for 20 years from the commercial operation date. The commercial operation date is defined as the date on which a part or all of the solar power plant is ready to sell electricity and meets the following conditions:

- i. the power plant has completed initial tests for a part or all of the plant satisfying requirements of the regulations;
- ii. the owner of the power plant has been granted electricity operation licence in the field of electricity generation for the power plant itself; and
- iii. the electricity seller and buyer agree on the meter readings to initiate billing.

B. Solar projects in Ninh Thuan Province connected to the grid

As mentioned earlier in this article, the FiT can differ according to region. In the Vietnam context, there is a different rate of FiT that applies to eligible solar power projects which are carried out in Ninh Thuan Province. A rate of USD\$0.0935/kWh will apply if producers meet the following conditions:

- i. the projects have been included in the power development plans;
- ii. the projects have achieved commercial operation date before 1 January 2021 with the total capacity not over 2,000 megawatts (MW); and
- iii. the projects have solar cell capacity of more than 16% or module capacity of more than 15%.

The FiT will likewise apply for 20 years from the commercial operation date.

If the grid-connected solar power projects do not satisfy the conditions under Section A or B above and are therefore not eligible for the fixed FiT, the FiT will be determined through a competitive mechanism, such as a bidding mechanism which will be developed by the Ministry of Industry and Trade.

Following the expiry of the FiT policy for grid-connected solar power projects on 31 December 2020, it is unclear what pricing mechanism will apply to such projects achieving commercial operation date in 2021 and beyond. A new decision is to be released in the first quarter of 2021 according to a Ministry of Industry and Trade official but the Vietnamese government has not announced any decision extending or guidance for implementing the FiT policy at the time that this article is published.

C. Rooftop solar projects connected to the grid

For rooftop solar photovoltaic (PV) systems (which are solar PV systems with PV panels mounted on the rooftop of construction works with an output not exceeding 1 MW, directly or indirectly connected to the grid with a voltage of 35kV or less), the FiT rate is USD\$0.0838/kWh if the electricity is sold to Vietnam Electricity Corporation (EVN) or its

authorised affiliates. The FiT will apply for 20 years from the solar PV system's power generation and operation date.

To be eligible for the above mentioned FiT rate, producers must meet the following conditions:

- i. the rooftop solar PV system's time of operation, power generation and meter reading confirmation is within the period from 1 July 2019 to 31 December 2020;
- ii. the investment in and development of the rooftop solar PV system is made after registration of power connection with EVN or its authorised affiliates; and
- iii. the rooftop solar PV system has solar cell capacity of more than 16% or module capacity of more than 15%.

If the electricity is sold to organizations or individuals other than EVN or its authorised affiliates, the FiT shall be negotiated between the parties in accordance with the applicable laws.

Following the expiry of the FiT policy for grid-connected solar power projects on 31 December 2020, the EVN has announced that its power companies have stopped entering into new power purchase agreements of rooftop solar power, in wait of further guidance from the Vietnamese government.

A gradual phase-out?

FiTs have already been widespread in Europe and the United States and it is no surprise that Vietnam has also enacted its own FiT policy to boost wind and solar renewables development.

However, it appears that Vietnam may be phasing out its FiT in favour of more competitive market mechanisms such as renewables auction schemes, which the Ministry of Industry and Trade has articulated is necessary and suitable in line with international trends. A nationwide solar auction for the direct sale of electricity to EVN is slated to commence in June 2021 and a wind auction system is to replace the FiT after 2023, while uncertainty remains as to whether the FiT policy for either renewables will be extended. Proposed criteria for such auctions have included a proposed tariff below the rate of the latest FiT, available EVN grid capacity and projects achieving specified commercial operation dates.

Nonetheless, the proposed extension of FiT (albeit at lower rates) for wind power projects is crucial for projects unable to achieve commercial operation date within the prescribed period, given that construction of wind projects are typically on a larger scale than solar ones, and imported equipment for the wind turbines may be delayed by unforeseen circumstances such as supply chain disruptions caused by COVID-19. It will be a relief for the investors of renewables facing gridlock in Vietnam.

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