Vietnam takes further steps to encourage solar energy

On 11 April 2017, the Prime Minister issued long-awaited regulations on solar energy in Decision No. 11/2017/QD-TTg (**Decision 11**), which will take effect on 1 June 2017.

A few of the key provisions of the new regulations are highlighted below.

Background

In recent years, there has been an increasingly growing and sustained interest in intermittent renewable energy generating capacity from policy perspective, as Vietnam attempts to avoid over-reliance on electricity generated from major hydropower projects whilst coming to terms with major impediments to resolving the environmentally negative impacts of coal-fired power plants in the energy mix.

Among options available to address the problem of security of power supplies, solar energy (together with wind energy) emerges as a popular choice as Vietnam is one of the geographic locations that receive most solar irradiation, according to Vietnam Clean Energy Association **(VCEA)**.

Vietnam's 2016 Revised Power Development Master Plan VII (**Revised PDP 7**) contemplates that the total installed capacity of electricity generated from solar energy will be 850MW by 2020, 4,000MW by 2025 and 12,000MW by 2030.

Prior to the issuance of the Revised PDP 7, most solar installations in Vietnam are small scale with a limited electric generating capacity of approximately 5 - 10MW. A number of large utility-scale solar energy projects were in preliminary discussions, and progress towards project development to build and operate such solar farms in Vietnam has largely been modest, awaiting green light of investment incentives from the Government.

Decision 11, for the first time, introduces a support mechanism to facilitate the development of solar power projects in Vietnam.

Offtake obligation of EVN

At the outset, it is worth noting that Vietnam adopts a monopoly "single buyer" electricity market.

Specifically, Decision 11 mandates Vietnam Electricity and its authorised member companies (**EVN**) to be a designated buyer of green electricity generated from solar power projects. This decision also sets out EVN's explicit obligations to purchase the entire electricity generated from solar power projects.

Corporate renewable power purchase agreement is technically not possible as Decision 11 does not entitle any non-utility commercial and industrial customers who have high demand on power such as industrial parks or large-scale manufacturers to purchase solar power directly from solar project developers.

EVN remains the sole intermediary power offtaker and aggregator of renewable energy projects in Vietnam.

Types of solar power projects

Decision 11 regulates solar power projects which generate electric power through the use of solar panels to directly convert energy from sunlight into electricity, i.e. the conventional solar photovoltaic (**PV**) power system. Other types of solar power generation, such as thermal/concentrated solar power (**CSP**) or hybrid solar power systems, are not subject to those regulations.

Decision 11 clearly classifies two types of solar PV projects: (a) roof-mounted solar projects and (b) grid-connected solar projects.

Roof-mounted solar projects are projects that use solar panels made up of photovoltaic cells installed on the rooftop of residential and commercial buildings, or around the premise of those buildings and connect to the national electric grid or the electric grid of EVN.

Grid-connected solar projects are those that connect to the national grid or the grid of EVN, but are not the roof-mounted projects.

Power purchase agreement

Similar to wind or biomass generated electricity, solar project developers are obliged to enter into a power purchase agreement (**PPA**) with EVN, in accordance with a model form of the PPA (**Model PPA**).

Decision 11 introduces a fixed term of the solar energy PPA of 20 years from the date of commercial operation, following which the parties may agree to extend the term or sign a new PPA pursuant to the existing regulations.

The Ministry of Industry and Trade (**MOIT**) is mandated to develop and issue the Model PPA for solar energy, a first draft of which is made available in early May for public consultation. However, it leaves open many of fundamental bankability issues critical to the ultimate success in increasing the use of solar energy, including key contractual terms such as termination payments by EVN, payment protection afforded to project developers in case of adverse change in law. It is expected that the Model PPA will be finalised and issued within the third or fourth quarter of 2017.

Importantly, Decision 11 also requires that all PPAs that are already executed between solar project developers and EVN before 01 June 2017 (i.e. the effective date of Decision 11) must be amended in accordance with the mandatory provisions of the Model PPA (once it is issued).

Feed-in tariff

Arguably, the most significant provisions of Decision 11 relate to feed-in tariff (**FIT**) since it determines the success of Government policies on solar energy. A FIT needs to be carefully calculated in order to encourage the use and production of solar energy.

Grid-connected solar projects

For grid-connected solar projects which efficiency of solar cells is greater than 16% or efficiency of solar modules is greater than 15%, Decision 11 offers project developers a fixed FIT of VND 2,086/kWh (equivalent to US$0.0935/kWh, exclusive of VAT) for generating electricity at the delivery point. It is unclear what tariff will apply if such projects fail to achieve those technical requirements.

At present, this FIT will be applied during the effective term of Decision 11 (from 01 June 2017 to 30 June 2019). Adjustment to the FIT is subject to the fluctuations of the exchange rates, details of which will be clarified in the Model PPA.

Interestingly, a FIT of US$0.112/kWh was proposed in a previous draft of Decision 11 and such proposal was eventually not approved by the Government.

Roof-mounted solar projects

For roof-mounted solar projects, a FIT of VND 2,086/kWh (equivalent to US$0.0935/kWh, exclusive of VAT) theoretically applies to the excess generation as compared with electricity consumed during the relevant year.

However, there is a policy uncertainty on determining the FIT in subsequent years, as Decision 11 expressly states that the FIT for roof-mounted projects is subject to review by the MOIT on an annual basis. The US$0.0935/kWh (exclusive of VAT) feed-in tariff is therefore in force until 31 December 2017.

Net-metering scheme

For the first time, the net-metering mechanism is introduced for roof-mounted solar projects. This mechanism applies the following structure: the calculation of energy use and production is made by using a single, bi-directional meter.

In a payment cycle, if the generated electricity is greater than consumed one, the balance will be transferred to a subsequent payment cycle. At year-end (or when the relevant PPA is terminated), the excess electricity generated will be sold to EVN at the applicable FIT as discussed above.

The term "payment cycle" introduced by Decision 11 impliedly refers to a monthly payment. Nevertheless, this term is vague and ambiguous requiring further detailed clarifications from the MOIT.

Investment incentives

Whilst Decision 11 marks itself as providing "a support mechanism" for the development of solar power projects, it falls short to provide the required special treatments or investment incentives applicable in this sector. Rather, Decision 11 contains general provisions that solar PV projects will enjoy existing incentives on import duties and corporate income tax (**CIT**), land acquisition and rent, as well as capital mobilisation under relevant laws and regulations.

In particular:

- imported goods that form fixed assets for the project are exempted from import duties;
- CIT incentives are the same as those applicable to projects in the sectors of investment priorities in accordance with prevailing tax laws and regulations;
- solar power projects, transmission lines and substations connected to the power grid are exempted or reduced from land use fee, land rent, water surface rent applicable to projects in the sectors of investment priorities in accordance with prevailing laws and regulations;
- capital mobilisation will be made in accordance with prevailing laws and regulations (noting, however, that Decision 11 clearly acknowledges that investors may mobilise funds from Vietnamese and foreign lenders).

Limited period of effect

Of particular note, Decision 11 will only be effective for a limited period of two years after it comes into force, commencing from 01 June 2017 to 30 June 2019.

This creates a significant level of policy uncertainty as to what will happen to solar power projects for the period from 1 July 2019 onwards. Decision 11 remains light on specifics as to how regulations on solar energy will be further developed and incorporated into the Model PPA.

Conclusion

Going forward, we believe that renewable energy will form important part of a diverse energy mix of available low-carbon generating technologies in Vietnam.

However, the support system for the deployment of renewables generation (including solar energy, offshore and onshore wind) has left a lot to be desired from the perspective of project developers and financiers, particularly in relation to tariff pricing and key contractual terms of the PPA, to facilitate the development and financing of long-term utility-scale renewable energy resources.

Whilst Decision 11 is no doubt a key legal instrument, many provisions are vague and ambiguous that require further clarifications from the Government to have a practical effect of supporting the development of solar PV projects in Vietnam.

Key contacts

If you have any questions, or would like to know how this might affect your business, please contact these key contacts.

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